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PRESENTATIONS

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[OP-001]

Ultrasonographic Comparison of Diaphragm and Expiratory Muscle Functions in the Respiratory Intensive Care Patients with Successful Weaning and Weaning Failure: A Prospective Study

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Introduction: The objective of this study was to compare respiratory muscle functions and strength evaluated by ultrasonography between patients who successfully weaned and those who failed to wean.

Materials and Methods: This study was conducted in the Respiratory Intensive Care Unit (RICU) of a University Hospital. Between September 2021 and December 2022. Demographic data, disease severity scores and respiratory muscle functions and thickness measured by ultrasonography [diaphragm thickness (DT), diaphragm excursion (DE), diaphragm thickening fraction (DTF), expiratory abdominal muscle thickness, peak contraction velocity (PCV) and peak relaxation velocity (PRV) of diaphragm detected by tissue doppler imaging] were recorded. In addition, respiratory muscle strength, peripheral muscle strength and physical functions were evaluated by maximum inspiratory pressure (MIP) measurement, medical research council (MRC) and physical function scale for intensive care (PFIT) scores.

Results: The mean age of the study population was 66.73 (min-max: 28-88) years. Seven female and 19 male were included the study. Twenty patients (77%) were successfully weaned. The MIP (35.0 vs 14.0; p=0.02), MRC (49.4 vs 35.0; p=0.02), PFIT (4.40 vs 2.17; p=0.02), DE (4.11 vs 2.6; p=0.010) and rectus abdominus thickness (0.85 cm vs 0.53 cm; p=0.011) measurements were higher in patients with successful weaning than patients with weaning failure. As expected, duration of stay in ICU (7.45 vs 21.0; p=0.00) and in hospital (12.0 vs 21.0; p=0.01) were shorter in succesfully weaned patients. There was no significant difference between APACHE-II scores (26.9 vs 29.0; p=0.97), DT-inspiration (0.29 cm vs 0.28 cm; p=0.85), DT-expiration (0.23 cm vs 0.21 cm p=0.92), DTF (27.0% vs 30%; p=0.58), PCV (10.07 cm/sn vs 8.80 cm/sn; p=0.30), PRV (11.40 cm/sn vs 10.11 cm/sn; p=0.60), thickness of the internal oblique (0.53 cm vs 0.43cm; p=0.27), external oblique (0.41 vs 0.37; p=0.52), transversus abdominus (0.36 cm vs 0.38 cm; p=0.33) muscles.

Conclusion: Our study results show that lower diaphragm excursion, MIP, rectus abdominus muscle thickness, and physical function scores are associated with poor clinical outcome and weaning failure. We believe that ultrasonographic asessment of respiratory muscles in the RICU can provide a different perspective in the weaning process.

Keywords: Mechanical ventilation, diaphragm ultrasonography, diaphragm tissue doppler imaging, weaning, respiratory intensive care unit

Table 1. Comparison of clinical outcomes between groups

	Successful weaning group (n=20)	Wean failure group (n=6)	p value
Maximum inspiratory pressure	35.0	14.0	**p=0.00**
MRC	49.4	35.0	**p=0.02**
PFIT	4.40	2.17	**p=0.02**
Diaphragm excursion (cm)	4.11	2.6	**p=0.01**
Diaphragm thickness at the end of inspiration (cm)	0.29	0.28	p=0.85
Diaphragm thickness at the end of expiration (cm)	0.23	0.21	p=0.92
Diaphragm thickness fraction (%)	27.0	30.0	p=0.58
Peak contraction velocity (cm/sn)	10.07	8.80	p=0.30
Peak relaxation velocity (cm/sn)	11.40	10.11	p=0.60
External obliques abdominus Thickness (cm)	0.41	0.37	p=0.52
Internal obliques abdominus Thickness (cm)	0.53	0.43 cm	p=0.27
Transversus abdominus thickness (cm)	0.36	0.38 cm	p=0.33
Rectus abdominus thickness (cm)	0.85	0.53 cm	**p=0.01**

PFIT: The physical function intensive care test, MRC: Medical research council

[OP-002]

Prediction of Mortality in ICU Patients From Only Clinical Data: A Machine Learning Approach

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Introduction: This study aimed to adopt machine learning algorithm models that use only clinical data without laboratory parameters to predict the mortality of ICU patients to provide relative information on medical progress and decision-making.

Materials and Methods: In this retrospective study, adult patients (n=19,624) from the MIMIC-IV dataset with an ICU length of stay ≥24 hours were enrolled. Predictor variables consisting of age, gender, weight, quick sequential organ failure assessment (qSOFA) score, and the Charlson Comorbidity Index were used. In addition, the area under the curve (AUC) was analyzed in the test cohort to evaluate the predictive accuracy of the supervised machine learning classifiers, Naïve Bayes, J48 decision tree, logistic regression, random forest, and LogistBoost. The models are validated using 10-fold cross-validation. In addition, the prediction performance of the five developed models was evaluated and compared with that of existing scoring tools-sequential (sepsis-related) organ failure assessment (SOFA), simplified acute physiology score (SAPS) II, and acute physiology score (APS) III.

Results: In 28-day mortality, the average AUROCs of logistic regression, LogitBoost, Naïve Bayes, random forest, and J48 models were 0.741, 0.74, 0.715, 0.697, and 0.5, respectively. In 90-day mortality, the average AUROCs of logistic regression, LogitBoost, Naïve Bayes, random forest, and J48 models were 0.762, 0.757, 0.731, 0.726, and 0.704, respectively. In 28-day mortality, the average AUROCs of SOFA, SAPS II, and APS III were 0.635, 0.767, and 0.761, respectively. In 90-day mortality, the average AUROCs of SOFA, SAPS II, and APS III were 0.60, 0.754, and 0.744, respectively.

Conclusion: Using machine learning algorithms such as logistic regression to create a model for ICU patients with only clinical data provides 28-day and 90-day mortality prediction with accuracy close to traditional scoring systems such as SOFA, SAPS II, and APS III, which require many laboratory parameters.

Keywords: Mortality, machine learning, mortality prediction scores

[OP-003]

Assessment of Epiglottic Depth at Three Different Points with Ultrasound in Predicting Difficult Laryngoscopy: A Prospective Clinical Study

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Introduction: Difficult intubation/laryngoscopy is a challenge both in the operating room and intensive care. The aim of our study was to evaluate whether airway ultrasonography can predict difficult laryngoscopy in adults. Therefore, we have evaluated clinical and ultrasonographic tests to predict difficult laryngoscopy and sought the most sentisitive ultrasonography measurements.

Materials and Methods: Following ethical committee approval, airway assessment of 150 ASA 1-3 adults was performed using clinical examination and ultrasonography. Demographic data, body mass index, clinical airway assessment methods, Cormack-Lehane classification were recorded. The depth of epiglottis from the skin at three points in the parasagittal plane were measured with ultrasonography. Ultrasonography data and clinical airway tests were compared among the difficult (D) and easy laryngoscopy groups (E). Mann-Whitney U, chi-square, Fisher's Exact tests were used for comparisons between groups. Cut-off values were calculated by ROC analysis, $p<0.05$ was considered statistically significant.

Results: Patients in group D were older and their BMI was higher compared to group E. The most predictive ultrasonography measurement was epiglottis depth measured at the upper hyoid border (AUC 0.86, cut-off >24 mm), ratio of epiglottis depth at upper hyoid border/thyrohyoid membrane level (AUC 0.86, cut-off >1.32 mm) (Figures 1 and 2). Four independent clinical and ultrasonograpy variables were found to be correlated with difficult laryngoscopy. Regression analysis revelaed that our model was reliable.

Conclusion: Airway assessment with ultrasound doesn't require patient cooperation. Epiglottis depth from the skin evaluated at 3 levels is a valid criterion in predicting difficult laryngoscopy. Epiglottis depth measured at the level of upper hyoid border was found to be the most sensitive ultrasonography method. Our airway evaluation model revealed that older age, risk of OSAS, epiglottis depth measured at the upper hyoid border, ratio of epiglottis depth at upper hyoid border/thyrohyoid membrane level were the most predictive parameters to predict difficult laryngoscopy.

Keywords: Difficult laryngoscopy, difficult airway, difficult intubation, skin-epiglottis depth, airway ultrasound

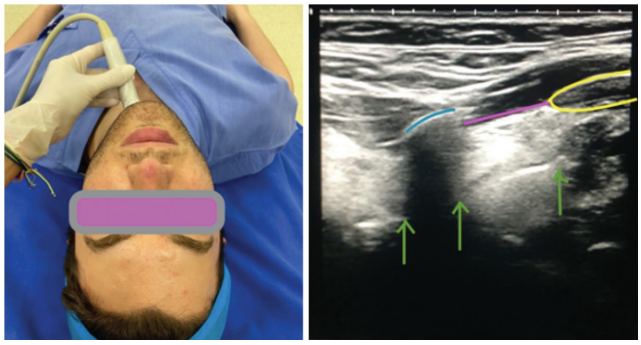

Figure 1. Epiglottis depth at 3 levels with ultrasound

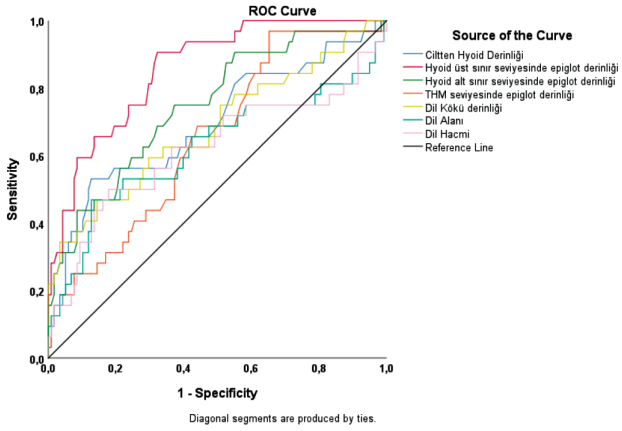

Figure 2. ROC curve analysis of ultrasound measurements

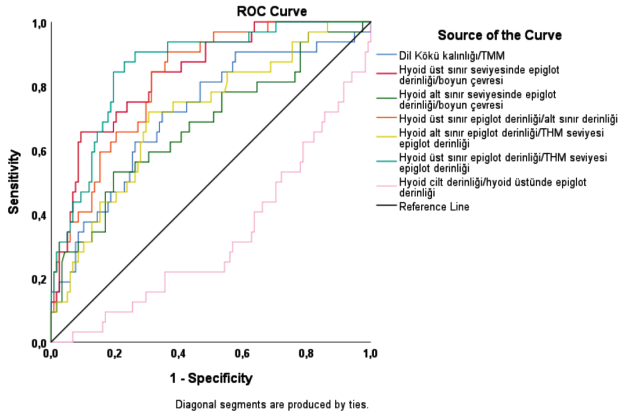

Figure 3. ROC curves of ultrasound measurement ratios

[OP-004]

Comparison of Inferior Vena Cava Collapsibility Index and Pleth Variability Index Values in Prediction of Hypotension Risk After Spinal Anesthesia Undergoing Hip Surgery

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Introduction: Preoperatively identifying patients at risk of developing hypotension during surgery may contribute significantly to the patient in terms of morbidity and mortality risk and to the physician in terms of follow-up and treatment. In this study, we aimed to compare the values of inferior vena cava collapsibility index and pleth variability index, in predicting the risk of developing hypotension in patients who will undergo hip surgery under spinal anesthesia.

Materials and Methods: Our study was planned as a prospective observational study in patients over 55 years and older who were scheduled for hip surgery under spinal anesthesia and with ASA III-IV. Patients whose baseline PVI and IVC CI values were obtained in the preoperative observation room were followed up by physicians independent of the study. Subsequently, patients were followed up by physicians independent of the study. The hemodynamic data of the patients were recorded and the patients in the hypotension and non-hypotension groups were compared statistically.

Results: As a result of the analysis, when the IVC CI values were evaluated, it was observed that a value of 42.5% at the 95% confidence interval was predictive for hypotension with a sensitivity of 74.3% and a specificity of 75% ($p<0.0001$). When both baseline values and intraoperative dynamic follow-up PVI values were compared between both groups, no significant difference was observed between the two groups at any minute ($p>0.05$).

Conclusion: We concluded that the preoperatively measured IVC CI value is a very safe method, while the PVI values followed peroperatively are not significant in predicting hypotension that may occur in hip surgery under spinal anesthesia.

Keywords: Hypotension, hip surgery, inferior vena cava, pleth variability index, spinal anesthesia

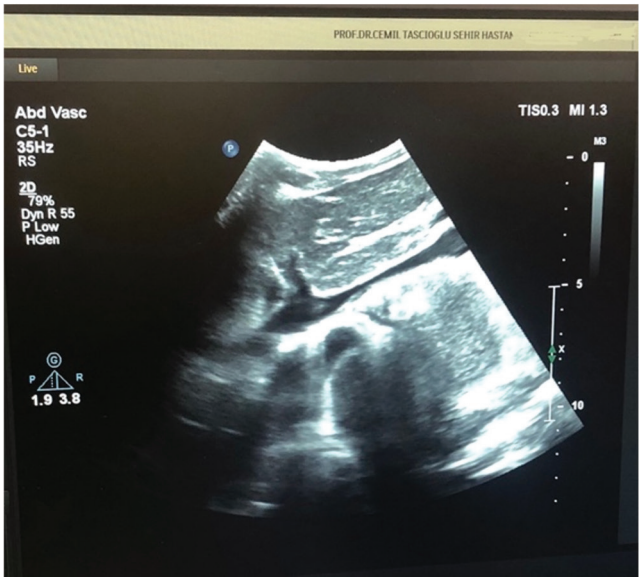

Figure 1. B mode ultrasound image of the inferior vena cava

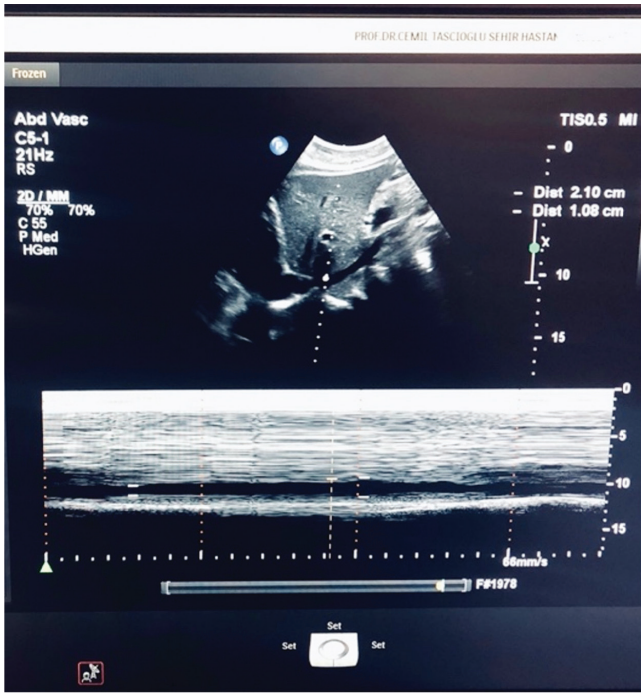

Figure 2. Diameter measurement of the inferior vena cava with M mode ultrasonography

Table 1. Comparison of IVC ultrasonography measurements of the groups

		n	Mean ± standard deviation	p**
IVC_MIN*	Group H(-)	60	1.37 ± 1.4	<0.0001
	Group H(+)	70	0.70 ±0.5	
IVC–MAX*	Group H(-)	60	1.96±1.7	0.025
	Group H(+)	70	1.47 ±0.4	
IVC CI*	Group H(-)	60	31.8 ±19.3	<0.0001
	Group H(+)	70	55.1 ±21.1	

*: cantimetre, **: student t-test

[OP-005]

The Use of Procalcitonin/Albumin Ratio in Prediction of 30-day Mortality in Intensive Care Patients

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Introduction: We aimed to compare the procalcitonin/albumin ratio, with the previously proven APACHE II score, which is easily applicable in predicting 30-day mortality rates.

Materials and Methods: Of the 184 patients, >18 aged, hospitalized between December, 2021-April, 2022 was performed. Gender, comorbidity, mortality within 30 days, hospitalization days, procalcitonin, albumin, CRP and APACHE II scores were obtained. Procalcitonin/albumin and CRP/albumin values were created by dividing these two values. The group with mortality within 30 days was determined as the main group, while the group without mortality within 30 days was determined as the control group. These values were compared with the APACHE II score values in predicting mortality, and specificity and sensitivity were determined.

Results: Of the 184 patients included in the study, 47.8% were female and 52.2% were male, with a mean age of 65.5±18.3 years (median 69). There was no significant difference in age and gender in the group with and without mortality within 30 days. The 30-day mortality rate was 37% (n=68). Albumin value was significantly lower in the group with mortality within 30 days compared to the group without mortality; procalcitonin, procalcitonin/albumin, APACHE II value at 30 days were significantly higher than the group without mortality. CRP, CRP/albumin value did not differ significantly. Significant efficacy of albumin, procalcitonin, procalcitonin/albumin 0.160 cut-off value and APACHE II were observed in predicting patients with and without mortality within 30 days. Significant effectiveness of procalcitonin/albumin value was observed.

Conclusion: It was found that the procalcitonin/albumin ratio was significantly associated with the estimation of 30-day mortality in patients hospitalized in ICU.

Keywords: Mortality, procalsitonin/albumin ratio, CRP/albumin ratio

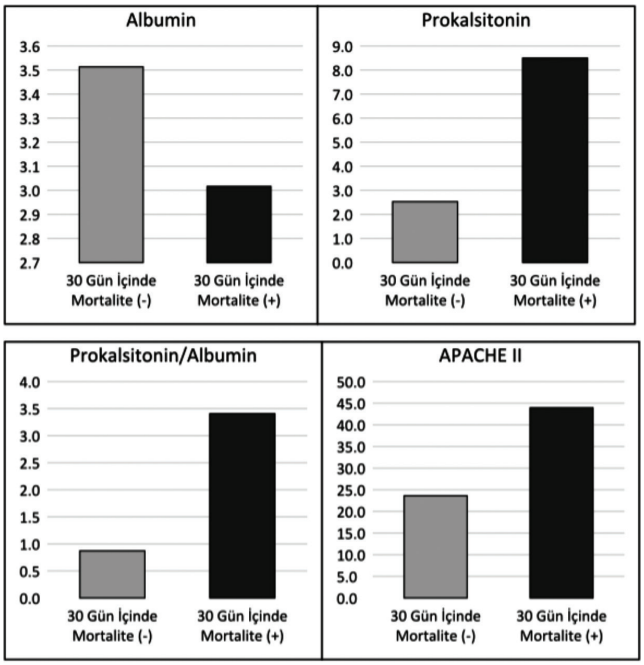

Figure 1.

[OP-006]

Glycaemic Variability as a Predictor of Mortality in Intensive Care Patients: A Retrospective Cohort Study

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Introduction: Glycaemic variability (GV) refers to the fluctuations in blood glucose levels over time. In intensive care patients, glycaemic variability can have significant clinical implications, including increased mortality and morbidity 1. This study was conducted to contribute to accumulating data on the subject and to reveal the situation in our intensive care patient population.

Materials and Methods: Patients admitted to the Internal Medicine Intensive Care Unit between January 2015 and August 2020 were retrospectively screened through the hospital database. Demographic characteristics of patients, comorbidities, APACHE II scores, and estimated mortality rates according to this score; the mean amplitude of glycaemic excursions (MAGE) 2 and SOFA scores from the daily blood glucose measurement values from the first day of ICU admissions to discharge or 28th day of the intensive care unit stay; usage of insulin, corticosteroid, vasopressor, and beta-blocker therapy, length of stay and 28-day mortality status has been recorded.

Results: One hundred thirty-six patients were enrolled in the study and grouped into high GV (n=70) and low GV (n=66) using mean MAGE 65 mg/dL as the cut-off point. There wasn't any difference between groups in age, gender, comorbidity, APACHE II, mean SOFA scores, applied corticosteroid, vasopressor, and beta-blocker treatments, intensive care unit length of stay, and mortality (Table 1). Insulin therapy was used more frequently in patients with high GV (74.3%) than in patients with low GV (36.4) ($p<0.001$). When the mean MAGE was compared according to 28-day mortality, MAGE was found to be higher in nonsurvivors (78.8±32.2) than in survivors (65.4±22.5) ($t=-2.78$, $p=0.005$). In the ROC analysis performed for mortality estimation of GV, AUC was 0.611 ($p=0.02$) (MAGE >61 mg/dL, sensitivity 68.5%, specificity 50%).

Conclusion: In our study, glycemic variability predicted mortality moderately. Tight glycemic control is an important goal in critical care management that improves outcomes and reduces complications.

Keywords: Glycaemic variability, mean amplitude of glycaemic excursions, intensive care

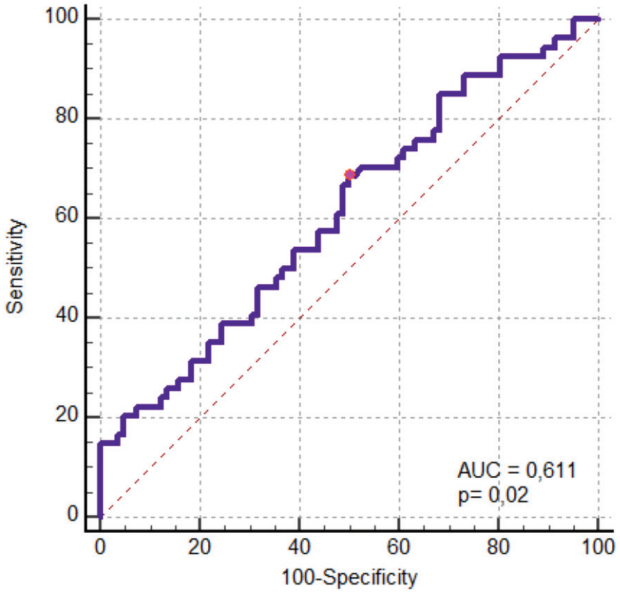

Figure 1. Receiver operating characteristics (ROC) curve for ability of the mean MAGE to identify mortality

Table 1. Characteristics of the patients categorized by glycaemic variability

	All (n=136)	**Low GV (MAGE ≤65) (n=66)**	**High GV (MAGE >65) (n=70)**	**p**
Age, years*	71 (63-77)	69 (62-76)	73.5 (63.7-78.0)	0.23
Gender, male (n, %)	78 (57.4)	36 (54.5)	42 (60.0)	0.52
Comorbidities, (n, %)				
M	106 (77.9)	51 (77.3)	55 (79.6)	0.26
Type-1	2 (1.5)	0 (0)	2 (2.9)	-
Type-2	104 (76.5)	51 (77.3)	53 (75.7)	-
Chronic pulmonary disease	35 (25.7)	16 (24.2)	19 (27.1)	0.69
Cerebrovascular disease	47 (34.6)	21 (31.8)	26 (37.1)	0.51
Malignity	31 (22.8)	16 (24.2)	15 (21.4)	0.69
Chronic renal disease	65 (47.7)	35 (53)	30 (42.9)	0.23
Chronic liver failure	4 (2.9)	1 (1.5)	3 (4.3)	0.62
Cardiovascular system	37 (27.2)	20 (30.3)	17 (24.3)	0.43
Hypothyroidism	9 (6.6)	5 (7.6)	5 (7.1)	0.41
SOFA score	6.9 (4.6-9.6)	7.1 (5.2-9.6)	6.6 (4.0-9.9)	0.34
APACHE II*	22 (16-29)	22.5 (16.7-31.0)	21.5 (16.0-27.2)	0.28
APACHE-PMR (%)*	39.5 (17.2-64.0)	45.5 (17.7-67.0)	38.0 (15.7-62.5)	0.33
Mean MAGE*	66.7 (50.0-87.5)	49.9 (43.7-56.0)	86.3 (73.4-100.5)	<0.001
Therapies				
Corticosteroid	82 (60.3)	35 (53.0)	47 (67.1)	0.09
İnsulin	76 (55.9)	24 (36.4)	52 (74.3)	<0.001
Vasopressor	102 (75)	49 (74.2)	53 (75.7)	0.84
Beta-blocker	74 (54.4)	38 (57.6)	36 (51.4)	0.47
ICU length of stay*	9.5 (6.0-27.5)	9.0 (6.7-28.0)	11 (5.0-26.2)	0.72
Mortality (n, %)	54 (39.7)	23 (34.8)	31 (44.3)	0.29

GV: Glycaemic variability, MAGE: Mean amplitude of glycaemic excursions, SOFA: Sequential organ failure assessment, APACHE II: Acute Physiology and Chronic Health Evaluation, PMR: Predicted mortality ratio
Data was expressed as n (%) and *: median (25-75 percentiles)

[OP-007]

How Did the Pandemic Affect Intensive Care Quality Indicators?

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Introduction: Indicators used to monitor quality standards in intensive care help us to understand and control processes and systems and to achieve targeted quality improvements. The aim of our study was to compare the indicators we use routinely with the period before the COVID-19 pandemic.

Materials and Methods: Our study was planned as a retrospective, single-center, observational. Standardized mortality rate (SMR), external referral, readmission within 48 hours, actual and calculated bed occupancy rate, infection surveillance data, number and frequency of mechanical ventilation days, brain death notification will be compared. In January-December 2019 and the periodical data used as COVID-19 ICU between March 2020 and March 2021 were compared and 2344 patient data were evaluated (Ethics committee: 2022-14-01).

Results: There was an increase in SMR during the COVID period, but it was not statistically significant (0.61±0.13 before COVID; 0.64±0.19 COVID period; p=0976). There was no difference between the two groups in terms of readmission, external referral, and pressure ulcer formation (p=0.945; 0.133; 0.169, respectively). The occupancy percentage calculated in the 3rd grade during the COVID period is statistically significantly higher than the 3rd grade occupancy percentage calculated before the COVID (81.50±11.16; 91.00±11.08 p=0.032). The number of PACU patients before COVID was statistically significantly higher than the monthly number of PACU patients during the COVID period (52.58±6.00; 35.09±6.53 p=0.001). Percentage of ventilator use the COVID period is statistically significantly higher than the ventilator use percentage before COVID (51.58±10.09; 58.73±13.13 p=0.007). While the number of brain death notifications is 42 per year in the pre-COVID period, it is 11 during the COVID period. Infection surveillance data could not be followed in the first 6 months of the COVID period.

Conclusion: Quality improvement programs should have significant morbidity and mortality related outcomes. Intensive working conditions during the COVID period did not adversely affect our main quality indicators that we follow, which affect morbidity and mortality.

Keywords: Intensive care quality, COVID-19, SMR

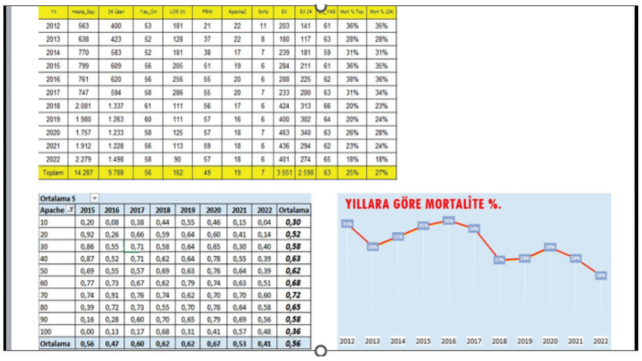

Figure 1. Mortality

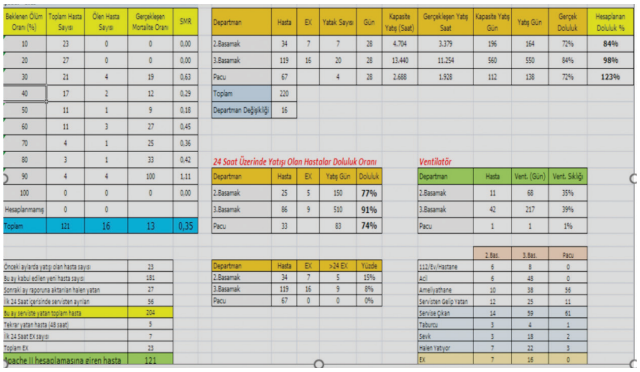

Figure 2. Quality

[OP-009]

Evaluation of Pediatric Sequential Organ Failure Evaluation Score and Vasoactive Inotropic Score in Patients with Sepsis in the Pediatric Intensive Care Unit

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Introduction: In pediatric intensive care units, scoring systems predict mortality and morbidity. The pSOFA score can predict pediatric sepsis mortality, according to several research. Sepsis-diagnosed pediatric patients' mortality hasn't been studied using the VIS score. Our study aimed to compare pSOFA score and VIS score in terms of predicting mortality.

Materials and Methods: A retrospective single-center study was done on 107 children who had been diagnosed with sepsis and septic shock. PRISM 3, PIM2, pSOFA, and VIS scores were evaluated in patients included in the study at the time of admission. Also, the pSOFA and VIS scores of people with sepsis and septic shock, were calculated on the 12th, 24th, and 48th hours.

Results: It was determined that the calculated pSOFA and VIS values predicted mortality significantly (p 0.001). The relationship between the

pSOFA and VIS variables themselves was evaluated. According to this; it was observed that there was a moderate relationship at the 0th, 12th, and 24th hour levels between pSOFA and VIS scores (p<0.001). There was a high correlation between 48-hour pSOFA and VIS values (p<0.001). When the regression analysis between VIS and pSOFA score was examined, it was determined to be 0 hour, 12 hour at 24 hour at 48th hour and it was found that there is a strong relationship between them (p<0.001).

Conclusion: Our study is the first pediatric study in which the pSOFA score and the VIS score were compared in terms of predicting mortality in patients followed up with a diagnosis of sepsis. In our investigation, the VIS score predicted mortality as well as the pSOFA score, which was accurate. High-mortality patients had higher VIS scores. Our findings suggest that the predictive power of VIS in patients with a sepsis diagnosis and its ability to predict mortality should be investigated further in larger studies.

Keywords: Sepsis, VIS, pSOFA, children

[OP-010]

Isolated or Combined Use of NUTRIC Score and NRS-2002 to Predict Mortality in Patients Admitted to the Intensive Care Unit for Respiratory Failure

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Introduction: Malnutrition is a common dysfunction in critically ill patients admitted to intensive care unit (ICU), and the assessment of nutrition in the ICU poses a unique challenge for clinicians. The aim of our study is to investigate the performance of nutritional screening tools in predicting hospital, 28-day and 3-month mortality in critically ill patients admitted to the ICU due to respiratory failure (RF). In this report; we aimed to share the 1-month preliminary results of our study and the 28-day mortality data with you.

Materials and Methods: To the first 1-month preliminary report of our prospective observational study; all adult patients (≥18 years old) who applied to the ICUs with RF and stayed in the ICU for more than 72 hours were included, with the decision of the ethics committee numbered 2012-KAEK-15/2627. Multiple logistic regression analysis and relative risk for mortality prediction performance of the instruments were used to test the complementarity between mNUTRIC and NRS-2002.

Results: One hundred twenty patients were evaluated. The outcomes of the patients according to 1-month mortality are given in Table 1. In patients included in the study, 50% (p=0.453) by NRS-2002, 71.7% (p<0.001) by mNUTRIC, and 40.8% (p=0.046) by mNUTRIC + NRS-2002 (score ≥5) were found to be at high nutritional risk. The risk of 28-day mortality was 8.5 times higher in patients with mNUTRIC ≥5, one times in patients with NRS-2002 ≥5, and 1.5 times more in patients with mNUTRIC + NRS-2002 ≥5 (Table 2). mNUTRIC AUC 0.782; NRS-2002 AUC 0.521 and mNUTRIC + NRS-2002 AUC 0.636 were detected (Figure 1).

Conclusion: There is no specific study in the literature on nutritional risk screening of critically ill patients with RF. It is not known whether the sensitivity of these scores changes according to the type of RF. The mNUTRIC score is statistically superior to the use of NRS-2002 and the combined two scores in predicting 28-day mortality in patients admitted to the ICU with RF.

Keywords: mNUTRIC, NRS-2002, intensive care unit, nutrition, mortality

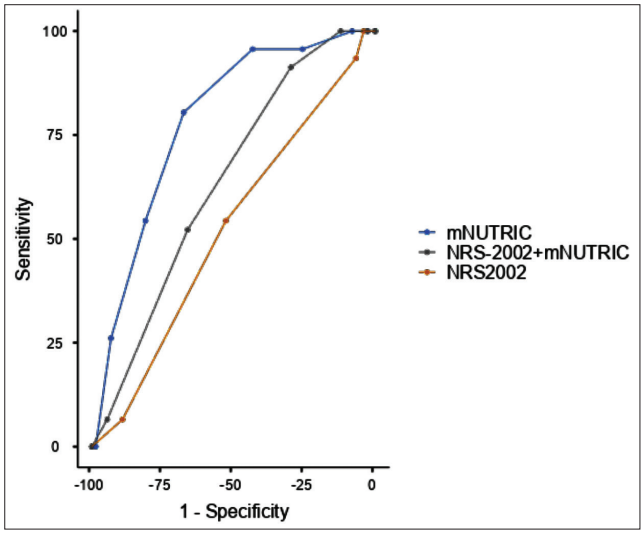

Figure 1. Receiver operating characteristic (ROC) curves for 28-day mortality estimation of nutrition screening tools

Table 1. Comparison of characteristics of survivors and non-survivors in patients admitted to the intensive care unit due to respiratory failure

Variable	All (n=120)	Survivors (n=74, 61.7%)	Non-survivors (n=46, 38.3%)	p-value
Age, y	70.8±12.2	69.4±12.7	73.2±10.9	0.093
Sex (male)	77 (64.2%)	43 (58.1%)	34 (73.9%)	0.079
BMI, kg/m²	25 (22-28)	26 (22-29)	24 (21-26)	0.122
APACHE-II (points)	21 (17-26)	19 (15-21)	26 (22-30)	<0.001
SOFA (points)	6 (5-8)	5 (5-6)	8 (6-10)	<0.001
mNUTRIC score	6 (4-7)	5 (3-6)	7 (6-8)	<0.001
NRS-2002 score	4 (4-5)	4 (4-5)	5 (4-5)	0.680

Table 2. RR of 28-day mortality based on mNUTRIC, NRS-2002 or a combination of both

	RR	95% CI	p-value
All			
mNUTRIC ≥5	8.69	2.232-33.898	0.002
NRS-2002 ≥5	1.19	0.754-1.880	0.454
mNUTRIC + NRS -2002 ≥5	1.58	1.008-2.478	0.046
Type-1 RF			
mNUTRIC ≥5	8.25	1,245-54.667	0.029
NRS-2002 ≥5	1.29	0.718-2.340	0.389
mNUTRIC + NRS -2002 ≥5	1.42	0.802-2.528	0.228
Type-2 RF			
mNUTRIC ≥5	8.96	1.286-62.481	0.027
NRS-2002 ≥5	1.01	0.514-2.017	0.958
mNUTRIC+NRS-2002 ≥5	1.57	0.802-3.078	0.188

[OP-011]

Does Urinary Albumin/Creatinin Ratio Predict Patient Outcome After Pediatric Cardiac Surgery in PICU

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Introduction: The prevalence of systemic inflammatory response syndrome (SIRS) is high among hospitalized children. Especially, this rate is higher after cardiac surgery. The risk of SIRS developing into multiorgan dysfunction (MODS) is high, which is a major cause of morbidity and mortality. Therefore, early detection of SIRS, initiation of appropriate treatment and predicting the prognosis of patients are very important for ensuring better outcomes in children. The aim of this study is to evaluate the role of urinary albumin/creatinine ratio as a prognostic marker in comparison to standard pediatric risk of mortality (PRISM) and pediatric logistic organ dysfunction (PELOD) mortality scores after pediatric cardiac surgery in PICU.

Materials and Methods: Seventy-six patients aged 6 months to 18 years underwent cardiac surgery admitted to the PICU. Albumin/creatinine ratio was compared with mortality scores for PICU outcome measures. Outcome measures were PICU lenght of stay, the need for inotropes, development of organ dysfunction and survival.

Results: A positive correlation was found between albumin/creatinine ratio and PICU lenght of stay (p=0.02, r=0.25). Albumin/creatinine ratio was significantly associated with MODS (p=0.001) and need for inotropes (p=0.003). Five patients died in the PICU. The area under the curve (AUC) for mortality for albumin/creatinine ratio (0.845) was comparable to that for PRISM (0.892) and PELOD (0.868). Albumin/creatinine ratio >124 mg/g predicted mortality with a sensitivity of 85.2% and specificity of 71.3%.

Conclusion: Albumin/creatinine ratio is a simple, inexpensive, and useful tool for predicting mortality and morbidity in the PICU.

Keywords: Albumin/creatinine ratio, mortality, pediatric intensive care unit, cardiac surgery

[OP-012]

The Relationship Between Malnutrition Scores and 28-day Mortality in Critically Patients Followed on Mechanical Ventilation for Non-surgical Reasons

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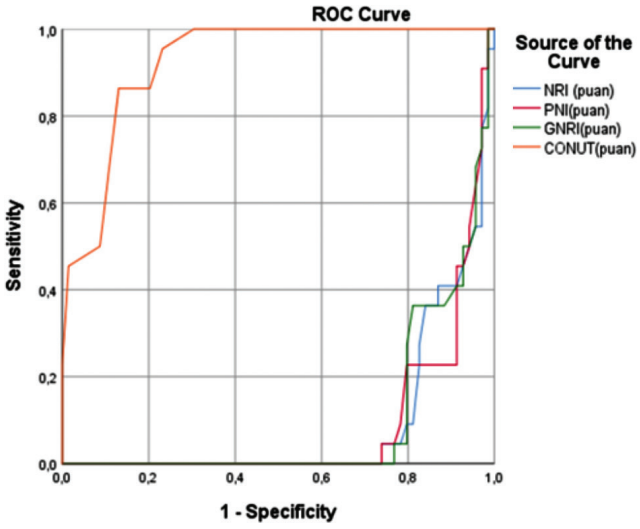
Introduction: Malnutrition is a nutrient deficiency resulting from inadequate food intake or inability to use and absorbed digested food. Malnutrition can lead to deterioration or delay in wound healing, suppression of the immune system, regression in cognitive functions, and decreased functional capacities, resulting in severe clinical conditions. Malnutrition is a significant problem seen in critical care units, with a rate of 78.1% in developing countries and 50.8% in developed countries. In this study, we aimed to investigate the relationship between malnutrition scores and 28-day mortality in critically ill patients.

Materials and Methods: The study included 91 patients over 18 admitted to the intensive care unit for non-surgical reasons, followed up on mechanical ventilators, and whose data were available. Demographic characteristics such as age, another disease, gender, and 28-day mortality in the patients' files, Acute Physiology and Chronic Health Evaluation (APACHE II) scores, The Simplified Acute Physiology Score (SAPS) scores, and laboratory values (leukocyte, hemoglobin, thrombocyte, neutrophil-lymphocyte, CRP, albumin, creatine, urea, ALT-AST, prealbumin, LDH) were recorded. In addition, prognostic nutritional index (PNI), geriatric nutrition risk index (GNRI), nutritional risk index (NRI), and nutritional status control (CONUT) scores were calculated. Patients were divided into two groups: Survival and non-survival, according to 28-day mortality.

Results: When the hospitalization laboratory values, NRI, GNRI, PNI, CONUT, APACHE II, and SAPS scores of the two groups were compared, lymphocyte, platelet, creatine, albumin, prealbumin, triglyceride, total cholesterol, total bilirubin, NRI, PNI, and GNRI scores were statistically significantly higher in the survival group. Neutrophil lymphocyte ratio, LDH albumin ratio, CONUT, APACHE, and SAPS scores were statistically higher in the nonsurvival group (Table 1). The logistic regression analysis associated with the CONUT score with 28-day mortality (Table 2, Graphic 1).

Conclusion: The easily calculated and cost-free CONUT score may be associated with 28-day mortality in non-surgical patients, followed by mechanical ventilation in intensive care units.

Keywords: Nutritional risk index, geriatric nutritional risk index, prognostic nutrition index, control score for nutritional status, intensive care unit



Graphic 1. ROC curve analysis

Table 1. Laboratory values of patients and neutrophil lymphocyte ratio, LDH albumin ratio, CONUT, APACHE, and SAPS scores				
Variables	**Total n=91**	**Group I n=69 (75.8%)**	**Group II n=22 (24.2%)**	**p**
WBC (10^3/uL)	11.40 (7.10-21.30)	11.29 (7.1-20.1)	11.74 (7.4-21.3)	0.597
Neutrophil (10^3/uL)	7.6 (3.1-15.6)	7.41 (3.1-15.6)	8.21 (3.3-15.6)	0.270
Lymphocyte (10^3/uL)	0.98 (0.6-1.3)	1.02 (0.6-1.3)	0.87 (0.6-1.3)	**0.001**
Platelets (10^3/uL)	246.08 (60.0-449.0)	259.58 (89.0-449.0)	203.73 (60.0-334.0)	**0.040**
N/L	8.19 (3.15-22.29)	7.63 (3.15-22.29)	9.92 (4.72-19.5)	**0.029**
P/L	254.99 (75.0-637.14)	261.17 (83.08-3637.14)	235.59 (75.0-383.78)	0.425
Creatinine (mg/dL)	0.67 (0.12-1.9)	0.77 (0.22-1.9)	0.37 (0.12-0.87)	**<0.001**
ALT (U/L)	14.12 (3.0-80.0)	13.75 (3.0-45.0)	15.27 (3.0-80.0)	0.233
AST (U/L)	14.81 (3.0-62.0)	14.54 (3.0-53.0)	15.68 (4.0-62.0)	0.320
CRP (mg/L)	36.63 (3.5-126.9)	35.21 (5.3-126.9)	41.1 (3.5-102.6)	0.673
Albumin (g/dL)	3.03 (2.3-3.86)	3.18 (2.3-3.86)	2.56 (2.3-3.2)	**<0.001**
C/A	12.64 (1.46-41.20)	11.44 (1.49-36.01)	16.39 (1.46-41.2)	0.211
Total cholesterol (mg/dL)	152.88 (94.6-214.0)	160.12 (94.6-1241.0)	130.2 (98.0-168.0)	**<0.001**
Triglyceride (mg/dL)	123.65 (80.6-243.0)	131.99 (95.8-1243.0)	97.48 (80.6-134.0)	**<0.001**
Urea (mg/dL)	39.3 (10.3-133.0)	40.08 (10.3-133.0)	36.88 (11.6-65.2)	0.864
Total bilirubin (mg/dL)	0.60 (0.12-1.4)	0.64 (0.12-1.4)	0.5 (0.2-1.2)	**0.049**
Prealbumin (mg/dL)	20.0 (6.5-28.7)	20.77 (6.5-28.7)	17.55 (16.2-21.3)	**<0.001**
LDH (U/L)	281.93 (146.0-789.0)	284.77 (159.0-489.0)	273.05 (2146.0-442.0)	0.475
LDH/A	94.10 (51.22-172.66)	90.1 (51.22-154.0)	106.65 (52.52-172.66)	**0.023**
Sodium (mEq/L)	142.14 (124.0-159.0)	141.48 (130.0-159.0)	144.23 (124.0-155.0)	0.054
Potassium (mEq/L)	4.27 (3.1-5.6)	4.24 (3.1-5.6)	4.35 (3.1-5.6)	0.474
Procalcitonin	1.1 (0.05-12.9)	0.78 (0.05-5.6)	02.08 (0.05-12.9)	0.079
Lactate (mmol/L)	2.21 (0.4-7.9)	2.06 (0.4-7.9)	2.68 (0.8-5.4)	0.054
NRI	92.74 (79.5-105.5)	95.92 (80.0-105.5)	82.77 (79.5-87.9)	**<0.001**
PNI	37.12 (31.0-43.9)	38.16 (31.0-43.9)	33.87 (32.0-36.6)	**<0.001**
GNRI	90.95 (74.0-104.5)	94.12 (74.0-104.5)	81.01 (75.0-84.6)	**<0.001**
CONUT	4.63 (0-11.0)	3.28 (0-10)	8.86 (5.0-11.0)	**<0.001**
APACHE II	23.20 (12.0-42.0)	21.20 (12.0-32.0)	29.5 (15.0-42.0)	**<0.001**
SAPS	36.58 (20.0-58.0)	33.88 (20.0-58.0)	45.04 (29.0-58.0)	**<0.001**

Table 2. Logistic regression analysis						
Variables	**β**	**SE**	**p**	**OR**	**95% CI for OR**	
					Lower	**Upper**
Constant	9.188	11.893	0.440	9779,709	-	-
NRI	-0.056	0.237	0.813	0.946	0.595	1.503
PNI	0.127	0.409	0.756	1.135	0.5100	2.528
GNRI	-0.159	0.213	0.445	0.853	0.562	1.295
CONUT	0.526	0.242	**0.030**	1.691	1.052	2.720

[OP-013]

The Effect of Sinovac and BionTech Vaccines on Mortality in Patients Followed in Intensive Care Unit in the Diagnosis of COVID-19

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Introduction: To evaluate the risk of death of patients with a diagnosis of COVID-19 followed in the intensive care unit according to age, gender, vaccine type and vaccine dose status.

Materials and Methods: The present study was planned by retrospectively evaluating the data of patients admitted to the intensive care unit between March 2021 and August 2022 with the diagnosis of COVID-19. The patients were evaluated in 6 groups according to their vaccination status. Groups were 0: not vaccinated, 1: One or two doses of Sinovac, 2: Three doses of Sinovac, 3: One dose of BioNTech, 4: Two doses of BioNTech.

Results: Three hundred fifty-one patients were included in the study. The mean age of the patients was 67.1±15.6 and 191 (54.4%) patients were male. Two hundred fourteen (61.0%) of the patients were unvaccinated. The unvaccinated group had the highest mortality rate (86.4%). Two doses of BionTech vaccine had statistically lower mortality rates than the other groups (p<0.005). The relationship between age groups and mortality was statistically significant (p=0.014). The group over 75 years old had statistically significant higher mortality rates compared to the other groups. Age and vaccination status were found to be effective on mortality in multivariate analysis. The group over 75 years of age had a higher risk of mortality compared to the other groups (p=0.002). Patients with 2 doses of BioNTech vaccine showed a lower mortality rate in multivariate analysis compared to unvaccinated patients (p=0.001). The other vaccine groups did not have a protective effect against death.

Conclusion: SARS-CoV-2 is a disease with high mortality rates and these rates are being reduced by vaccination studies. Patients over the age of 75 face higher mortality rates. The full-dose BionTech vaccine significantly reduces mortality rates. Single-dose BionTech or full-dose Sinovac vaccines appear to be insufficient to prevent mortality.

Keywords: BionTech, COVID-19, intensive care unit, mortality, Sinovac

Table 1. Comparison of the relationship between deaths due to COVID-19 and vaccination status

	Number	Death	p value
			0.039
0	214	185 (86.4%)	
1	51	43 (84.3%)	
2	35	29 (82.9%)	
3	28	24 (85.7%)	
4	23	14 (60.9%)	*
Total	351	295 (84.0%)	

0: Not vaccinated, 1: One or two doses of Sinovac, 2: Three doses of Sinovac, 3: One dose of BioNTech , 4: Two doses of BioNTech
*Post-hoc analysis: Pairwise comparisons with other groups (p<0.05)

Table 2. Comparison of the relationship between deaths due to COVID and age groups

	Number	Death	p value
			0.014
18-44 years	32	23 (71.9%)	
45-59 years	68	54 (79.4%)	
60-75 years	136	112 (82.4%)	
>75 years	115	106 (92.2%)	*

*Post-hoc analysis: Pairwise comparisons with other groups (p<0.05)

Table 3. Logistic regression analysis in terms of risk factors for COVID-related deaths

	Odds ratio	95% CI	p value
Age			**0.011**
18-44 years (reference category)			
45-59 years	1.584	0.579-4.333	0.370
60-75 years	1.924	0.746-4.960	0.176
>75 years	5.707	1.903-17.112	**0.002**
Sex	0.807	0.437-1.490	0.494
Vaccine			**0.030**
Non-vacinated (reference category)			
Sinovac (1 or 2 doses)	0.705	0.274-1.815	0.469
Sinovac (3 dose)	0.572	0.207-1.585	0.283
BionTech (1 dose)	0.736	0.227-2.386	0.609
BionTech (2 dose)	0.195	0.072-0.525	**0.001**

[OP-014]

Association of Intraoperative Hemodynamic Instability with Early Postoperative Acute Kidney Injury After Femur Neck Fracture Surgery: A Prospective Cohort Study

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Introduction: Although acute kidney injury (AKI) after femoral neck fracture (FNF) surgery is known to be a significantly poor prognostic factor for morbidity and mortality, an association of intraoperative hemodynamic instability with AKI injury is unclear. This study investigated the link between intraoperative hypotension and AKI.

Materials and Methods: We conducted a prospective cohort of 55 randomly selected older (>65 yr) patients undergoing FNF surgery between July 2022 and January 2023. AKI was diagnosed if any one of the following conditions was present, according to KDIGO 2012: an increase in SCr of ≥0.3 mg/dL within 48 h, an increase in SCr of ≥1.5 times the baseline, or urine volume < 0.5 mL/kg/h for six h. The primary outcome was the association between intraoperative hypotension, at two MAP thresholds (<55 and <65 mmHg), and the AKI.

Results: There was no significant difference between the AKI and non-AKI groups regarding demographic data. The mean age of the patients was 82 (65-95), and 37 (67%) were female. AKI occurred in 17 (30.9%) patients, and the mean creatinine increase in the patients with postoperative AKI was 0.47 (±0.13). The odds ratio of AKI for MAP less than 55 mmHg was 1.266 (95% CI, 0.30-5.32) till 10 min and was 1,442 (95% CI, 0.25-8.03) for 11 to 20 min. The odds ratio of AKI for MAP less than 65 mmHg was 0,816 (95% CI, 0.13-5.08) till 10 min and was 1,372 (95% CI, 0.17-11.10) for 11 to 20 min.

Conclusion: We found an increased risk of early postoperative AKI for FNF surgery when intraoperative MAP was less than 55 mmHg less than 10 min and less than 65 mmHg for more than 10 min. Therefore, managing the intraoperative hemodynamic stability in FNF surgery is a potential opportunity to prevent early postoperative AKI.

Keywords: Hemodynamic instability, postoperative, acute kidney injury, femur neck fracture, intraoperative

[OP-016]

The Comparison of Pentaglobin and Standard IVIG Therapy in Severe COVID-19 Pneumonia

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Introduction: Immunoglobulin treatment is used as an adjuvant to reduce the systemic inflammatory response, which is the leading cause of mortality and morbidity in septic shock. We aimed to compare the efficacy of intravenosus immunglobin (IVIG) and specifically immunoglobulin M enriched IVIG (pentaglobin) treatments to regulate increased cytokine response in severe COVID-19 pneumania. As far as we know, no study compares these two treatments.

Materials and Methods: It is a retrospective and observational study that analyzed 46 patients with severe COVID-19 pneumonia who received IVIG or pentaglobin therapy in addition to the COVID-19 treatment recommended by the Turkish Ministry of Health. Pentaglobin (group P) and IVIG (group I) were given to 19 and 27 patients. Severity scores of illness, inflammatory laboratory parameters, and mortality at the end of the intensive care unit were compared between the two groups receiving pentaglobin and IVIG.

Results: There was no significant difference between the two groups regarding APACHE-II and SOFA scores, a decrease in inflammatory laboratory parameters, and ICU mortality rates ($p>0.05$). The ferritin value, used as a marker of increased cytokine response for COVID-19 pneumonia, did not decrease in group I or group P. Neither group showed significant benefits from treatment relative to the other. The current procalcitonin increase, which is not statistically significant in group I and P, is clinically important and we think it is essential for reevaluating increase in procalcitonin levels in regard of secondary bacterial infections.

Conclusion: Since there are case reports declaring clinical improvement in COVID-19 pneumonia with IVIG or pentaglobin treatment in the literature, we hope that future randomized controlled immunoglobin therapy trials will show more direction on treatment algorithms for future pandemics.

Keywords: Immunglobin therapy, intensive care unit, severe COVID-19

[OP-017]

A Broken Heart in Critical Care: Takotsubo Cardiomyopathy (Case Report)

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Introduction: Besides being a rare pathology, Takotsubo cardiomyopathy; it is characterized by typical symptoms such as chest pain and dyspnea. This disease is mainly seen in elderly and postmenopausal female patients. Takotsubo cardiomyopathy is thought to be secondary reversible coronary vasospasm and microvascular dysfunction due to increased circulating catecholamine levels due to stress-induced adrenergic stimulus. This pathology is also known as “stress-induced cardiomyopathy” or “broken heart syndrome.”

Case: A 64-year-old female patient who presented to the emergency department with symptoms of sudden onset of dyspnea and chest pain was intubated and taken to the critical care unit. The patient’s comorbidity also has COPD. In the critical care admission examination, arterial blood pressure: 153/122 mmHg, heart rate was 111/min, and fever: 36.5 °C. In electrocardiography (ECG), there was ST-segment elevation between leads V1-V6 consistent with anterior myocardial infarction. High levels of troponin-I (1794.9 ng/mL) and high creatinine kinase-MB levels (9.2) were found in blood biochemistry. Coronary angiography performed with the pre-diagnosis of acute coronary syndrome showed no stenosis that would impair perfusion was observed in the coronary arteries. On ECHO, segmental wall motion disorder was detected with septal akinesia,

anteroapical dyskinesia, and 30% ejection fraction. In addition, apical ballooning was detected (Figure 1). The patient was followed up in the critical care unit with the diagnosis of Takotsubo cardiomyopathy with clinical correlations and examinations after angiography. Patient guardian consent was obtained for the case report.

Discussion: Takotsubo cardiomyopathy is characterized by acute and reversible left ventricular systolic dysfunction, and despite the presence of typical ECG findings in this syndrome, no significant critical coronary lesion is observed. Therefore, all the consequences of acute coronary syndrome, ventricular arrhythmias, rarely left ventricular rupture, and death may occur. Except for angiographic findings, Takotsubo cardiomyopathy should be considered an acute coronary syndrome.

Keywords: Takotsubo cardiomyopathy, apical ballooning

Figure 1. Apical ballooning

[OP-018]

MINS Incidence and Associated Risk Factors of Patients Undergoing Intracranial Operations in Neurosurgical Intensive Care Unit

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Introduction: Myocardial injury after non-cardiac surgery (MINS) is a novel concept, and relationship of MINS with postoperative major cardiac events and mortality has been demonstrated before. Contrary to this, studies about the incidence and risk factors in specific populations, such as neurosurgical patients, are limited. It is aimed to determine the incidence of MINS and associated risk factors in elderly undergoing intracranial surgery.

Materials and Methods: Patients undergoing elective intracranial surgery between 01/01/2015 and 01/01/2019 were screened. Patients older than 65 years, who were followed up in the intensive care unit at least 1 day, were screened with high-sensitivity cardiac troponin T (hs-cTnT) for 3 days postoperatively. Data were obtained by scanning the hospital information system retrospectively. Demographic data, comorbidities, initial heart rates, serious bleeding (at least 1000 mL), intraoperative hypotension (MAP <60 mmHg for at least 30 seconds) and the use of vasopressors, postoperative hs-cTnT values at the 24th, 48th and 72nd hours and postoperative 30-day follow-up results were recorded.

Results: One hundred seventy-seven patients were included. Incidence of MINS was 36.2%. The mean age of MINS(+) and MINS(-) groups were 72.80±7.07 and 66.76±9.72, respectively (p=0.001). Mortality rate was 2.8% (n=5), and all cases with mortality were within the MINS(+) group (p=0.006). Coronary artery disease (p=0.04), atrial fibrillation (p=0.001), preoperative anticoagulant use (p=0.001), hypertension (p=0.046), severe bleeding (p=0.003), intraoperative vasopressor use (p=0.001) were statistically significant in MINS development. Age and mortality rates of MINS(+) patients were significantly higher than MINS(-) patients (p=0.001 and p=0.006, respectively).

Conclusion: After intracranial operations, MINS is seen with a considerable frequency. Advanced age, discontinuation of the use of anticoagulant or antiplatelet drugs before the operation, intraoperative hypotension and vasopressor use are the most important risk factors. Patients with myocardial injury showed a significant increase in 30-day mortality. Therefore, patients with MINS should be recognized and followed up closely. Avoidance of preventable risk factors will reduce the incidence of MINS and associated mortality.

Keyword: Myocardial injury after non-cardiac surgery (MINS)

[OP-019]

The Relationship Between Mortality and Hemoglobin Levels in Intensive Care Patients with Acute Respiratory Distress Syndrome

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Introduction: Low hemoglobin levels are associated with an increased risk of mortality in intensive care (ICU) patients. The underlying reason is due to the limitation in oxygen delivery to the tissues caused by a reduction in the number of oxygen carrying erythrocytes. This study aimed to examine the relationship between hemoglobin drop (DHgb= admission hemoglobin-nadir hemoglobin), nadir hemoglobin levels (NdrHgb; the lowest hemoglobin value during ICU stay) and mortality in COVID ARDS patients admitted to intensive care.

Materials and Methods: This was a prospective non-randomized study of consecutive COVID ARDS patients who had at least two determinations of hemoglobin level (the first on admission) separated by 24 hours and an ICU stay <14 days. Admission hemoglobin (AdmHgb), NdrHgb and DHgb levels were analyzed. Data on blood transfusions were also collected.

Results: Although high DHgb and low NdrHgb levels were significantly associated with mortality in univariate analysis of patients, this was not sustained in multivariate analysis. The area under the ROC curve (AUC) of DHgb was 0.577, with a cut-off value of 1.9 g/dL, sensitivity and specificity were 50.7%, and 65.2%, respectively. NdrHgb had a cut-off value of 10.7 g/dL, with an AUC of 0.423, sensitivity and specificity of 50%.

Conclusion: Our results showed that DHgb and low NdrHgb levels are both predictive markers for mortality with moderate sensitivity and specifity. We recommend further studies evaluating a simple scoring model based on DHgb and NdrHgb for predicting mortality.

Keywords: ARDS, nadir hemoglobin, drop, deltahemoglobin, mortality

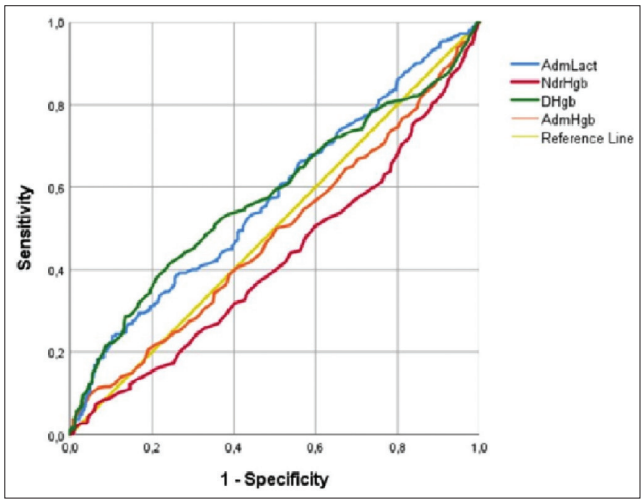

Figure 1. Hgb

Table 1. Characteristics of survivors and non-survivors

	Survivors (n=355)	Non-survivors (n=357)	Total (n=712)	p
Gender (F/M)	146 (41.1%)/209 (58.9%)	147 (41.2%)/210 (58.8%)	293 (41.2%)/419 (58.8%)	0.989
Comorbidities				
HT	190 (53.5%)	204 (57.1%)	394 (55.3%)	0.331
DM	131 (36.9%)	132 (37.0%)	263 (36.9%)	0.984
CAD	91 (25.6%)	114 (31.9%)	205 (28.8%)	0.063
CHF	15 (4.2%)	35 (9.8%)	50 (7.0%)	**0.004**
Arrhytmia	16 (4.5%)	24 (6.7%)	40 (5.6%)	0.199
Respiratory diseases	61 (17.1%)	61 (17.1%)	122 (17.1%)	0.973
Renal diseases	36 (10.1%)	37 (10.4%)	73 (10.3%)	0.922
Neurologic diseases	41 (11.6%)	65 (18.2%)	106 (14.9%)	**0.013**
Malignancy	22 (0.06%)	32 (9.0%)	54 (7.6%)	0.163
Rheumatological diseases	6 (1.7%)	7 (1.7%)	13 (1.8%)	0.787
Thyroid diseases	21 (5.9%)	16 (4.9%)	37 (5.2%)	0.389
Others	32 (9.0%)	27 (7.6%)	59 (8.3%)	0.483
None	61 (17.2%)	54 (15.1%)	115 (16%)	0.456
Age (years)	64.6±14.2 (65.0; 23-93)	72.7±12.5 (73.0; 25-97)	68.7±14.0 (71.0; 23-97)	**0.000**
APACHE II	9.3±3.1 (9.0; 4-16)	28.7±6.9 (30.0; 2-41)	19.0±11.1 (15.0;2-41)	**0.000**
Length of stay (days)	7.5±3.5 (7.0; 2-14)	7.2±3.8 (7.0; 2-14)	7.3±3.6 (7.0; 2-14)	0.185
Anemia at admission	148 (41.7%)	164 (45.9%)	312 (43.8%)	0.253
Anemia during ICU stay	269 (75.8%)	290 (81.2%)	559 (78.5%)	0.077
Requirement of mechanical ventilation	9 (2.5%)	348 (97.5%)	357 (50.1%)	**0.000**
Requirement of HDF	21 (5.9%)	118 (33.4%)	139 (19.7%)	**0.000**
Transfusion	19 (5.4%)	39 (10.9%)	8 (8.1%)	**0.007**

*F: Female, M: Male, HT: Hypertension, DM: Diabetes mellitus, CAD: Coronary artery disease, CHF: Chronic heart failure, HDF: Hemodiafiltration, *Values are expressed as "mean + SD (median; min-max)" or as percentages

Table 2. Labaratory parameters of survivors and non-survivors				
Characteristics	**Survivors (n=355)**	**Non-survivors (n=357)**	**Total**	**p**
	Mean + SD (Median; min-max)	**Mean + SD (Median; min-max)**	**Mean + SD (Median; min-max)**	
AdmHgb (g/dL)	12.7±2.1 (12.8; 4.9-20.6)	12.6±2.3 (12.7; 5.8-18.6)	12.6±2.2 (12.8; 4.9-20.6)	0.471
AdmLact (mmol/L)	2.0±1.2 (1.8; 0.2-14.2)	2.4±1.4 (2.0; 0.5-14.6)	2.2±1.3 (1.9; 0.2-14.6)	**0.000**
NdrHgb (g/dL)	11.1±2.1 (11.3; 4.9-17.5)	10.5±2.3 (10.7; 5.4-17.0)	10.8±2.2 (11.0; 4.9-17.5)	**0.000**
DHgb (g/dL)	1.6±1.3 (1.4; -0.8-7.2)	2.0±1.7 (1.9; -0.6-8.6)	1.8±1.5 (1.6; -0.8-8.6)	**0.000**
*AdmHgb: Admission hemoglobin, AdmLact: Admission lactate, NdrHgb: Nadir hemoglobin, DHgb: Hemoglobin drop				

Table 3. Multiple stepwise logistic regression analysis for predicting mortality of patients			
COVARIANTS	**p**	**Exp(B)**	**CI 95% lower-upper**
Age	**0.000**	0.897	0.845-0.953
APACHE II	**0.000**	1.649	1.387-1.961
Requirement of mechanical ventilation	**0.000**	0.004	0.000-0.026
Requirement of HDF	0.259	2.708	4.79-15.297
Constant	0.65	329.756	
*HDF: Hemodiafiltration *Included variables: Chronic heart failure, neurologic diseases, age, APACHE II score, requirement of mechanical ventilation, hemodiafiltration or transfusion, hemoglobin drop, CI: Confidence interval			

Table 4. The cut-off, sensitivities, specificities, Youden's index and area under curve of each variable for predicting mortality

Variables	Cut-off	Sensitivity (%)	Specifity (%)	Youden's index	AUC (95%CI)	p
AdmHgb (g/dl)	12,7	50,4	49,6	0	0,483 (0,440-0,526)	0,435
NdrHgb (g/dl)	10,7	50,0	50,0	0	0,423 (0,381-0,466)	**0,000**
DHgb (g/dl)	1,9	50,7	65,2	0,09	0,577 (0,535-0,620)	**0,002**
AdmLact (mmol/L)	1,9	50,3	57,9	0,08	0,573 (0,531-0,616)	**0,001**

*AUC: Area under the ROC curve, AdmHgb: Admission hemoglobin, MaxHgb: Maximum hemoglobin, NdrHgb: Nadir hemoglobin, DHgb: Deltahemoglobin, AdmLact: Admission lactate

[OP-020]

The Impact of Clinical Pharmacist Interventions Among Critically Ill Patients

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Introduction: The drug therapy of critically ill patients requires intensive evaluation and management since these patients often require complex medication regimens. Clinical pharmacy services may minimize drug-related problems (DRPs) and improve therapeutic outcomes in the intensive care unit (ICU). This study aims to evaluate the DRPs by a clinical pharmacy service with a multidisciplinary approach in the tertiary ICU.

Materials and Methods: This retrospective descriptive study was conducted from 7 December 2022 to 20 January 2023 in the adult medical and surgical ICU of Başkent University Ankara Hospital. The DRPs were categorized according to Pharmaceutical Care Network Europe (PCNE) V9.1 classification. The primary outcomes were interventions proposed and the rate of acceptance by the ICU team.

Results: Overall, 112 patients were included to evaluate DRPs during the treatment process of the patients. Sixty-four DRPs were found in 54 (48.2%) patients. "Treatment safety" (45.3%) was the most common problem of DRPs. "Inappropriate combination of drugs, or drugs and herbal medications, or drugs and dietary supplements" (20.3%), "Drug dose too high" (15.6%), and "No or inappropriate outcome monitoring" (15.6%) were the most common causes, respectively. The most common medication class in DRPs was antimicrobial drugs (56.3%). The ICU team accepted 84.4% of the interventions. Recommendations not accepted by the ICU team were mainly related to antimicrobial drugs (70%). The leading causes for the not accepted recommendations were "Inappropriate drug combination" (70%) and "drug dose too high" (20%) during renal replacement therapy.

Conclusion: This study shows that DRPs are common in the ICU. The most common potential problems for "treatment safety" are mainly due to the "inappropriate combination of drugs," and the most controversial drugs are antimicrobials. We believe that clinical pharmacy services in a multidisciplinary approach can improve the therapeutic outcomes of critically ill patients.

Keywords: Clinical pharmacist, intensive care unit, drug related problem

[OP-021]

Awareness of Nurses Working in 3rd Level Intensive Care Unit in Diagnosis and Treatment of Sepsis

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Introduction: Sepsis is defined as life-threatening organ dysfunction caused by the dysregulated inflammatory response of the host to the infection. In the studies performed, the 28-day mortality rate for sepsis and septic shock was found to be 42% and 47%, respectively. Early recognition of septic shock and initiation of early treatment are the most important steps to reduce mortality. September 13 is recognized as "sepsis awareness day" by the WHO. So trainings were held between 13-20 September to raise awareness about the disease in our hospital. The aim of this study is to determine the awareness of nurses working in ICU in the diagnosis and treatment of sepsis and to plan the necessary trainings.

Materials and Methods: We conducted this study by examining the data from 53 nurses by filling a questionnaire created by the specialists who organized the sepsis training.

Results: Twenty-two male and 31 female nurses participated (Table 1).

Conclusion: We carried out this study to determine the level of sepsis awareness, to reveal the deficiencies and to plan what needs to be done to increase awareness. Adegbite et al. found their knowledge level to be low among healthcare professionals to measure the level of sepsis knowledge. They found fever (92.2%) was the most recognized symptom, hypothermia (41.7%) and tachypnea (46.1%) the least recognized symptom. We also reached similar results. Fever (98.1%) was the most commonly recognized symptom, and hypothermia (37.7%) was the least recognized symptom. In the same study, the rate of correct response to the qSOFA components was (13%), while it was found to be (22.6%) in our study. Assunção et al. and Marshall-Brown et al. found that the level of knowledge about sepsis was insufficient. We found similar results, too. The sepsis awareness levels of the participants were insufficient and their sepsis knowledge levels were low in our study. We believe that frequent and regular training should be done to increase the awareness of sepsis. In addition, these trainings should be made attractive and participation should be at the highest level.

Keywords: Sepsis, training, intensive care, nurse

Table 1. Awareness and knowledge of sepsis: Distribution of correct and incorrect answers

Participant	Male N=22	Female N=31	Total N=53
Ever heard of (Sepsis 3) about the definitions of Sepsis and Septic shock and qSOFA?	Yes 27(50,9%)	No 26(49,1%)	53(100%)
What is the most appropriate definition of sepsis? a) Contamination of blood by a microbe **b) Life-threatening organ dysfunction caused by dysregulated host response to infection** c) Systemic inflammatory response caused by infection d) Allergic reaction to germs	Correct 27(%50.9)	Incorrect 26(%49.1)	
What are the symptoms of sepsis?	Yes	No	
Fever	52(98,1%)	1(1,8%)	
Hypothermia	20(37,7%)	33(62,2%)	
Tachycardia	48(90,5%)	5(9,4%)	
Tachypnea	37(69,8%)	16(30,1%)	
Hypotension	40(75,4%)	13(24,5%)	
Change of consciousness	49(92,4%)	4(7,5%)	
Which of the following is not a component of qSOFA? a) Glasgow score <15 b) Respiratory rate ≥ 22 c/min **c)Tachycardia> 90 beats / min** d) Systolic blood pressure ≤100 mmHg	Correct 12(22,6%)	Incorrect 41(77,3%)	
Does blood culture need to be taken in any case of suspected sepsis?	Yes 51(96,2%)	No 2(3,7%)	
Which of the following is not suitable for emergency sepsis management? a) Providing safe major vessel access **b) Giving colloid fluid quickly at the beginning if there is hypotension.** c) Taking a blood culture and starting broad-spectrum antibiotics d) Ensuring blood oxygen saturation	Correct 19(%35.8)	Incorrect 34(%64.1)	
Which drug is used first as a vasopressor in the management of sepsis? a) Adrenaline b) Dopamine c) Dobutamine **d) Noradrenaline** e) Vasopressin	Correct 35(66%)	Incorrect 18(33,96%)	
Which scoring system do we monitor sepsis with in the intensive care unit? a)qSOFA b)APACHE2 c)SAPS2 d)**SOFA** e)NUTRIC SCORE	Correct 14(26,4%)	Incorrect 39(73,5%)	
Did you attend the sepsis awareness training organized in our hospital?	Yes 8(15%)	No 45(84,9%)	

[OP-022]

Delirium Awareness of Intensive Care Nurses Before and After Education: Theoretical and Practical Evaluation

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Introduction: Our aim is to measure the level of knowledge of intensive care nurses about delirium, determine the change in the level of expertise with the training given after ward, andi investigate the effect of the difference in the level of knowledge on practice.

Materials and Methods: Forty-three nurses working as nurses in intensive care units (ICU) and volunteering to participate in this study were included in the study. Thirty-six patients followed in the intensive care Unit were evaluated for delirium. Delirium education has been prepared according to the Padis Guide (2018). The knowledge level and practical evaluation tests were administered to the ICU nurses both before and after the training. Theoretical test: The delirium knowledge test for the intensive care nurse (DKT-ICN) (Figure 1), defined in a previous study, was used as the delirium knowledge level test. Practical test: Patients were evaluated with/without delirium with the CAM-ICU scale.

Results: The median age of the nurses was 27 (min-max: 23-45), 29 (67.4%) of them were female, and 14 (32.6%) were male. Education levels were 12 (27.9%) Associate degrees and 31 (72.1%) under graduate degrees. The number of nurses who had previously received delirium training was 13 (30.2%), and the number of those who did not was 30 (69.8%) In the test evaluations of the nurses before and after the training, the accuracy rate of the DKT-ICN test before training was 75.19%, while the post-training accuracy rate increased to 92.76%, and there was a statistically significant difference ($p<0.01$). In the practical test, the accuracy rate was 68.47% before the training and increased to 74.16% after the training, but there was nostatistically significant difference ($p=0.15$) (Figure 2).

Conclusion: As a result, the knowledge level of nurses about delirium is significant for the prognosis of delirium. Although standard training increases theoretical knowledge, more is needed to diagnose in practice. Different training models may be required to be effective in clinical practice. Scientific studies are needed on this subject.

Keywords: Delirium, ICU, knowledge test, nursing, health education

1. Cognitive impairment reduces the risk of delirium.
2. Superficial sedation is a preventive approach in patients given mechanical ventilator support.
3. Delirium causes the patient to stay in the intensive care unit (ICU) for a longer period.
4. A habit of substance abuse, such as smoking and alcohol consumption, increases the risk of delirium incidence.
5. One of the most important factors causing delirium is an imbalance in neurotransmitter levels (dopamine, gamma aminobutyric acid, serotonin).
6. Benzodiazepine/opioid medication therapy reduces the risk of delirium.
7. The longer the duration of mechanical ventilation is, the higher the risk of developing delirium becomes.
8. Non-pharmacological approaches are not effective in the prevention of delirium.
9. Patients with limited mobility have a higher risk of developing delirium.
10. There is no relationship between delirium and changes in sensory status of the patient (hearing and vision problems).
11. As serum C-reactive protein (CRP) levels increase, the risk of delirium also increases.
12. Delirium can easily be detected with a reliable measuring instrument.
13. Atypical antipsychotic treatment may reduce the duration of delirium.
14. Mixed-type delirium is a condition in which both hyperactive and hypoactive delirium symptoms occur during the day.
15. The delirium assessment should be regularly made at least once per shift.
16. Changes in blood pressure (hypo/hypertension) increase the risk of delirium.
17. Lethargy and dullness are symptoms specific to hypoactive delirium.
18. Using three or more drugs affects the risk of developing delirium.
19. Visits to patients who have developed delirium should be restricted.
20. Agitation is observed in all types of delirium.
21. Delirium assessment made by trained people takes a short time.
22. Early mobilisation is important in the management of delirium.
23. Effective treatment of hypoactive delirium shortens the duration of the patient's need for a mechanical ventilator.
24. Delirium is not a factor that affects mortality in ICUs.
25. Delirium increases the cost of patient care.
26. Training and an interdisciplinary team approach are important in the effective management of delirium
27. Delirium is an acute onset consciousness disorder and progresses with fluctuations during the day.

Figure 1. DKT-ICN test

Table 1. Demographic data and test results

	All Nurses (n: 43)	
Age	27 (23-45)	
Working experience in the ICU	4,47 (1-15)	
Gender		
Male	14 (32,6 %)	
Female	29 (67,4 %)	
Education		
Associate degree	12 (27,9 %)	
Undergraduate degree	31(72,1 %)	
Delirium training (before study)		
Yes	13 (30,2 %)	
No	30 (69,8 %)	
Knowledge level survey (DKT-ICN)		
Before training	75,19 %	**p <0.01**
After training	68,47 %	
Practical survey		
Before training	92,76 %	**p= 0.15**
After training	74,16 %	

[OP-023]

The Clinical Use of STOP-BANG Survey in Detecting Post-operative Pulmonary Complications

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Introduction: The STOP-BANG survey has a sensitivity of 88-92% in detecting OSAS, above 3 points. Postoperative complications are more common in patients with OSAS. The aim of this study is to investigate the relationship between the STOP-BANG score and postoperative pulmonary complications.

Materials and Methods: From January 2nd to January 13th, 2023, voluntary patients who were scheduled for elective surgery under general anesthesia were included in the study. After the operation, vital signs, saturation, and medical imaging of the patients were examined. Hypoxia with or without atelectasis, pneumonia, and the need for non-invasive or invasive mechanical ventilation were considered pulmonary complications. Patients who had a saturation value of less than 92% for more than 2 hours in room air with nasal or mask oxygen requirement were considered hypoxic. According to the STOP-BANG survey, patients were divided into two groups, below or above 3 points. Pulmonary complications in both groups were statistically analyzed using the chi-square test.

Results: A total of 159 patients were included in the study, of whom 66 were male and 93 were female. According to the STOP-BANG score, 77 patients had scores above 3, and 82 patients had scores below 3. The average age of the patients was 54.4. 8.8% of the cases (14/159) underwent major surgery. The average ASA score was 2.05, and the average Mallampati score was 2.11. According to the STOP-BANG score, 7 patients (7/82) in the group below 3 points and 17 patients in the group 3 points and above (17/77) were pulmonary complicated. The p-value was 0.031, indicating a statistically significant difference between the two groups. Pulmonary complications were observed in 8 of 14 patients admitted to the intensive care unit.

Conclusion: Due to its high sensitivity for scores above 3, the STOP-BANG survey can be used as an alternative cost-effective tool to predict postoperative pulmonary complications.

Keyword: OSAS

[OP-024]

A Neurobrucellosis in Intensive Care: Case Report

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Introduction: Brucellosis is an endemic disease with a high mortality rate still seen in Mediterranean countries such as our country. Neurobrucellosis, on the other hand, is a clinical condition with a high mortality, which occurs when the disease affects the central nervous system. We aimed to emphasize that it is a diagnosis that should be kept in mind by presenting a rare case of neurobrucellosis that we followed in our intensive care unit (ICU).

Case: Sixty-eight years old female (hypertension, retired teacher), has a history of eating cheese. She was hospitalized in the ward with a preliminary diagnosis of neurobrucellosis due to joint pain, insomnia, fatigue for 20 days and syncope two days ago. Rose bengal test was negative, *Brucella* agglutination 1/160 positive, *Brucella* IgG/IgM negative, CRP: 71 and ESR: 69. Brain CT showed a 42x23 mm hypodense edema area in the left frontal area. The patient was admitted to our intensive care unit due to cardiac arrest in the infection ward. On mechanical ventilation, hypointense areas at the pons level in the contrast-enhanced brain MRI of the patient, who was hemodynamically stable, were found to be compatible with neurobrucellosis. During this period, doxycycline and rifampicin treatments were continued. Choreiform movements were observed. Upon detection of generalized slow wave activity and intermittent suppression activity in EEG, levatiracetam was started. Tracheostomy and PEG were performed for the patient who was in the prolonged intensive care unit. In the control brain MRI, it was determined that the ischemic area triggered by the infective process regressed (Figure 1). The patient died on the 99th day of hospitalization due to septic shock.

Discussion: Neurobrucellosis is one of the rare and serious complications in regions where brucellosis is endemic, such as our country. It should be kept in mind in areas such as meningitis that are difficult to diagnose.

Keywords: Critical care, MRI, neurobrucellosis

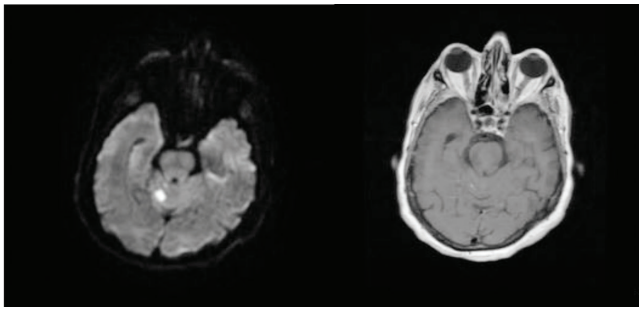

Figure 1.

[OP-025]

The Importance of Diaphragm Ultrasound in Case of Prolonged Weaning

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Introduction: We used ultrasound to investigate the cause of prolonged weaning and we detected diaphragm paralysis.

Case: A type 1 dissection flap originating from ascending aorta was seen in the thoracoabdominal computed tomography angiography of a 21-year-old male patient who had no comorbidity. The patient was taken to emergen cy operation and transferred to the intensive care unit after operation. In the postoperative period, the patient was sedated on mechanical ventilator for 3 days and then bleeding control was acieved. Sedation was stopped on day 4 and the patient was awake, conscious and cooperative. After spontaneous breathing trials he was extubated and unfortunately he was reintubated after 2 hours because of being tachypneic and using the accessory respiratory muscles. We tried to extubate patient for two more times in the following days but all failed. He was cooperatively oriented but had weak tongue movements, limited head extension and flexion, proximal muscle strength loss in the bilateral upper extremities (1-2/5). Because of prolonged weaning we decided to invastigate diaphragma movement. On the 13 day of intensive care unit bilateral diaphragmatic paralysis was detected in the thorax ultrasound (Figure 1) in bedside. We then expanded the research to investigate phrenic nerve damage and decided to use neuroimaging. In the brain magnetic resonance imaging which was taken considering that it could be a pathology originating from the cranial nerves, infarct areas were observed in the central bulbus and left parietooccipital region (Figure 2). No bleeding was observed in the control brain computed tomography (Figure 3), but there was a little ischemic area. Finally, it was planned to transfer to the palliative service with tracheotomy on day 16.

Discussion: Bedside thorax ultrasound is easy and beneficial to use for prolonged weaning in intensive care units.

Keywords: Prolonged weaning, diaphragm paralysis, thorax ultrasound

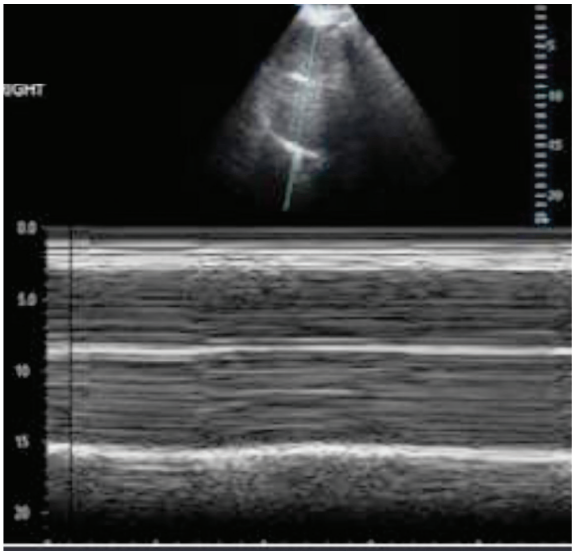

Figure 1. Diaphragmatic paralysis was detected in the thorax ultrasound

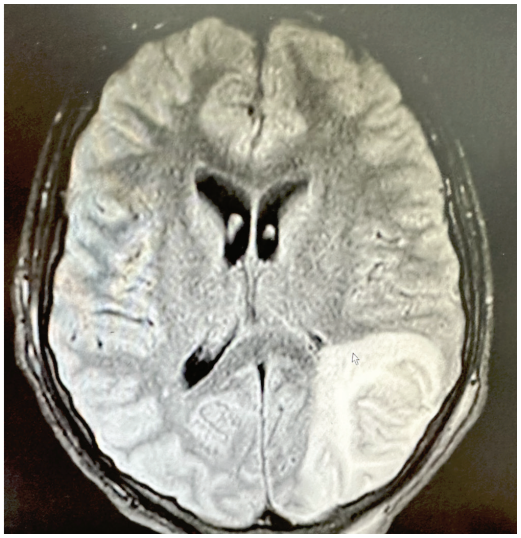

Figure 2. Left parietooccipital infarct

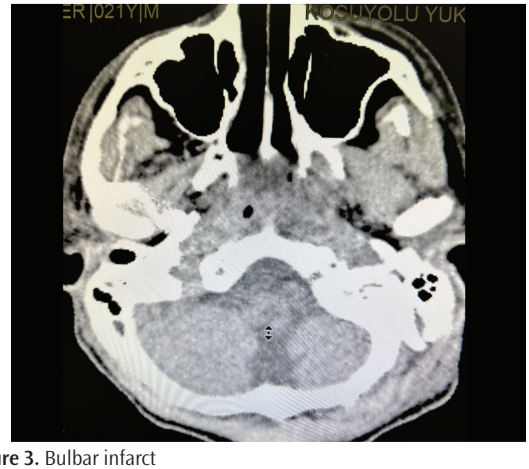

Figure 3. Bulbar infarct

[OP-026]

Intensive Care Unit Follow-up due to Spontaneous Intracranial Hemorrhage in a Patient with F13 Deficiency: A Case Report

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Introduction: F13 deficiency is an inherited coagulation disorder with an estimated frequency of 1-3:1000000. F13, the last factor in the coagulation cascade, plays a vital role in clot stabilization by cross-linking fibrin dimers. It also has a great importance in wound healing and pregnancy by stimulating angiogenesis. Symptoms of F13 deficiency include umbilical cord bleeding, deep tissue bleeding, impaired wound healing and recurrent miscarriages. As PT, aPTT, TT remain unchanged, clot solubility test, F13 activity test and F13 antigen test can be used in the diagnosis. FFP and cryoprecipitate are used in treatment.

Case: A 46-year-old woman with history of F13 deficiency, epilepsy and two intracranial and three abdominal hemorrhages presented to the ER with non-traumatic headache, nausea and vomiting for 3 days. Upon the CT findings of 3x3.5 cm intracranial hemorrhage forming a 7 mm shift in the right frontal lobe, the patient was transferred to the ICU for follow-up and treatment. The patient was conscious, coherent and oriented, pupils were NIC, IR +/+, and there was no sensory-motor deficit. Vitals were stable. Coagulation parameters and platelet count was within the normal range. FFP treatment was initiated at 15 cc/kg. Furosemide, mannitol and dexamethasone used for anti-edema therapy. The patient did not develop any symptoms during the follow-up period. The patient received anti-edema and TDP treatment for a total of 7 days. Brain CT scan on the 8th day of admission showed significant regression in the bleeding. On the 10th day of follow-up, the patient was transferred to the neurology inpatient clinic with normal neurological status and vitals.

Discussion: F13 deficiency is a rare disorder that can lead to serious complications. It should be kept in mind in patients with bleeding findings and symptoms such as delayed wound healing and recurrent miscarriage without a history of trauma or abnormal coagulation tests.

Keywords: F13 deficiency, coagulation disorder, intracranial hemorrhage

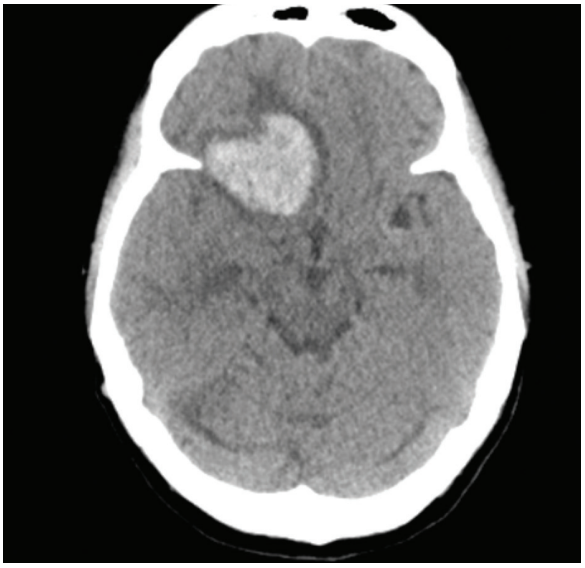

Figure 1. Day 0 BT

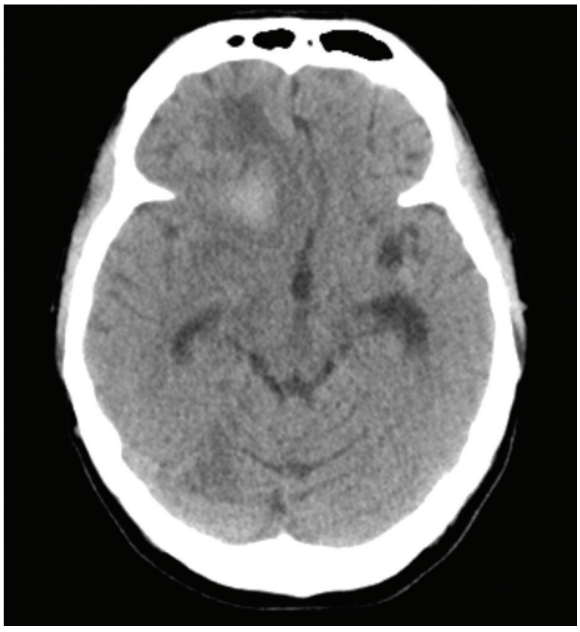

Figure 2. Day 8 BT

[OP-027]

A Difficult Diagnosis in the Pregnant Patient: *Tuberculous meningitis*

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Introduction: TBM is the least common but most serious clinical form of tuberculosis. Head trauma, alcoholism, pregnancy and suppression of cellular immunity are risk factors for TBM. Herein, a pregnant patient diagnosed with TBM is presented.

Case: A 25-year-old 19 w pregnant patient was admitted to the neurology clinic with a prediagnosis of meningitis with complaints of headache, nausea, vomiting, chills and tremors for 10 days. She had a history of Reynaud's phenomenon and abortion and was using progesterone, enoxoparin, ecopirin. On physical examination, fever was 39 °C, GCS: 13 and nuchal rigidity was present. In the laboratory sedimentation: 23 mm/s, CRP: 16 mg/L, ANA, ANCA, ds-DNA, RF, anti-HIV, *brucella* panel were negative. Lumbar puncture (LP) was performed and cerebrospinal fluid (CSF) was measured as clear 187/mm^3 cells (95% neutrophils), CSF protein 103 mg/dL and glucose 31 mg/dL, with a concurrent blood glucose of 79 mg/dL. CSF culture, HSV, adenovirus, enterovirus and tuberculosis PCR were negative. Ceftriaxone 2x2 gr was started, but LP was repeated due to clinical progression and cell count showed an increase in neutrophil count. Treatment was changed to broad spectrum antibiotic. Contrast-enhanced brain MRI of the patient whose GCS regressed showed tuberculoma in the occipital region. Repeat LP showed 330/mm^3 cells, 70% lymphocytes and 30% PMNL. Isoniazid 300 mg, rifampicin 600 mg, ethambutol 1500 mg, pyrazinamide 2000 mg, vitamin B6, methylprednisolone were started with the diagnosis of TBM. During the treatment process, the patient's GCS and fever improved. Nuchal rigidity regressed. The patient was transferred to the infection service.

Discussion: TBM is diagnosed by clinical and radiological findings with non-specific symptoms, it is a form of tuberculosis with a high mortality rate due to delayed diagnosis. TBM should be suspected in the differential diagnosis of pregnant patients with clinical symptoms such as unexplained generalized disturbance, confusion and fever. TBM is a condition that can lead to both maternal and infant loss if not diagnosed in time, especially in pregnant patients, and may be delayed in starting appropriate treatment as in our case. In this case report, we aimed to draw attention to this infection in pregnant women.

Keywords: *Tuberculous meningitis*, pregnant, lumbar puncture

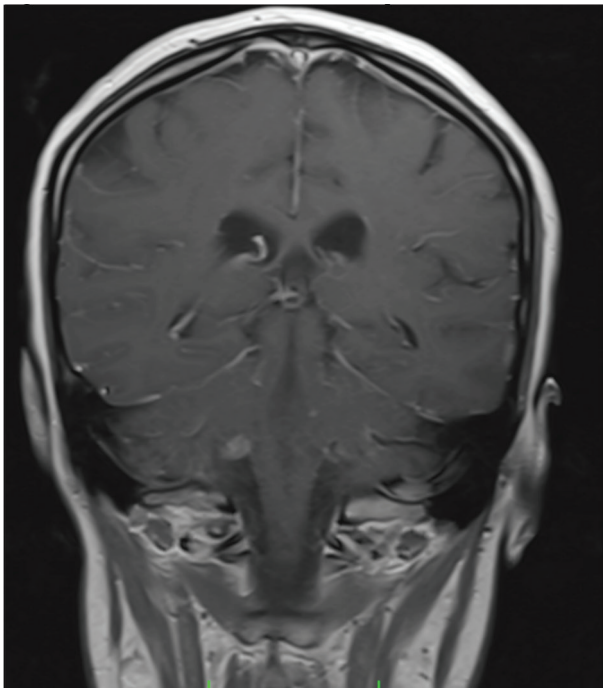

Figure 1. Contrast-enhanced brain MRI of the patient

[OP-028]

The Diagnostic Impact of Transesophageal Echocardiography in a Patient After Post-cardiac Arrest Syndrome

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Introduction: The impairment of coagulation and fibrinolysis processes may be observed after cardiac arrest. Echocardiography is important for determining the causes of the cardiac origin of pulmonary embolism, and, simultaneously, mobile thrombi can be rarely visualized in the ventricule. In this report, we present a case of the intraventricular mobil thrombus that we detected with trans-esophageal echocardiography (TEE) in a patient who underwent CPR for 35 minutes after out of hospital cardiac arrest.

Case: A 54-year-old male patient with coronary artery disease (CAD) and 2-vessel stents was admitted to the emergency service after cardiac arrest. He was admitted to the intensive care unit (ICU) and targeted temperature management could not be applied since it was too late. Brain MRI revealed hypoxic ischemic encephalopathy. Due to recurrent Gram-positive infections despite appropriate antibiotic treatment, in addition to other screening tests, a bedside TEE performed by an intensivist revealed a 27x23 mm mobile thrombus in the left ventricle (Figure 1). Surgical intervention methods were not considered by cardiovascular surgens, then antithrombotic treatment was administered. After the achievement of infection control with effective antibiotherapy, the patient was discharged to the palliative center on the 99th day of hospitalization with the tracheostomy and percutaneous endoscopic gastrostomy.

Discussion: It is crucial that elucidation of the culprit of the recurrent infections in intensive care patients and focal control should be ensured as soon as possible. In our patient, we investigate the presence of vegetation in heart with the TEE following recurrent Gram-positive cocci growth in blood cultures. Guidelines recommend TEE as the first test for suspected infective endocarditis, usually combined with TTE, so we think that intensivists should use it more widely in intensive care practice.

Keywords: Transesophageal echocardiography, cardiac arrest, mobile thrombus

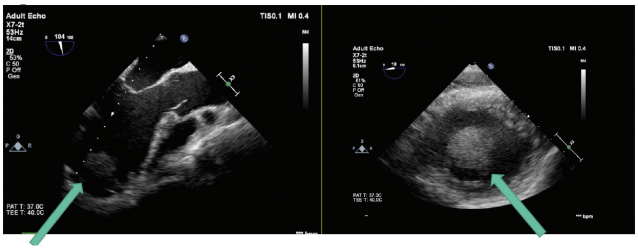

Figure 1. TEE, mobile thrombus in the left ventricle

[OP-029]

Diagnosing Paroxysmal Sympathetic Hyperactivity Syndrome After Traumatic Brain Injury, an Inspiring Case Report

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Introduction: It is aimed to present a rarely diagnosed syndrome associated by acute brain injury paroxysmal sympathetic hyperactivty (PSH) which results in episodes of sympathetic hyperactivty (hypertension, tachypnea, hyperthermia, diaphoresis, dystonic posturing). A diagnostic tool named PSH-assesment measure (PSH-AM), was develop to help guiding clinical management.

Case: Twenty-six Y/o, female patient with traumatic brain injury was admitted. At arrival her GCS was 3, had multiple fractures and intracranial bleeding. CT scans showed signs of subarachnoid hemorrhage and signs of trauma and ischemia. Eight days after admission there were signs of hypertension, tachychardia, fever, sweating and dystonic posturing. The MRI reported signs of diffuse axonal injury secondary to trauma. After a certain times of period consumed to diagnosing and treat the medical problems. On the 43th day she had tachypnea, tachycardia hypertension, profuse sweating, posturing and PSH diagnosing tests were applied. Clinical feature scale (CFS): 13, diagnostic likelihood Tool (DLT): 9, PSH-AM: 22 and she was diagnosed with PSH. The patient was given metoprolol, dexmedetomidine, amantadin sulfate, tramadol, gabapentine, melatonin, modafinil as a component of treatment modality. On the 104th day the weaning proccess started. Tracheostmy was closed and she was put on nazal cannula. Of 129th day, she was discharged to a rehabilitation center.

Discussion: Uncontrolled symptoms can lead to secondary brain injury caused by hypertension, hyperthermia and cardiac damage. PSH is caused by a functional disconnection resulting in unbalanced activation of the ANS caused by the loss of inhibiton of excitation in the sympathetic nervous system without parasympathetetic involvement. Pharmacological approach focuses on symptom abortion and prevention. Symptom abortive medications are antipyretics and sedatives. Preventive medications include non-selective beta blockers, alfa 2 agonists, gabapentine and long acting benzodiazepines. It is important to recognise this syndrome beforehand because delayed recognition may result in unnecessary work-up and inappropriate use of medications may prolong hospitalization.

Keywords: Paroxysmal sympathetic hyperactivity syndrome, traumatic brain injury

Table 1. Clinical Feature Scale

	0	1	2	3
Heart Rate	<100	100-119	120-139	>140
Respiratory Rate	<18	18-23	24-29	>30
Systolic Blood Pressure	<140	140-159	160-179	>180
Temperature	<37	37-37.9	38-38.9	>39
Sweating	Nil	Mild	Moderate	Severe
Posturing During Episodes	Nil	Mild	Moderate	Severe

Table 2. Diagnostic Likelihood Tool (1 point for each feature)

Clinical features occur simultaneously	1
Episodes are paroxysmal in nature	1
Sympathetic over – reactivity to normally non-painful stimuli	1
Features persis>3 consecutive days	1
Features persisit >2 weeks post brain injury	1
Features persist despite treatment of alternative differntial diagnosis	1
Medication administered to decrease sympathetic features	1
>2 episodes daily	1
Absence of parasympathetic features during episodes	1
Absence of other presumed cause of features	1
Antecedent acquired brain injury	1

Table 3. Paroxysmal sympathetic hyperactivity diagnostic likelihood (Combination of scores dived form Clinacal Feature Scale and Diagnostic Likelihood Tool)

Unlikely	<8
Possible	8-16
Probable	>17

[OP-030]

A Descriptive Study on Pregnant with COVID-19 in ICU

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Introduction: The aim of this study is to compare the short-term clinical/laboratory results and mortality status of pregnant women with COVID-19 diagnosed in the intensive care unit (ICU) with non-pregnant patients with similar demographic characteristics.

Materials and Methods: This is a single-center retrospective comparative study conducted in University of Health Sciences Turkey, İzmir Tepecik Training and Research Hospital ICU. The medical records of pregnant and non-pregnant women who were followed in ICU during the pandemic and diagnosed with COVID-19 were examined. There were 19 pregnant COVID patients who had hospitalized and stayed in ICU between 2020-2022. Twenty patients were randomly selected from all non-pregnant women who were hospitalized in the intensive care unit during the same period and having similar demoghraphics. We compared two groups based on inflammatory markers, intubation rates, ICU/hospital stay and mortality rate. We used independent sample t-test and chi-square test in comparisons.

Results: The mortality rate for pregnant group was 15% while it was 30% in non-pregnant group. However this difference was not statistically significant (chi-square =1.108, p>0.05). There were no statistically significant differences between inflammatory markers, intubation rates, ICU/hospital stay/discharge rate in two groups (p>0.05).

Conclusion: There are limited data on SARS-CoV-2 infected pregnant women in ICU. From the current studies, it is difficult to draw absolute conclusions on whether pregnant women are at increased risk of severe consequences of COVID-19. More than 300 clinical trials investigating potential therapeutic options of COVID-19, pregnant women are almost universally excluded. Our results demonstrated that pregnant women shows similar prognosis with non-pregnant women with SARS-CoV-2. Our findings are limited by patients hospitalized in single center. Despite of sample size limitation, we consider sharing our clinical experience about pregnancies with SARS-CoV-2 infection in ICU could be practical for intensivists.

Keywords: Intensive care unit, COVID-19, pregnancy

Table 1. Descriptive statistics and t-test results

Variables	Group	N	Mean	SD	p
LDH	Pregnant	18	464,06	201,609	0.083
	Not-pregnant	20	588,70	226,406	
CRP	Pregnant	18	107,461	58,8103	0.184
	Not-pregnant	20	144,920	102,9762	
Ferritin	Pregnant	13	170,85	115,112	0.106
	Not-pregnant	11	761,56	1263,469	
D-dimer	Pregnant	18	2534,61	3281,178	0.546
	Not-pregnant	20	1988,00	2187,591	
Fibrinogen	Pregnant	18	884,78	1699,959	0.352
	Not-pregnant	20	523,19	239,069	
WBC	Pregnant	18	8,722	4,3029	0.444
	Not-pregnant	20	10,155	6,7078	
Lymphocite	Pregnant	18	0,737	0,3577	0.053
	Not-pregnant	20	1,115	0,7257	
Prealbumin	Pregnant	12	0,1208	0,05616	0.383
	Not-pregnant	14	0,1450	0,07842	

Table 2. Mortality frequency

Group	Discharged	Died	Total
Pregnant	16	3	19
Not-pregnant	14	6	20
Total	30	9	39

[OP-031]

Early Wound Infections in Patients with Crush Syndrome due to the Earthquake

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Introduction: The rate of infection development secondary to crush syndrome (CS) related earthquake is higher than normal. The duration spent under the wreckage is important in terms of exposure to the pathogen, especially in open wounds. We examined wound infections in patients who were followed up with CS due to earthquakes in our intensive care unit.

Materials and Methods: The data of 50 adult patients who have been trapped in the wreckage after the earthquake and referred to our clinic after first medical care was provided in another center. Twenty-three patients followed-up with fasciotomy due to CS were included in the study. The fasciotomy procedure of 12 patients was performed in the earthquake zone. All wound care and debridement procedures were performed in the operating room by the same orthopedist and/or plastic and reconstructive surgeon that applied surgical follow-up. All patients were evaluated by a hyperbaric physician for hyperbaric-oxygen-therapy.

Results: The patients included 13 females and 10 males; the mean age was 31±11 years; mean of APACHEII-score was 14.1±6.7. The duration under the wreckage was 41.4±27.2 hours. Mechanical ventilation was applied in 10 patients. The mean-duration of mechanical ventilation was 5.1±3.8 days. Successful weaning was performed in 7 of 8 patients who required intubation. One patient died due to abdominal-sepsis on the 3rd day of hospitalization. Microorganism reproduction was detected in the wound culture in 11 patients within first 7 days. Microorganisms most detected were *Acinetobacter baumanni* in 6 patients (Table 1).

Conclusion: It is known that CS has metabolic consequences that could cause mortality, as well as increasing susceptibility to infection. The infection rate in earthquake victims may reach up to 68% due to open injuries, the time under the dent, organ failure, immune system involvement. Most of these are wound infections. Fasciotomies may also increase the susceptibility to infection. The infection rates due to fasciotomies were observed as 82.8%. Our early wound infection rate was 43.47%. Wound infections caused by earthquakes should be followed as closely as other systemic infections.

Keywords: Earthquakes, crush syndrome, *Acinetobacter* infections, wound infection

Table 1. The microorganisms of wound cultures in fasiatomy due to crush syndrome

Pathogenic microorganisms	Wound culture (n=10)
Acinetobacteria baumannii (only)	6
Acinetobacteria baumannii + *Pseudomonas aeruginosa*	2
Enterobacteria cloacae + *Pseudomonas aeruginosa*	1
Enterobacteria cloacae + *Bacillus cereus*	1
Proteus mirabilis + *Klebsiella pneumania*	1

[OP-032]

Could SARS-CoV-2 Sepsis Be A Different Phenotype of Sepsis?

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Introduction: To evaluate viral pneumosepsis caused by SARS-CoV-2 with pneumosepsis due to other pathogens to determine the pathogen-host relationship, end organ damage affecting clinical features and explore the similar and differentcharacteristics of the two sepsis types.

Materials and Methods: A total of 414 patients were diagnosed with critical COVID-19 between 2019-2021 and 303 pneumosepsis cases that were admitted and met the diagnostic criteria for sepsis-3 between 2016-2019 admitted to the anesthesiology and reanimation intensive care unit were retrospectively screened. The patient's demographic data, mortality rates, length of stay in the intensive care unit, development of secondary organ dysfunction, presentation values of laboratory and mechanical ventilation, and their changes within one-week follow-up were compared.

Results: The SOFA scores were significantly higher in the COVID-19 sepsis group at presentation (8.2±2.9 vs.7.2±3.7; p<0.0001) and during the follow-up (8.9±4.9 vs. 7.8±3.7; p=0.002). The mean age of the patients was 65.4±17.2 years in the non-COVID-19 sepsis group and 57.9±17.1 years in the COVID-19 sepsis group (p<0.0001). The number of days on mechanical ventilation was significantly higher in the COVID-19 sepsis group (p=0.018). Mortality was detected in 299 patients (41.7%) in total, with no significant difference being observed between the two groups (p=0.592).

Conclusion: Despite the patient population with lower mean age and less comorbidities, it was observed that organ dysfunction was higher in COVID-19 sepsis patients during admission to the intensive care unit and follow-up. Mortality rates were similar in the two sepsis groups. Although the definition of sepsis-3 is not pathogen-specific, SARS-CoV-2-associated sepsis cases occur with different phenotypic features. While the pathogen causing sepsis can be controlled with rapid diagnosis and appropriate antimicrobial treatment, these patients become more susceptible to secondary infections due to the lack of appropriate antiviral treatment in COVID-19 sepsis, immunomicrothrombosis, secondary organ damage, and widespread immunosuppression.

Keywords: COVID-19 sepsis, SOFA score, pneumosepsis, organ damage

Table 1. Comorbidities				
Parameters n (%)	**Total n=717**	**Non-COVID-19 sepsis n=303 (42.3)**	**COVID-19 sepsis n=414 (57.5)**	**p**
Comorbidity	574 (80)	273 (90)	301 (72.7)	**<0.0001**
Hypertension	319 (44.4)	138 (45.5)	181 (43.7)	0.594
Diabetes mellitus	217 (30.2)	77 (25.4)	140 (33.8)	**0.021**
COPD	130 (18.1)	70 (23.1)	60 (14.4)	**0.003**
CRF	111 (15.4)	58 (19.1)	53 (12.8)	**0.021**
Hepatitis	26 (3.6)	9 (2.9)	17 (4.1)	0.545
CAD	200 (27.8)	103 (33.9)	97 (23.4)	**0.002**
CVE	84 (11.7)	61 (20.1)	23 (5.5)	**<0.0001**
Dementia	38 (5.2)	30 (9.9)	8 (1.9)	**<0.0001**
Malignancy	118 (16.4)	68 (22.4)	50 (12)	**<0.0001**
Other	93 (12.9)	45 (14.8)	48 (11.5)	**0.215**

Table 2. Comparison of the first-week averages of the laboratory parameters				
Parameters (mean ± SD)	**Total n=717**	**Non-COVID-19 sepsis n=303 (42.3%)**	**COVID-19 sepsis n=414 (57.5%)**	**p**
Peak heart rate (beat/min)	90.2±19.8	95±21.8	86.6±17.4	**<0.0001**
ABP_{sys} (mmHg)	118.6±17.5	116.2±22.4	119.9±14	**0.026**
ABP_{dias} (mmHg)	59±10.9	56.7±13.3	60.3±9.1	**<0.0001**
ABP_{mean} (mmHg)	78.1±11.6	75.5±14.9	79.6±9.1	**<0.0001**
Adrenalin+	20 (17.3)	30.5 (37.6)	14.2 (9.4)	**<0.0001***
Noradrenalin+	45 (49.3)	78.9 (63.5)	35.2 (43.5)	**<0.0001***
Dopamine+	1394.6 (1194.4)	2000 (2147)	1128.4 (738.6)	**<0.0001***
Dobutamine+	675 (1266)	1150 (3057)	375 (250)	**0.047***
Urine volume (cc/day)	1292.4 (1228.2)	1440 (1373)	1254.6 (1077)	**0.037***
APACHE II, admission+	22 (10)	22 (11)	22 (10)	0.449*
APACHE II, mortality+	42 (34)	42 (37)	42 (34)	0.448*
CRRT	199 (27.8)	40 (13.2)	159 (38.4)	**<0.0001**
ICU stay+(day)	9.9 (13)	9.7 (15.3)	10 (11.8)	**0.823***
Number of days on MV+	7.5 (11.1)	6.6 (11.8)	8.3 (10.3)	**0.018***
Number of days without MV+	1.2 (3.6)	1.7 (4)	1.1 (3.4)	**0.001***
Mortality, n (%)	299 (41.7)	130 (42.9)	169 (40.8)	0.592*

Table 3. SOFA and SOFA component scores evaluated at ICU admission and on the seventh day				
Parameters (mean ± SD)	**Total n=717**	**Non-COVID-19 sepsis n=303 (42.3%)**	**COVID-19 sepsis n=414 (57.5%)**	**p**
SOFA, admission	7.8±3.3	7.2±3.7	8.2±2.9	**<0.0001**
Respiratory (Horowitz)	2.7±0.9	2.7±0.9	2.7±1	0.995
Hepatic (bilirubin+)	0 (0)	0 (0)	0 (0)	0.509*
Hematologic (platelet+)	0 (0)	0 (1)	0 (0)	**<0.0001***
Neurologic (GCS+)	2.6±1.5	2.2±1.4	2.8±1.5	**<0.0001***
Renal	2 (3)	3 (3)	2 (3)	0.296
Cardiovascular+	0 (0)	0 (0)	0 (0)	**<0.001***
SOFA, day 7	8.4±4.5	7.8±3.7	8.9±4.9	**0.002**
Respiratory (Horowitz)	2.5±1.1	2.5±1.1	2.5±1.1	0.525
Hepatic (bilirubin+)	0 (1)	0 (1)	0 (1)	**0.024***
Hematologic (platelet+)	0 (1)	0 (1)	0 (1)	0.549*
Neurologic (GCS)	2.4±1.6	2.2±1.4	2.6±1.6	**0.005**
Renal+	1 (4)	1 (3)	1 (4)	**0.014***
Cardiovascular+	0 (0)	0 (0)	0 (2)	**<0.0001***

[OP-033]

Hemoadsorption Therapy for Earthquake Victims with Crush Injury

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Introduction: Recently, a huge earthquake struck south-eastern Turkey causing the death of tens of thousands of people. In this case report, we share our experience of usage of extracorporeal hemoadsorption filter in two patients with crush injury and acute kidney injury.

Case: A 59 year-old male patient was under rubble for 24 hours with his left leg trapped. The patient was transported to our hospital on the second day after the incident. At the admission, he had cardiac arrest with the rhythm of ventricular fibrillation. He was defibrillated two times and resuscitated for 30 minutes. Serum potassium, phosphorus levels were 8.5 mEq/L, 9 mg/dL respectively. Intravenous calcium,dextrose+insulin was given immediately and continuous renal replacement therapy was started. Initial creatine kinase (CK) level was 82000 U/L. He has undergone an urgent surgery for amputating his left leg which was necrotic. The day after his admission, extracorporeal hemoadsorption therapy (JAFRON-HA330) was started five hours a day for five consecutive days. CK levels gradually decreased to 60187-46852-16954-11600 U/L in daily order. Vasopressors were stopped on the third day of admission. A 32-year-old male patient had been extricated after 24 hours of entrapment. He had fifteen minutes of CPR following a cardiac arrest from hyperkalemia. Initial levels of CK, potassium, phosphorus were 72116 U/L, 6.5 mEq/L, 7.3 mg/dL respectively. CRRT with hemadsorption filter (Jafron® HA330) was started. CK levels gradually decreased to levels of 64271-35670-25441-12475-10469 U/L in daily order. He got free of vasopressors on the third day and extubated on the fourth day of admission.

Discussion: Crush injury is a hyperinflammatory state with circulating cytokines causing multisystemic organ dysfunctions. Hemoadsorption techniques may adsorb molecules which potentially play a role during pathogenesis of rhabdomyolysis.The use of hemoadsorption therapy in our patients with severe traumatic rhabdomyolysis was associated with a significant reduction in plasma concentrations CK so it is a potentially attractive adjunctive treatment for this condition.

Keywords: Hemoadsorption therapy, earthquake, crush injury, inflammation

[OP-034]

The Impact of Frailty on Non-invasive Mechanical Ventilation in Elderly Patients Follow-up in ICU

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Introduction: Frailty is an important factor affecting mortality and morbidity in intensive care unit. NIMV has important effects on survival, especially in hypercarbic respiratory failure. The aim of our study was to determine the effect of frailty on NIMV success and mortality.

Materials and Methods: Patients over 65 years of age who underwent NIMV for hypercarbic respiratory failure were included in our study. Clinical Frailty scale (CFS) and The Edmonton Frailty scale (EFS) were used and CFS ≥5 and EFS ≥8 were considered as fragile. NIMV success and ICU mortality were the results.

Results: With the mean age of 75±9 years, totaly 44 patiens included the study. Thirtynine patients (88%) diagnosed with COPD and 5 patients (11%) diagnosed with congestive heart failure. Twenty patients (45%) with CFS ≥5 and 19 patients (43%) with EFS found frailty. In our study 17 patients (39%) needed endotracheal intubation, means NIMV failure. In this prospective study 14 patients (32%) died. In all İntubated patients CFS and EFS were higher. Also CFS and EFS higher in patients died. SOFA score, age, and CRP to albumin ratio are higher in patients who have NIMV failure. Age and SOFA score were higher in patients died.

Conclusion: The frailty is associated with higher NIV failure and mortality in elderly ICU patients. The CFS and EFS frailty scores are useful predict NIMV success and prognosis hypercarbic respiratory failure in ICU.

Keywords: Frailty, NIMV, ICU, clinical frailty scale, edmonton frailty scale

[OP-035]

Vagus Nerve Stimulation in the Treatment of Refractory Epilepsy: A Patient with Lafora Disease

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Introduction: Lafora disease (LD) is a severe form of progressive epilepsy characterized by myoclonic seizures, cerebellar ataxia, progressive dementia and poor prognosis. In treatment-resistant epilepsies as LD, seizures are tried to be controlled with methods such as vagus nerve stimulation (VNS).

Case: Twenty-seven-year-old male patient was transferred from emergency department to intensive care unit intubated with status epilepticus and aspiration pneumonia. Our patient was receiving sodyum valproate, levetiracetam, clonazepam, lacosamide, topiramate as quintuple anti-epileptic treatment for LD and had VNS pacemaker. The patient was diagnosed with epilepsy at the age of 15 years with nocturnal myoclonic epileptic attacks. Axillary sweat gland biopsy was performed with pre-diagnosis of LD and result was negative. Two years after first epileptic attack, patient's school achievement declined. Sweat gland biopsy was repeated and pathognomonic Lafora inclusion bodies were observed. Genetic analysis revealed EPM2A and EPM2B gene mutation in 6th chromosome. There was no family history. The attacks couldn't be controlled with midazolam and were partially suppressed with propofol. However, epileptic attacks persisted in situations such as fever and bright light. Patient was followed up in isolation room with dim light to minimize environmental stimuli. In addition to anti-epileptic treatments, the epileptic attacks were well controlled after pacemaker recalibration and voltage was increased from 1.25 mA to 1.75 mA.

Discussion: VNS is surgical treatment alternative for refractory epilepsy and allows treatment revision according to progression of disease with voltage and frequency regulation. VNS aims to produce an anti-epileptic effect as a result of activation of amygdala and thalamocortical pathways by intermittent stimulation of left vagal nerve with pulse width of 130-500 microseconds, 30 Hz and 0.25-3.5 mA. Considering that VNS may be useful in treatment of refractory status epilepticus and more effective management may be achieved by modifying voltage, pulse width and frequency after administration to patient.

Keywords: Status epilepticus, lafora disease, vagus nerve stimulation

[OP-036]

A Rare and Life Threatening Intoxication with "ACE Inhibitor-Perindopril"

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Introduction: Cardiovascular drugs represent only 4% of all drug poisonings. The use of angiotensin-converter-enzyme inhibitors (ACEIs) in high doses results in hyperkalemia, acute renal failure, and severe hypotension. In this study, it was aimed to discuss in light of the literature a 34-year-old patient who took high doses Coversyl and Coveram tablets® for suicidal purposes. Since there are few reports in the literature regarding combined antihypertensive intoxication, it is important to report such cases.

Case: A 34-year-old female patient took 30 Coversyl tablets® (10 mg perindopril), 40 Coveram tablets® (10 mg perindopril arginine + 5 mg amlodipine) with suicidal intent, she presented to the emergency department with complaints of dizziness and weakness. The patient's general condition was moderate, conscious, oriented, and cooperative. Blood pressure was 40/30 mmHg, pulse rate was 158/min, and filiform, the temperature was 36.8 ˚C, respiratory examination was normal. Despite fluid resuscitation and dopamine infusion in the emergency department, her blood pressure was 50/30 mmHg and she was interned to the intensive care unit. Glucagon and lipid infusion therapy was initiated because he remained hypotensive for a long time despite high dose inotrope infusion. Creatinine increased and urine output decreased. Hemodiafiltration could not be performed due to persistence of deep hypotension and the patient was followed up with fluid resuscitation and furosemide infusion.

Discussion: Perindopril, is a prodrug with a half-life of 17 hours, with an effect on blood pressure seen 2-5 hours after ingestion. Hypotension and decreased glomerular filtration due to efferent arteriolar dilatation are the main causes of acute renal failure in ACEI intoxication. Fluid replacement and use of vasoactive agents are preferred in the treatment of hypotension and acute renal failure, and renal failure was treated with the same treatment in our case. Although there is no clear approach to treatment, It is important to present such cases.

Keywords: Perindopril, intoxication, ACEI, intensive care unit

[OP-037]

Our Successful Live Birth and ECMO Practice During ECMO Support Due to COVID-19 ARDS in Pregnancy

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Introduction: COVID-19 infection during pregnancy can have negative consequences for both mother and baby. There are not so many publications about VV-ECMO application and management in pregnant women who develop ARDS due to COVID-19 infection. In this case report, the first successful live birth with cesarean section (C/S) on ECMO-support for COVID-19 related ARDS in our country was shared.

Case: A 27-year-old, 30-weeks pregnant woman was followed up in an external center due to COVID-19 infection. She developed severe ARDS and on the first day of her intubation she was urgently brought to our hospital by our mobile ECMO team with femoro-jugular VV-ECMO support. The patient was followed up by the multidisciplinary ECMO team and infant perinatologists. Anticoagulation was achieved with bivalirudin during ECMO. Betamethasone was used for fetal lung maturation. On the 8th day of ECMO support, at 31+2 gestational weeks of pregnancy, bivalirudin infusion was stopped 30 minutes before the operation, and C/S surgery was performed under ECMO support. The baby was sent to the neonatal intensive care unit on spontaneous breathing. The patient was weaned from ECMO support after 30 days postpartum. As with all ECMO supported patients, the entire treatment of the patient was managed 24/7 by the multidisciplinary ECMO team, also using a closed social media platform. 1 week after ECMO decannulation the patient was weaned from the mechanical ventilator, and was sent to the ward with tracheostomy and oxygen support.

Discussion: Deciding the intubation time, decision and timing to apply ECMO, planning of delivery and anticoagulation, and ECMO management in pregnant patients with pneumonia and severe ARDS require a multidisciplinary approach and follow-up. Our approach to provide a chance for fetal maturation in selected patients is important because it can protect both the mother and the baby's life.

Keywords: ECMO, pregnancy

[OP-038]

Comparison of Thromboembolic Events in COVID-19 Patients in Intensive Care Unit

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Introduction: This article aims to measure the prevalance of venous thromboembolism, predict it with the data provided by clinical findings and test results of COVID-19 patients followed up in ICU, and determine the dose of anticoagulan agents.

Materials and Methods: Patients divided into two groups; n=53 who developed VTE, n=54 who did not develop thromboembolic events between April 1, 2020 and July 31, 2021. Patients who developed thromboembolism were divided into groups by imaging methods used for diagnosis of thromboembolic events (pulmonary embolism, deep vein thrombosis, and acute infarction). Wells score was measured based on patient epicrisis. D-dimer, fibrinogen, Interleukin-6, ferritin, platelet count, activated partial thromboplastin time (aPTT), lactate dehydrogenase, C-reactive protein, Troponin-I measures.

Results: Mean age of the individuals is 63.6±15.3. Of the patients, 20.6% had pulmonary embolism, 9.3% had DVT, and 19.6% had acute infarction. As a result of the statistical analysis, the mean age and mortality rate of patients who developed VTE are found to be higher. In addition, Of those who developed VTE; D-dimer levels at day 2, week 1, and troponin levels at week 1 and discharge are found to be considerably higher. And also fibrinogen levels at Admission, day 2, day 3, PLT levels at day 2, day 3, week 1, There was no difference between the groups in terms of length of stay in ICU and duration of mechanical ventilation.

Conclusion: It should always be considered that there may develop VTE in critically-ill COVID-19 patients following up in the ICU. It is widely known that COVID-19 causes a tendency to clot and the mortality of patients who develop thromboembolism is high. Despite this, since the patients are not stable, it can be challenging to diagnose thromboembolism with various imaging methods in ICU patients. For this reason, it is important to predict thromboembolism with clinical findings and blood test results.

Keywords: Anticoagulation, COVID-19, intensive care unit, venous thromboembolism

[OP-040]

Sepsis, ARDS, and MODS in the Curriculum of Turkish Medical Schools

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Introduction: Sepsis is the leading cause of mortality and morbidity. MODS is the most severe consequence of sepsis progression and is associated with a worse prognosis. Similarly, ARDS is a severe problem with a mortality rate of approximately 25-40%. The education of health professionals is critical in diagnosing and treating these diseases. This study aims to review the instruction given to medical school students and the related branches that provide education.

Materials and Methods: The list of medical schools in Turkey was obtained from https://tr.wikipedia.org/. The official websites of a total of 113 medical schools, 82 state universities, and 31 foundation universities were examined, and course topics, including Sepsis, ARDS, and MODS, were scanned in the curricula that are open to access. The branches that provide education in medical schools and the periods were examined regarding these subjects.

Results: The curriculum of 69 (61.1%) out of 113 medical faculties in Turkey was reached. In the curriculum of 64 (92.8%) medical schools had Sepsis, 40 (58.0%) had ARDS, and 12 (17.4%) had MODS. An average of 5.17±3.03 - course hours were allocated for Sepsis in medical schools, and an average of 1.03±1.20 for ARDS was earmarked for an average of 0.23±0.57 for MODS. Sepsis was included in the curriculum of 94.6% of state universities, while it was included in the curriculum of 84.6% of foundation universities. For ARDS, the situation was 64.3% vs. 30.8%, and for MODS was 14.3% vs. 30.8%.

Conclusion: Sepsis, ARDS, and MODS have an important place in medical education. In Turkey, approximately 6 hours are spent educating medical students on these subjects. Including Sepsis, ARDS, and MODS education could benefit medical students and patients. Thus, better results can be obtained regarding mortality, morbidity, and related health expenditures.

Keywords: Sepsis, ARDS, MODS, curriculum, medical school

[OP-041]

Comparison of Right and Left Pneumonectomy Early Postoperative Outcomes in the Intensive Care Unit

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Introduction: Previous studies have reported that right pneumonectomy is associated with worse perioperative mortality compared to left pneumonectomy. We aimed to compare the demographic characteristics, intensive care follow-up and in-hospital/30-day/90-day mortality rates of right and left pneumonectomy patients admitted to the intensive care unit (ICU) in the early postoperative period.

Materials and Methods: Medical records of all patients routinely admitted to ICU after pneumonectomy between January 7, 2010 and December 31, 2022 were retrospectively analyzed.

Results: During the study period, 79 out of 84 patients who underwent pneumonectomy were included. Seventy one patients (89.9%) were male and the mean age was 59.7±11.2 years old. All patients had ASA score 2 and above. Right pneumonectomy was performed in 33 patients (41.8%) and left pneumonectomy in 46 patients (58.2%). APACHE-II scores at ICU admission were significantly higher among right pneumonectomy patients when compared to those with left pneumonectomy (10.4±6.8 vs 7.3±4.2, p=0.024). All patients with right pneumonectomy had PaO_2/FiO_2 ratio <400 and invasive mechanical ventilation was required among 12% of them. In-hospital mortality (27.3% vs. 6.5%, p=0.023), 30-day mortality (21.2% vs. 4.3%, p=0.03), 90-day mortality (24.2% vs. 6.5%, p=0.045) were significantly higher in patients with right pneumonectomy when compared to those with left pneumonectomy. According to the logistic regression analysis; right pneumonectomy was determined as an independent risk factor for in-hospital/30-day/90-day mortality (OR: 5.375, 95% CI 1.327-21.771, p=0.018/OR: 5.923, 95% CI 1.144-30.674, p=0.03/OR: 4.587, 95% CI 1.114-18.891, p=0.04).

Conclusion: Early postoperative outcomes of right pneumonectomy patients admitted to ICU revealed higher APACHE-II scores, requirements for invasive mechanical ventilation when compared to left pneumonectomy patients. Right pneumonectomy was associated with higher mortality.

Keywords: Pneumonectomy, intensive care unit, in-hospital mortality, 30-day mortality, 90-day mortality

[OP-043]

A Rare Complication After Intravenous Immunoglobulin: Diffuse Alveolar Hemorrhage

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Introduction: DAH is a clinical condition that can lead to dyspnea, hemoptysis, anemia and alveolar consolidations and cause acute respiratory failure. DAH may occur due to immune and non-immune causes, it is rare to develop as a result of IVIG treatment. Herein, a case of DAH diagnosed as a result of IVIG treatment is presented.

Case: A 46-year-old male patient admitted to the emergency room with complaints of shortness of breath and cough was admitted to the intensive care unit after a positive covid test. The patient had a history of ischemic stroke and was taking acetyl salicylic acid and clopidogrel. On physical examination SpO_2: 80% and decreased breath sounds in bilateral lungs. Laboratory results showed WBC: 27 K/uL, HGB: 9 g/dL PLT: 107 K/uL, procalcitonin: 10 ug/L CRP: 175 mg/L. Thorax CT of the patient showed ground-glass density and fibrotic changes in the lower lobes of both lungs. The patient was started on piperacillin tazobactam 4x2.25 gr, moxifloxacin 1x400 mg, prednisolone 1x80 mg, enoxaparin IU/0.4 mL 1x1, pantoprazole 1x40 mg. Patient with HGB: 8 g/dL, PLT: 1 K/uL with extensive petechiae on the body by performing a peripheral blood smear hematology department was consulted and low platelets were attributed to sepsis. After 2 days of 80g IVIG, the patient's PLT value started to increase, but hemoptysis occurred. Continuous positive airway pressure was applied to the patient who had diffuse consolidation in both lungs compatible with DAH on thorax CT. The patient who did not have hemoptysis in the follow-up, whose consolidations decreased in PAAC and whose antibiotic treatment was completed was discharged with the recommendation of outpatient clinic control.

Discussion: IVIG is a plasma product widely used in the treatment of many autoimmune and systemic inflammatory diseases. However, serious side effects such as acute renal failure, myocardial infarction, stroke, deep vein thrombosis, pulmonary embolism, anaphylaxis and aseptic meningitis may occur. DAH, after IVIG has also been reported as a very rare complication.

Keywords: Alveolar hemorrhage, intravenous immunoglobulin, thrombocytopenia

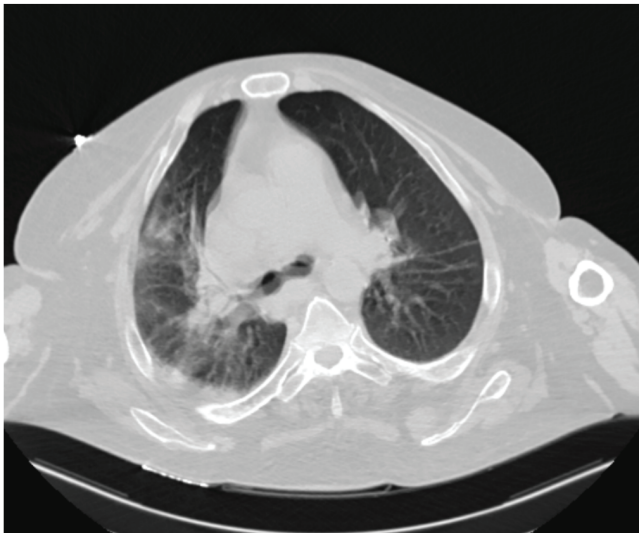

Figure 1. Patient's hospitalization thoracic CT

Figure 2. Thoracic CT scan after hemoptysis

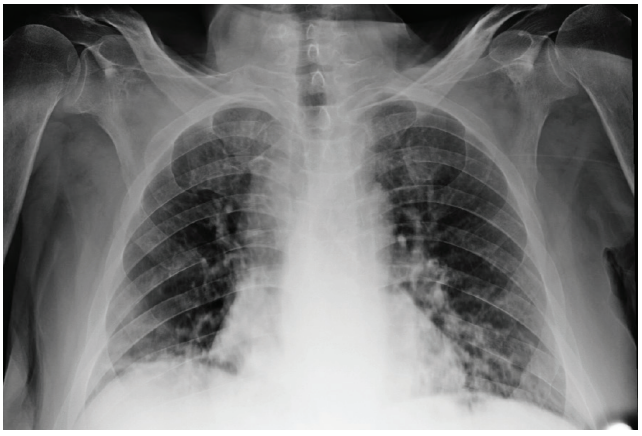

Figure 3. Chest radiograph taken when the patient was discharged

[OP-044]

Resistant Electrolyte Disorders Due to Extended Meropenem and Colistin Use After Intraabdominal Perforation; Looking to the Right Direction in Etiology!

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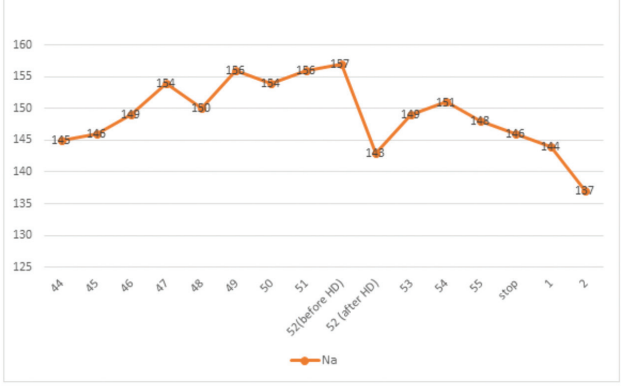
Introduction: Electrolyte imbalance may occur in long-term antibiotic use; especially with meropenem and colistin. Our case, which was followed up with complicated intra-abdominal infection and applied various treatments, is presented to guide our colleagues in clinical practice.

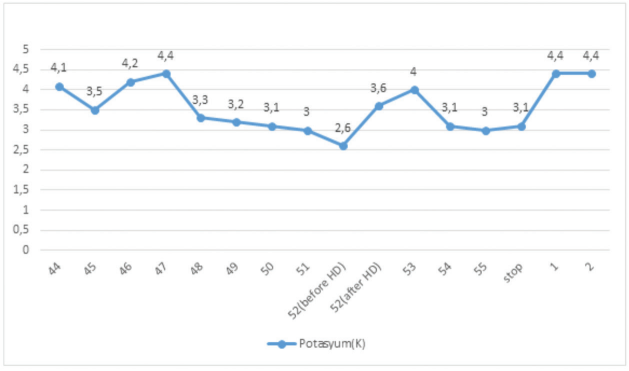
Case: An 18-year-old male patient with epilepsy, hypoxic brain admitted to our intensive care unit with status epilepticus. Although antiepileptic treatments were arranged, he was intubated due to his resistant seizures. After PEG was performed due to lack of secretion control and food aspiration history, persistant fever and hypotension occured,and free air in the abdomen was observed in the imaging. In diagnostic laparotomy transfers colon perforation detected and was repaired. Empirical antibiotic therapy was started in the case of intra-abdominal septic shock. Shock resuscitation and cytokine adsorption with oxiris colon were applied to the patient who received high-dose multiple inotropes. In tissue biopsy culture, *E. coli* and *P. aeruginosa* were grown. Meropenem 3x1 gr and colistin 2x150 mg were added to the vancomycin-fluconazole treatment. Respiratory support was switched to home mechanical ventilation. On the 45th day of meropenem-colistin, resistant hypokalemia, hypomagnesemia, metabolic alkalosis and hypernatremia developed despite appropriate fluid and electrolyte replacement. Corrected calcium was 14.5 mg/dL, immobility-related hypercalcemia was considered for primery diagnosis. Zometa was administered, and patient was taken to hemodialysis once. After dialysis, corrected calcium decreased from 14.2 mg/dL to 11.1 mg/dL, sodium decreased from 157 mEq/L to 143 mEq/L. However,it increased again in the follow-up. Considering it might be antibiotic related, meropenem-colistin was discontinued on the 56th day and polymyxin b was started. It was observed that all electrolytes quickly returned to normal values (Graphic 1-3). He was referred to the palliative service on the 110th day of his follow-up.

Discussion: Cases of hypokalemia,hypomagnesemia and metabolic alkalosis have been reported in prolonged use of colistin for more than 4 weeks, and also cases of meropenem-associated hypernatremia, hypokalemia and metabolic alkalosis have been reported in different publications like our case report. It should be kept in mind that such side effects may occur depending on the use of meropenem and colistin.

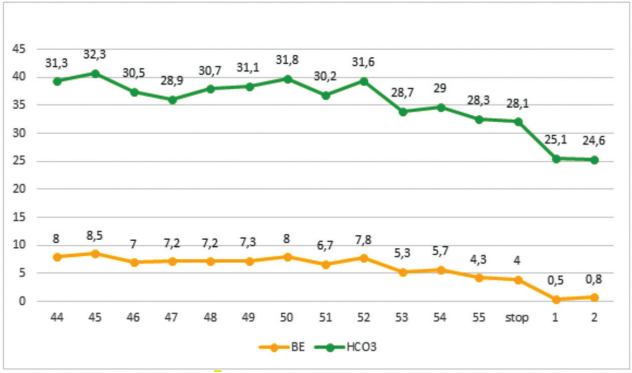
Keywords: Meropenem, colistin, hypernatremia, hypokalemia, metabolic alkalosis



Graphic 1. Sodium course during meropenem and colistin therapy



Graphic 2. Potassium course during meropenem and colistin therapy



Graphic 3. BE and HCO3 course during meropenem and colistin therapy

[OP-045]

Joubert Syndrome: Differential Diagnosis of Hyperpnea

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Introduction: Joubert syndrome is an autosomal recessive disease characterized by episodes of hypotonia, ataxia, and episodic hyperpnea. The disease can be diagnosed by evaluating the clinical and radiological findings together. Clinically, abnormal eye movements, nystagmus, hyperpnea-apnea episodes, and mental-motor retardation are observed. Radiologically, the leading central nervous system anomalies are the cerebellum vermis, brain stem hypoplasia, and "molar tooth sign" detected in brain radiology.

Case: A 70-year-old male patient with known diagnoses of COPD, diabetes mellitus, hypertension, and chronic kidney failure is brought to the emergency department due to a change in respiratory pattern. He is admitted to the intensive care unit due to respiratory distress with a diagnosis of subsegmental pulmonary embolism and pneumonia. After extubation was attempted twice after treatment, but the patient was tachypneic and whose respiratory pattern changed. He was investigated in terms of central pathologies. According to the anamnesis taken from the patient's relatives, the patient with motor-mental developmental delay had balance (ataxia) and vision problems at later ages. The samples were applied to the medical genetics department for examination for the diagnosis of Joubert syndrome. In the neurological examination, see-saw nystagmus was observed in the eye, and no pathology was observed in the eye, cardiac, and abdominorenal system examinations. The clinical correlation was provided when the brain MR images showed a molar tooth image (Figure 1) and cerebellum dysplasia in the brain. Patient guardian consent was obtained for the case report.

Discussion: Joubert syndrome should be considered in the differential diagnosis with clinical correlation in patients with episodic hyperpnea attacks and weaning difficulties. The diagnosis of the disease can be made by evaluating the clinical and radiological findings together and genetic studies.

Keywords: Joubert syndrome, hyperpnea attacks, molar tooth

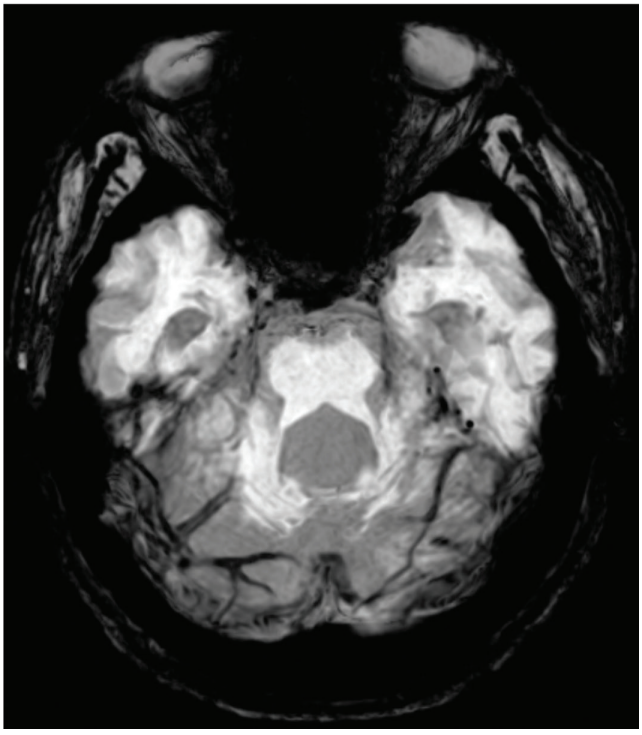

Figure 1. Molar tooth sign

[OP-046]

Possible Toxicity of Sea Buckthorn Extract: Multiple Organ Dysfunction Syndrome in ICU

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Introduction: Herbal supplements for health and disease treatment are growing worldwide. Due to its industrial market share, its popularity is rising. Sea buckthorn (Chondrus crispus), a Rhophycea supplement, is an edible seaweed. It is also used for respiratory diseases such as asthma, bronchitis, and chronic obstructive pulmonary disease.

Materials and Methods: A 60-year-old male patient with ischemic heart disease and COPD was admitted to the intensive care unit and diagnosed with multiorgan dysfunction syndrome (MODS) due to respiratory discomfort, worsening overall health, elevated liver function tests and transaminases (ALT: 1738, AST: 2949, T. bil: 1,8, INR: 2.9), impaired renal function (urea: 157, creatinine: 3.13, GFR: 20), metabolic acidosis.

Results: He had taken lots of sea buckthorn extract for three months to help with his respiratory problems, in addition to his prescription medications. Tachypnea and abdominal breathing were dominating the examination. The abdomen was stiff and sensitive, with hypoactive abdominal sounds. The capillary refill time was prolonged, and there was grade 4 mottling around the knee. Acute phase reactants were low, and no fever was seen. The ECG and echocardiography revealed no signs of ischemia. Reasons such as infection, acute coronary syndrome were excluded. The perihepatic fluid collection was identified by abdominal CT, and surgical pathology was ruled out.The gastroenterological assessment was considered for ischemic and toxic hepatitis. The patient died on the second day of his admission.

Conclusion: Seaweeds are available as food supplements for alternative medicine. These seaweeds contain vital components such as calcium, phosphorus, zinc, and toxic metals. This group's C. crispus contains hazardous components, including lead, cadmium, aluminum, silicon, sulfur, and bismuth. We don't know how much of the harmful part was taken or what effect it had on health without a full study of these compounds. Food supplements, which are commonly advertised as herbal food supplements, natural innocent foods, can be abused by users and result in major health concerns.

Keywords: Herbal extract, sea buckthorn, multiple organ dysfunction syndrome, supplement toxicity

[OP-047]

Bacteremia and Pneumoniae Caused by *(Kocuria Kristinae)*: A Rare Case

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Introduction: Kocuria species are among the standard flora elements of the skin and mucous membrane in humans and are generally not pathogenic. This case report presents the first case of pneumonia and bacteremia due to *Kocuria kristinae* in Turkey.

Case: A 72-year-old BMI: 42.9 kg m^2 obese female patient with COPD, heart failure, and hyperthyroidism complained of respiratory failure, fever, and cough that continued for several days. She had blurred consciousness, subfebrile fever, and bilateral crepitant rales in her physical examination. The patient whose thorax CT was compatible with pneumonia was admitted to the extubated ICU (Figure 1). Empirical meropenem and amikacin treatment was started in patients whose cultures were taken. Vasopressor support was started, and the patient was intubated. *Kocuria kristinae* was isolated in both blood cultures on the third day of intubation. Tigecycline treatment was started because she was resistant to meropenem and sensitive to tigecycline in the culture antibiogram. On the fifth day of her intubation, the patient was relieved of breathing, extubated, and then discharged to the inpatient service.

Discussion: In the literature, catheter-related peritonitis, urinary system infections, infective endocarditis, meningitis, brain abscess, and rarely pneumonia have been reported in patients with chronic disease and immunocompromised. In our case, there is a history of COPD, heart failure, hyperthyroidism, morbid obesity, and tracheostomy as risk factors. As far as we can reach in the literature, there are two cases of pneumonia caused by *Kocuria kristinae* and *Kocuria rosea*. Although it may be difficult to distinguish by manual methods due to their similarity to coagulase-negative *staphylococci*, more frequency is defined and reported with the automated systems used today. It should be remembered that although it is generally sensitive to antibiotics, it cannot respond to empirical treatment. It is crucial to regulate the treatment according to the culture antibiogram result.

Keywords: *Kocuria kristinae*, pneumonia, bacteremia, intensive care unit

Figure 1. Thorax CT
In Thorax CT, cardiomegaly, more prominent bilateral upper lobe bronchiectasis increases in the right hemithorax, pleural effusion in both lung bases, adjacent bronchopneumonia infiltrates, and atelectasis

[OP-048]

Comparison of Patients with Psychiatric Disorders in the COVID-19 Pandemic with the Normal Population in Terms of Intensive Care Treatment Process and Mortality

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Introduction: Chronic diseases are diseases that affect the quality of life of the person for three months or longer and are an important factor in deaths in the COVID-19 pandemic. The data obtained suggested that the disease is more common and more mortal in individuals with chronic diseases. Among the risk factors are advanced age, male gender, chronic diseases such as diabetes (DM), chronic obstructive pulmonary disease (COPD), hypertension (HT), coronary artery disease (CAD). Studies evaluating patients with psychiatric diagnoses as potential risk factors for COVID-19 are limited.

Materials and Methods: The study was conducted between 10.05.2021 and 10.11.2021, in the adult anesthesia intensive care unit of a pandemic hospital, with 20 cases [20% (n=4) female and 60% (n=16) male] in total. Patients were evaluated in two groups as psychiatry-normal population. Ethics committee approval decision numbered (2021-07-26) was taken from Bakırköy Dr. Sadi Konuk Training and Research Hospital Ethics Committee.

Results: In our study, there was no increase in mortality in psychiatric disorders in COVID-19 patients. According to APACHE, the expected mortality in psychiatric patients was 30.5%, the actual mortality was 30%, while the expected mortality in the normal population was 14%, the actual mortality was calculated as 50%. Again, although it was not statistically significant in psychiatric patients, the number of days on which they were connected to the ventilator and the number of days of hospitalization in the intensive care unit were calculated to be low. In our study, there was no statistically significant difference in lymphocyte, D-dimer, Fibrinogen, CRP, Ferritin, Procalcitonin values, horowit ratio, PO_2 and PCO_2 values between the groups.

Conclusion: The high mortality rate of psychiatric patients was reported by Bell in 1849, and it was observed that sudden death rates were higher than the general population. In 2009, Amy Kilbourne et al. They observed that patients with mental disorders had a higher rate of heart disease and the age of death was 25 years earlier than the normal population. In our study, we observed that psychiatric comorbidities did not increase mortality negatively, unlike other chronic diseases, but due to the limited number of cases, more studies are needed on this subject.

Keywords: COVID-19, psychiatric illness, intensive care

Table 1. Comparison of the patients admission to and exit from the intensive care unit by groups

		Psychiatry n (%)	Normal population n (%)	p
Arrival type	**Urgent**	2 (20.0)	2 (20.0)	[c]**1.000**
	Service	5 (50.0)	6 (60.0)	
	External dispatch	3 (30.0)	2 (20.0)	
Output form	**Death**	3 (30.0)	5 (50.0)	[c]**0.478**
	Service	6 (60.0)	3 (30.0)	
	Enthusiasm	1 (10.0)	2 (20.0)	

cFisher Freeman Halton test

Table 2. Comparison of descriptive characteristics

		Psychiatry	Normal population	p
APACHE II score	Mean ± SD	19.40±10.70	13.20±7.81	[b]**0.225**
	Median (Min-Max)	18.50 (5-37)	12 (3-28)	
Expected mortality rate	Mean ± SD	38.08±28.43	21.76±19.18	[b]**0.272**
	Median (Min-Max)	30.50 (6-86)	14.75 (4-66)	
The day stayed in intensive care	Mean ± SD	12.20±8.91	17.90±11.52	[b]**0.306**
	Median (Min-Max)	10 (1-31)	16 (4-36)	
The day connected to the ventilator	Mean ± SD	7.70±8.02	14.70±11.87	[b]**0.148**
	Median (Min-Max)	7 (0-23)	13 (0-35)	
The day not connected to the ventilator	Mean ± SD	4.50±2.87	3.20±2.44	[b]**0.286**
	Median (Min-Max)	5 (0-9)	3.50 (0-7)	

[b]Mann-Whitney U test

Table 3. Comparison of descriptive characteristics			
	Psychiatry	**Normal population**	
Need for prone	40% (n=4)	100% (n=10)	0.011*
Vasoactive drug use	20% (n=2)	80% (n=8)	0.023*

Table 4. Comparison of descriptive characteristics				
		Psychiatry n (%)	**Normal population n (%)**	**p**
Lymphocyte	Mean ± SD	2.85±6.38	0.80±0.29	[b]0.853
	Medyan (Min-Max) 0.83 (0.4-1.18)	0.7 (0.47-21)	0.83 (0.4-1.18)	
D-dimer	Mean ± SD	3.73±7.19	1.51±1.89	[b]0.315
	Median (Min-Max)	1.11 (0.48-24)	0.59 (0.21-5.90)	
Fibrinogen	Mean ± SD	578±137.2	620±141.9	[b]0.739
	Median (Min-Max)	559 (405-766)	647 (139-868)	
CRP	Mean ± SD	118.4±71.2	170±75	[b]0.190
	Median (Min-Max)	112.5 (21-230)	208.5 (44-274)	
Ferritin	Mean ± SD	718±486.4	901.1±447.4	[b]0.315
	Median (Min-Max)	786.5 (67-1335)	847.5 (179-1428)	
Procalcitonin	Mean ± SD	0.92±1.68	1.15±1.44	[b]0.796
	Median (Min-Max)	0.30 (0.08-5.60)	0.67 (0.07-4.70)	
Horowit (PO_2/Fio_2)	Mean ± SD	191±139.3	122±28.98	[b]0.063
	Median (Min-Max)	135 (110-540)	110 (100-170)	
PO_2	Mean ± SD	76.8±42.74	55.7± 11.35	[b]0.684
	Median (Min-Max)	56 (43-162)	53 (47-87)	
PCO_2	Mean ± SD	46±22.76	35.2±6.8	[b]0.579
	Median (Min-Max)	37 (27-85)	36.5 (25-46)	
[b]Mann-Whitney U test				

[OP-049]

Retrospective Analysis of Elderly Patients Admitted to the Intensive Care Unit: A Single Center Experience

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Introduction: As in the whole world, the elderly population is increasing in Turkey and more geriatric patients are hospitalized in intensive care units (ICUs). ICUs are places where expensive treatments are made and resources must be used well. There are not enough studies in Turkey on the ICU hospitalization rates and treatment outcomes of elderly patients, whose comorbidities added and life expectancy rate decreases with age. In this study, we aimed to investigate the demographic and clinical characteristics of elderly patients admitted to the ICU.

Materials and Methods: The medical records of the elderly patients (≥65 years old) in the ICU (July -December 2022) were retrospectively reviewed. Medical records were analyzed for age, gender, comorbidities, APACHE II scores, and outcomes.The patients were compared by dividing them into 2 groups as survived and nonsurvived.

Results: A total of 843 patients were admitted to ICU during the study period, 40% (n=339) of the patients were ≥65 years old, 7.2% (n=61) were ≥85 years old. A total of 188 patients (55.5%) required invasive mechanical ventilation (IMV), 172 patients (50.7%) received at least one vasoactive drug, and 36 patients (10.6%) required hemodialysis. The mortality rate was 41.6%. The requirament for inotropic support, hemodialysis, and IMV were significantly higher in the nonsurvived group (p=0.000 for all). The mean ICU length of stay was 14.5 days (range 1-129). Data for survived and non-survived groups are summarized in Table 1.

Conclusion: High APACHE-II score, the requirement for inotropic support, hemodialysis, and IMV were found to be significantly higher in the nonsurvived group. When the response to maximal treatment isnot sufficient and survival chances with satisfactory conditions are almost non-existent, should the decision of therapeutic limitation be applied frequently? In order to answer this question, we think that more studies are needed about these topics in Turkey. These patients, who poor response to advanced treatment options, seem to have a substantial effect on ICU capacity.

Keywords: Elderly patients, mortality, intensive care unit

Table 1. Patient characteristics and outcomes				
Patient characteristics	**ICU survivors (n=**	**ICU nonsurvivors (n=**	**All patients (n=339)**	**p-value**
Age (years)	75.7±7.8	77.7±7.5	76.6±7.7	0.012*
Gender Male	108 (54.5%)	73 (51.8%)	181 (53.4%)	0.659
APACHE II	15.9±6.9	24.5±7.5	19.5±8.8	0.000*
Referring unit				0.001*
Emergency	64 (32.3%)	48 (34%)	112 (33%)	
Wards	67 (33.8%)	36 (25.5%)	103 (30.4%)	
Other ICU	20 (10.1%)	30 (21.3%)	50 (14.7%)	
Other hospital	5 (2.5%)	15 (10.6%)	20 (5.9%)	
Admission diagnosis				0.003*
Sepsis	10 (5.1%)	16 (11.3%)	26 (7.7%)	
Respiratory disease	42 (21.2%)	45 (31.9%)	87 (25.7%)	
Post surgery	76 (38.4%)	27 (19.1%)	103 (30.4%)	
Heart disease	11 (5.6%)	10 (7.1%)	21 (6.2%)	
Stroke	30 (15.2%)	12 (8.5)	42 (12.4%)	
Cerbral hemorrhage	5 (2.5%)	6 (4.3%)	11 (3.2%)	
Post cardiac arrest	5 (2.5%)	11 (7.8%)	16 (4.7%)	
Trauma	5 (2.5%)	11 (7.8%)	16 (4.7%)	
Acute kidney injury	5 (2.5%)	5 (3.5%)	10 (2.9%)	
Other medical disease	10 (5.1%)	6 (4.3%)	13 (3.6%)	
Comorbidities	124 (62.6%)	82 (58.2%)	206 (60.8%)	0.431
Hypertension	73 (36.9%)	50 (35.5%)	123 (36.3%)	0.819
DM	58 (29.3%)	39 (27.7%)	97 (28.6%)	0.808
Heart failure	24 (12.1%)	20 (14.2%)	44 (13%)	0.624
Neurologic disease	52 (26.3%)	28 (19.9%)	80 (23.6%)	0.195
Malignancy	17 (8.6%)	27 (19.1%)	44 (13%)	0.005*
Chronic kidney disease				
Respiratory disease	41 (20.7)	23 (16.3%)	64 (18.9%)	0.328
Treatment				
Invasive mechanical ventilation	49	139	188 (55.5%)	0.000
Inotropic support	39	133	172 (50.7%)	0.000
Hemodialysis	10	26	36 (10.6%)	0.000
Length of stay (days)	10.9±18.3	19.6±24.1	14.5±21.3	0.000*
APACHE: Acute physiology and chronic health evaluation, ICU: Intensive care unit, IMV: Invasive mechanical ventilation, DM: Diabetes mellitus				

[OP-050]

Diagnosis and Management of a Poisoning Case After Aluminum Phosphide Exposure

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Introduction: The phosphine gas, which is released by the contact of aluminum phosphide with moisture, with the pathophysiology of toxicity is not fully understood. Since there is no specific antidote, the treatment is symptomatic.

Case: Forty-three-year-old patient was referred to our hospital intubated after aluminum phosphide inhalation from the emergency department of the external center. It was discovered in his history that powdered aluminum phosphide was found in the vehicle he drove. He was intubated during the intensive care unit follow-up due to the increasing severity of his unconsciousness. He was admitted to the anesthesia and reanimation intensive care unit 13 hours after his exposure. On physical examination, GCS was 3, bilateral pupils were mid-dilated and light reflex was minimal. Vital signs; BP under norepinephrine and dopamine infusions 63/42 mmHg, HR 42/min, SpO_2 90% were measured. Treatment was started to the patient with metabolic acidosis (pH: 6.8, pO_2: 104 mmHg, pCO_2: 32.9 mmHg, HCO3-: 6.1, BE: -26.7, lactate: 19.2 mmol/L). Ventricular fibrillation developed and defibrillated after 15 minutes of his hospitalization, and then cardiopulmonary resuscitation was started after cardiac arrest. Hemodialysis could not be performed because hemodynamic stabilization could not be achieved. After 3 hours of his hospitalization the patient was considered as exitus.

Discussion: Mohan et al. and Hassanian-Moghaddam et al. applied in their case series ECMO to patients poisoned with highly toxic aluminum phosphide, which is used as a pesticide. Survival of patients who underwent ECMO was found to be higher. We deduced that ECMO treatment should be considered in addition to symptomatic treatment, hemodialysis, or continuous renal replacement therapy to prevent mortality due to metabolic acidosis, dysrhythmia, pulmonary edema, and cardiovascular shock. There are cases treated with CRRT in the early period for hemodynamically unstable patients in the absence of ECMO.

Keywords: Aluminum, phosphide, poisoning, treatment, ECMO

[OP-051]

Efficiency of Plasmapheresis in COVID-19 Patients with Hyperinflamation

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Introduction: COVID-19 causes sitokin induced acute respiratory distress syndrome (ARDS) and multiple organ dysfunction. For reducing burden of cytokines, abnormal coagulation agents and the virus in blood, plasmapheresis have been performed as a therapotic method of severe COVID-19. We aimed to evaluate the efficacy of therapeutic plasmapheresis at COVID-19 cases with hyperinflamation in ICU.

Materials and Methods: Respiratory, inflamatory and prognostic markers of 29 COVID-19 patients who had been treated with plasmapheresis were evaluated retrospectively and analyzed statistically. Critirea of COVID-19 associated hyperinflammatory syndrome such as hyperferritinaemia, neutrophil to lymphocyte ratio, lactate dehydrogenase or asparate aminotransferase, D-dimer, C-reactive protein, fibrinogen, platelet count and progression in oxygenation such GOCA score, PaO_2/FiO_2, PaO_2, SpO_2 were evalueted at admission, before and after plasmaspheres.

Results: Increase in PaO_2, SpO_2 ($p<0.05$) and clinical improvement in the oxygenation was observed while the GOCA score increased and the worst PaO_2/FiO_2 ratio decreased after plasmapheresis ($p<0.05$). Increased leukocyte count,neutrophil lymphocyte ratio, D-dimer after plasmapheresis compared to admission and before plasmapheresis ($p<0.05$) were recorded in terms of worsening disease progression. Statistically significant decrease in ferritin ($p<0.05$) and clinically significant decrease of CRP, AST and LDH ($p>0.05$) after plasmapheresis as improving prognostic results in terms of reducing hyperinflammation.

Conclusion: In the lights of our results that were consistent with the literature it should be considered that plasmapheresis improves oxygenation and alleviating the hyperinflammation, while there was not statistically and clinically significant improving effect on disease progression.

Keywords: Oxygenation, hyperinflammation, plasmapheresis

[OP-052]

Inhaler-associated Transient Anisocoria in Two Patients Treated in the Intensive Care Unit: Case Report

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Introduction: Anisocoria may develop due to physiological, pharmacological or neurological pathology. Neurological reasons which lead to pathological anisocoria are cases regarding sympathetic or parasympathetic innervation. In this article, we aimed to present a case of pharmacological anisocoria which is developed as a result of inhaler therapy containing ipratropium.

Cases: Case 1; a 95 years old female patient. She was admitted to the hospital with dyspnea and general condition disorder. The patient was treated with bronchodilator containing ipratropium bromide, and on the sixth day of hospitalization, the left eye was mydriatic and there was no light reflex. There were direct and indirect light reflexes in the right eye, and the pupil diameter was normal. Case 2; a 68 years old male patient. He applied to the emergency department with confusion and general condition disorder. The patient was transferred to our intensive care unit with the diagnosis of upper gastrointestinal system bleeding. On the 11th day of his hospitalization, the patient was started on an inhaler containing ipratropium bromide, and 3 days later anisocoria was

detected. His right eye was mydriatic. There was no light reflex. Cranial imaging was normal in both patients. The treatments of the patients whose history was uncharacteristic and no cause was found to explain anisocoria were compared. It was determined that nebulizer treatment containing ipratropium was applied to both patients. In the test with 1% pilocarpine solution for the differential diagnosis of pharmacological mydriasis, minimal pupil constriction was observed in the affected eye for both patients. After discontinuation of inhaler therapy; after 4 days in case 1 and after 3 days in case 2, the pupils were isochoric and light reflexes were normal.

Discussion: In the differential diagnosis of anisocoria developing during intensive care follow-up, iatrogenic pharmacological side effects originating from the inhaler should be kept in mind as well as intracranial pathologies. The easy-to-perform pilocarpine test can prevent advanced diagnostic procedures and increased costs.

Keywords: Anisocoria, inhaler, ipratropium, mydriasis

[OP-053]

A Rare Malposition of Femoral Central Venous Catheter: Catheter Inserted in the External Iliac Vein

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Introduction: Femoral central catheters (CVC) are used for many purposes in intensive care. In this case, it is aimed to present the femoral CVC inserted in the iliac vein as a central catheter malposition.

Case: A 36-year-old male patient has been followed up with a mechanical ventilator in intensive care unit with the diagnosis of hypoxic encephalopathy as a result of his out-of-hospital arrest due to coronavirus disease-2019 pneumonia. During this follow-up, the patient who developed abdominal distension had abdominal computed tomography (CT) without a contrast agent due to the symptoms of acute kidney failure. It was reported that the tip of the CVC in the left femoral vein is not in the inferior vena cava and might be outside of the vascular lumen. When the CVC of the patient was examined, it was learned that it was placed in the left femoral region the day before. It was placed in the left femoral region because the CVC in the right femoral region was infected. After the CT evaluation, the patient's catheter was not used (Figure 1). An opaque agent was given through the patient's catheter, and it was observed that the catheter was in the lumen of the vessel, but was located in the external iliac vein (Figure 2) instead of the vena cava inferior, under the guidance of fluoroscopy. The catheter was removed without any complications.

Discussion: Catheters placed in the femoral region follow a more straight route compared to subclavian and jugular regions. For this reason, CVC malposition is less common in the femoral region. Our patient had a rare CVC malposition and was diagnosed incidentally. Because femoral catheter malpositions are diagnosed late, they can lead to fatal complications such as abdominal compartment syndrome. This case report seeks to draw attention to femoral catheter malpositions and their potentially devastating consequences.

Keywords: Malposition, complication, iliac vein, femoral vein catheter,

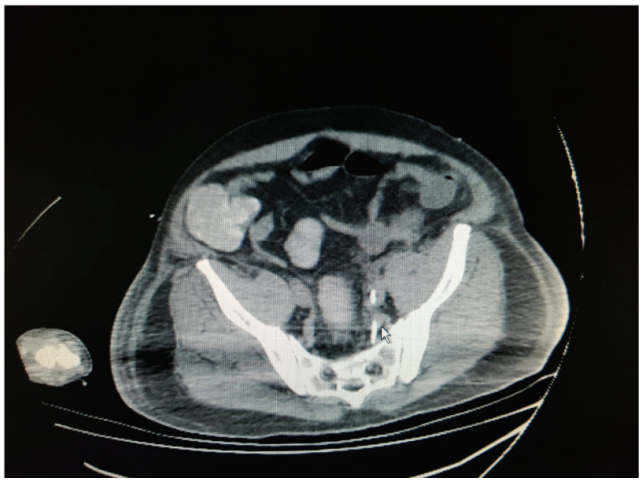

Figure 1. Transverse section of CT. The catheter tip returning from the external iliac vein to the entrance of the internal iliac vein

Figure 2. Sagittal section of CT

[OP-054]

An Alternative Method for the Treatment of Resistant Hypercapnia in ARDS: Respiratory Hemodialysis

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Introduction: Acute respiratory distress syndrome (ARDS) is a disease can cause high mortality and morbidity. Lung protective ventilation strategies, deep sedation, neuromuscular blocking, recruitment maneuvers and prone position are used in its standard therapy. Patients with persistent respiratory acidosis and hypoxemia, extracorporeal methods can be used as a rescue therapy. Extracorporeal CO_2 removal ($ECCO_2R$) system is a less invasive method in isolated blood CO_2 elevations, because it is integrated into renal replacement therapy (RRT). In this study, we aimed to present two cases with resistant hypercapnia treated with the $ECCO_2R$ filter.

Case: First case was a 23-year-old male developed sepsis and ARDS after flame burn and second one was a 64-year-old male, had pneumonia and severe ARDS after ileus operation. Although the routine ARDS protocol, they both had a high carbondioxide level in blood gases. $ECCO_2R$ (Prismaflex PrismaLung + - Baxter), cytokine (Prismaflex oXiris-Baxter) and carbon (Prismaflex Hp & Adsorba Charcoal Cartridges-Baxter) filters were used at first and $ECCO_2R$ and cytokine filters were added to RRT device at the second. PH and PCO_2 values in blood gas were 6.9/107 mmHg at the first and 7.05/88 mmHg at the second, respectively. Despite the $ECCO_2R$, the acidosis of the first patient gradually increased (respiratory and metabolic), he died the next day due to septic shock via widespread blood stream infection. Second show a significant decrease in PCO_2 level (56 mmHg) and increase in pH value (7.21) also a decrease in the oxygen demand and vasopressor drug doses and a significant increase in pO_2, sPO_2, blood pressure values were observed in the patient. After 24 hours, pH was 7.36, pCO_2 43 mmHg and pO_2 140 mmHg. His blood gas values were normal during the follow-up with $ECCO_2R$, but he also died due to severe pneumonia and septic shock.

Discussion: When lung protective ventilation strategies and rescue maneuvers fail, initiation of respiratory hemodialysis ($ECCO_2R$) at an early stage by making a profit and loss calculation in ARDS patient with severe respiratory acidosis.

Keywords: ARDS, hypercapnia, respiratory acidosis, $ECCO_2R$, respiratory hemodialysis

Figure 1. $ECCO_2R$ device

[OP-055]

How Innocent? Polymixin B Nephrotoxicity and Predicttors in the Intensive Care Unit

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Introduction: Polymyxin group antibiotics were synthesized many years ago and have been used against infections caused by Gram (-) bacteria. This group of antibiotics, whose clinical use is gradually decreasing due to their side effects. While only colistin, one of the polymyxin group antibiotics, was available in our country until 2020, today polymyxin b is also available. In our study, we aimed to investigate the frequency of nephrotoxicity caused by polymyxin B and the factors that facilitate it.

Materials and Methods: Our study was conducted by retrospectively, evaluating the patients hospitalized in our intensive care units since the beginning of 2022.

Results: Demographic and clinical information of the patients are given in Table 1. Different degrees of renal damage developed in 35%. The median age of the Nt group was 72 (17) and non-NT group was 52 (46) (p=0.008), BMI was found 25.5 (4) in the Nt group and 23.14 (3) in the non-NT group (p<0.001). We also found that the duration of use of polymyxin B was higher in the NT group 14 (13) versus 8 (7) (p=0.006). Other values are given in Table 2.

Conclusion: In different studies, nephrotoxicity related to the use of polymyxin-B was found in a wide range of 4% to 60%. The rate of nephrotoxicity (35%) found in our study is similar to other studies. In previous studies, many factors such as total polymyxin dose, use of loading dose, hypoalbuminemia, age, initial creatinine elevation, and use of additional nephrotoxic agents were found as predictors of nephrotoxicity. We found advanced age, BMI and duration of polymyxin use as independent risk factors. As a result, we think that renal functions should be closely monitored and required interventions should be made quickly during the use of polymyxin B.

Keywords: Polymyxins, nephrotoxicity, acute kidney injury

Table 1. Demographic data and first day laboratory data

	NT var	NT yok	P Value
Gender[c] Female[b] Male[b]	 8 (%38,1) 13 (%61,9)	 18 (%46,2) 21 (%53,8)	0,548
Height*,[d] Weight*,[d] BMI*,[d] (kg/m^2)	165 (11,5) 75 (10) 25,5 (4)	165 (10) 65 (11) 23,14 (3)	0,241 <0,001 <0,001
APACHE*,[d]	14 (17)	21 (16)	0,055
Age*,[f]	72 (17)	52 (46)	0,008
Urea*,[d] (mg/dl)	109 (68)	58 (72)	0,024
Creatinine*,[a,d] (mg/dl)	1,3 (0,8)	0,6 (0,9)	0,006
GFR*,[a,d]	57,23 (39,82)	139,23 (168,62)	0,01
Procalsitonin*,[a ,d] (mg/dl)	1,3 (8,15)	2,5 (3,5)	0,914
AST*,[a,d] (U/L)	24 (28)	30 (41)	0,510
ALT*,[a,d] (U/L)	21 (21,5)	29 (65)	0,750
Albumin*,[a,d] (g/L)	2,2 (0,45)	2,4 (0,9)	0,944
Haemoglobin*,[a,d] (g/dl)	8,8 (2,8)	8,7 (2,3)	0,954
Lactat*,[a,d] (mmol/L)	2,2 (1,35)	1,8 (1,2)	0,184

*a first day, b number and %, * median [interquartile range], c chi square test, d Mann-Whitney U test, f Student's t-test, AST: Aspartate aminotransferase, ALT: Alanine aminotransferase, GFR: glomeruler filltrasyon rate*

Table 2. Nephrotoxicity predictors

	Nt var	Nt yok	
KDİGO Stage 1 Stage 2 Stage 3	21 (%35) 12 (%57,1) 6 (%28,6) 3 (%14,3)	39 (%65)	
Source of infection pulmonary cerabrovascular genitourinary intra-abdominal	 18 (%85,7) - - 3 (%14,3)	 27 (%69,2) 2 (%5,1) 3 (%7,7) 7 (%17,9)	0,3489
Pathogens Carbapenem-resistant *Klebsiella pneumoniae* Carbapenem-resistant *Pseudomonas aeruginosa* Carbapenem-resistant Acinetobacter baumani	 6 (%28,6) 3 (%14,3) 12 (%57,1)	 12 (%30,8) 9 (%23,1) 18 (%46,2)	0,644
Reason for hospitalization Norological disease pneumoni sepsis Cardiovascular disease	 - 17 (%81) 4 (%19) -	 1 (%2,6) 27 (%69,2) 9 (%23,1) 2 (%5,1)	0,578
Concomitant diseases COPD Cardiovascular disease Diabetes mellitus Cerebrovascular disease	 8 7 (42,9) 9 (4,8) 1 (4,8)	 13 17 (15,4) 12 2	0,375
Concomitant nefrotoxins Carbapenem Aminoglicoside Amphoterisin b Vancomicin Tigeciklin NSAİİ ACE Norepinefrin	 12 5 1 1 3 1 2 7 (%33,3)	 26 5 - 3 9 1 4 19 (48,7)	0,920 0,251
Concomitant nefrotoxins One nephrotoxic drug Receipt of ≥2 nephrotoxic drugs	 11 (%61,9) 10 (%28,6)	 20 (%43,6) 19 (%52,8)	0,935
Concomitant diseases One Concomitant diseases Receipt of ≥2 Concomitant diseases	 8 12	 24 9	<0,011
intensive care stay	15 (17)	18 (8)	0,294
Polymyxin-B day of use	14 (13)	8 (7)	0,006

Table 3. Multivariable logistic regression analysis

	beta	wald	p	Odds ratio	Odds ratio 95 % safety margin
BMİ	-,254	3.955	**,047**	,776	,604-,996
Age	-,054	3,955	**,047**	,947	,898-,999
Concomitant disease		2,993	,224		
Concomitant disease (only one)	,533	,131	,717	1,704	,095-30,565
Concomitant disease (≥ 2)	1,476	2,959	,085	4,375	,814-23,507
creatinin	,155	,089	,766	1,167	,421-3,236
GFR	,012	1,604	,205	1,012	,994-1,031
Polimiksin-b treatment duration	-,169	4,934	**,026**	,845	,728-,980

[OP-056]

Chronic Inflammation, Immunosuppression, and Catabolism Syndrome in COVID-19

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Introduction: Multi-organ failure (MOF) is a disease group that necessitates intensive care monitoring and has a high mortality rate. If these patients are not lost due to early MOF, either the patient rapidly returns to immunological homeostasis or the immunological dysfunction persists, resulting in chronic critical illness (CCI). A proportion of these patients suffer from CCI that is characterized by persistent inflammation, immunosuppression, and catabolism; this condition is known as persistent inflammation, immunosuppression, and catabolism syndrome (PICS). The purpose of this article is to evaluate PICS cases in our ICU and examine the pathophysiological alterations of hypercatabolism and their effects on persistent inflammation and immunosuppression in PICS.

Materials and Methods: This is a retrospective, observational study involving 190 patients diagnosed with acute respiratory distress syndrome (ARDS) due to SARS-CoV-2 and followed up in the intensive care unit (ICU). The patients were evaluated in terms of PICS using the number of days of stay in the ICU, CRP, albumin, prealbumin, lymphocytes, and body mass index data.

Results: Albumin, prealbumin, D-dimer, ferritin, white blood cells, hemoglobin, lymphocytes, immature granulocytes, and BMI were significantly different on the 21st day compared to the day of hospital admission ($p<0.000$). Again, the difference between CRP ($p=0.002$) and thrombocyte ($p=0.038$) between these two groups was found to be statistically significant. Upon evaluating 28-day mortality, it was determined that 120 (63.8%) patients died and 132 (69.5%) patients died within 90 days.

Conclusion: Having more information about PICS may result in improved management of this process, the determination of new treatment modalities, a reduction of complications, a shorter length of hospital stay, and a reduction in mortality. Therefore, new treatment methods and research are required.

Keywords: PICS, inflammation, immunosuppression, catabolism

[OP-057]

Readmission to ICU After Lung Resection: A Retrospective Cohort Study

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Introduction: We aimed to evaluate demographic features, causes, and outcomes of patients readmitted to ICU after lung resection and to compare the characteristics of survivors and non-survivors during the early postoperative period.

Materials and Methods: Major lung resection (pneumonectomy, lobectomy and segmentectomy) was performed in 467 patients between January 2010 and December 2022. We analyzed the medical records of 33 patients (7.1%) who required ICU readmission.

Results: Our cohort included 30 males (90.9%) with a mean age of 64.1±13.6 years. Patients were classified as survivors (n=22, 66.7%) and non-survivors (n=11, 33.3%). The most common reason for ICU readmission was respiratory problems (n=22, 66.7%). The mean APACHE-II

and SOFA scores at ICU admission were higher and GCS scores were lower among non-survivors when compared to survivors (17.0±9.0 vs. 10.1±3.6 p=0.012, 6.4±4.4 vs. 1.9±1.5 p=0.001, 11.7±4.1 vs. 14.9±0.5 p=0.001, respectively). All non-survivors had a PaO_2/FiO_2 ratio <400. Ten non-survivors (90.9%) and 8 survivors (36.4%) were diagnosed with ARDS. The number of patients requiring mechanical ventilation was higher among non-survivors when compared to survivors (90.9% vs. 18.2%, p<0.001). The incidence of shock, acute kidney injury and need for ECMO were higher among non-survivors when compared to survivors (81.8% vs. 9.1%, p<0001, 36.4% vs. 0.0%, p=0.007, 36.4% vs. 0.0%, p=0.008, respectively). According to logistic regression analysis; transfusion of more packed red blood cells (PRBCs), low prognostic nutrition index (PNI), high lactate levels were associated with ICU mortality (OR: 0.084, 95% CI 0.11-0.624, p=0.016, OR: 1.151, 95% CI 1.012- 1.308, p=0.032, OR: 0.498, 95% CI 0.263-0.941, p=0.032).

Conclusion: The incidence of ICU readmission after lung resection was 7.1%. The most common pulmonary complication was ARDS. Transfusion of more PRBCs, low PNI, high lactate levels were determined as independent risk factors for ICU mortality.

Keywords: Lung resection, intensive care unit, ICU readmission, mortality

[OP-058]

Hospital Acquired Anemia and in-hospital Mortality in Intensive Care Patients with ARDS

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Introduction: Hospital-acquired anemia (HAA) is common, especially in the most intensive care patients (ICP). Several literature series suggest that patients who develop HAA have increased mortality and morbidity compared with those who do not. The cause of HAA is likely multifactorial; iatrogenic blood loss,impaired erythropoiesis, bleeding episodes all can lead to HAA in ICP. Little research has focused on HAA, which develops during ICU admission of ARDS patients. The objective of this study was to investigate the incidence HAA, as well as its relationship with mortality, in COVID-19 associated ARDS patients admitted to ICU.

Materials and Methods: We retrospectively analyzed all adult COVID-19 ARDS patients admitted to our ICU between January 2020 and December 2021 (n=1,007). Patients with missing data (n=7) or who have a length of ICU stay of less than 24 hours (n=10) were excluded. In addition, patients with chronic anemia at admission (n=445) were also excluded, because main focus of the study was development of HAA. Anemia is defined as a hemoglobin (Hgb) value <12 g/dL in women and <13 g/dL in men by WHO. HAA was defined as a nadir Hgb value during the course of ICU stay meeting WHO criteria. We further grouped Hgb by degree into mild anemia (Hgb >11 and <12 g/dL in women, >11 and<13 g/dL in men), moderate anemia (Hgb >9 and ≤11 g/dL) and severe anemia (Hgb ≤9 g/dL). COVID-19 ARDS is diagnosed when the patient with confirmed COVID-19 infection meets the Berlin 2012 ARDS diagnostic criteria. Baseline patient characteristics, admission Hgb and lactate levels, lengths of ICU stay and in-hospital mortality of patients who developed HAA were compared with those who did not develop HAA. We further stratified the patients based on the severity of HAA.

Results: HAA developed in 373 (68.4%) patients. Characteristics and mortality rates of patients with and without HAA are presents in Table 1. Table 2 shows the data of the patients by presence and severity of HAA.

Conclusion: Development of HAA is common and associated with higher in-hospital mortality. Patients who developed severe HAA has the highest mortality rates (73.1%). Hospitals must raise awareness of HAA.

Keywords: Hospital acquired anemia, ARDS, COVID, intensive care, critical care

Table 1. Characteristics of ARDS patients with and without hospital-acquired anemia

	No HAA (n=172)	Yes HAA (n=373)	Total (n=545)	p
Age (years)	65.2±13.6 (67; 25-93)	69.1±12.5 (71; 20-94)	67.9±13.0 (70.0; 20-94)	**0.001**
Gender (F)	51 (29.7)	141 (37.8)	192 (35.2)	0.064
Comorbidities				
DM	49 (28.5)	147 (39.4)	196 (36.0)	**0.011**
HT	83 (48.3)	222 (59.5)	305 (56.0)	**0.014**
CAD	43 (25.0)	93 (24.9)	136 (25.0)	0.987
CHF	7 (4.1)	18 (4.8)	25 (4.6)	0.687
Arrhytmia	8 (4.7)	18 (4.8)	26 (4.8)	0.929
Respiratory diseases	31 (18.0)	52 (13.9)	83 (15.2)	0.218
Renal diseases	7 (4.1)	22 (5.9)	29 (5.3)	0.347
Neurologic diseases	13 (7.6)	70 (18.8)	83 (15.2)	**0.001**
Malignancy	20 (5.4)	7 (4.1)	27 (5.0)	0.499

Table 1. Continued				
	No HAA (n=172)	**Yes HAA (n=373)**	**Total (n=545)**	**p**
Rheumatological diseases	5 (1.3)	4 (2.3)	9 (1.7)	0.448
Thyroid diseases	22 (5.9)	9 (5.2)	31 (5.7)	0.751
Others	21 (5.6)	13 (7.6)	34 (6.2)	0.412
Hgb Adm	14.8±1.3 (14.6; 12.6-20.6)	13.8±1.1 (13.6; 11.3-17.7)	14.1±1.3 (13.9; 11.3-20.6)	**0.000**
Length of ICU stay	7.7±5.8 (6.0; 1-34)	15.0±14.4 (11.0; 1-151)	12.7±12.8 (10; 1-151)	**0.000**
Requirement of MV	208 (55.8)	71 (41.3)	279 (51.2)	**0.002**
Requirement of inotropic agents	160 (42.9)	54 (31.4)	214 (39.3)	**0.011**
Requirement of HDF	55 (14.7)	16 (9.3)	71 (13.0)	0.080
MV days	11.5±15.0 (7.5; 1-135)	2.9±2.7 (2; 1-12)	9.3±13.6 (6.0; 1-135)	**0.000**
Mortality	70 (40.7)	191 (51.2)	261 (47.9)	**0.022**
Lactate admission	2.3±1.0 (2.6; 0.8-7.7)	2.3±1.4 (1.9; 0.2-14.6)	2.3±1.3 (2.0; 0.2-14.6)	0.557
APACHE II	19.3±11.5 (15; 4-42)	20.0±12.1 (19; 3-43)	20.4±11.9 (15.0; 3-43)	0.128
Transfusion	1 (0.6)	46 (12.3)	47 (8.6)	**0.000**

HAA: Hospital acquired anemia; HT: Hypertension; DM: Diabetes mellitus; CAD: Coronary artery disease; CHF: Chronic heart failure; Hgb: Hemoglobin; MV: Mechanical ventilation; HDF: Hemodiafiltration

Table 2. Characteristics of ARDS patients by severity of hospital-acquired anemia						
	No HAA (n=172)	**Mild HAA (n=168)**	**Moderate HAA (n=127)**	**Severe HAA (n=78)**	**Total (n=545)**	**P (KW)**
Age (years)	65.2±15.6 (67; 25-93)	66.1±11.7 (66.5; 20-93)	70.3±13.0 (73; 28-94)	73.7±11.9 (75.5; 36-94)	67.9±13.0 (70.0; 20-94)	**0.000**
Gender (F)	51 (29.7)	42 (25.0)	63 (49.6)	36 (46.2)	192 (35.2)	**0.000**
Comorbidities						
DM	49 (28.5)	69 (41.1)	48 (37.8)	30 (38.5)	196 (36.0)	0.091
HT	83 (48.3)	98 (58.3)	80 (63.0)	44 (56.4)	305 (56.0)	0.069
CAD	43 (25.0)	52 (31.0)	25 (19.7)	16 (20.5)	136 (25.0)	0.115
CHF	7 (4.1)	6 (3.6)	6 (4.7)	6 (7.7)	25 (4.6)	0.527
Arrhytmia	8 (4.7)	13 (7.7)	2 (1.6)	3 (3.8)	26 (4.8)	0.099
Respiratory diseases	31 (18.0)	25 (14.9)	15 (11.8)	12 (15.4)	83 (15.2)	0.531
Renal diseases	7 (4.1)	8 (4.8)	9 (7.1)	5 (6.4)	29 (5.3)	0.658
Neurologic diseases	13 (7.6)	15 (8.9)	27 (21.3)	28 (35.9)	83 (15.2)	**0.000**
Malignancy	7 (4.1)	7 (4.2)	8 (6.3)	5 (6.4)	27 (5.0)	0.718
Rheumatologic diseases	4 (2.3)	1 (0.6)	3 (2.4)	1 (1.3)	9 (1.7)	0.553
Thyroid diseases	9 (5.2)	1 (6.5)	6 (4.7)	5 (6.4)	31 (5.7)	0.898
Others	13 (7.6)	7 (4.2)	10 (7.9)	4 (5.1)	34 (6.2)	0.477
Hgb Adm	14.8±1.3 (14.6; 12.5-20.6)	14.0±1.0 (13.8; 12.0-16.7)	13.6±1.2 (13.4; 11.3-17.7)	13.7±1.2 (13.4; 12.0-16.6)	14,1±1.3 (13.9; 11.3-20.6)	**0.000**
Length of ICU stay	7.7±5.8 (6.0; 1-34)	10.3±9.5 (9.0; 1-105)	15.2±15.6 (12.0; 2-151)	24.7±16.1 (21.0; 2-95)	12.7±12.8 (10; 1-151)	**0.000**
MV days	2.9±2.7 (2.0; 1-12)	5.6±6.8 (5.0; 1-54)	11.6±19.2 (7.0; 1-135)	18.1±14.4 (16.0; 1-80)	9.3±13.6 (6.0; 1-135)	**0.000**
Requirement of MV	71 (41.3)	75 (44.6)	68 (53.5)	65 (83.3)	279 (51.2)	**0.000**

Table 2. Continued

	No HAA (n=172)	Mild HAA (n=168)	Moderate HAA (n=127)	Severe HAA (n=78)	Total (n=545)	*P (KW)*
Requirement of inotropic agents	54 (31.4)	58 (34.5)	49 (38.6)	53 (67.9)	214 (39.3)	**0.000**
Requirement of HDF	16 (9.3)	15 (8.9)	16 (12.6)	24 (30.8)	71 (13.0)	**0.000**
Mortality	70 (40.7)	70 (41.7)	64 (50.4)	57 (73.1)	261 (47.9)	**0.000**
Lactate admission	2.3±1.0 (2.2; 0.8-7.7)	2.3±1.6 (1.9; 0.2-14.6)	2.1±0.9 (1.8; 0.7-6.1)	2.5±1.4 (2.2; 0.5-10.4)	2.3±1.3 (2.0; 0.2-14.6)	**0.011**
APACHE II	19.3±11.5 (15; 4-42)	18.7±11.9 (13.0; 3-43)	20.9±12.4 (16.0; 3-42)	25.9±10.8 (30.0; 3-40)	20.4±11.9 (15.0; 3-43)	**0.000**
Transfusion	1 (0.6)	1 (0.6)	2 (1.6)	43 (55.1)	47 (8.6)	**0.000**

HAA: Hospital acquired anemia; HT: Hypertension; DM: Diabetes mellitus; CAD: Coronary artery disease; CHF: Chronic heart failure; Hgb: Hemoglobin; MV: Mechanical ventilation; HDF: Hemodiafiltration

[OP-059]

Importance of Cardiac Ultrasonography on Diagnosing Pulmonary Embolism When Computed Tomography is Infeasible

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Introduction: Pulmonary embolism (PE) causes various symptoms including sudden onset of dyspnea, tachypnea, chest pain, cough, hemoptysis due to clot occlusion of pulmonary arteries. The gold standard for diagnosing PE is computed tomography-pulmonary angiography (CT-PA). In this case report, our aim is to show that the treatment of patients can be managed by diagnosing PE by bedside cardiac and lung ultrasonography (USG) for patients with infeasible CT scans.

Case: A 74-year-old man with chronic obstructive pulmonary disease, hypertension and heart failure was hospitalized in intensive care unit (ICU) on 13th day of hospitalization in ward with acute respiratory failure, tachypnea, hypoxia (SpO_2: 83%, P/F: 100). As hypoxia progressed and the patient became hemodynamically unstable, patient was intubated and norepinephrine (0.6 mcg/kg/min) was administered. Because the patient did not show clinical improvement under mechanical ventilation, new scans were performed. Posteroanterior-chest-X-ray and lung-USG scans did not explain hypoxia. Cardiac-USG showed normal left ventricular function and marked right ventricular enlargement. Hence, PE was considered in the patient. CT could not be performed due to unavailability of scanners in the annex building of our hospital and the patient could not be transferred because he was unstable. Thrombolytic therapy was planned because patient had tachypnea, hypoxia, significant right heart failure and did not respond to current treatments. Alteplase (ACTILYSE®) was administered at a dose of 0.9 mg/kg in 15 minutes and the remaining dose was administered as 2-hour intravenous infusion, completing the total dose to 100 mg. After thrombolytic therapy, the patient's P/F value was found 250 and norepinephrine requirement decreased (0.1 mcg/kg/min).

Discussion: CT scan cannot be performed in patients hospitalized in ICU for various reasons including hemodynamic instability. Bedside-USG, which allows quick assessment of lung-heart function, is widely used in critical care practice. Bedside-USG allows diagnosis and treatment of patients in shorter durations while avoiding risks of patient transfer.

Keywords: Pulmonary embolism, cardiac ultrasonography, POCUS, lung ultrasonography, thrombolytic therapy

Figure 1. Posteroanterior chest X-ray

Figure 2. Cardiac ultrasonography

[OP-060]

Near Complete Esophageal Obstruction Due to Gastric Bezoar and Its Treatment

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Introduction: We wanted to present a case with a history of aspiration, who had undergone gastrointestinal surgery, who was fed enterally, who developed almost complete esophageal obstruction due to food residues, and a solution.

Case: A 77-year-old female patient, who had undergone total gastrectomy in the oncology service and was followed up for metastatic gastric cancer, peritonitis carcinomatosis, hashimoto thyroiditis and bilateral pleural effusion, was admitted to our intensive care unit with the complaint of acute respiratory failure after food aspiration. Her treatment was arranged with intubated and MV support. A 14-F NG feeding tube was inserted and its location was confirmed by CXR. Enteral nutrition was started on the 3rd day of her hospitalization and the target osmolality rate of 2,000 kcal/day was reached. The drugs given through the NG tube during her stay in the intensive care unit were ivadrabine and levothyroxine. NG feeding tube was changed twice due to obstruction until the 15th day of ICU admission. At day 15, many attempts, including the videolaryngoscope and magill forceps, failed to insert the NG feeding tube. For this reason, the gastroenterology team was called and bedside endoscopy was performed to document the obstruction that started at the upper level (Figure 1). It was washed by giving acidic drink through the endoscope, it was seen that the obstruction was opened (Figure 2), the NG insertion site was confirmed under the supervision of endoscopy (Figure 3). Enteral nutrition was continued to be given to the patient whose passage opening was ensured.

Discussion: We think that the bedside gastroscopy procedure should be kept in mind in similar situations since the lower level of the hypopharynx could not be visualized technically, although the patient was imaged with videolaryngoscopy because it is an uncommon complication.

Keywords: Enteral nutrition, food impact, gastroscopy

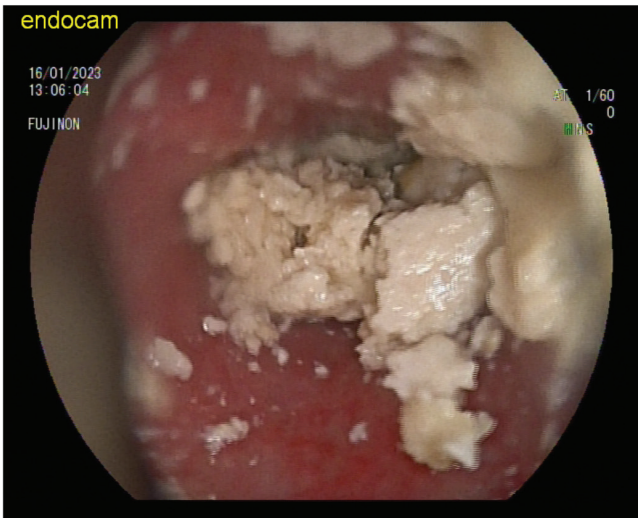

Figure 1. Gastroscopy images during intervention to obstruction

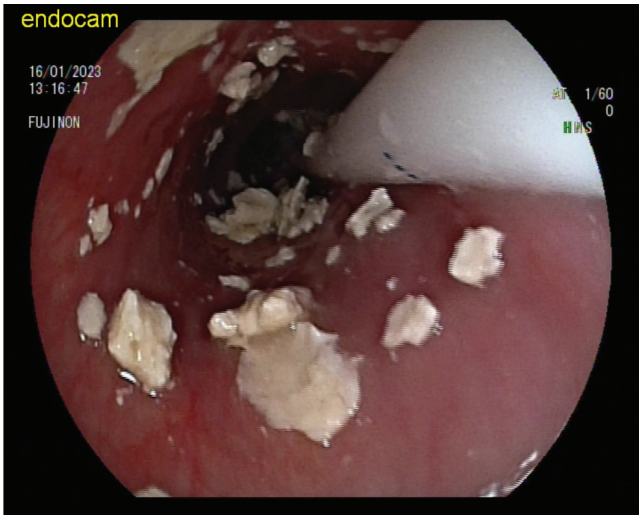

Figure 2. Gastroscopy images during intervention to obstruction

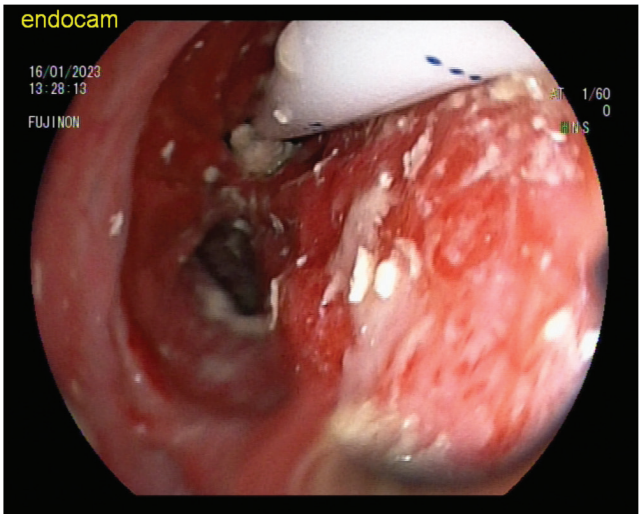

Figure 3. Gastroscopy images during intervention to obstruction

[OP-061]

A Difficult Clinic in Epilepsy Patients: Psychogenic Non-epileptic Seizure

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Introduction: Aicardi-Goutieres Syndrome (AGS) was first described in 1984 as congenital progressive encephalopathy. Epilepsy is seen in 25-50% of these cases. It is known that 20% of patients with refractory epilepsy have psychogenic non-epileptic seizures (PNES) but real epileptic seizures can be seen in PNES cases. Here, we report a patient with AGS syndrome who had refractory epileptic seizures accompanied by PNES.

Case: A 24-year-old male patient was admitted to the emergency department because of seizures. He was evaluated as status epilepticus and treatment was started. He was admitted to our intensive care unit because his seizures couldn't be controlled. The patient's neurologic examination was normal except for nystagmus. His seizure continued for 10-15 minutes despite the treatment. During the seizure, the patient had tremor in the arms and legs with increasing and decreasing amplitude and frequency, opistotonus posture, transient pause in breathing not accompanied by cyanosis and resistance to eye opening. There was no tongue biting or foaming at the mouth. He had no postictal confusion. It was learned that he was diagnosed with epilepsy due to learning disability and seizures in childhood and treatment was initiated, *IFIH1* gene mutation was detected and AGS type-7 was diagnosed. Despite antiepileptic treatment, it was learned that the frequency of seizures increased in the last 3-4 years, seizures recurred 4-5 times in the same day, he was intubated many times due to his seizures. Ictal EEG examinations didn't show synchronous epileptiform activity with seizures, PNES was accepted by a consensus of psychiatry, neurology, intensive care physicians.

Discussion: Seizure simulation can be seen in epilepsy patients for secondary gain. 10.7% of PNES patients have epileptic seizures. It is known that these patients use many antiepileptic drugs, these drugs cause serious side effects and high financial burden. Additionally, these patients are exposed to aggressive interventions such as intubation thinking status epilepticus. For these reasons, differential diagnosis of PNES and epileptic seizure should be made in early period.

Keywords: Epilepsy, psychogenic non-epileptic seizure, Aicardi-goutieres syndrome

[OP-062]

Treatment of Tracheal Stenosis Developing in the Postintubation Period with Bronchoscopy

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Introduction: Postintubation tracheal stenosis (PETS) is an important preventable complication is frequently observed with the increase indications requiring intubation, increase in awareness PETS may occur after intubations. Causes of PETS are iatrogenic trauma associated with intubatio, tracheostomy. Risk factors for PETS are damage to the cartilage ring, adjacent tissue, high-opened tracheostomy site, high cuff pressure, prolonged intubation, frequent aspiration-related irritation during emergency procedures to trachea. These factors first cause damage to the mucosa over cartilage ring of trachea, ischemic necrosis. This pathological condition then progresses to granulation tissue and fibrosis with the involvement of deeper tissues, resulting in thickening of the submucosal and mucosal layer and stenosis in the tracheal lumen.

Cases: Case 1: A 26-year-old female patient was discharged after being intubated for 28 days in the İCU due to epidural hemorrhage. Stenosis was detected 1.5 cm below the vocal cord. Tracheal dilatation was performed with rigid bronchoscope and silicone tracheal stent was placed in the stenotic region. Case 2: 46-year-old female patient. He was discharged after being intubated for 20 days in İCU due to AMI. He was admitted to clinic due to the development of dyspnea and stridor after extubation. Membranous stricture with a 3 mm opening in the middle of trachea was observed. The tracheal lumen was expanded by applying dilatation. A silicone stent was placed in the stricture area.

Discussion: In conclusion, tracheal stenosis is frequent complication in İCU patients receiving mechanical ventilation therapy, may cause acute respiratory distress. Tracheal injuries due to intubation and the pressure of the cuff of the tracheostomy tube are rare but potentially fatal complications. Indications for surgery in stenosis are given according to the degree of respiratory dysfunction. Tracheal stenosis is a pathology that should be kept in mind in asthma-like symptoms every patient who is intubated and has tracheostomy.

Keywords: Intensive care unit, tracheal stenosis, intubation, bronchoscopy

[OP-063]

Nociception Level Index in Intensive Care: A Valid Tool for Pain Monitoring or not? Evaluation of Postoperative Cases for Primary Review

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Introduction: Pain may mislead clinicians in judgment about the severity of the underlying condition through exaggeration or under-recognition within the intensive care unit (ICU) setting during the evaluation and treatment of critical illness. Therefore a physiologic pain observation tool is necessary to discriminate pain when accepted assessment tools (e.g numeric rating scale, critical care observation pain tool) are not suitable. The nociception level index (NOL), a technology based on physiological variables, is promising to be a valid tool for this purpose. This case series evaluates the practicality of an NOL-based analgesia protocol in the ICU setting and explores its impact on total analgesic use.

Case: Ten patients were admitted to ICU for 24-hour neurological follow-up after the neurosurgical operation was monitored with NOL in addition to standard monitorization tools. All patients were at spontaneous ventilation and able to express their pain without sedation or cognitive dysfunction. Analgesia was planned as paracetamol 4x1 gr and 100 mg tramadol as rescue analgesia. Ward nurses had been informed about the analgesia protocol instead of routine tramadol 4x1, and rescue analgesia was applied only in conditions that the patient demanded; critical care observation pain tool (CPOT) >2; numeric rating scale (NRS) >4 and NOL >25 for more than 1 minute. Tramadol was required at most once in all patients, and NOL values were found to be compatible with pain scores, especially with NRS (Table 1).

Discussion: The use of NOL monitoring in the ICU may be a valid tool for pain due to its compatibility with other subjective and objective assessment tools. Potential adverse effects such as excessive sedation or seizure triggers will be avoided due to less narcotic use. As it was a new technology based on multiple physiologic parameters, NOL could also be useful for more complicated critical illness scenarios.

Keywords: Pain, nociception level index, numeric rating scale, critical care observation pain tool

Table 1. Datas of cases										
	Case 1	**Case 2**	**Case 3**	**Case 4**	**Case 5**	**Case 6**	**Case 7**	**Case 8**	**Case 9**	**Case 10**
Age (year)/ Gender (Male/Female)	38/F	24/F	38/F	66/F	40/M	69/M	61/M	74/M	65/M	37/M
Surgery	Duroplasty	Craniotomy	Craniotomy	Craniotomy	Craniotomy	Craniotomy	Vertebroplasty	Vertebroplasty	Vertebroplasty	Vertebroplasty
Comorbidity	DM*epilepsy	Asthma	Asthma, DM*epilepsy	HT**	None	HT**	COPD***	HT**	Asthma	None
CPOT (0^{th}, 6^{th}, 12^{th}, 24^{th})	2, 0, 1, 0	0, 2, 1, 1	1, 0, 1, 1	0, 0, 0, 0	0, 0, 0, 0	0, 1, 0, 3	2, 2, 1, 0	0, 0, 0, 0	0, 0, 0, 2	0, 0, 0, 0
NRS (0^{th}, 6^{th}, 12^{th}, 24^{th})	3, 2, 2, 1	2, 4, 2, 2	4, 3, 6, 4	3, 3, 2, 4	3, 3, 2, 3	2, 2, 2, 7	2, 4, 6, 2	3, 3, 2, 3	2, 2, 2, 6	3, 3, 3, 2
NOL (0^{th}, 6^{th}, 12^{th}, 24^{th})	15, 5, 5, 10	18, 32, 15, 18	20, 18, 49, 22	20, 21, 15, 23	15, 14, 12, 23	12, 20, 18, 33	3, 25, 29, 7	24, 18, 20, 12	3, 2, 3, 28	24, 20, 14, 8
Total Analgesia need (times)	0	1	1	0	0	1	1	0	1	0
*Diabetes mellitus, **Hypertension, ***Chronic obstructive pulmonary disease										

[OP-064]

Antiphospholipid Antibody Syndrome Characterized with Intrauterine Dead Fetus, Thrombocytopenia, and Ichemic Cerebrovascular Disease

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Introduction: Catastrophic antiphospholipid syndrome is a severe clinical condition characterized by the persistent presence of antiphospholipid antibodies and acute thrombosis in multiple organs. In this article, a 25-week pregnant 31 years old patient who was followed up in the intensive care unit, who was admitted to the clinic with acute stroke, is presented.

Case: A 25-week pregnant 31 years old patient who was followed up in the intensive care unit, who was admitted to the clinic with acute stroke, is presented. Considering APS, HUS and TTP in the preliminary diagnosis of the patient, 500 mg methylprednisolone treatment and concomitant plasmapheresis treatment was started. After the 4^{th} session of plasmapheresis, when the platelet count was 49,000 cells/mL, TEG was planned for the early initiation of the patient's antiaggregant and anticoagulant treatments. Platelet functions were evaluated as normal. After that, after the completion of the plasmapheresis treatment, the patient was given IVIG treatment for 5 days. LMWH 0.4 mL/10 kg was started. After the 12^{th} day of intensive care hospitalization, the patient was transferred to the service.

Discussion: Our patient is a case who met the diagnostic criteria for APS with documented cerebral arterial thrombosis, pregnancy morbidity, thrombocytopenia, anticardiolipin antibody and anti-ß2-microglobulin antibody positivity, and benefited from plasmapheresis, IVIG and steroid treatment. We also applied corticosteroid, plasmapheresis and IVIG treatment to our patient and we were successful. In addition, in order to start anticoagulant therapy in the early period, we evaluated the functions of our patient with a TEG when the platelet count was low. We think that concomitant administration of corticosteroid, plasmapheresis and IVIG treatments is beneficial in this clinical situation with high mortality. In addition, we would like to emphasize that in the presence of thrombocytopenia in these patients, considering the risk of thrombosis, platelet functions should be evaluated and anticoagulant therapy should not be delayed.

Keywords: Lupus, antiphospholipid syndrome, concomitant administration, platelet functions, stroke

Table 1.	
Joints	**Arthralgia**
Skin	Malar rash, subacute cutaneous lupus, discoid lupus erythematosus
Kidney	Lupus nephritis
Lung	Interstitial pneumonitis, interstitial fibrosis, pulmonary vasculitis, pulmonary hypertension, pulmonary hemorrhage, pleural effusion, pulmonary embolism
Hearth	Libman-sacks endocarditis, coronary heart diseases, hypertension
Brain	Organic brain syndrome, delirium, headaches, peripheral neuropathy, personality changes, convulsions, movement disorders, myelitis, meningitis, cranial nerve involvement, cerebrovascular disease
Eyes	Scleritis, episcleritis, uveitis, retinal vasculitis
Bone marrow	Cytopenias (anemia, leukopenia, thrombocytopenia)
SLE and systemic involvements	

Table 2.	
Body temperature	**36.8 degree**
Hearth rate	45/min
Arterial blood pressure	180-100 mmHg
$Sp0_2$	70%
Respiratory rate	20/min
ANA	Granular (++)
c-ANCA/p-ANCA	Negative/Negative
Anti-cardiyolipin IGG	Negative
Anti-cardiyolipin IGM	Negative
ß2-mikroglobülin	2.78 mg/L
c3	0.87 (0.9-1.8)
c4	0.136 (0.1-0.4)
Lupus anticoagülant	85.1 (31-44)
Direct coombs test (IG G)	Negative
Direct coombs (Complement)	Negative
İndirect coombs	Negative
Anti-dsDNA	Negative
The patient's first vital findings in the emergency department and patient's autoantibody tests	

Table 3.						
	After intensive care admission	**Plasmapheresis after first session**	**Plasmapheresis after the fourth session**	**After plasmapheresis fifth session**	**Before rescheduled plasmapheresis**	**After 10 sessions of plasmapheresis**
Creatinine (mg/dL)	1.53	1.87	1.77	1.1	1.11	0.82
CRP (mg/L)	64	41.35	5.4	1.68	1.86	1.72
Procalcitonin	1.18	1.49	0.365	0.06	0.2	0.101
Sediment	23		23			
LDH	2,245	1,190	509	593	791	277
SGOT/SGPT	79/13	27.5/13.7	24.3/13.8	26/18	19/14	15.2/17.7
ALP/GGT	77/18	52/20	55/23	53/17	57/23	
Albumin	2.5	2.91	3.43	2.45	2.8	3.62
WBC/NEU	11.9/9.56	15.6/14.1	15.24/13.4	14.8/13.6	19.9/18.5	13.9/13.2
Hgb	10.8	6.2	7.9	7.5	7.7	7.9
PLT	6,000	7,000	49,000	122,000	31,000	91,000
INR	0.98	0.95	0.92	0.95	0.96	0.99
D-dimer	2.8			0.7		0.8
Fibrinogen	301	257	193	129		175
TSH/T4	6.2/1.67		0.363/0.96			1.31/0.8
pH	7.40	7.42	7.42	7.46	7.43	7.45
Pco_2/Po_2	34/95	39/76	50/69.8	49/77	40/106	47/96
HCO_3	22.5	27.2	31.2	32	26	31.8
Patient's laboratory values						

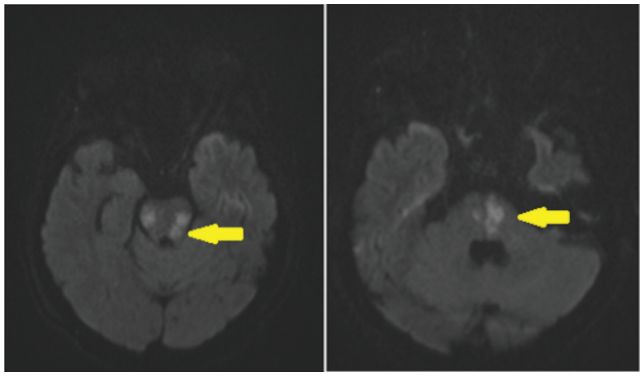

Figure 1. Diffusion MRI images of the patient. Bilateral and central diffusion restrictions at the level of the mesencephalon (a) Bilateral and peripheral diffusion restrictions at the level of the pons (b) (yellow arrows)

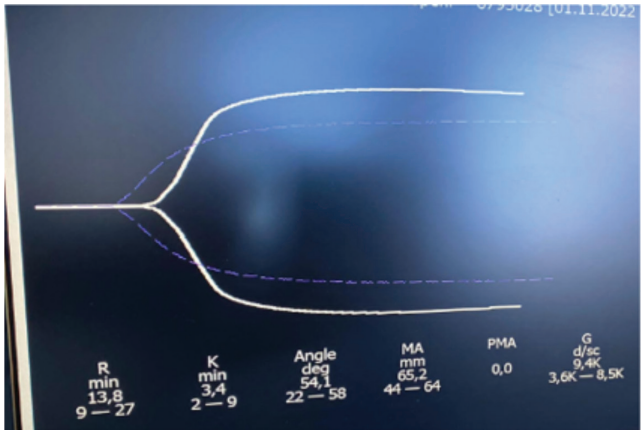

Figure 2. Thromboelastogram. Reaction time: 13.8 min k time: 3.4 min alfa angle: 54.1 degree maximum amlitude: 65.2 mm

Figure 3. DSA, 4x5 mm saccular aneurysm at the right MCA bifurcation (yellow arrows)

[OP-065]

Radiological Imaging After Central Venous Catheterization: Malposition, Preliminary Findings

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Introduction: Malposition is an important complication of central venous catheterization (CVC), and its early diagnosis plays a critical role in morbidity and mortality. We aim to emphasize the importance of radiological imaging in preventing catheter malposition.

Materials and Methods: After the ethics committee's approval, the radiological and demographic data of critically ill patients who were followed up with intraoperative CVC application between 01.01.2022-01.02.2023 were reviewed retrospectively. In this study, the Zone A/B/C concept was used based on the carina in the radiological evaluation of the patients, while the placement of the catheter in a different venous structure or artery was defined as Zone D. Data collection of patients continues.

Results: In the operating room, 218 patients followed by CVC were examined. The mean age of the patients was 57.9±17.0 Female/Male ratio was 88/130. It was observed that the right jugular vein (85.3%) was preferred most frequently in the intraoperative approach, followed by the right subclavian vein (6.8%) catheterization. Of 218 patients, 123 (56.4%) had the catheter tip in Zone A, 35 (16.0%) in Zone B, and 33 (15,1%) in Zone C, whereas 28 (12.3%) catheters were malpositioned (Zone D) It was observed that 3 of these patients were in the carotid artery, 1 of them was turning from the left to the right jugular vein, 1 of them was turning from the right to the left jugular vein and 23 were in the vena cava inferior. There is no statistically significant relationship between the type of catheter and the malposition (7F-16 cm/8.5F-20 cm) ($p>0.05$).

Conclusion: CVC-related malposition occurs with a frequency of 5.1%, and many factors are blamed, including especially methodological inaccuracies and anatomical variations. In literature, the carina is considered an important anatomical landmark in the evaluation of the position of the catheter due to the parallax effect on AP X-Ray. Correct analysis of the position of the catheter in the light of radiological imaging and applying the right interventions can prevent permanent or serious damage.

Keywords: Central venous catheterization, malposition

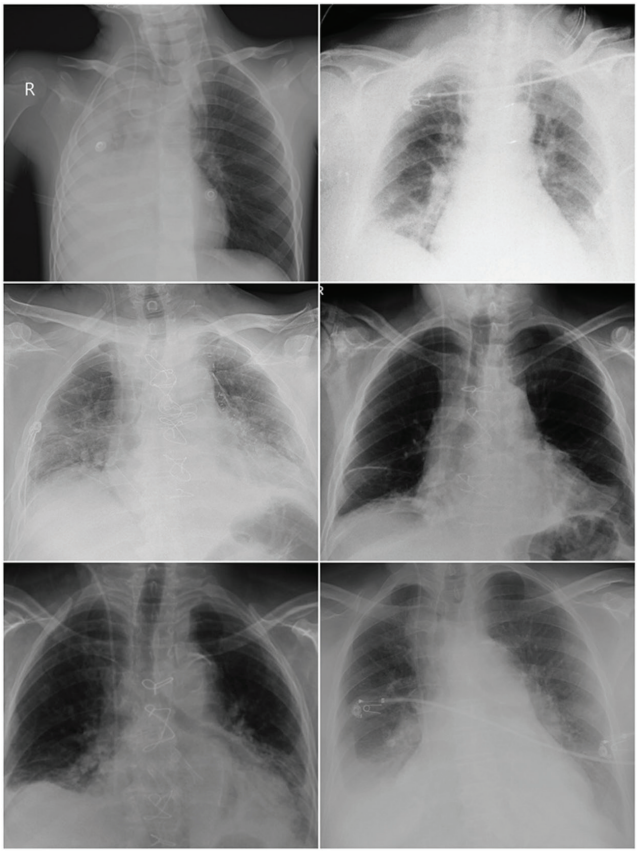

Figure 1.

[OP-066]

Drainage Insufficiency Should be Sought and Addressed During Extracorporeal Membrane Oxygenation (ECMO)

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Introduction: Extracorporeal membrane oxygenation (ECMO) has been rapidly developed and is widely used for respiratory and cardiac support in adults. Inadequate support of a patient during ECMO due to impaired drainage is a common problem. This case report represents the importance of considering mechanics of ECMO support.

Case: Forty-two-year-old male with a past medical history of diabetes mellitus presented to the emergency department with unconciousnes and worsening of breath after suicide with Janumet 50/1000 (metformin and sitagliptin, n=60). On admission to ICU, his Glasgow Coma Scale was 9, respiratory rate was 23 breaths/min, heart rate was 120 bpm and mean blood pressure (mBP) was 35 mmHg despite high dose of vazopressors and inotropes. He was intubated and femoral-femoral veno-arterial (VA) ECMO was initiated at a blood flow of 4.5 L/min and gas flow at 3.0 L/min of 100% oxygen. In the following hours chattering of the lines was occured and blood flow of ECMO decreased to 1-1.5 L/min. Firstly, we reduced the pump speed. Then fluid challenge was done to resolve ongoing problem but it was useless. The cannulae was 25 French so it was large enough for drainage. The Chest X-ray showed that inappropriate position of drainage canula that was in the lower level which it should had been (Figure 1). Then we sent the catheter up to the right atrium entrance under steril condition and checked position by transthoracic echocardiography. The ECMO blood flow returned to normal and chattering of the lines disappeared.

Discussion: Management of technical issues during ECMO is complex but essential to improving outcomes. The chattering of ECMO line is very common and the causes include kinks in the circuit, hypovolemia, inadequate cannula size, or cannula malposition. In this case, femoral drainage cannulae position was checked by Chest-xray and then inserted sufficiently deep to access the right atrium to provide effective drainage pressures.

Keywords: Drainage, ECMO, chattering, blood flow

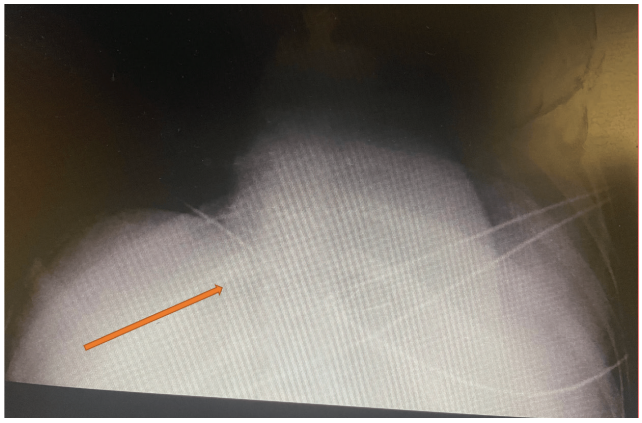

Figure 1. Chest X-ray shows position of femoral drainege canula

[OP-067]

A Rare Complication Leading to Graft Rejection After Lung Transplantation; Gastric Bezoar

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Introduction: Lung transplantation is an effective therapeutic option in the treatment of end-stage lung diseases, improving quality of life and survival. Gastroesophageal reflux is a risk factor for the development of chronic lung allograft dysfunction through its microaspiration, which directly leads to airway damage and/or regulation of the inflammatory response in the lung. In this case, a rare condition causing lung damage was shared.

Case: The patient who had bilateral lung transplantation due to interstitial lung disease developed a decline in effort capacity and respiratory distress 13 months after transplantation. Dyspeptic complaints were also accompanied. Pathological examination of transbronchial biopsy was reported as giant cells surround vegetables matter in bronchi. Giant gastric bezoar was revealed in GI endoscopy. Fiber-free and acidic liquid food diet was recommended. Regressive bezoars were removed during the control endoscopy. In gastric emptying scintigraphy, it was determined that the fluid evacuation time was long and no response was obtained from the motility-enhancing pharmacological treatment. Total gastrectomy was performed to prevent further lung damage due to recurrent giant bezoars. He was taken to the service on the 1st day after the gastrectomy. He was transferred to the intensive care unit on the 5th postoperative day due to hypercarbia respiratory failure and respiratory acidosis. VV ECMO was started due to deep hypercarbia and acidosis despite support from a mechanical ventilator. He was transferred to the service with high flow oxygen. However, the $PaCO_2$ value of the patient who was transferred to the ICU from the ward due to clouding of consciousness was between 60-90 mmHg. Pseudomonas auriginosa (pan drug resistance) was growth in BAL culture. He is still being treated with appropriate antibiotics and mechanical ventilator support.

Discussion: Dyspeptic complaints of patients and gastric motility disorder should be carefully investigated in order not to cause rejection in post-transplant patients.

Keywords: Lung transplantation, gastric bezoar

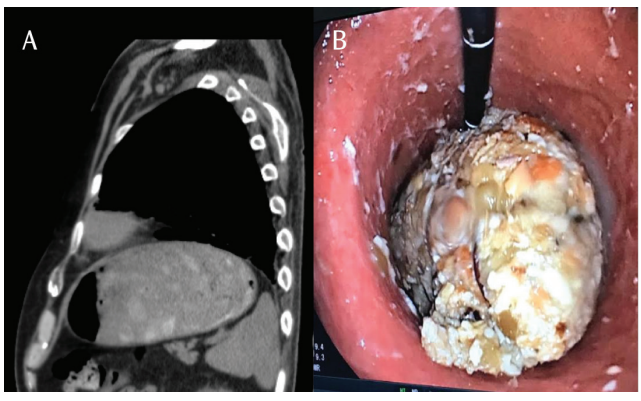

Figure 1. Gastric bezoar

[OP-068]

Evaluation of Incidence and Risk Factors for Cytomegalovirus Viremia Among Immunocompetent Critically Ill Patients

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Introduction: The incidence of cytomegalovirus (CMV) infection, which is a common cause of morbidity and mortality in immunosuppressive patients, is also increasing among "immunocompetent patients" in the intensive care unit (ICU). The aim of this study was to evaluate the incidence and risk factors for CMV viremia among immunocompetent patients in ICU.

Materials and Methods: CMV tests requested among immunocompetent patients ≥18 years during ICU follow-up between May 2013 and 2022 were retrospectively analyzed. Viral load was represented according to the CMV DNA PCR copies/mL. CMV DNA PCR > 250 IU /mL was defined as CMV viremia. The patients were divided into 2 groups, those with and without CMV viremia.

Results: Out of the 110 patients included in the study, 62 (56.4%) were male and 25 patients (22.7%) had CMV viremia. Patients with CMV viremia were older (70.4±15.1 years vs. 61.9±19.7, p=0.047) and had more vascular disease (16 versus 3.5%, p=0.046) than the patients without CMV viremia. Medical reasons (92%) and causes related respiratory system (56%) at ICU admission were more common in patients with CMV viraemia. In patienst with CMV viremia, the mean APACHE II, SOFA and GCS scores were 20.2±7.9, 7.0±2.9, and 12.2±3.8 respectively. The ICU (88% vs 48.2%, p<0.001) and inhospital mortality (88% vs 52.9%, p=0.002) rates were higher among patients with CMV viremia when compared to the other group.According to the logistic regression analysis; higher age (OR: 1.027, CI 95% 0.999-1.055, p<0.047), long-term usage of antifungal therapy before CMV viremia (OR: 1.346, CI 95% 0.137-2.711, p<0.001), and low albumin levels at ICU admission (OR: 0.422, CI 95% 0.176-1.009, p=0.026) were determined as independent risk factors.

Conclusion: In our cohort, the incidence of CMV viremia among immunocompetent critically ill patients was 22.7%. Higher age, long-term usage of antifungal therapy before CMV viremia, hypoalbuminemia at ICU admission were determined as risk factors for CMV viremia.

Keywords: Immunocompetent, critically ill, cytomegalovirus, CMV, intensive care unit

[OP-069]

Hemodynamic Assesment to Determine the Type of Shock Among Critically Ill Patients: A Case Series

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Introduction: Transpulmonary thermodilution (TPTD) devices may be useful in critically ill complex patients with severe shock. We presented our experiences among different types of critically ill patients with shock to optimise fluid resuscitation and vasopressor therapy with a cardiac output (CO) monitoring.

Case: Case 1A 53-year-old female who underwent laparotomy due to hemorrhagic shock after gunshot wound. TPTD was needed as the patient did not respond to initial therapy. Continuous renal replacement therapy (CRRT) was started due to acute kidney injury (AKI) stage 2. Patient died because of acute liver failure at the 12th day of ICU admission. Case 2A 26-year-old male was admitted to the ICU with hyperlactatemia and cyanosis. With a pre-diagnosis of cocaine toxicity due to his history of misuse. In line with the TPTD, we had to give 36 liters of fluid in 24 hours. He was weaned from the mechanical ventilator, CRRT on his 4th day in the ICU and discharged from the hospital on the 11th day. Case 3A 60-year-old male who had DM, HT, and cardiac failure was admitted to the ICU with severe ARDS and septic shock. TPTD was used to monitor preload and fluid responsiveness. Monitoring findings included ELWI: 36 mL/kg and PVPI: 6.9. CRRT was started for both stage II AKI and ultrafiltration. He was weaned from CRRT on the 10th day of ICU admission. He was discharged from ICU on the 31st day. Case 4A 28-year-old female with 50% TBSA (3rd degree) flame burn injury was admitted to the ICU. TPTD was performed to monitor cardiac function due to circulatory shock unresponsive to initial therapeutic interventions. She was discharged from hospital 4 months later.

Discussion: Our experience indicates that among complex critically ill shock patients, use of TPTD provides monitoring cardiac output and hemodynamics to identify the type of shock and select the therepautic intervention.

Keywords: Shock, cardiac output monitoring, transpulmonary thermodilution, intensive care unit, critically ill

Table 1. Initial arterial blood gas analysis of the patients

Values	1st case	2nd case	3rd case	4th case
pH	7.45	7.32	7.34	7.42
pCO_2 (mmHg)	39.9	37	43.3	55
SaO_2 (%)	97.9	95	66.6	96.5
pO_2 (mmHg)	96.6	27	44	81.6
Na^{++} (mg/dL)	153	127	136	145
K^{+} (mg/dL)	4.7	5	3.7	3.9
Ca^{++} (mg/dL)	1.23	1.05	1.09	1.06
Lactate	9.9	4	1.6	1.8
Hct (%)	32.2	62.6	28.9	25.4
Hb (g/dL)	10.4	21	9.3	8.2
HCO_3 (mEq/L)	28.1	18	22.1	33.6
BE	4.1	-6.8	-2.2	10.3
Glucose (mg/dL)	109	141	135	188

$PaCO_2$: Partial carbon dioxide pressure, SaO_2: Oxygen saturation PaO_2: partial oxygen pressure, Na: Sodium, K: Potassium, Ca++: Calsium, Hgb: Hemoglobin, Hct: Hematocrit, HCO_3: Bicarbonate, BE: Base excess

Table 2. Clinical features and initial transpulmonary thermodilution data

Characteristics	1st case	2nd case	3rd case	4th case
Reason	Abdominal gunshot wound	Lactic acidosis and cocaine toxicity	Pneumonia	Flame burn injury
Sex	Female	Male	Male	Female
Age (years)	53	26	60	28
APACHE II score	24	15	18	18
MAP (mmHg)	77	76	76	86
CVP (mmHg)	8	12	6	6
PCCI ($l/min/m^2$)	3.97	1.14	4.28	4.29
GEDI (mL/m^2)	558	285	725	701
SVV (%)	19	19	21	26
SVRI ($dyn.sec.cm\text{-}5.m^2$)	1391	3273	2336	1789
PPV (%)	17	29	19	16
GEF (%)	23	12	19	31
dPmax (mmHg/s)	1805	-	1159	2172
ELWI (mL/kg)	9	5	36	10
Length of TPTD stay	11 days	4 days	8 days	4 days
Survival	Ex	Alive	Alive	Alive

ICU: Intensive care unit, APACHE II: Acute Physiology and Chronic Health Evaluation, SOFA: Sequential Organ Failure Assessment, GCS: Glasgow Coma Scale, MAP: Mean arteriyal pressure, CVP: Central venous pressure, PCCI: Pulse contour cardiac index, GEDI: Global End-diastolic Index SVV: Stroke volume variation SVRI: Systemic vascular resistance index, PPV: Pulse pressure variation, GEF: Global ejection fraction, dPmax: Maximum left ventricular contractility, ELWI: Extravascular lung water index, TPTD: Transpulmonary thermodilution

[OP-070]

Guillain-Barré Syndrome After COVID-19 Infection

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Introduction: Guillain-Barré syndrome (GBS) is an immune-mediated polyradiculoneuropathy characterized by ascending paralysis, loss of DTR, sensory, motor and autonomic symptoms. COVID-19 can trigger GBS, although the mechanism is not clear. Our aim is to discuss a patient with new GBS in the post-COVID period.

Case: A 59 y/M was admitted to the respiratory ward with dyspnea and difficulty in walking. Medical history revealed no chronic diseases, medications or drugs/smoking except of COVID-19, 4 months prior admission. He was on Nintedanib for persistant cough, and chest images (Figure 1) revealed post-COVID pulmonary fibrosis. The patient was admitted to the ICU 10 days later due to progressive motor weakness in his lower extremities. GBS was diagnosed with EMG, which revealed acute axonal degeneration. At admission GCS was 15, SpO_2: 96% (with 4 lt/min O_2 via nasal cannula), HR: 107 beats/min, BP: 107/76 mmHg and muscle strength was 4/5 in lower, and 5/5 in upper extremities. DTR were hypoactive. SARS-COV-2 PCR was negative and CSF sample showed elevated protein levels. He received IVIG 175 grams/day for 5 days. Muscle strength in his lower extremities improved and was 5/5 on day 5, but respiratory symptoms progressively worsened. NIV was started on day 4 as his SpO_2 was <91%. On day 7 hypoxemia worsened (pO_2: 52 mmHg), and chest CT revealed a progression in ground glass density (Figure 2). The patient was intubated and conservative MV was started. The patient further detoriated and died on the same day due to respiratory failure.

Discussion: GBS has been reported simultaneously during and after COVID-19 although the mechanism is not clear. Neurotoxicity may develop by targeting of the nerves directly by the virus or the antibodies; formed by the activated immune system. Our patients muscle strength recovered after treatment, but he died from respiratory failure secondary to pulmonary fibrosis.

Keywords: Guillain-Barré syndrome, COVID-19, post-COVID pulmonary fibrosis

Figure 1. Thorax CT, 3rd month after COVID-19 (post-COVID-19 pulmonary fibrosis)

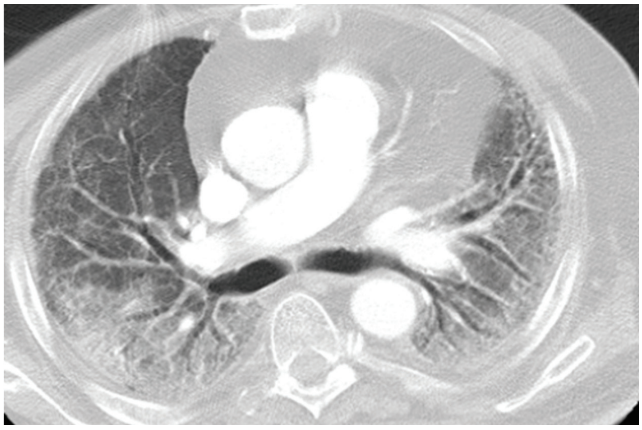

Figure 2. Thorax CT, 4th month after COVID-19 7th day of intensive care hospitalization (compared to the initial examination, progression was observed in the ground glass density)

[OP-071]

Takotsubo Syndrome After Liver Transplantation

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Introduction: Takotsubo Syndrome (TTS) is a rare cardiomyopathy that is characterised by transient left ventricular dysfunction. It is usually precipitated by emotional or physical stress, and is thought to be caused by catecholamine-induced myocardial stunning. The incidence of Takotsubo cardiomyopathy after liver transplantation (OLT) has not been widely studied.

Case: We report the case of a 58-year-old female with hepatocellular carcinoma developed secondary to cytomegalovirus infection who underwent an OLT. On postoperative day 2, the patient developed circulatory shock. Transthoracic echocardiography showed severely reduced left ventricular (LV) systolic function with an ejection fraction of 40%, inferior, inferolateral and apical sverely hypokinetic, dilated left atrium, SPAP 30 mmHg. As a result, it was found to be compatible with TTS (Figure 1). The patient was followed up with clinical treatment and laboratory (Pro BNP, Trop I) evaluation by applying hemodynamic support and necessary respiratory support (MV, HFNO, NIMV) under the guidance of dynamic hemodynamic monitoring (MostCareUp) (shown in Table 1). He was discharged to the ward on the 6th postoperative day as a result of the treatment continued after hemodynamic monitoring as well as bedside TTE evaluations. The patient was discharged from the hospital with recovery on the 20th postoperative day.

Discussion: Takotsubo cardiomyopathy, which exist as separate entities, together with liver transplantation, which has a high morbidity and mortality on its own, is seen as both a rare condition and a factor that complicates hemodynamic management. Advanced dynamic hemodynamic monitoring methods have been found to be useful in choosing the right drug and dose.

Keywords: Takotsubo syndrome, liver transplantation

Table 1. Clinical and laboratory follow-up

SAP/DAP(MAP)			82/54(67)	93/54(67)	100/54(70)	92/53(69)	91/56(68)
HR			120	111	108	82	86
DIC			61	65	66	68	67
Cl			3,3	2,8	3,4	3,3	2,4
SVI			29	25	34	39	24
SVRI			1371	1738	1442	1396	1679
SVV			8	9	7	6	8
CCE			0,05	-0,38	-0,23	0,19	0,04
VENT SUPP.	OTE-MV	OTE-MV HFNO/NIMV	HFNO/NIMV	HFNO/NIMV	intermittant NIMV	intermittant NIMV	-
VASOACTIVES	noradrenaline	dobutamine	dobutamine	dobutamine	dobutamine	dobutamine	-
PROBNP	-	-	13320	-	13206	-	9336
TROP I	0,29	1,94	2,18	0,818	0,527	0,295	0,175

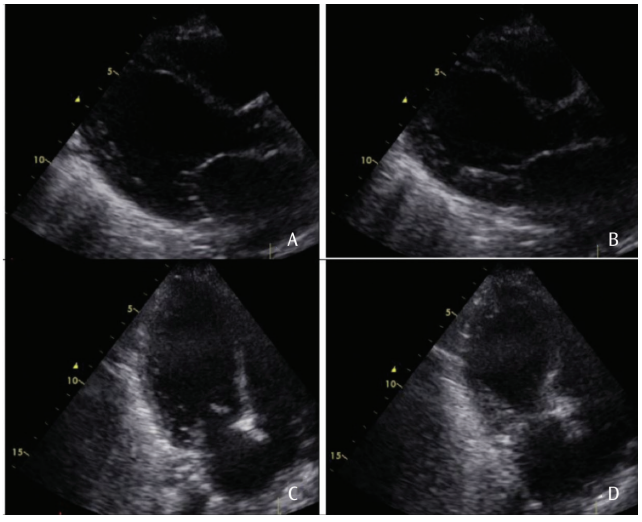

Figure 1. Initial transthoracic echocadiography images of the patient. 1A-B: parasternal short axis view (first row) 1C-D: Apical 4 number view (second row), end-diastolic and-systolic frames, respectively.

[OP-072]

Effect of ECMO Use on Survival in Pregnancy and Postpartum Period

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Introduction: There are many causes of acute cardiopulmonary failure that require the use of ECMO for mechanical circulation and respiratory support during pregnancy and postpartum period (PPP). As in all patient groups, the use of ECMO is gradually increasing in this patient group. This case series study was conducted in PPP patients who underwent ECMO in our ICU between 2019-2022. Primarily, it was aimed to investigate the prevalence and survival status of patients who underwent ECMO during PPP among patients who underwent ECMO.

Case: Of the 57 patients who underwent ECMO, 14% (n=8) were in the postpartum period and 1.8% (n=1) were in the pregnancy period (Figure 1). ECMO during pregnancy was administered as V-V due to pneumonia and asthma attack. In the postpartum period, 50% (n=4) of ECMO treatments were applied as V-A and 50% (n=4) as V-V. While 75% (n=3) of the etiologic causes of postpartum V-A ECMO were severe peripartum cardiomyopathy, only one reason was septic shock. While 75% (n=3) of the etiologic causes of postpartum V-V ECMO were severe COVID-19 ARDS, only one reason was newly diagnosed severe pulmonary tuberculosis. Total successful ECMO weaning rate in the PPP was 66.7% (n=6) and the 3-month survivor rate after ECMO weaning was 55.5% (n=5). During this period, the rate of successful ECMO weaning and 3-month survivor was 75% (n=3) in V-A ECMO patients. In V-V ECMO patients, the rate of successful ECMO weaning was 60% (n=3) and the 3-month survivor rate was 40% (n=2) (Figure 2). Fetal survival rate in PPP ECMO patients was 88.8% (n=8) (Table 1).

Discussion: A significant portion of the patient population undergoing ECMO consists of patients who use ECMO during PPP. During this period, it was determined that ECMO applications had a beneficial effect on the survivor.

Keywords: Pregnancy, postpartum, ECMO, survivor

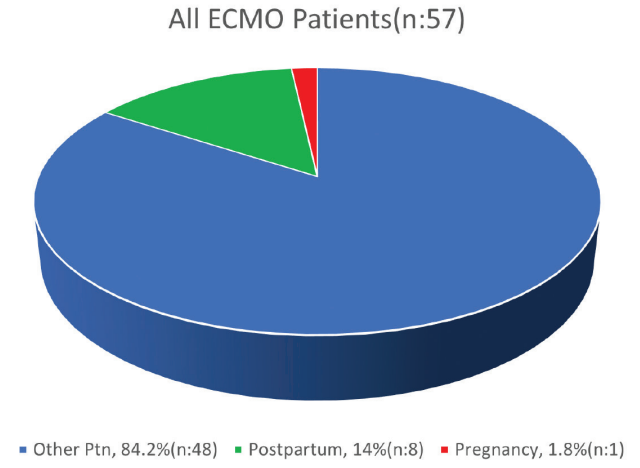

Figure 1. Frequency of pregnancy and postpartum period among ECMO patients

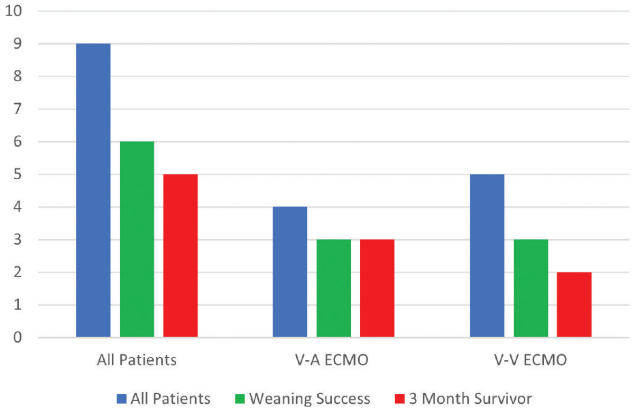

Figure 2. Successful ECMO weaning and 3-month survival rates of patients

Table 1. Demographic data, clinical features and survival status of ECMO patients									
	Patient-1	**Patient-2**	**Patient-3**	**Patient-4**	**Patient-5**	**Patient-6**	**Patient-7**	**Patient-8**	**Patient-9**
Year	2022	2022	2019	2022	2022	2021	2022	2020	2019
ECMO type	V-A	V-A	V-A	V-A	V-V	V-V	V-V	V-V	V-V
Cause of ECMO	PP-CMP	PP-CMP	PP-CMP	Septic shock	COVID ARDS	COVID ARDS	COVID ARDS	TBC	Pneumonia, Asthma
Age	30	36	27	33	22	33	24	25	25
BMI	26.12	33	27.6	27.6	27	33	26	21.5	31.25
CCI score	0	2	0	0	0	0	0	0	1
APACHE-II score	29	25	14	30	29	27	20	24	13
SOFA score	14	8	8	13	12	12	12	11	12
P-ECMO cardiac arrest	No	No	No	15 min CPR	No	No	No	No	No
Anticoagulant	Bivaluridin	Bivaluridin	UFH	Bivaluridin	Bivaluridin	Bivaluridin	Bivaluridin	UFH	UFH
CRRT need	No	No	No	No	No	Yes	Yes	No	Yes
Fetal delivery	Term	Preterm	Term	Term	Preterm	Term	Term	Preterm	Term
Fetal survival	Survivor	Survivor	Survivor	Survivor	Death	Survivor	Survivor	Survivor	Survivor
Postpartum day	1	1	1	3	2	1	18	2	Pregnancy (16W)
PreECMO IMV (day)	1	1	1	1	1	1	3	2	4
Complications	No	No	Artery rupture	No	No	No	No	No	No
Blood replacement (IU)									
ES	4	6	30	7	3	7	6	8	0
FFP	1	2	14	9	0	7	0	3	0
Random platelet	0	0	26	8	0	0	4	0	0
ECMO duration (day)	4	5	6	1	43	12	8	4	7
ICU duration (day)	9	17	13	1	50	12	20	6	13
ECMO weaning	Succesful	Succesful	Succesful	Unsucces	Succesful	Unsucces	Succesful	Unsucces	Succesful
Maternal survival	Survivor	Survivor	Survivor	Death	Survivor	Death	Death	Death	Survivor
Cause of death	-	-	-	Septic shock	-	MODS	Brain death	MODS	-

PP-CMP: Peripartum cardiomyopathy, UFH: Unfraksioned heparin, ES: Erythrocyte suspension, FFP: Fresh Frozen Plasma, Fail: Failure, CCI: Charlson Comorbidity Index, APACHE: Acute Physiology and Chronic Health Evaluation, SOFA: Sequential Organ Failure Assesmen, IMV: Invasive mechanical ventilation, TBC: Tuberculosis

[OP-073]

War with *Candida Auris*

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Introduction: The frequency and mortality of candidemia in intensive care units (ICU) remain important. Non-albicans candida species such as C. auris are also gaining importance as a factor affecting mortality.

Materials and Methods: In the 30-month period between July 1, 2020 and December 31, 2022, it is planned to retrospectively examine adult patients diagnosed with *C. auris* related blood circulation infection developing in ICU hospitalised patients in our hospital.

Results: In the 30-month period since the opening of our hospital, 22 of the 432 candidemia cases were detected as *C. auris* (5.09%). The identification of *C. auris* reproduction in culture was made using the MALDI-TOF method. Our patients with *C. auris* reproduction in blood culture, caspafungin (70 mg loading, 50 mg maintenance) treatment was started. Fourteen of our patients (63.63%) were treated (after providing negativity in blood culture, we continued the treatment for 14 days). Of these patients, 5 (22.72%) were discharged from ICU. Only 2 (9.09%) of all of our patients were COVID-19 pneumonia.

Conclusion: The incidence and mortality of candidaemia cases is increasing for various reasons, including increased immunocompromised patients, widespread use of antibacterial agents, and prolonged central venous catheterisation. *C. auris*, whose prevalence has increased in recent years, is a new agent to consider. It is difficult to distinguish *C. auris* from other candida species in diagnosis and additional tests are required. The differences between CLSI and EUCAST criteria in antifungal sensitivity tests for candida species increase mortality. As a result, all health care organisations should be well prepared for early diagnosis, effective treatment, and spread control of *C. auris* candidaemia.

Keywords: Candidemia, *Candida auris*, diagnosis, treatment

[OP-074]

Intensive Care Follow-up of A Patient with Prader-Willi Syndrome with Acute Respiratory Failure: A Case Report

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Introduction: Prader-Willi syndrome (PWS) is a rare genetic disorder characterized by developmental retardation, mental disability, obesity, shot stature, hypogonadism anddysmorphic findings. Patients with the syndrome exhibit abnormal ventilation responses to hypoxia and hypercapnia, and these can be exacerbated with obesity.

Case: A 17-year-old male patient diagnosed with PWS was admitted to the intensive care unit due to acute respiratory insufficiency. His PaO_2/FiO_2 value was 170, his respiration rate was 40/min, and he was dyspneic. He also had a history of admission to the neonatal intensive care unit. At physical examination he weighed 180 kg, was 170 cm in height, with a body mass index of 62.2 kg/m^2, body temperature 36.9 ºC, respiration rate 40/min, oxygen saturation 89%, heart rate 125 beats/min, and blood pressure 126/60 mmHg. On arrival the patient was hypoxic, hypercapnic, tachypneic and dyspneic and respiratory exercises with CPAP and a high-flow nasal cannula were applied for treatment. The respiratory difficulty improved during follow-up. FiO_2 and flow were reduced by means of arterial blood gas monitoring. No respiratory difficulty was observed at nasal cannula follow-up, and the patient was transferred to the ward on the seventh day of admission to intensive care.

Discussion: These patients require an obesity bed in intensive care, a blood pressure cuff, and appropriate medical equipment. Alveolar hypoventilation during sleep may occur in PWS in association with an increasing burden on partially weak respiratory muscles. Morbid obesity is linked to desaturation during sleep in children without other medical conditions. The extra burden on the respiratory muscles caused by obesity is heightened by muscular inhibition occurring during REM sleep, when hypoventilation may develop. The intubation and ventilation of these patients may be problematic. This patient with a manifestation of moderate ARDS was successfully followed up with high-flow and non-invasive mechanical ventilation and subsequently discharged to the ward.

Keywords: Prader-Willi syndrome, acute respiratory failure, obesite hipoventilation

[OP-075]

Veno-venous Extracorporeal Membrane Oxygenation in a Patient with Chest Trauma

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Introduction: The use of veno-venous extracorporeal membrane oxygenation (VV-ECMO) in trauma patients is controversial, and there is little experience with its use for chest traumas in the literature. In this report, we describe a case with severe chest trauma in which VV-ECMO was introduced and saved the patient's life.

Case: A 55-year-old male experienced blunt trauma due to a traffic accident. He had chronic obstructive lung disease history. He presented with bilateral hemothorax, right pneumothorax, multiple bilateral rib and clavicula fractures, bilateral lung contusions, and dissection in descending aorta. The patient was intubated, and a right thoracic drain was inserted. The respiratory condition of the patient worsened because of increased subcutaneous emphysema, and left pleural drain was inserted. Severe respiratory failure due to lung contusions persisted. He was operated by cardiovascular surgery, and aortic dissection was repaired. The VV-ECMO was performed on the same day because of the patient's massive hemothorax and worsening respiratory condition. Furthermore, the patient was weaned off from VV-ECMO on the 5th day, and he was transferred to the ward without any complication on the 21st day.

Discussion: ECMO can be useful for chest traumas. Because a common complication of ECMO is bleeding, the use of ECMO support for patients with trauma was limited in the past. Therefore, decisions must be made on a case-by-case basis.

Keywords: ECMO, chest trauma, veno-venous, intensive care

[OP-076]

Intensive Care Unit Outcomes and Mortality in Elderly Oncological Patients

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Introduction: The number of elderly patients taken to intensive care unit (ICU) is gradually increasing due to the prolongation of life expectancy. According to UK data, the majority of newly diagnosed cancer patients are people over the age of 65, and the highest incidence of cancer is in people between the ages of 85 and 89. The aim of our study is to reveal the ICU outcomes, mortality in oncological patients over 65 years of age, and to document the predisposing factors that cause mortality.

Materials and Methods: After the ethics committee approval was obtained, the data of oncology patients over the age of 65 who were treated in ICU between 01/01/2020 and 12/31/2021 were retrospectively analyzed.

Results: Of the total 706 patients treated in ICU, 174 were oncology patients over the age of 65. There were 98 people in the 65-74 age range and 76 people over the age of 75. Although patients over 75 years of age had higher APACHE II scores, hospital and ICU mortality rates were similar to those of the other age group. Among the factors affecting ICU and hospital mortality, it was significant that patients used vasoactive drugs at any time and needed invasive mechanical ventilation support. Hospital mortality was found to be lower in cancer patients who underwent surgery in the last 6 months than in patients who did not undergo surgery.

Conclusion: Mortality is quite high in ICU treatment of elderly critically ill patients with cancer. In this retrospective study, it was seen that the mortality rate of oncological patients over 65 years of age who were treated in ICU was over 70%. It was found that the mortality risk was more than 2 times higher in patients requiring invasive mechanical ventilation and vasoactive drugs. There was no difference in mortality between solid and hematological cancers.

Keywords: Critical care, elderly, oncology

Table 1. Age groups of patients, intensive care and hospital length of stay, mortality

	65-74 years, n=98	>75 years, n=76	p
APACHE II	24.9 (±9.3)	27.7 (±9.3)	0.051
SOFA	8.0 (±3.7)	8.0 (±3.6)	0.980
ICU LOS	13.4 (±15.4)	15.0 (±16.0)	0.526
Hospital LOS	24.1 (±20.6)	24.5 (±18.8)	0.883
ICU mortality	68 (69.4%)	55 (72.4%)	0.794
Hospital mortality	75 (76.5%)	61 (80.3%)	0.685

COPD: Chronic obstructive pulmonary disease, APACHE II: Acute Physiological and Chronic Health Status Score, SOFA: Sequential Organ Failure Assessment Score, ICU: intensive care unit, LOS: length of stay

Table 2. Solid and hematological cancers, intensive care and hospital length of stay, mortality

	Solid tumor, n=135	Hematological cancer, n=34	p
APACHE II	25.4 (±8.7)	29.0 (±9.7)	0.037
SOFA	7.9 (±3.6)	8.8 (±3.5)	0.171
ICU LOS, days	14.5 (±16.4)	12.2 (±12.8)	0.445
Hospital LOS, days	23.6 (±19.8)	27.8 (±20.7)	0.269
Intensive care mortality, n	96 (71.1%)	22 (64.7%)	0.604
In-hospital mortality, n	104 (77.0%)	27 (79.4%)	0.947

APACHE II: Acute Physiological and Chronic Health Status Score, SOFA: Sequential Organ Failure Assessment Score, ICU: intensive care unit, LOS: Length of stay

Table 3. Factors affecting intensive care mortality

		Intensive care mortality, n (%)	p	RR
Gender, n (%)	**Male, 112 (64)**	77 (68.8)	0.561	0.91
	Female, 62 (36)	46 (74.2)		
Comorbidity, n (%)	**Yes, 137 (79)**	99 (72.3)	0.501	1.08
	None, 37 (21)	24 (64.9)		
Chemotherapy, radiotherapy treatment in the last 6 months, n (%)	**Yes, 66 (38)**	47 (71.2)	1.000	1.03
	None, 108 (62)	76 (70.4)		
Surgery in the last 6 months, n (%)	**Yes, 64 (37)**	42 (65.6)	0.344	0.79
	None, 110 (63)	81 (73.6)		
Vasoactive medication, any time of treatment in intensive care, n (%)	**Yes, 136 (78)**	117 (86.0)	<0.001	2.55
	None, 38 (22)	6 (15.8)		
Invasive mechanical ventilation, n (%)	**Yes, 135 (78)**	115 (85.2)	<0.001	2.38
	None, 39 (22)	8 (20.5)		
Renal replacement therapy, n (%)	**Yes, 35 (20)**	28 (80.0)	<0.001	2.38
	None, 139 (80)	95 (68.3)	0.252	1.66

RR: Relative risk

[OP-077]

Transcranial Doppler Imaging; A simple Guide for Brain Death Before CT Angiography

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Introduction: Ancillary tests can be used for the diagnosis of brain death in cases wherein uncertainty exists regarding the neurological examination and apnoea test cannot be performed. Transcranial Doppler ultrasonography (TCD) is a useful, valid, non-invasive, portable, and repeatable ancillary test for the confirmation of brain death. The purpose of this case is to represent the utility of transcranial Doppler as an ancillary test in brain death confirmation.

Case: A 32-year-old male patient was admitted to intensive care unit after DSA intervention due to middle cerebral artery (MCA) aneurysm. In the intensive care follow-ups, sedation vacation attempted, however his brain stem reflexes were absent, he had no respiratory effort, GCS score was 3, pupils were fixed dilated. The patient's hemodynamic status remained stable throughout the ICU stay, only requiring low-dose norepinephrine for less than 12 hour. Neurological examination showed the absence of the corneal, gag, oculovestibular, and cough cranial reflexes. The apnea test was positive and then secondly TCD performed. Cerebral blood flow cessation detected and oscillating flow waves observed in MCA, anterior cerebral artery (ACA), posterior cerebral artery (PCA), basilar and vertebral arteries. We determined when to perform CT angiography (CTA) with light of TCD. Brain death was confirmed according to CTA results.

Discussion: TCD ultrasonography, one of the ancillary bedside tests for brain death, is a non-invasive, reproducible method. Despite its limitations, TCD helps solve common diagnostic problems, avoids the unnecessary consumption of resources. It is inevitable that intensivists will gradually increase the use of TCD ultrasonography in the diagnosis of brain death in the near future due to its advantages.

Keywords: Transcranial doppler USG, brain death, CT angiography, cerebral blood flow

[OP-078]

Methimazole-induced Leukopenia in a Patient with Ludwig's Angina

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Introduction: Ludwig's angina is an aggressively spreading phlegmon or cellulitis that affects the submandibular and sublingual tissue areas bilaterally above the floor of the mouth and myelo-hyoid diaphragm. Diabetes has an important place among the factors that create predisposition. During common neck infections, thyroid gland involvement may occur partially or totally, and sudden increases in thyroid hormone levels can be observed due to hormones released from the destroyed gland during this period. In our case, the development of leukopenia after methimazole treatment of a patient who was normally euthyroid and developed hyperthyroidism as a result of acute thyroiditis due to neck infection is presented.

Case: An 81-year-old male patient, who had unregulated diabetes and hypertension, had a history of infection that started with a painful rash on the neck and spread to the entire neck within 12 hours, presented to the emergency department with hyperosmas and hyperglycemic coma due to the development of poor general condition and respiratory distress. After the examinations and imaging, it was evaluated as peritonsillar and submental abscess (Ludwig's angina), and he was intubated with a 5.5 endotracheal tube, propofol and rocuronium, using a videoryngoscope and bougie in the operating room conditions, due to infection and widespread edema in the neck. Methimazole was administered due to hypertension, supraventricular tachycardia development and high-dose insulin requirement in the patient whose thyroid hormone levels increased due to thyroiditis during intensive care follow-up. Methimazole was discontinued due to the development of leukopenia in the patient, and leukocyte levels began to rise at the 12th hour and were observed to return to normal levels within 72 hours.

Discussion: Antithyroid drugs can cause leukopenia, as with methimazole. Leukopenia occurs in up to 15% of adults and 25% of children taking methimazole. This may cause the existing infection to deepen and increase mortality.

Keywords: Ludwig's angina, methimazole, diabetes mellitus, leukopenia

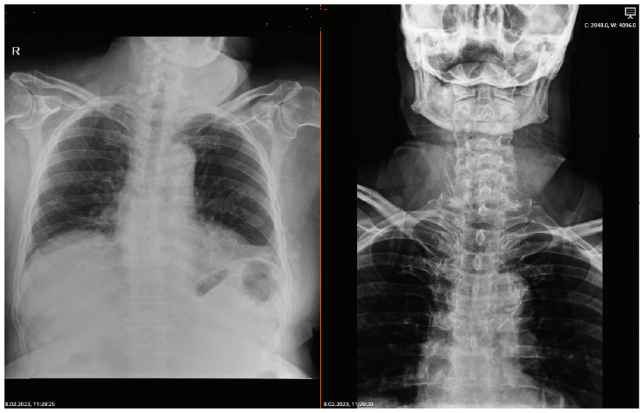

Figure 1. The appearance of the neck infection on the chest X-ray on the first day of hospitalization

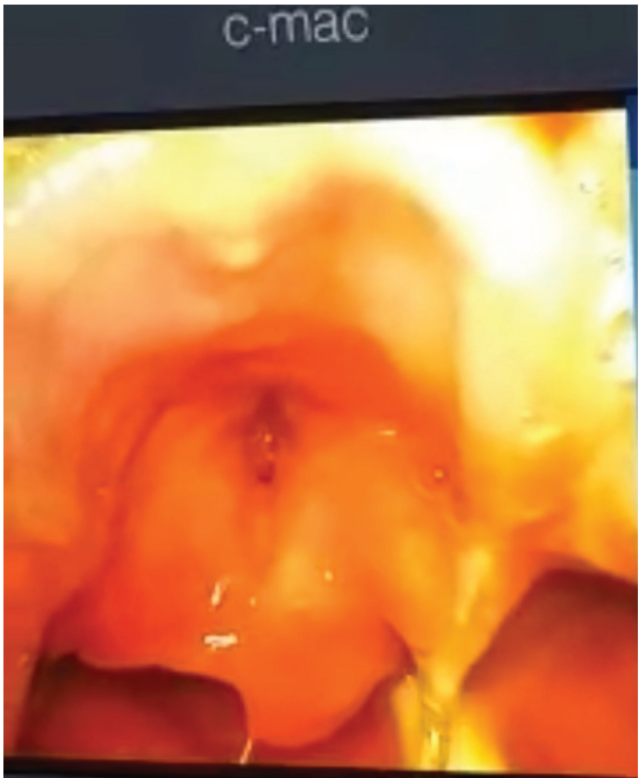

Figure 2. The edematous and infected glottis appearance is observed during intubation

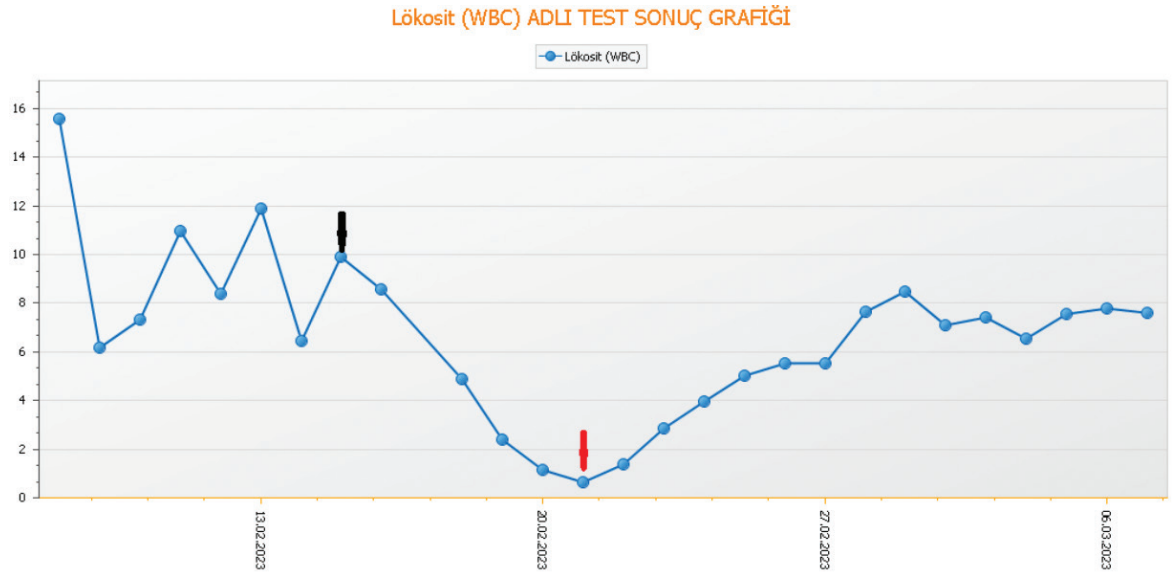

Figure 3. The decrease in leukocyte values (black arrow) after methimazole administration and the leukocyte values after discontinuation of methimazole treatment (red arrow) are observed

[OP-079]

Intraventricular Tigecycline Therapy for Ventriculoperitoneal Shunt Related Septic Shock due to Carbapenem-resistant (*Klebsiella pneumoniae*): A Case Report

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Introduction: Carbapenem-Resistant *Klebsiella pneumoniae* (CRKP) is difficult to treat due to resistance to conventional antibiotics. A difficult-to-treat critically ill septic patient with a ventriculoperitoneal shunt (VPS) infection associated with CRKP is presented.

Case: A 19-year-old male with a history of decompression surgery and VPS due to spontaneus subarachnoid hemorrhage was admitted to ICU with unconsciousness, seizure and fever. His APACHE II score was 17, SOFA score 6, and GCS 4 at ICU admission. He was intubated and meropenem-vancomycin combination therapy was initiated for preliminary diagnosis of sepsis due to VPS-related ventriculitis. Surveillance cultures indicated CRKP. On 5th day of ICU admission, ventriculer drainage tube (VDT) was placed after hydrosephalus was detected in the cranial computed tomography. On 10th day Polymixin E was added to antibiotherapy due to the development of CRKP bacteremia and ventilator-associated pneumonia. Septic shock developed again after cessation of antibiotherapy. Ceftazidime-avibactam treatment was started for CRKP detected in CSF cultures as well as blood and endotracheal aspirate. Meropenem and polymyxin E were restarted due to ceftazidime-avibactam resistance and intraventricular (ivt) polymyxin E was added. VPS was removed because of multiple septic shock attacks and continued CRKP growth in CSF and blood cultures. As a salvage treatment, meropenem, tigecycline (iv and ivt) polymyxin B was administered. After 14 days of no growth in control cultures and clinical response, VDT was removed and a new VPS was inserted. He was discharged to home from the hospital on the 185th day of ICU admission.

Discussion: The blood-brain and blood-CSF barriers make it difficult for many anti-infective drugs to reach effective concentrations in the CNS after systemic administration. Treatment options for sepsis due to CNS infections with CRKP are quite limited. This is the first successful treatment of a VPS related septic shock patient with ivt tigecycline from Turkey.

Keywords: Ventriculitis, tigecycline, Carbapenem-resistant *Klebsiella pneumoniae*, critically ill, sepsis

[OP-080]

Patients with Neuromuscular Disease Admitted to the Intensive Care Unit: A Retrospective Analysis

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Introduction: Patients with neuromuscular disease (NMD) have a high risk of severe complications such as infection, dysautonomia and respiratory failure, which require admission to intensive care unit (ICU). However, our knowledge of the ICU process of NMD patients is limited. The aim of this study was to determine the general characteristics and outcomes of patients with NMD followed up in the ICU.

Materials and Methods: We retrospectively evaluated the patients with NMD who were admitted into ICU between January-2022 and January-2023 in our hospital. The study was approved by the local ethics committee.

Results: Data of a total of 34 patients with NMD followed up in our intensive care units were analyzed. The mean age was 57.7±16.3 y and 70.6% were male. Fourteen patients (41.2%) had motor neuron disease (all amyotrophic lateral sclerosis), 13 (38.2%) had neuromuscular junction disease (all myasthenia gravis), 5 (14.8%) had muscle disease, and 2 (5.8%) had peripheral neuropathy. The median Charlson Comorbidity Index was 1 (min-max: 0-14), APACHE II score was 15 (min-max: 3-33) and SOFA score was 4 (min-max: 0-30). The most common reason to be admitted to the ICU was respiratory failure. Twenty-six patients (76.4%) needed invasive mechanical ventilation. While tracheotomy was present in 7 patients during admission to the ICU, the need for tracheotomy developed in 15 patients during the ICU follow-up. Tracheotomy-related complication (tracheoesophageal fistula) was observed in one patient, gastrostomy-related complication was observed in one patient. The mean length of stay in the ICU was 14.7±11.9 and mortality rate was 32.4%. The most common cause of mortality was septic complications.

Conclusion: The results of our study showed that the most common reason for the patient with NMD to be admitted to the ICU was acute respiratory failure. Majority of patients needed invasive mechanical ventilation and tracheotomy. ICU process is important in these patients in order to prevent complications and reduce mortality.

Keywords: Neuromuscular disease, intensive care unit, mortality

[OP-081]

Determinants of Worse Outcomes in Intensive Care Unit Among Patients with COVID-19: A Single-center Study

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Introduction: Severe acute respiratory syndrome-coronavirus 2 is the last member of β-coronaviruses to cause coronavirus disease-2019 (COVID-19), which has left deep traces in human history with pandemic effect over the last three decades. Nevertheless, an established approach associated with high intensive care unit (ICU) mortality and predicting disease's poor prognosis has yet to be implemented. We sought to investigate parameters determining worse outcomes among patients hospitalized in ICU for COVID-19.

Materials and Methods: Two hundred and seventy consecutive COVID-19 patients were retrospectively included in this single-center study. Baseline characteristics, risk factors, laboratory values, and therapies received by each individual were gathered from hospital's registry. ICU mortality was the primary endpoint, while the secondary endpoint was a composition of acute renal failure, pulmonary thromboembolism, cerebrovascular events, and acute coronary syndromes. Regression analyses were run to determine which factors had an independent association with endpoints.

Results: Mean age of the entire population was 68.4±13.2 years, with 174 males. Those who died had a significantly older age, lower systolic blood pressure, and a higher heart rate than survivors. Also, former had a higher likelihood of stroke, chronic renal disease, and atrial fibrillation. When laboratory findings were analyzed, it was discovered that numerous parameters in deceased individuals were impaired. Except for unfractionated heparin and LMWH, medications used to treat COVID-19 were comparable between two groups (Table 1). Multivariable logistic regression analysis showed that age, oxygen saturation, stroke history, LDH, and LMWH treatment had an independent relationship with primary endpoint; age, systolic blood pressure, stroke history, and troponin, on the other hand, were the determinants of secondary endpoint (Table 2). Additionally, ROC analysis demonstrated that LDH (AUC: 0.743, 95% CI: 0.684-802) was the best predictor of primary endpoint, whereas troponin (AUC: 0.793, 95% CI: 0.741-846) was the best determinant of secondary endpoint (Figure 1).

Conclusion: We found that a variety of clinical and laboratory indicators are linked to poor ICU outcomes in COVID-19.

Keywords: COVID-19, intensive care unit, mortality, troponin, lactate dehydrogenase

Table 1. Baseline characteristics, risk factors, laboratory findings, and treatment

	All (n=270)	ICU mortality (+) (n=158)	ICU mortality (-) (n=112)	p*
Baseline characteristics				
Age, years	68.4±13.2	70.5±12.8	65.3±13.2	**0.001**
Male, n (%)	174 (64.4)	107 (67.7)	67 (59.8)	0.182
Systolic blood pressure, mmHg	128±19	126±21	131±16	**0.034**
Heart rate, bpm	90±17	93±18	86±16	**0.001**
Saturation at admission, %	88±8	87±10	91±6	**<0.001**
Length of hospital stay, days	13 (8-19)	11 (7-17)	16 (10-22)	**<0.001**
Risk factors, n (%)				
Diabetes mellitus	106 (39.3)	61 (38.6)	45 (40.2)	0.795
Hypertension	175 (64.8)	106 (67.1)	69 (61.6)	0.353
Coronary artery disease	65 (24.1)	42 (26.6)	23 (20.5)	0.252
Heart failure	19 (7.0)	9 (5.7)	10 (8.9)	0.306
Stroke or TIA	20 (7.4)	17 (10.8)	3 (2.7)	**0.012**
COPD	67 (24.8)	41 (25.9)	26 (23.2)	0.608
Chronic renal disease	54 (20.0)	42 (26.6)	12 (10.7)	**0.001**
Atrial fibrillation	39 (14.4)	32 (20.3)	7 (6.3)	**0.001**
Laboratory findings				
Hemoglobin, mg/dL	12.9±2.2	13.0±2.3	12.8±2.0	0.406
Platelet, 10^3/uL	235±100	214±94	264±102	**<0.001**
Neutrophil to lymphocyte ratio	13.9 (8.2-24.1)	17.1 (10.1-29.1)	10.8 (6.8-17.7)	**<.001**
Serum glucose, mg/dL	157 (121-204)	160 (124-216)	153 (104-191)	**0.035**
Creatinine, mg/dL	1.0 (0.8-1.7)	1.3 (0.8-2.5)	0.8 (0.7-1.1)	**<0.001**
Sodium, mEq/L	138±4	138±5	137±3	0.183
Albumin, g/dL	2.9±0.4	2.8±0.4	3.0±0.4	**<0.001**
CRP to albumin ratio	5.4±3.6	6.3±3.8	4.1±2.8	**<0.001**
Alanine aminotransferase, U/L	26 (17-45)	27 (17-47)	26 (17-44)	0.759
Aspartate aminotransferase, U/L	36 (22-62)	44 (25-71)	29 (21-49)	**<0.001**

Table 1. Continued

	All (n=270)	ICU mortality (+) (n=158)	ICU mortality (-) (n=112)	p*
Lactate dehydrogenase, U/L	452 (350-638)	538 (384-711)	384 (293-466)	**<0.001**
Ferritin, ng/mL	802±475	894±478	671±440	**<0.001**
Fibrinogen, mg/dL	547±146	143±11	150±14	0.249
D-dimer, µg/mL	1.1 (0.5-2.7)	1.5 (0.7-3.8)	0.8 (0.3-1.7)	**<0.001**
Troponin, ng/L	18 (7-81)	38 (11-160)	8 (4-26)	**<0.001**
Medications administered for the treatment of COVID-19, n (%)				
Plaquenil	180 (66.7)	106 (67.1)	74 (66.1)	0.861
Favipiravir	105 (38.9)	59 (37.3)	46 (41.1)	0.536
Acetylsalicylic acid	76 (28.1)	44 (27.8)	32 (28.6)	0.896
Unfractionated heparin	13 (4.8)	13 (8.2)	0 (0)	**0.002**
Low molecular weight heparin	254 (94.1)	143 (90.5)	111 (99.1)	**0.003**
Vitamin C	135 (50.0)	80 (50.6)	55 (49.1)	0.805
Vitamin D	156 (57.8)	90 (57.0)	66 (58.9)	0.747
Colchicine	2 (0.7)	1 (0.6)	1 (0.9)	0.658
Intravenous immunoglobulin	4 (1.5)	2 (1.8)	2 (1.3)	0.551
Tocilizumab	7 (2.6)	3 (1.9)	4 (3.6)	0.454
Remdesivir	6 (2.2)	2 (1.3)	4 (3.6)	0.236
Pulse steroid	50 (18.5)	27 (17.1)	23 (20.5)	0.472

Data are given as numbers and percentages (%), mean ± standard deviation, or median (interquartile range). The p-value was computed using the independent samples t-test or the Mann-Whitney U test for continuous data and the chi-square test or Fisher's Exact test for categorical variables, as appropriate
*p-value <0.05 was considered significant. CRP: C-reactive protein, COPD: Chronic obstructive pulmonary disease, TIA: Transient ischemic attack

Table 2. Univariate and multivariate regression analysis of primary and secondary endpoints

	Primary endpoint						Secondary endpoint					
	Bivariate analysis			Multivariate analysis			Bivariate analysis			Multivariate analysis		
	OR	95% CI	p*	OR	95% CI	p*	OR	95% CI	p*	OR	95% CI	p*
Age, years	1.03	1.01-1.05	0.002	1.05	1.02-1.08	0.003	1.04	1.02-1.06	<0.001	1.04	1.01-1.07	0.012
Systolic blood pressure, mmHg	0.99	0.97-1.00	0.043	0.99	0.97-1.01	0.283	0.97	0.96-0.99	<0.001	0.97	0.96-0.99	0.004
Heart rate, bpm	1.02	1.01-1.04	0.002	1.01	0.99-1.03	0.343	1.02	1.01-1.03	0.008	1.02	0.99-1.04	0.156
Saturation at admission, %	0.93	0.89-0.97	<0.001	0.93	0.88-0.98	0.008	1.02	0.99-1.05	0.183	-	-	-
Stroke/TIA	4.38	1.25-15.33	0.021	5.66	1.21-26.50	0.028	6.34	1.81-22.18	0.004	4.44	1.01-19.60	0.049
Chronic renal disease	3.02	1.51-6.05	0.002	1.63	0.49-5.41	0.429	2.91	1.53-5.54	0.001	1.39	0.51-3.81	0.517
Atrial fibrillation	3.81	1.62-8.98	0.002	2.30	0.71-7.47	0.164	2.95	1.40-6.21	0.004	1.23	0.45-3.34	0.691
Platelet, 10^3/uL+	0.28	0.15-0.52	<0.001	0.64	0.27-1.53	0.315	0.39	0.23-0.69	0.001	0.88	0.43-1.81	0.736
Neutrophil to lymphocyte ratio	1.05	1.02-1.07	<0.001	1.02	0.99-1.05	0.171	1.03	1.01-1.05	0.003	1.01	0.98-1.03	0.540
Serum glucose, mg/dL+	2.30	1.25-4.24	0.008	1.33	0.54-3.27	0.532	1.99	1.10-3.58	0.022	1.47	0.65-3.30	0.351
Creatinine, mg/dL	1.52	1.20-1.91	<0.001	1.09	0.82-1.45	0.568	1.32	1.11-1.55	0.001	1.03	0.84-1.26	0.769
CRP to albumin ratio	1.23	1.13-1.34	<0.001	1.20	1.06-1.34	0.003	1.10	1.02-1.18	0.011	0.72	0.93-1.12	0.722
Aspartate aminotransferase, U/L+	1.90	1.35-2.67	<0.001	0.93	0.50-1.73	0.807	1.91	1.38-2.65	<0.001	1.14	0.66-1.96	0.637
Lactate dehydrogenase, U/L+	8.68	4.28-17.59	<0.001	10.96	3.20-37.56	<0.001	2.79	1.61-4.83	<0.001	1.31	0.50-3.40	0.585
Ferritin, ng/mL+	1.63	1.22-2.19	0.001	0.91	0.61-1.36	0.660	0.98	0.75-1.29	0.890	-	-	-
D-dimer, µg/mL	1.23	1.09-1.38	0.001	1.08	0.93-1.26	0.327	1.07	0.96-1.18	0.212	-	-	-
Troponin, ng/L	1.00	0.99-1.01	0.317	-	-	-	1.98	1.64-2.40	<0.001	1.59	1.30-1.95	<0.001
Low molecular weight heparin	0.09	0.01-0.66	0.018	0.04	0.01-0.87	0.040	0.13	0.03-0.58	0.008	0.29	0.04-1.89	0.194

+A logarithmic transformation is carried out, *p-value <0.05 was considered significant
CI: Confidence interval, CRP: C-reactive protein, OR: Odds ratio, TIA: Transient ischemic attack

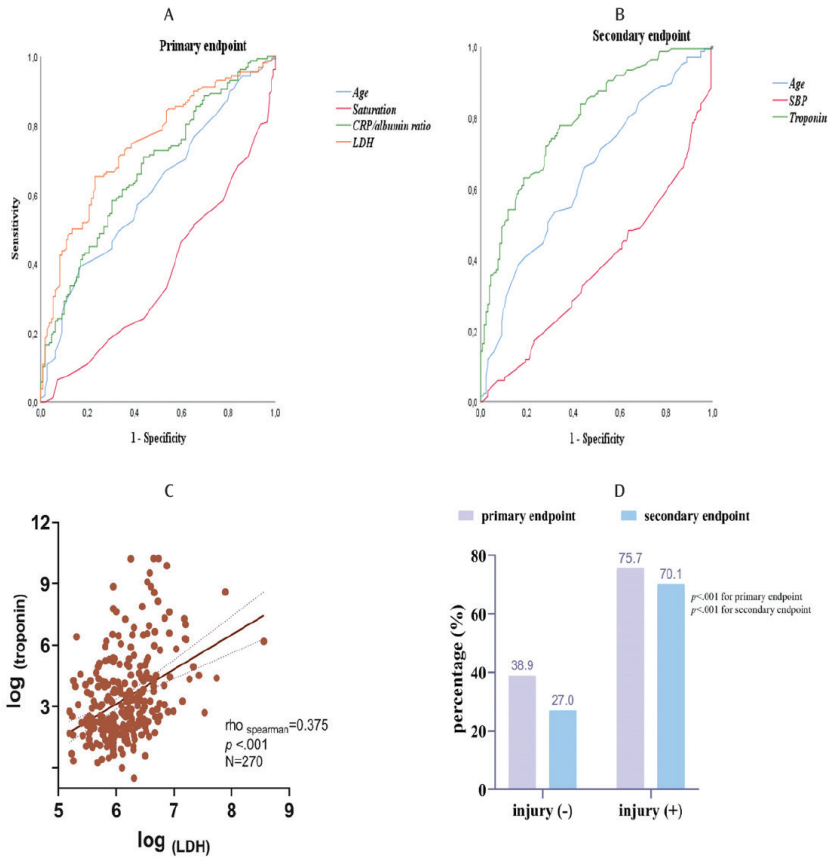

Figure 1. Association of various demographic and laboratory parameters with poor prognosis in ICU follow-up (A, B) the primary endpoint, ICU mortality, is strongly determined by age, saturation at admission, CRP to albumin ratio, and LDH (best), secondary endpoints, on the other hand, are predicted by age, systolic blood pressure, and troponin (best). (C) There is a strong positive correlation between the logarithmic transformations of the two variables, troponin and LDH, which have the best discriminatory power in specifying endpoints. (D) In ICU follow-up, patients with myocardial injury, defined as troponin elevation, showed a significantly higher prevalence of primary and secondary endpoints than those without
CRP: C-reactive protein, LDH: Lactate dehydrogenase, SBP: Systolic blood pressure

[OP-082]

Hyperbaric Oxygen Therapy in Crush Syndrome After an Earthquake Disaster

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Introduction: Prolonged entrapment under rubble, along with hypothermia, can cause circulatory disorders in the distal extremities as well as soft tissue contusions. Hyperbaric oxygen therapy (HBOT), which has become popular in recent years, is highly successful in cases of acute traumatic ischemia and soft tissue damage. In our presentation, we described the HBOT treatment and outcomes for a patient who had circulatory disorders in the bilateral lower extremities, soft tissue injuries, and left foot dorsiflexion loss (possible peripheral nerve damage).

Case: A 43-year-old-female, without comorbidities, was trapped under debris for 30 hours during an earthquake. The patient was admitted to intensive care unit (ICU), conscious, GCS: 15, pupils isocoric, IR: +/-, pulse rate: 80 bpm, SpO_2: 99%, BP: 120/74 mmHg, RR:12. There was a contusion extending from the lateral aspect of the left leg to the ankle, and a 3x3 cm serous bulla at the mid-lateral aspect of the left-leg and on the right-heel. There was a contusion extending from the distal 1/3 of the right-leg to the ankle, with necrosis of the right first-toe. Peripheral pulses were weak distally in both lower extremities. Dorsiflexion was absent in the left ankle and left first toe. The patient received hyperbaric treatment twice during ICU-stay. After treatment, peripheral pulses were stronger, and there was a decrease in the level of the wounds on both legs, as well as a decrease in the necrosis of the right first toe. Dorsiflexion began in the left first toe and ankle.

Discussion: It has been demonstrated *in vitro* experiments that HBOT provides mobilization of stem cells, which are crucial for tissue repair, and increases fibroblast formation. Therefore, it is believed that HBOT would be an effective treatment for even the most problematic soft tissue injuries caused by contusions.

Keywords: Hyperbaric oxygen therapy, crush syndrome, earthquake disaster

Figure 1.

Figure 2.

Figure 3.

[OP-083]

Boerhaave's Syndrome in a Case of Pancreatitis

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Introduction: Boerhaave's syndrome, or post-emetic esophageal rupture, is a fatal medical condition that is difficult to diagnose and treat. It is not often diagnosed in the preliminary diagnosis but can be confirmed or excluded with simple tests such as a chest X-ray and contrast study of the esophagus. Misdiagnosis often results from ignorance of atypical clinical findings or not being considered in acute cardiothoracic and upper gastrointestinal conditions. Early aggressive surgical intervention and esophageal repair/resection offer the best chance of survival. Non-operative treatment consisting of antibiotics, nasogastric tube suction, pleural drainage, H2 receptor blockers, feeding enterostomy, or total parenteral nutrition may also be appropriate.

Case: A 45-year-old male patient presented to the emergency department with nausea, vomiting, and diarrhea symptoms. Nausea-vomiting 3-4 times a day for 4 years; There were complaints of bloodless mucus-free diarrhea 8-10 times a day. No pathology was detected in neurological examination, vital values arterial blood pressure: 128/84 mmHg, pulse: 84/min, respiratory rate: 17/min, oxygen saturation: 98%, fever: 36.5 °C. Cardiac causes were excluded by taking the ECG of the patient with epigastric pain. Considering acute pancreatitis attack, gastroenterology was consulted. When the patient's anamnesis deepened, it was learned that he had complaints after severe retching and vomiting. Tomography revealed bilateral pleural effusion and pneumomediastinum. For these reasons, esophageal rupture was considered in the patient. Endoscopy revealed perforation in the esophagus, and a metallic stent was applied. Patient guardian consent was obtained for the case report.

Discussion: Esophageal rupture is most common in modern medicine due to diagnostic or therapeutic instrumentation of the esophagus. Clinical sequelae may be more severe in non-iatrogenic esophageal injuries, especially considering the prognostic importance of the time to diagnosis and treatment. In such cases, local inflammation and systemic sepsis resulting from the passage of gastric and oral secretions into the mediastinum and pleural spaces may be severe.

Keywords: Esophageal rupture, Boerhaave's syndrome, pancreatitis

[OP-084]

Dexmedetomidine Infusion to Treatment Due to Anticholinergic Toxidromes in Mother and Her Daughter: A Case Reports

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Introduction: Approximately 90,000 calls each year, it is done for poisoning with anticholinergics. Although the abuse of antihistamines is prominent in the picture of anticholinergic intoxication, in our case report, the picture of poisoning after the *Chenopodium album* that a mother and daughter accidentally ate was described.

Case: A 72-year-old mother with known hypertension, diabetes mellitus, and cerebrovascular accessory comorbidities and her 34-year-old daughter without any comorbidities applied to the emergency department with the clinical symptoms of blurred consciousness, agitation, and hallucinations after eating *Chenopodium album* food. Mother's vital signs HR: 130/min, BP: 150/92 mmHg, and RR: 35/min, and SpO_2: 87% and daughter's HR; 125/min BP: 164/78 mmHg; and RR: 32/min and SpO_2: 85%. In both patients, delirium, agitation, dry mouth, hot and dry skin, mydriasis, fever, tachycardia, tachypnea, flushing and agitation ensued. In addition to the necessary symptomatic treatment in both, dexmedetomidine was started as follows: 0.3 mcg/kg/hr without bolus dose. Both of our patients received dexmedetomidine infusion for 24 hours. They responded dramatically to treatment. After 48 hours of treatment, they were discharged to the service with stable vital signs.

Discussion: The mnemonic "mad as a hatter, dry as a bone, blind as a bat, hot as a hare, and red as a beet" is often used to recall the symptom profile of the anticholinergic toxidrome. Clinically, this manifests as delirium, agitation, dry mouth, warm and dry skin, mydriasis, fever, tachycardia, hypertension, and flushing. Dexmedetomidine successfully controlled the agitation and aggressive behaviours from anticholinergic toxidrome in our two patients without any significant adverse effects on respiratory or cardiac function. In our experience, dexmedetomidine may offer significant advantages over other sedative agents when controlling agitation and delirium related to anticholinergic toxidrome.

Keywords: Anticholinergic toxidromes, dexmedetomidine, delirium, hypertension, tachycardia

[OP-085]

A Rare Clinical Presentation in a Patient with Primary Ciliary Dyskinesia: Brain Abscess

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Introduction: Primary ciliary dyskinesia (PCD) is an autosomal recessive inherited disease characterized by airway mucociliary clearance dysfunction. The clinical phenotype is very diverse in all age groups. Although unexplained neonatal respiratory distress in infants causes atypical presentations such as chronic cough and otitis media in childhood and infertility in adulthood, the most common clinical triad is chronic upper and lower airway infections, bronchiectasis and situs inversion. The average prevalence of PCD is 1/10,000 to 1/20,000. Approximately 50% of patients with PCD also have a high incidence of congenital heart disease. PCD is difficult to identify and diagnose because structural or functional defects in respiratory tract motile cilia and cilia in other organs caused by gene variants in the PCD pathogenesis lead to a heterogeneous set of clinical manifestations.

Case: A 26-year-old male patient with a diagnosis of PCD was admitted to the neurology outpatient clinic with a complaint of headache. The patient was hospitalized after cranial CT and MRI revealed ventricular cerebral abscesses on examination due to nuchal rigidity. After lumbar puncture performed with the recommendation of infectious diseases, the patient was transferred to the intensive care unit upon regression of neurologic

examination and external ventricular drainage procedure was performed by neurosurgery. The patient was stabilized and brain abscess drainage was performed. BOS culture was sent and antibiotherapy was organized.

Discussion: Dynein is a protein responsible for mucociliary activity. In PCD; bacteria and mucus accumulation occurs in the sinuses due to dynein deficiency. Since this accumulation increases the tendency for infection in the sinuses and bronchi, it may cause local involvement such as empyema, lung abscess or may break off from an infected thrombosed vasculitis and reach distant organs. This can lead to brain abscesses and meningitis, as in our case

Keywords: Kartegener syndrome, brain abscess

[OP-086]

Patient Management in a Case of Anaphylaxis with Heparin Wash Solution

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Introduction: Intravenous heparin flushing solution is widely used to prevent occlusion of arterial and venous cannulas. Hypersensitivity reactions such as heparin-related urticaria, bronchospasm, and anaphylaxis are rare. We aimed to present a case of anaphylaxis in a patient who was treated with heparinized washing solution after arterial cannulation in the intensive care unit.

Case: A 72-year-old male patient with coronary artery disease and hypertension comorbidities came to the intensive care unit after being operated for bladder cancer. The patient's heart rate was 56, blood pressure was 178/112, and oxygen saturation was 94. While the radial artery cannula was monitored and heparinized washing solution was administered, a momentary fading rash was observed on the skin on the medial surface of the forearm. Ten minutes after the rash, hypotension, tachycardia and desaturation were observed in the patient. The patient's pulse was 132, blood pressure 66/35, and oxygen saturation 82. The patient was quickly intubated and followed up with mechanical ventilation. Intramuscular 0.5 mg adrenaline was administered to the patient. The patient's vital signs were stable after adrenaline administration. The patient's tryptase level was 22 ng/mL. To confirm the patient's heparin allergy, a skin test was performed (6 mm), it was considered positive. The patient whose vitals were stable was extubated. After being followed for 24 hours in the intensive care unit, the patient was transferred to the service.

Discussion: There are cases in which heparin anaphylaxis has been reported in the literature. Heparin is frequently used in intensive care units for prophylaxis of thromboembolic disease and as a washing solution to prevent occlusion of catheters. Heparin anaphylaxis is rare, but it is a severe, acute and multisystemic allergic event with high mortality. Therefore, we think that early recognition and effective treatment of anaphylaxis is important.

Keywords: Anaphylaxis, heparin wash solution

[OP-087]

Extracorporeal Carbon Dioxide Removal ($ECCO_2R$) Complication in Chronic Obstructive Pulmonary Disease (COPD): Bleeding

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Introduction: Non-invasive ventilation is used in the treatment of severe forms of acute hypercapnic respiratory failure in COPD patients,but it fails in approximately 40% of patients. In these patients,endotracheal intubation should be applied and invasive mechanical ventilation (IMV) should be started. The aim of IMV is to provide adequate gas exchange and to reduce the respiratory workload.Recent studies on the use of extracorporeal carbon dioxide removal ($ECCO_2R$) system in COPD acute attack to prevent IMV or to improve ventilation parameters by assisting IMV have supported that $ECCO_2R$ has an effective role in the management of this patient population.

Case: A 45-year-old male patient with a diagnosis of COPD is admitted to the emergency department with the complaint of shortness of breath lasting for 10 days. The patient was admitted to the intensive care unit on the 3rd day due to the increase in respiratory distress. The patient, whose type 2 respiratory failure continued during his stay in the intensive care unit, was followed up with BIPAP 7/26 cm H_2O pressure and FiO_2 100%. After his general condition deteriorated, he was intubated on the 4th day. $ECCO_2R$ was attached to the patient on the 2nd day after IMV. Blood flow was adjusted as 300 mL/min, scavenging gas as 10 L/min, and heparin dose as 50 U/kg. The patient was supported with $ECCO_2R$ for 48 hours. The $ECCO_2R$ of the patient who had bleeding from the catheter site was terminated. Necessary blood product replacement was done and 0.5 mL of protamine sulfate was given. The patient was hypotensive and although inotropic support was increased,the patient's vitals did not improve and he died.

Discussion: The disadvantage of using low current in the $ECCO_2R$ application is that the risk of coagulation is very high and complete anticoagulation is required. Complication rates range from 10-44%, with bleeding and thrombosis being the most common. In our patient,we think that the vitals of the patient deteriorated after bleeding and he died.

Keywords: Chronic obstructive pulmonary disease (COPD), extracorporeal carbon dioxide removal ($ECCO_2R$), intensive care unit

Table 1. Arterial blood gas, hemoglobin, platelet and INR values of the patient

Laboratory Values	NİMV	İMV	İMV + ECCO2R Beginning	İMV + ECCO2R 2. hour	İMV + ECCO2R 12.hour	İMV + ECCO2R 24.hour	İMV + ECCO2R 36.hour	İMV + ECCO2R 48.hour
pH	7,37	7,41	7,2	7,39	7,31	7,26	7,1	7,09
PaO_2 (mmHg)	80,2	84,2	99,5	92,3	90,1	94,3	96,2	99,3
$PaCO_2$ (mmHg)	86,3	90,6	146,4	100	70,4	72,8	120,3	139,8
HCO_3^- (mmol/L)	53,1	52,3	53,4	43,5	39,2	38,7	39,8	41,1
BE (mmol/L)	24	23,4	23	19,3	19.7	18,8	14,7	11,2
SpO_2	96	97	97	97	97	97	96	96
Hb (gr/dL)	15,3	15,2	15,1	14,1	13,8	11,1	9,2	7,9
Plt x(10^9/L)	234	185	170	164	170	120	110	107
INR	1.2	1,2	1,4	1,5	1,6	1,8	1,9	1,9

Figure 1.

[OP-088]

Fatal Necrotizing Fasciitis Due to *Strep. Pyogenes*: Case Report

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Introduction: Group A *Streptococci* infections of the subcutaneous tissue and fascia are rare with a high mortality rate and rapidly progressing to shock and multi-organ failure. It usually develops in the extremities after blunt trauma or previous injuries. In this case report, a patient infected after blunt trauma and progressed to necrotizing fasciitis was reported.

Case: A 61-year-old male patient with a history of stroke and chemoradiotherapy for laryngeal carcinoma was referred six days after falling, with complaints of swelling and pain in the left leg. On physical examination, widespread erythematous and edematous lesions extending from the level of the left lateral malleolus to the patella were observed. Flow could not be obtained in the tibialis posterior and dorsalis pedis arteries with Doppler USG. Leukocytosis, increased acute-phase-reactants and creatinine were found. Meropenem and vancomycin were given after obtaining cultures and noradrenaline for hypotension. The patient underwent left transfemoral amputation as the lesions rapidly progressed the day after admission (Figure 1). CRRT was started for metabolic acidosis and anuria. On postoperative day 1, the erythematous, edematous appearance spread from the amputation site to the inguinal region and scrotum and become necrotic (Figure 2). He was operated with the preliminary diagnosis of Fornier's gangrene. As *Streptococcus pyogenes* was observed in the cultures of blood and operation material, vancomycin was switched to linezolid. The need for inotropes decreased, enteral nutrition was started, and he was weaned from the ventilator. Necrotic areas did not regress despite daily wound debridement and dressing and, appropriate antibiotic therapy. The patient deteriorated, needed mechanical ventilation, and had cardiac arrest. He was declared exitus on the twentieth day (Figure 3).

Discussion: Extensive and early surgical debridement is required for necrotizing fasciitis caused by *Streptococcus pyogenes*. Early recognition, antibiotic therapy and rapid implementation of surgical procedures may be effective in the surveillance of the patient.

Keywords: *Streptococcus pyogenes*, necrotizing fasciitis, sepsis

Figure 1.

Figure 2.

Figure 3.

[OP-089]

An Atypical Myasthenia Gravis Patient: Presenting with Dyspnea

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Introduction: Myasthenia gravis (MG) is an autoimmune neuromuscular disease that affects the post-synaptic acetylcholine receptors, which often occurs with involvement of the periocular muscles. In atypical forms that do not progress with ptosis, the diagnosis may be delayed or misdiagnosed. In this case report, we present an atypical MG patient who presented with dyspnea.

Case: A 40-years-old female patient who applied to different clinics with the complaints of dyspnea intermittently for 10 years. Patient was admitted to the emergency service with respiratory distress without ptosis and muscle weakness in her extremities. Her arterial blood gas (pH: 7.15, pCO_2: 147, pO_2: 123, HCO_3: 23) was evaluated as severe respiratory acidosis in the emergency department and was admitted to our ICU after endotracheal intubation. The patients' respiratory support needs resumed. Four unsuccessful weaning attempts occured during the intensive care follow-up of the patient. During the extubated period, laryngeal endoscopy was performed by ENT clinic. Vocal cord pathology was not detected. She was not tolareted extubation therefore she was re-entubated. During follow up of the patient who did not benefit from the pyridostigmine treatment with the prediagnosis of MG, ach receptor antibody result seen negative and anti-MuSK antibody result seen positive. EMG was not reported as compatible with MG. Due to clinical suspicion, the patient was treated with intravenous immunoglobulin (IVIG) with the recommendation of neurology, and tracheostomy was performed due to prolonged intubation. The patient, whose dyspnea symptoms regressed after IVIG treatment able to provide spontaneous breathing with tracheostomy and was transferred from ICU to neurology service.

Discussion: Kanemaru et al. in his atypical MG case which localized to the larynx, diagnosed with edrophonium test. We believe that atypical forms of MG can be considered in the differential diagnosis of severe hypercarbic conditions with type 2 severe respiratory failure of unknown etiology. As in our case who did not benefit from pyridostigmine, anti-MuSK antibody recommended to see.

Keywords: Myastenia gravis, dyspne, respiratory failure, anti-MuSK antibody

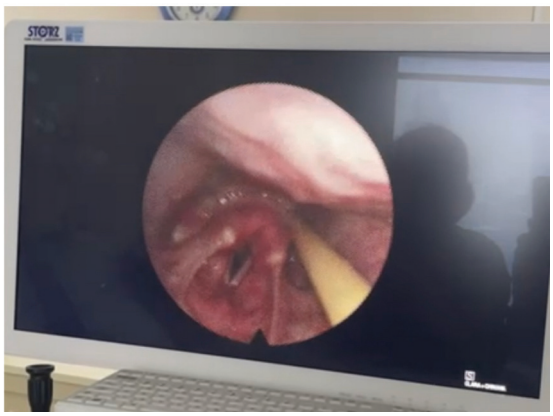

Figure 1. Vocal cord image during the extubation period

[OP-090]

Acute Disseminated Encephalitis (ADEM) After Pneumococcal Meningitis; A Case Report

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Introduction: Acute disseminated encephalomyelitis (ADEM) is a neurological disease characterized by episodes of inflammation that cause myelin damage to the brain and spinal cord, usually following a viral or bacterial infection or, rarely, a vaccine. In this case report, we aimed to present a case that developed ADEM after pneumococcal meningitis.

Case: A 22-year-old female patient was admitted to the ED with back and neck pain. She was accepted to the ICU due to the progressively worsening consciousness. On admission ın the ICU, hemodynamically parameters were stable. The physical examination findings were normal except for nuchal rigidity. *Streptococcus pneumonia* DNA was detected in the cerebrospinal fluid (CSF)-PCR. CSF examples were analyzed as follows WBC: 11,590 10^3/mm^3, RBC: 25,000 10^3/mm^3, chlorine: 109 mEq/L, glucose: 94 mg/dL, total protein: 1028 mg/dL, albumin: 5240 mg/L, LDH: 733 U/L. In magnetic resonance imaging (MRI) leptomeningeal enhancements were observed in the left parietooccipital. Despite the conservative oxygen therapy, she was intubated electively due to the development of respiratory failure. On the 10th day of follow-up with pneumococcal meningitis, GCS: 3 was followed, the repeated CSF analysis was normal, and the vasculitis panel was evaluated as negative. ADEM was diagnosed after multiple hyperintense areas in the white matter were observed in the T2 sequence in the control MRI (Figure 1a, b). Plasmapheresis and medical treatment (anti-bacterial drugs(vancomycin 2x1 gr, ceftriaxone 2x2 gr), corticosteroids (dexamethasone at 0.15 mg/kg/d for pneumococcal meningitis/methylprednisolone at 1 g/d for 7 days for ADEM) were applied. The patient died on the 17th day of hospitalization due to septic shock associated with a secondary infection.

Discussion: ADEM is frequently seen in childhood (≈7.5 years) and is held responsible for the pathogenesis of T-cell mediated immune response against myelin protein. In literature, the development of ADEM secondary to bacterial infection in adulthood has been observed in limited cases. Intermittent MRI follow-up is important in the early diagnosis and effective treatment of ADEM and other demyelinating diseases.

Keywords: ADEM, neurological disease, pneumococcal meningitis, acute disseminated encephalomyelitis

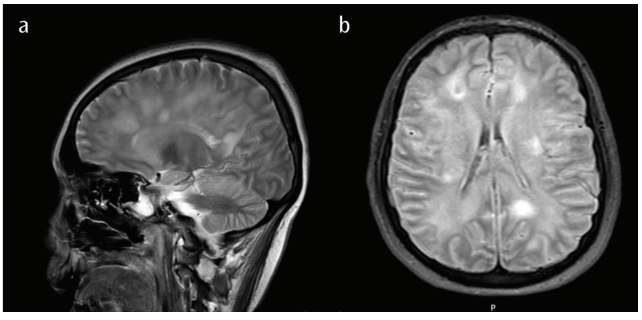

Figure 1a, b.

[OP-092]

Ultrasonography can be Used as a Weaning Tool in Daily ICU Practice

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Introduction: In today's intensive care practice, intensivists have an increasing interest in bedside ultrasonography because it requires less mobilization, non-invasive, and has less side effects with a fast and accurate diagnosis. In this case report, we aim to evaluate the diagnostic efficacy of bedside ultrasonography in a critically ill patient who had a weaning failure during mechanical ventilation.

Case: A 58-year-old female patient, whose medical history was unremarkable, was attended to the emergency department with dyspnea and hypotension. She was admitted to the intensive care unit (ICU) due to vasopressor requirements. She was intubated and mechanically ventilated with P-SIMV mode (PEEP: 14, P control: 16, respiratory rate 20 per/min, FiO_2: 80%). Because of tachypnea and hypoxia despite high-flow nasal oxygen treatment and NIV support. All culture samples were taken and empiric antibiyotherapy was started immediately. CVVHD was required during ICU stay because of metabolic acidosis (Ph: 7.03 PO_2: 85 mm/Hg, PCO_2: 30, HCO_3: 12, SPO_2: 91%, lactate: 4.8 mmol/L, BE: -11). After days, her metabolic dearrangements were recovered and hemodynamic supports were minimized. Then we started a daily weaning trial but she failed from the beginning. We did bedside USG and found massive pleural and pericardial effusion (Figure 1). After thoracentesis, her vasopressor and invasive mechanical ventilation requirements were decreased. In a few days, she was extubated and discharged on the 15th day of ICU stay.

Discussion: Ultrasonography is a non-invasive bedside monitoring tool that can be used effectively in the ICU. As in our case, thorax USG and echocardiography which was performed by an intensivist can distinguish many pathologies and also identify the fluid quantitatively and qualitatively. It also should be in mind, USG is a weaning tool in daily ICU practice when needed.

Keywords: Lung ultrasound, pleural effusions, intensive care, weaning tool

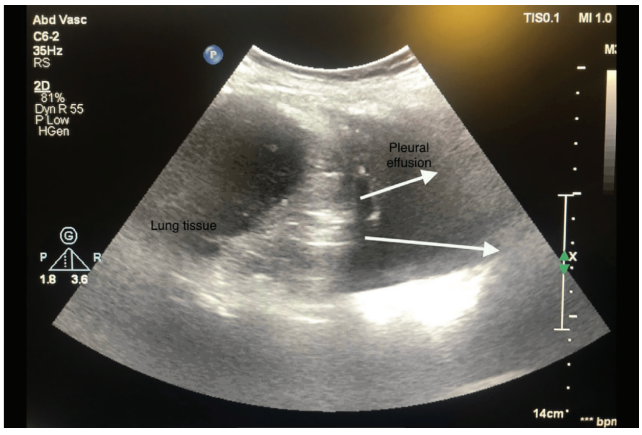

Figure 1. Pleural effusions at bedside lung usg imaging

[OP-093]

Diaphragmatic Paralysis After Pediatric Cardiac Surgery; Diagnosis, Treatment and Management

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Introduction: Diaphragmatic paralysis (DP) that occurs due to phrenic nerve injury after pediatric cardiac surgery is an important complication that can cause respiratory failure. We would like to present the diagnosis and follow-up process of cases with DP after cardiac surgery in our clinic.

Materials and Methods: Cases diagnosed with DP after cardiac surgery between January 2018 and January 2023 were retrospectively analyzed. The diagnosis was made with the help of paradoxical breathing during spontaneous ventilation, elevated hemidiaphragm on chest X-ray and fluoroscopy during extubation. Cardiac surgery, results, diagnosis and treatment methods of the cases were analyzed.

Results: Eighteen cases of DP were diagnosed in the intensive care unit of our clinic, where approximately 600 cardiac surgeries are performed annually. Totally correction surgery was performed in 13/18 patients and single ventricle palliation was performed in 5/18 patients. Bilateral paralysis was diagnosed in 6/18 (33.3%) cases, right-sided paralysis in 8/18 (44.5%) cases, left-sided paralysis in 4/18 (22.2%) of the cases. Diaphragmatic plication was performed in 7/18 (38.8%) cases, tracheostomy was preferred in patients with bilateral paralysis. There are 8/18 cases who underwent tracheostomy and 4/8 (50%) of the tracheostomy cases were decannulated and discharged to home. Median follow-up time on mechanical ventilator was 34.3 days (min 7 max 120 days) and median length of stay in the intensive care unit was 54.5 days (min 8, max 154 days). 2/18 of the cases died during the intensive care unit and 2/18 of them died after being discharged home.

Conclusion: DP in the postoperative period causes serious morbidity by causing long ventilation time and intensive care unit stay. In patients with paralysis, plication may be considered in order to facilitate weaning from ventilation and to shorten the length of intensive care stay.

Keywords: Pediatric cardiac surgery, diaphragmatic paralysis, diaphragmatic plication

Table 1. Features of the patients and diaphragmatic paralysis

	N (%)	Median (min-max)
Number of patients	18	
Type of surgery Correction surgery Single ventricle palliation	 13 (72.3%) 5 (27.7%)	
Side of the paralysis Bilateral Right Left	 6 (33.3%) 8 (44.5%) 4 (22.2%)	
Diaphragmatic plication	7 (38.8%)	
Tracheostomy	8 (44.4%)	
Follow-up time on mechanical ventilator (day)	34.3	min 7, max 120
Length of stay in the intensive care unit (day)	54.5	min 8, max 154

[OP-094]

Two *Candida auris* Case Reports From Bursa, Turkey

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Introduction: *Candida auris* can cause infections and epidemics because it can survive on surfaces and is resistant to disinfectants. In the development of *C. auris* infection; broad-spectrum antimicrobials,invasive interventional procedures and suppression of the immune system are effective. In this report, we aimed to draw attention to the risk factors of *C. auris* infection and to show that positive results can be obtained with treatment by following the isolation rules.

Case: Case 1: Fifty one years old male patient with GCS: 7 is being followed up in our clinic with diagnoses of cerebrovascular disease and tracheoephagial fistule (TEF). *C. auris* (MALDI TOF/VITEK) was detected in the blood culture of the patient on the 68th day of hospitalization in our clinic. Caspofungin was added to his treatment. The patient with GCS: 10 was transferred to the palliative care unit in spontaneous breathing. Case 2: Sixty-seven years old female patient with GCS: 4 was transferred to our ICU on the 72nd day of admission to the burn unit with the diagnosis of water burn. Fluconazole was added to her treatment on the 15th day of her admission in our ICU. *C. albicans* was detected in the urine culture on the 18th day and *C. auris* was detected in the wound culture on the 28th day of hospitalization in our ICU. The patient with GKS: 10 is followed in invasive mechanical ventilation (IMV).

Discussion: There are various predisposing factors for *C. auris* infection; multi-drug resistant bacterial infections, catheterization, IMV, TEF, burns are the predisposing factors in our cases. Following *C. auris* infection, patients were cared for in isolated rooms with the rules of personal pretective equipment. We think that isolation rules and treatment are important in preventing a possible epidemic. While mortality is 30-70% in *C. auris* cases, the treatment of first case in palliative care and the second case in the ICU continues.

Keywords: *Candida auris*, infection control, antifungal, ICU

[OP-095]

Prevention of Ventilator Associated Pneumonia: Need for Personalized Education

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Introduction: Ventilator-associated pneumonia (VAP) can be defined as pneumonia that develops 48 hours after intubation. The use of guidelines on VAP is an effective practice for the prevention of VAP. There are very few studies on this subject in Turkey and it is not known exactly what the level of knowledge is. This study aims to evaluate the knowledge of intensive care workers regarding the proposed and studied guidelines for the prevention of VAP.

Materials and Methods: This descriptive study was conducted in the adult intensive care units of a training and research hospital. In the collection of the data, "Data collection form on the introductory characteristics of the participants" and "Questionnaire form for the prevention of VAP" developed by the researchers as a result of the literature review were used. A questionnaire was applied to 150 intensive care nurses. In the evaluation of the groups participating in the study, descriptive statistics were given together with mean standard deviation values. Statistical significance was examined using Pearson chi-square and Fisher's Exact test.

Results: There was no statistically significant difference between the knowledge levels of the participants according to the study years (p=0.490). The rate of education of those whose working time is less than 1 year was found to be quite low 16.2%. While 65.3% of the participants knew that the oral route should be chosen in intubation, 86% knew that giving a semi-recumbent position reduced the risk of VIP, 56.7% knew that it was sufficient to replace the ventilator circuit in each new patient unless there was visible pollution.

Conclusion: It was observed that intensive care workers did not have sufficient level of knowledge to prevent the development of VAP. It is extremely important that intensive care nurses are given in-service training at regular intervals.

Keywords: Ventilator associated pneumonia, prevention, knowledge

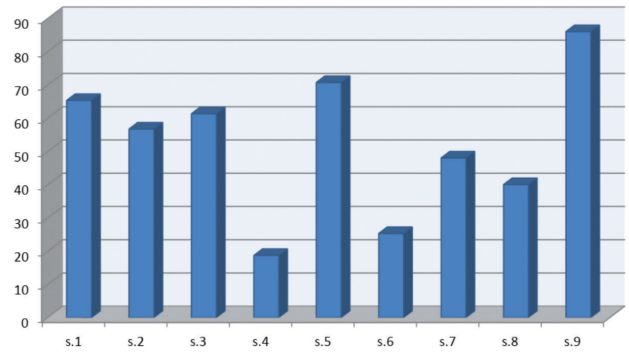

Figure 1. Participant ICU nurses score for the knowledge test

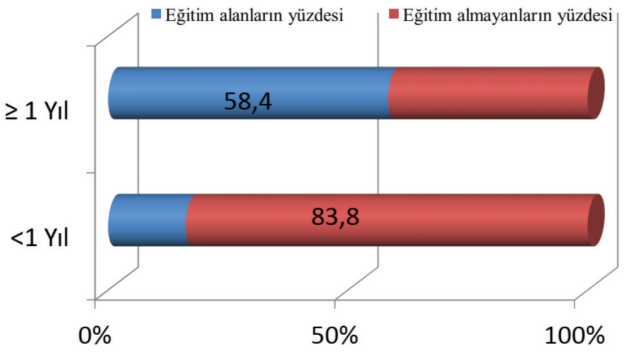

Figure 2. The relationship between working time and the rate of education

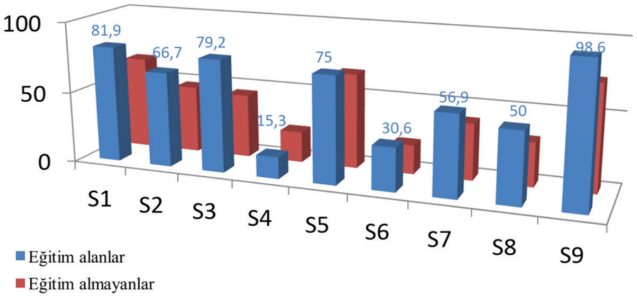

Figure 3. The relationship between education level and knowledge

[OP-096]

An Unusual Presentation of Hydatid Disease with Isolated Cardiac Cysts: A Case Report

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Introduction: Cardiac echinococcosis is a rare manifestation of echinococcosis. Symptoms can be variable and nonspecific such as chest pain, dyspnea, and coughing. Life-threatening complications lead to serious outcomes, even death. Here we present a challenging case report of cardiac echinococcosis in our patient.

Case: A twenty-seven-year-old male patient with a previously known drug abuse history was admitted to another hospital unconscious after having shortness of breath, facial edema, vomiting and losing consciousness at home. He had cardiac arrest in the emergency room requiring ten minutes of CPR. A CT pulmonary angiogram showed several cystic lesions one of which extended over the left pulmonary artery. The patient was transferred to our centre with a pre-diagnosis of pulmonary embolism. The patient was on vasopressors, having fever and high Procalcitonin levels (26 ng/dL). These findings needed consideration of endocarditis since the drug abuse history. Trans-esophageal echocardiography (TEE) which done by intensivist revealed intracardiac cysts in the left atrium and the right atrium (Figure 1, 2). There were no cysts in other organs including lung and liver. Whole blood count showed eosinophilia (20%, 2.68x103). Indirect hemagglutination test was positive. We started albendazole therapy and empiric antibiotics. Surgical resection of intracardiac echinococcosis in the right and left atrium had done with no complication (Figure 3). Patient had no problem postoperatively and still hospitalized in the intensive care unit.

Discussion: Patients with cardiac echinococcosis are more likely to develop fatal complications of the disease such as anaphylaxis, cyst rupture that may cause tamponade, arrhythmias, valve dysfunctions etc. In our patient, the deterioration might be due to either anaphylaxis or mitral/tricuspid valve dysfunction due to cysts' locations. In endemic regions, echinococcosis should be one of the differential diagnoses of intrathoracic lesions manifesting as anaphylaxis-like incidents.

Keywords: Hydatid disease, cardiac cysts, anaphylaxis

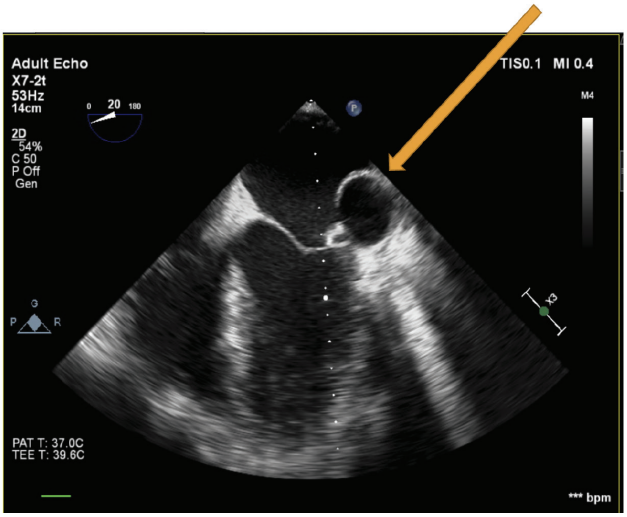

Figure 1. Trans-esophageal echocardiography appearance of intracardiac cysts in the left atrium

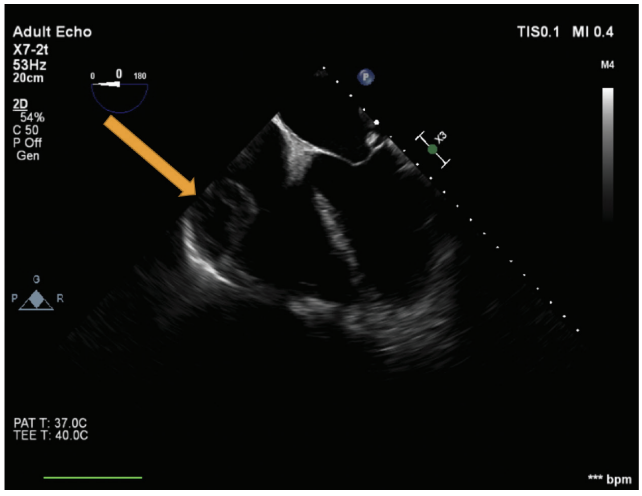

Figure 2. Trans-esophageal echocardiography appearance of intracardiac cysts in the right atrium

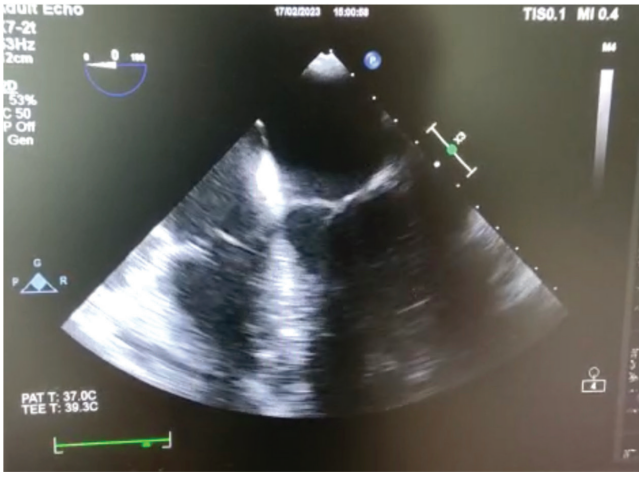

Figure 3. Trans-esophageal echocardiography of patient after surgical resection with no intracardiac echinococcosis

[OP-098]

The Role of the Thrombolytic Therapy in Acute Ischemic Stroke: Two Case Reports

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Introduction: The cerebrovascular diseases significantly affect mortality and morbidity in the geriatric patient group. Approximately 85% of acute cases present as ischemic stroke. The primary goal of treatment is to restore and maintain adequate perfusion. In this 2 case reports, we aimed to compare effect of thrombolytic treatment in two geriatric patients who had acute ischemic stroke.

Case: Case 1: A 69-year-old female patient with a diagnosis of HT and DM was brought to the emergency room with GCS of five. She was intubated and transferred to intensive care unit. Diffusion restriction was observed in the right thalamus, right occipital, and left cerebellum in DWI MRI. TPA was planned for the patient, but her relatives refused the treatment. The enoxiparin 2x0.6 IU and 100 mg ASA treatments were started. No change was detected in the control MRI. The patient died due to secondary causes after a long intensive care stay. Case 2: A 96-year-old female patient was brought to the emergency department with complaints of weakness in left upper extremity, speech disorder and weakness. Her GCS was 10, blood pressure: 177/88 mmHg and hearth rate was 99/minute. The DWI MR showed diffusion restriction around the right lateral ventricle. She was intubated due to deterioration of consciousness. The thrombolytic treatment was administered at the 4th hour of event. The patient was extubated on the 2nd day of hospitalization with the GCS of 15 and transferred to the neurology clinic.

Discussion: The cerebrovascular diseases are the second leading cause of death and major cause of disability in the world. IV thrombolysis remains a proven medical treatment but timeframe for treatment is still narrow and the majority of patients with ischemic stroke are unable to receive thrombolysis. In this case early use of thrombolytic treatment improved neurological recovery and reduced disability with satisfactory result.

Keywords: Acute ischemic stroke, thrombolytic treatment, neurological recovery

[OP-099]

The Use of Bispectral Index in Clinical Suspicion of Brain Death: A Case Report

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Introduction: Brain death (BD); is the irreversible loss of brain functions, including brainstem reflexes. Although the diagnosis of BD is a clinical diagnosis; ancillary imaging tests are the methods frequently used in the diagnosis. Bispectral index (BIS); it consists of combining the wave components of different frequencies with spectral analysis, which numerically reports the EEG findings. In the light of clinical observations, there are articles published that it can be a marker in the early period in patients who are expected or occurred BD. We aimed to present our clinical experience that BIS monitoring can be used as an early marker before clinical suspicion in the diagnosis of BD in intensive care unit (ICU) practice.

Case: A 41-year-old male patient with no known history of chronic disease applied to the hospital with complaints of headache; he was taken to our ICU follow-up after aneurysm coiling and stent operation due to bleeding internal carotid artery aneurysm. Postoperative GCS: 15 pupillary isochoric IR+/+, muscle strength was normal in the extremities. The patient developed left hemiplegia on the postoperative 1st day, balloon angioplasty was performed after stent thrombosis detected. Post-procedure sedated patient; BIS values were in the range of 50-60, suppression ratio (SR) value was 0, followed by sedation, GCS: E1VEM4 pupils were isochoric IR+/+. On the 3rd postoperative day; In the patient, the BIS value was found to be 0 and the SR was found to be 100. His pupils were found to be middilated IR-/-, GCS: E1V1M1. Cardiac arrest developed within 48 hours of the diagnosis of BD on the 5th postoperative day.

Discussion: We use BIS monitoring in sedation applications, especially in selected critical patients in our ICU. We believe that BIS monitoring can help us as an early marker in patients who are thought to have BD, and therefore may have additional benefits by accelerating the organ transplantation process.

Keywords: Bispectral index, brain death, early marker

Figure 1.

Figure 2.

[OP-100]

Can Hyperbaric Oxygen Therapy Prevent Amputation in Crush Injuries?

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Introduction: Hyperbaric oxygen therapy (HBOT) is effective as an adjunctive therapy in the treatment of crush injuries.

Case: A 29-year-old female earthquake survivor who has been rescued from the debris at the 24th hour, was referred to our center with crush injury at the right upper extremity. Fasciotomy was performed due to the compartment syndrome on the right hand and arm at the health institution where the patient was first taken. As a consequence of elevated creatine kinase, oliguria, obesity and need for supplemental oxygen therapy; the patient admitted to intensive care unit (ICU). Laboratory parameters of the patient on admission and discharge are shown in Table 1. The patient treated with normal saline solution, antibiotics, and intravenous analgesics. On our first sensory examination, all fingers of the right hand were hypoesthetic; and on the motor examination, limitation of flexion and extension was noted in all fingers of the hand. Refill in all fingers of the right hand was evaluated as indeterminate. Wound assessment was made by orthopedists and plastic surgeons, stated that amputation may be required eventually. As soon as hemodynamic stabilization was achieved, the patient's HBOT sessions were planned. The patient underwent 11 times 120 minutes of HBOT with oxygen at 2.5 atmospheres absolute (ATA) while breathing 100% oxygen. The patient underwent debridement at the 8th, 15th and 22th day of follow-up. On the post-operative examination after the third operation, it was seen that all finger refills on the right hand were sufficient (Figure 1). Through appropriate treatment; creatine kinase level decreased, urine output improved so the patient was discharged from ICU.

Discussion: The multidisciplinary approach with HBOT, antibiotics and debridements may result in the salvage of the limb at the patients presenting with crush syndrome.

Keywords: Crush injury, compartment syndrome, hyperbaric oxygen therapy

Table 1. Laboratory parameters of the patients on admission and discharge

Parameter	On admission	Discharge
Creatine Kinase (U/L)	14337	281
Urea (mg/dL)	36	13
Creatinine (mg/dL)	0.52	0.48
Serum sodium (mEq/L)	139	140
Serum potassium (mEq/L)	4.3	3.7
Calcium (mg/dL)	7.4	7.8
Phosphorus (mg/dL)	1.8	2.9
Aspartate Transaminase (AST) (U/L)	297	25
Alanine Transaminase (ALT) (U/L)	94	19
Lactate dehydrogenase (LDH) (U/L)	611	270

Figure 1.

[OP-101]

Use of Electric Impedance Tomography as a Screening Tool to Determine Effectiveness of Bronchosopy in a VV-ECMO Patient

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Introduction: Electrical impedance tomography (EIT) is a real-time, non-invasive, bedside evaluation method of regional lung ventilation. EIT screening experience is presented in a patient with VV-ECMO and used bronchoscopy due to atelectasis.

Case: A 46-year-old female patient diagnosed with microscopic polyangitis with diffuse bilateral lung infitrations.While being followed with pulse steroid therapy and high flow oxygen, she was intubated after rapid progression and then taken to VV-ECMO. The cause of progression was found to be diffuse pneumonia in the left hemithorax, and meropenem was started rapidly. Steroid therapy of the patient was gradually reduced. Bronchoscopy was performed. EIT monitorization was applied to the patient to evaluate the lung vantilation before and after bronchoscopy. Consistent with the chest radiograph before bronchoscopy, severe vantilation impairment was observed in the left lung, especially in the lower zones. It was observed that left lung ventilation and tidal volumes increased within hours after bronchoscopy. The patient was successfully extubated 3 days after weaning from VV-ECMO and transferred to the service.

Discussion: EIT is as a new functional imaging modality that provides instant visualization of the dynamic state of the lung during ventilation. It's use without using ionizing radiation and in-hospital transport is an important advantage in ECMO as in our patient or in ventilator-dependent patients. In our patient, secretion clearance and removal of atelectasis with bronchoscopy were visualized instantly at the bedside with EIT. Increase in ventilation at the left lung was observed after bronchoscopy. As a result; Bedside EIT monitoring is a method that allows rapid evaluation of ventilation in critically ill patients during bronchoscopy, and it can provide significant benefits in the clinical decisions of patients with VV-ECMO.

Keywords: Bronchoscopy, electrical impedance tomography (EIT)

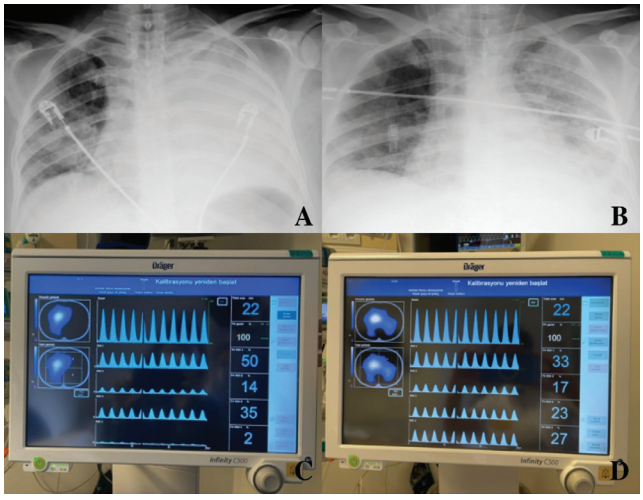

Figure 1. Chest radiography and EIT images. A-C) Chest radiography and EIT images before bronchoscopy B-D) Chest radiography and EIT images after bronchoscopy. Regional distribution of lung volume

Table 1. 1. Upper right zone. 2. Upper left zone. 3. Lower right zone. 4. Lower left zone

	Before bronchoscopy	After bronchoscopy	4 hours later	12 hours later	24 hours later
1	49	50	38	30	30
2	14	17	16	17	20
3	35	29	28	31	24
4	2	4	18	22	26
Tidal volume (mL)	412	492	494	460	440
PEEP/PS (cmH_2O)	6/24	6/24	6/24	6/24	6/18
FiO_2	1.0	1.0	0.45	0.40	0.30

[OP-102]

VA-ECMO Application After Thrombolitic Therapy in a Case of Massive Pulmonary Thromboembolism

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Introduction: Massive PTE is a life-threatening clinical condition with high mortality.In this case report, we aimed to draw attention to a case who underwent VA-ECMO after systemic tPA with the diagnosis of massive PTE.

Case: A 19-year-old male patient without comorbidity was admitted to ER with the complaint of dyspnea. PTE was diagnosed since thrombus was seen in main PA in pulmonary CT angiography. Half-dose tPA was administered to the desaturated patient during the follow-up in ER and patient develops cardiac arrest in ER. CPR is performed. Response to CPR is obtained, second arrest develops while being transferred to ICU (5 min CPR). RV dilatation, paradoxical movement in the septal wall and deviation to LV (D septum), severe hypokinesia indicating RV dysfunction were observed in bedside ECHO in ICU. The decision to apply VA-ECMO was made to the patient who developed massive PTE and shock with ECHO and CT findings. Bedside femoro-femoral VA-ECMO was performed. D septum and RV dilatation disappeared in the control ECHO. The patient's hemodynamics returned to normal limits. However, bleeding from the cannula entry sites developed in a tPA patient before. Despite blood product replacements and pressure dressing, patient's bleeding continued. Three hours after he was taken to VA-ECMO, patient arrested and died.

Discussion: In the treatment of massive PTE, tPA and VA-ECMO can be applied. In a research consisting of cases similar to case presented in literature, it was reported that in the patient group with PTE who underwent systemic tPA and VA-ECMO, more CPR was applied before ECMO, major bleeding was more common, and there was no difference in mortality between the two groups. Massive PTE mortality is quite high. Although the response to tPA is good, adequate results may not always be obtained and more aggressive treatment modality such as VA-ECMO may be required. Hemorrhage, which is the biggest risk of VA-ECMO application after tPA, also poses a serious risk for mortality.

Keywords: Massive PTE, VA-ECMO, thrombolitic, critical care, ECHO

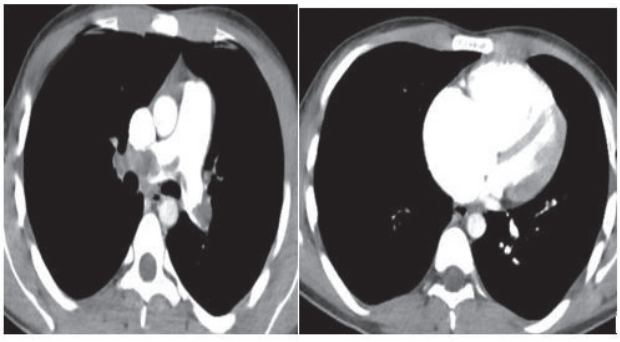

Figure 1. Thrombus in the bilateral main pulmonary arteries. RV dilation, interventricular shunt

[OP-104]

Correlation Between Inferior Vena Cava Collability Index and Malnutrition in Critical Patients: A Prospective Observational Study

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Introduction: We aimed to investigate the correlation between the inferior vena cava collability index (IVC-CI) used in the evaluation of fluid volume and the nutrition risk index (NRI), prognostic nutrition index (PNI), geriatric nutrition risk index (GNRI) and controlling nutritional status scoring (CONUT) used in the evaluation of malnutrition.

Materials and Methods: This study is a prospective observational study. Demographic data, laboratory data, body mass indexes (BMI), NRI, PNI, GNRI and CONUT in the first 24 hours of admission to the intensive care unit of 96 critically ill patients admitted to the tertiary intensive care unit with assisted invasive mechanical ventilator support. and IVC-CI values were recorded. Patients with an IVC-CI >45% were evaluated as hypovolemia. Of the patients, 61 (63.5%) patients with an IVC-CI value of 45%≥ were group 1, and 35 (36.5%) patients with an IVC-CI value of >45% were determined as group 2. Correlation between the IVC-CI and malnutrition scores was investigated between the groups.

Results: In our prospective observational study, there was a statistically significant difference in admission to ICU between hypovolemic (IVC-CI; >45%) and non-hypovolemic (IVC-CI; ≤45%) critical intensive care patients according to all four nutritional scores (NRI, PNI, GNRI and CONUT). More severe malnutrition was detected in the hypovolemic patient group. In addition; there was a statistically significant difference between hypovolemic and non-hypovolemic groups according to IVC-CI (%) in the laboratuvar values [BMI, lymphocyte count (10^3/uL), neutrophil-lymphocyte ratio, creatinine (mg/dL), albumin (g/dL), CRP albumin ratio, total cholesterol (mg/dL), triglyceride (mg/dL), urea (mg/dL), total bilirubin (mg/dL), prealbumin (mg/dL), LDH albumin ratio, potassium (mEq/L), procalcitonin, lactate (mmol/L)]. According to the correlation analysis, we found a statistically significant correlation between IVC-CI (%) and NRI, PNI, GNRI and CONUT scores.

Conclusion: As a result of our study, we found that there is a significant correlation between IVC-CI, which is a radiological imaging method and used as a dynamic parameter in the evaluation of fluid volume, and NRI, PNI, GNRI, and CONUT scores used in the evaluation of malnutrition.

Keywords: Inferior vena cava collability index, nutrition risk index, prognostic nutrition index, geriatric nutrition risk index, controlling nutritional status scoring

Table 1. Socio-demographics and biochemical characteristics of patients regarding to the level of IVC-CI (%) (n=96)						
Variables		**Total n=96**	**Group 1 n=61 (63.5%)**	**Group 2 n=35 (36.5%)**	**Test**	***p***
Age (years)		73.0 (62.0-80.0)	69.0 (59.5-76.0)	78.0 (68.0-84.0)	U=717.0	**0.008**
Gender	**Female**	52 (54.2%)	36 (59.0%)	16 (45.7%)	x^2=1.585	0.208
	Male	44 (45.8%)	25 (41.0%)	19 (54.3%)		
BMI		19.15 (18.0-23.87)	23.1 (19.8-24.6)	17.6 (17.1-18.6)	U=141.5	**<0.001**
WBC (10^3/uL)		11.25 (8.82-12.37)	10.6 (8.5-12.65)	11.3 (9.3-13.6)	U=925.5	0.279
Neutrophil (10^3/uL)		7.2 (5.2-9.47)	6.6 (5.1-8.9)	7.8 (5.4-10.9)	U=840.0	0.083
Lymphocyte (10^3/uL)		0.98 (0.81-1.10)	1.0 (0.9-1.1)	0.9 (0.75-1.05)	U=754.0	**0.017**
Platelets (10^3/uL)		255.0 (154.25-305.0)	255.0 (176.0-331.0)	255.0 (154.0-287.0)	U=963.0	0.426
N/L		6.71 (5.32-9.87)	6.28 (4.85-9.15)	7.8 (5.84-14.0)	U=760.0	**0.019**
P/L		255.46 (172.91-316.84)	235.45 (175.29-326.83)	258.16 (163.33-305.0)	U=1036.0	0.810
Creatinine (mg/dL)		0.59 (0.35-0.92)	0.68 (0.49-0.91)	0.44 (0.24-1.0)	U=752.5	**0.016**
ALT (U/L)		12.0 (7.0-17.0)	12.0 (8.0-17.0)	9.0 (0.4-18.0)	U=853.0	0.102
AST (U/L)		11.0 (8.0-17.75)	12.0 (8.5-18.5)	10.0 (7.0-15.0)	U=956.5	0.397
CRP (mg/L)		26.4 (13.65-51.72)	23.9 (13.2-40.0)	31.2 (65.3-15.6)	U=889.0	0.174
Albumin (g/dL)		2.9 (2.6-3.51)	3.4 (2.87-3.68)	2.55 (2.4-2.75)	U=202.5	**<0.001**
C/A		8.38 (4.25-16.04)	7.87 (4.09-13.68)	11.01 (6.0-28.03)	U=749.0	**0.015**
Total cholesterol (mg/dL)		155.3 (134.0-178.6)	169.0 (154.5-187.15)	130.0 (105.5-142.5)	U=235.5	**<0.001**
Triglyceride (mg/dL)		114.5 (100.72-140.02)	129.6 (108.0-145.85)	100.5 (90.6-108.0)	U=381.5	**<0.001**
Urea (mg/dL)		34.55 (21.35-51.05)	30.2 (20.5-46.6)	45.3 (30.6-55.6)	U=737.5	**0.012**
Total bilirubin (mg/dL)		0.58 (0.4-0.8)	0.7 (0.4-0.9)	0.48 (0.3-0.7)	U=738.5	**0.012**
Prealbumin (mg/dL)		19.5 (17.2-23.05)	22.0 (18.95-23.9)	17.2 (16.5-18.3)	U=254.5	**<0.001**
LDH (U/L)		284.0 (217.75-339-75)	296.0 (238.5-339.0)	264.0 (209.0-354.0)	U=1017.0	0.701
LDH/A		95.57 (77.84-111.33)	90.4 (75.54-103.0)	105.83 (85.83-136.53)	U=691.0	**0.004**
Sodium (mEq/L)		142.0 (138.0-146.75)	142.0 (138.0-144.0)	144.0 (138.0-151.0)	U=816.5	0.055
Potassium (mEq/L)		4.25 (3.9-4.77)	4.2 (3.85-4.4)	4.7 (4.0-5.1)	U=761.5	**0.020**
Procalcitonin		0.07 (0.05-1.2)	0.05 (0.05-0.82)	0.87 (0.05-2.4)	U=675.5	**<0.001**
Lactate (mmol/L)		2.05 (1.2-3.2)	1.5 (0.98-2.85)	2.9 (1.5-3.3)	U=703.5	**0.006**
NRI		91.1 (83.6-101.45)	99.0 (93.45-102.6)	82.2 (81.0-85.5)	U=217.0	**<0.001**
PNI		36.8 (34.2-39.2)	39.0 (37.1-40.2)	34.2 (33.3-35.2)	U=161.0	**<0.001**
GNRI		90.15 (81.57-98.9)	97.8 (90.25-99.9)	81.3 (80.1-83.5)	U=179.0	**<0.001**
CONUT		5.0 (1.0-8.0)	2.0 (1.0-4.5)	8.0 (7.0-10.0)	U=220.5	**<0.001**

Table 2. Nutrition index of patients regarding to the level of IVC-CI (%) (n=96)				
Variables	**Group 1, n=61 (63.5%) n (%)**	**Group 2, n=35 (36.5%) n (%)**	**x^2 test**	**p**
NRI				
1 Absent	27 (44.3)	0 (0.0)		
2 Mild	17 (27.9)	1 (2.9)		**<0.001**
3 Moderate	12 (19.7)	16 (45.7)	45.432	
4 Severe	5 (8.2)	18 (51.4)		
PNI				
1 Absent	38 (62.3)	0 (0.0)		
2 Moderate	14 (23.0)	9 (25.7)	43.493	**<0.001**
3 Severe	9 (14.8)	26 (74.3)		
GNRI				
1 Absent	28 (45.9)	0 (0.0)		
2 Mild	17 (27.9)	0 (0.0)		**<0.001**
3 Moderate	12 (19.7)	13 (37.1)	54.454	
4 Severe	4 (6.6)	22 (62.9)		
CONUT				
1 Absent	26 (42.6)	0 (0.0)		
2 Mild	20 (32.8)	0 (0.0)		**<0.001**
3 Moderate	10 (16.4)	20 (57.1)	51.035	
4 Severe	5 (8.2)	15 (42.9)		

Table 3. Correlations among variables				
	NRI	**PNI**	**GNRI**	**CONUT**
NRI				
PNI	0.937**			
GNRI	0.940**	0.930**		
CONUT	-0.901**	-0.894**	-0.903**	
IVC-CI (%)	-0.716**	-0.743**	-0.723**	0.741**

[OP-105]

Immunoglobulin Treatment in Intensive Care Unit Acquired Weakness

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Introduction: Intensive care unit acquired weakness (ICUAW), occurs frequently from a third to half of critical patients and is the most common polyneuropathy in intensive care units (ICU). ICUAW presents with extremity and respiratory muscle weakness and is strongly associated with failed weaning of patients. Rapid and effective treatment of sepsis, good glucose control shortening of immobilization are the basis of treatment. We aimed to present five patients with whom we administered intravenous immunoglobulin (IVIG) with the diagnosis of ICUAW in ICU.

Case: Four patients were admitted to ICU with diagnosis of COVID ARDS, one patient was admitted after polytrauma. The mean age of the patients was 51.6 and 4 patients were male and one female. The average time from the beginning of invasive ventilation to IVIG treatment was 45.2 days. All patients were tracheostomized during this period and wean attempts had failed. All patients were evaluated with EEG and had axonal damage. We administered IVIG 0.4 mg/kg/day for five days. Four of the patients had been weaned and decannulated successfully. Three of the decannulated patients were discharged but one had died due to sudden cardiac arrest. The patient who had no response to treatment also had died with septic shock (Table 1).

Discussion: ICUAW affects critically ill patients and causes failed weaning, prolonged hospital stay and as well as increased mortality. Prolonged mechanical ventilation and therefore prolonged sedation time, sepsis, acute kidney damage, parenteral nutrition, hyperglycemia can be counted as risk factors for ICUAW. Since there is no certain treatment of ICUAW, its prevention is the most important cornerstone. There aren't enough studies that confirmed IVIG administration in ICUAW. Other drugs including growth hormone, glutamine, dexmedetomidine, neostigmine, and intravenous immunoglobulin have no obvious advantages in the prevention and treatment of ICUAW, so no drug has been recommended to prevent and treat ICUAW.

Keywords: ICUAW, immnunoglobulin

Table 1. Demographic and clinical parameters of the patients

	Age	Sex	Comorbidities	Admission diagnosis	Tracheostomy	Time to IVIG treatment from entubation	Wean	Survive
Case 1	60	Female	Hypertension, diabetes	COVID-19 ARDS	Yes	44	Yes	Survived
Case 2	54	Male	Hypertension	COVID-19 ARDS	Yes	62	No	Exitus
Case 3	56	Male	Hypertension, hydrocephalus	Multitrauma	Yes	21	Yes	Survived
Case 4	43	Male	None	COVID-19 ARDS	Yes	51	Yes	Survived
Case 5	45	Male	Diabetes	COVID-19 ARDS	Yes	48	Yes	Exitus

[OP-106]

Case Report: Use of Targeted Temperature Management in a 12 Years Old Pediatric Patient Following Out of Hospital Cardiac Arrest

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Introduction: The risk of mortality and morbidity is quite high in patients with out of hospital cardiac arrests. Targeted temperature management (TTM) following cardiorespiratory arrest has been shown to have cardio- and neuroprotective effects, resulting in improved survival and better neurological outcomes. In case of a cardiac arrest, hypothermia achieved by TTM reduces inflammatory processes, oxidative stress, and apoptosis and may suppress many deleterious mediators released due to hypoxia and reperfusion.

Case: In this presentation, 12 years old girl who was admitted to the emergency with cardiopulmonary arrest will be described. Following an asthmatic attack at home, cardiopulmonary arrest developed during transfer to the hospital. After 12 minutes of cardiopulmonary resuscitation, her circulation returned to sinus rhythm. Her heart rate was 80/min, blood pressure was 100/60 mmHg, and Glasgow coma scale (GCS) was 3/15. A deep sedation therapy was initiated and TTM was planned and initiated in 3 hours following cardiopulmonary arrest. Targeted body temperature of 33 °C was achieved by a cooling rate of 0.3 °C/hour. After achieving the 33 °C of body temperature, it was maintained for 48 hours and the patient was rewarmed to 36.5 °C at a rate of 0.3 °C. After achieving 36.5 °C body temperature deep sedation was terminated and the patient was extubated as the extubation criteria were met. Evaluation of the patient following extubation revealed a GCS of 14/15.

Discussion: Early application of TTM could be a useful method in the management of out-of-hospital cardiac arrests in pediatric patients. It also may provide better morbidity.

Keywords: Targeted temperature management, out of hospital cardiac arrest, pediatric patient, severe asthma attack

[OP-107]

Primary Success of Electrical Cardioversion for New-onset Atrial Fibrillation in Non-cardiac Critically Ill Patients

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Introduction: Electrical cardioversion (ECV) of new-onset atrial fibrillation is recommended to restore sinus rhythm in critically ill patients with hemodynamic instability. In this study, we aimed to evaluate the success rate of ECV, its effect on mortality, and possible risk factors affecting success.

Materials and Methods: In this prospective observational study, non-cardiac critically ill patients who had new-onset atrial fibrillation during follow-up and underwent ECV within 7 days of the first onset of atrial fibrillation were included (the ethics committee approval date is 29.08.2022 and the number is 2022/725). Shocks repeated within 15 minutes were defined as an ECV session. Successful ECV was defined as a conversion to sinus rhythm and its maintenance for at least 30 seconds during an ECV session.

Results: A total of 14 patients were included. Primary success was achieved in five patients (36%). Recurrence of atrial fibrillation was detected in 2 (40%) of these patients. At intensive care unit (ICU) discharge, these two patients still had atrial fibrillation. In the unsuccessful group, 8 out of 9 patients still had atrial fibrillation at ICU discharge. Patients in the unsuccessful group were significantly older than those in the primary success group [72 (64-85) vs. 60 (58-66) years; p=0.027]. The median length of ICU stay was 14 (5-20) days in the study population. ICU mortality rate was 40% (n=2) in the primary success group and 78% (n=7) in the unsuccessful group (p=0.266).

Conclusion: The primary success rate of ECV was low for new-onset atrial fibrillation in non-cardiac critically ill patients. Moreover, the subsequent recurrence rate was high. Advanced age is a significant risk factor for ECV failure. The primary success of ECV did not affect ICU mortality.

Keywords: Electrical cardioversion, hemodynamic instability, intensive care unit, mortality, new-onset atrial fibrillation

Table 1. Patient characteristics				
Characteristics	**All cases**	**Primary success group**	**Unsuccessful group**	**p value**
	n=14	**n=5**	**n=9**	
Age, years	68 (60-80)	60 (58-66)	72 (64-85)	**0.027**
Gender				
Female	7 (50)	2 (40)	5 (56)	1.000
Male	7 (50)	3 (60)	4 (44)	
Body mass index, kg/m²	22 (20-26)	25 (23-28)	21 (20-23)	0.060
Smoking history	5 (36)	2 (40)	3 (33)	1.000
Comorbidities				
Hypertension	8 (57)	2 (40)	6 (67)	0.580
Diabetes mellitus	6 (43)	3 (60)	3 (33)	0.580
Congestive heart failure	4 (29)	1 (20)	3 (33)	1.000
Coronary artery disease	4 (29)	1 (20)	3 (33)	1.000
Chronic kidney disease	4 (29)	2 (40)	2 (22)	0.580
Dementia	2 (14)	1 (20)	1 (11)	1.000
COPD	2 (14)	0 (0)	2 (22)	0.505
Malignancy	2 (14)	1 (20)	1 (11)	1.000
Main reason for ICU admission				
Respiratory failure	8 (57)	1 (20)	7 (78)	0.091
Sepsis/septic shock	2 (14)	2 (40)	0 (0)	0.110
Neurological disease	1 (7)	0 (0)	1 (11)	1.000
Postoperative	1 (7)	1 (20)	0 (0)	0.357
Acute kidney injury	1 (7)	1 (20)	0 (0)	0.357
Gastrointestinal hemorrhage	1 (7)	0 (0)	1 (11)	1.000
APACHE II	25 (18-32)	25 (14-33)	24 (17-34)	0.894
SOFA[1]	10 (7-14)	10 (7-12)	11 (7-15)	0.383
CCI	6 (4-8)	6 (3-10)	5 (4-8)	1.000
Laboratory data within 24 h before ECV				
BUN, mg/dL	57.8 (32.9-97.6)	58.7 (40.8-112.5)	56.8 (31.7-86.2)	0.549
Creatinine, mg/dL	1.86 (1.03-3.05)	2.44 (1.50-5.41)	1.48 (0.95-2.46)	0.162
Albumin, g/dL	2.49 (2.08-3.22)	2.49 (1.89-3.27)	2.48 (2.24-3.05)	0.739
CRP, mg/L	158 (71-272)	264 (128-360)	116 (69-169)	0.162
Glucose, g/dL	179 (132-238)	172 (122-245)	193 (129-241)	0.641
ALT, U/L	21 (8-42)	10 (7-20)	30 (14-370)	0.072
LDH, U/L	216 (163-1272)	217 (168-739)	214 (159-1451)	0.841
Sodium, mmol/L	141 (137-149)	139 (136-147)	142 (136-149)	0.739
Potassium, mmol/L	4.49 (3.53-4.71)	4.68 (4.49-4.81)	3.75 (3.33-4.69)	0.125
Calcium, mg/dL	9.46 (8.83-9.93)	9.28 (8.63-9.94)	9.55 (8.99-10.03)	0.463
Magnesium, mmol/L	2.04 (1.73-2.50)	2.20 (1.81-2.53)	1.91 (1.70-2.48)	0.548
Hemoglobin, g/dL	9.7 (7.7-11.5)	8.5 (7.6-12.8)	9.9 (7.9-10.7)	0.947
pH	7.40 (7.35-7.48)	7.38 (7.34-7.44)	7.41 (7.33-7.50)	0.504
Lactate, mmol/L	1.40 (0.80-2.08)	0.90 (0.70-2.35)	1.60 (1.05-2.35)	0.284
Events/therapies during the entire ICU stay				
Sepsis	13 (93)	4 (80)	9 (100)	0.357
Vasopressor requirement	13 (93)	4 (80)	9 (100)	0.357
Invasive mechanical ventilation	11 (79)	3 (60)	8 (89)	0.505
Acute kidney injury	9 (64)	3 (60)	6 (67)	1.000
Renal replacement therapy	3 (21)	2 (40)	1 (11)	0.505
Echocardiography findings				
Left ventricle ejection fraction	48 (37-60)	55 (42-63)	45 (33-60)	0.364
Any severe valvular disorders	5 (36)	0 (0)	5 (56)	0.086
Left atrium dilatation	4 (29)	0 (0)	4 (44)	0.221
Left ventricle hypertrophy	3 (21)	1 (20)	2 (22)	1.000
Pulmonary hypertension	3 (21)	1 (20)	2 (22)	1.000
Diastolic dysfunction	2 (14)	0 (0)	2 (22)	0.505
Regional systolic dysfunction	1 (7)	0 (0)	1 (11)	1.000
ICU length of stay (days)	14 (5-20)	5 (4-25)	15 (9-21)	0.159
ICU mortality	9 (64)	2 (40)	7 (78)	0.266

All values are expressed as numbers (percentages) or median (interquartile range).
APACHE II: Acute Physiology and Chronic Health Evaluation II, ALT: Alanine transaminase, BUN: Blood urea nitrogen, CCI: Charlson Comorbidity Index, COPD: Chronic obstructive pulmonary disease, CRP: C-reactive protein, ECV: Electrical cardioversion, ICU: Intensive care unit, LDH: Lactate dehydrogenase, SOFA Score: The Sequential Organ Failure Assessment Score. 1. Calculated on the day of ECV

Table 2. Variables obtained before, during, and immediately after ECV				
Characteristics	**All cases**	**Primary success group**	**Unsuccessful group**	**p value**
	n=14	**n=5**	**n=9**	
Medications administered within 24 hours before ECV				
Anticoagulants	12 (85)	3 (60)	9 (100)	0.110
Diuretics	7 (50)	2 (40)	5 (56)	1.000
Amiodarone	6 (43)	1 (20)	5 (56)	0.301
Calcium channel blockers	3 (21)	1 (20)	2 (22)	1.000
Beta-blockers	3 (21)	0 (0)	3 (33)	0.258
Other anti-arrhythmic agents	1 (7)	0 (0)	1 (11)	1.000
Fentanyl or other narcotics	10 (71)	4 (80)	6 (67)	1.000
Sedative drugs	10 (71)	3 (60)	7 (78)	0.580
Dexmedetomidine	3 (21)	2 (40)	1 (11)	0.505
Clinical data within 24 hours before ECV				
Use of vasopressors immediately before ECV	12 (86)	4 (80)	8 (89)	1.000
Norepinephrine dose (mcg/kg/minute)	0.18 (0.07-0.36)	0.12 (0.04-0.21)	0.25 (0.06-0.50)	0.182
Patients on IMV during ECV	11 (79)	3 (60)	8 (89)	0.505
Acute kidney injury	9 (64)	3 (60)	6 (67)	1.000
Renal replacement therapy	2 (14)	1 (20)	1 (11)	1.000
Hemodynamic and respiratory data immediately before ECV				
SBP (mmHg)	94 (86-104)	94 (79-103)	93 (88-105)	0.841
DBP (mmHg)	56 (50-61)	50 (47-56)	60 (52-64)	0.082
MAP (mmHg)	68 (63-74)	64 (58-71)	72 (65-77)	0.229
Heart rate (BPM)	165 (156-174)	158 (128-170)	170 (160-190)	0.182
SpO_2, %	99 (94-100)	98 (89-100)	100 (93-100)	0.669
Body temperature, °C	36.9 (36.5-37.2)	37.0 (36.7-37.3)	36.9 (36.4-37.1)	0.460
Outcomes and data after ECV				
Amiodarone	10 (71)	2 (40)	8 (89)	0.095
Anticoagulation	12 (86)	3 (60)	9 (100)	0.110
Bleeding event	1 (7)	1 (20)	0 (0)	0.357
Recurrence of AF in patients with primary success	N/A	2 (40)	N/A	N/A
AF at ICU discharge	9 (64)	2 (40)	7 (78)	0.266

All values are expressed as numbers (percentages) or median (interquartile range).
AF: Atrial fibrillation, BPM: Beats per minute, ECV: Electrical cardioversion, DBP: Diastolic blood pressure, IMV: Invasive mechanical ventilation, MAP: Mean arterial blood pressure, NIV: Non-invasive ventilation, N/A: Not applicable, SBP: Systolic blood pressure, SpO_2: Pulse oxygen saturation

Table 3. Energy delivered and success rate of each shock				
Characteristics	**<100J**	**100J**	**150J**	**200J**
First shock (n=14)	**5 (36)**	**7 (50)**	**2 (14)**	**0 (0)**
Unsuccessful	5 (100)	4 (57)	2 (100)	0 (0)
Successful	0 (0)	3 (43)	0 (0)	0 (0)
Second shock (n=11)	**0 (0)**	**7 (50)**	**4 (29)**	**0 (0)**
Unsuccessful	0 (0)	0 (0)	0 (0)	0 (0)
Successful	0 (0)	7 (100)	4 (100)	0 (0)
Third shock (n=11)	**0 (0)**	**1 (7)**	**9 (64)**	**1 (7)**
Unsuccessful	0 (0)	1 (100)	7 (78)	1 (100)
Successful	0 (0)	0 (0)	2 (22)	0 (0)
Fourth shock (n=5)	**0 (0)**	**0 (0)**	**3 (21)**	**2 (14)**
Unsuccessful	0 (0)	0 (0)	3 (100)	2 (100)
Successful	0 (0)	0 (0)	0 (0)	0 (0)

All values are expressed as numbers (percentages).

[OP-109]

Fosfomycin-induced Hypernatremia in Critically Ill Patients

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Introduction: The incidence of multi-drug resistant (MDR) Gram-negative bacterial infections has been increased in intensive care units (ICU). Clinicians have to use new antibiotics and some old antibiotics with the new form. Fosfomycin has been used as a broad-spectrum antibiotic for a long time. Recently, fosfomycin has gained importance again due to the increasing rates of MDR bacteria. On the other hand, the intravenous (IV) form of fosfomycin has recently been widely preferred. Due to the increasing use of this IV form of fosfomycin, its side effects should also be taken into account. One of them is fosfomycin-associated hypernatremia. Hypernatremia is associated with poor outcomes in critically ill patients. In this study, we aimed to evaluate the incidence, risk factors, and outcomes of fosfomycin-induced hypernatremia in critically ill patients.

Materials and Methods: This is a retrospective cohort study. In this retrospective cohort study, we included critically ill patients who received IV fosfomycin in 2022. Patients receiving renal replacement therapy and patients receiving any medication that may affect sodium metabolism were excluded.

Results: A total of 53 eligible patients were included in the study. Of them, 34 (79.1%) had fosfomycin-induced hypernatremia. The rate of patients receiving invasive mechanical ventilation (IMV) was higher in the fosfomycin-induced hypernatremia group than the no fosfomycin-induced hypernatremia group (87.5% vs. 12.5%, respectively; p<0.022) (Table 1).

Conclusion: The incidence of fosfomycin-induced hypernatremia is high in critically ill population. IMV is a significant risk factor for fosfomycin-induced hypernatremia. This can be explained by the fact that awake patients who are not on IMV can more easily maintain fluid and sodium homeostasis. Before fosfomycin administration, the risk of hypernatremia should be considered, especially in patients on IMV. Further studies need for the outcomes of fosfomycin-induced hypernatremia in critically ill patients.

Keywords: Fosfomycin, hypernatremia, intensive care unit, invasive mechanical ventilation

Table 1. Demographic and clinical characteristics in patients

	All cases	Group 1	Group 2	p value
	n=43	n=34 (79.1%)	n=9 (20.9%)	
Age, years	70.0 (61.0-79.0)	68.0 (60.0-79.0)	70.0 (56.0-79.8)	0.733
Gender				
Female	13 (30.2)	9 (69.2)	4 (30.8)	0.417
Male	30 (69.8)	25 (83.3)	5 (16.7)	
APACHE II	15.0 (12.0-20.0)	17.0 (12.0-20.0)	13.0 (10.0-19.5)	0.570
Acute kidney injury	25 (58.1)	19 (76)	6 (24)	0.712
Invasive mechanical ventilation	32 (74.4)	28 (87.5)	4 (12.5)	**0.022**
Laboratory data				
Sodium (after treatment of fosfomycin), mg/dL	151.00 (147.00-159.00)	152.50 (148.00- 160.25)	141.00 (140.00-143.00)	**0.000**
Before treatment of fosfomycin				
Urea, mg/dL	105.00 (62.00-166.00)	104.50 (62.75-164.50)	146.00 (49.50-216.00)	0.754
Creatinine, mg/dL	1.50 (0.79-2.20)	1.25 (0.76-2.11)	1.95 (1.05-3.45)	0.151
Sodium, mg/dL	141.00 (136.00-147.00)	142.00 (137.00-147.25)	137.00 (130.50-144.50)	0.100
C-reactive protein, mg/L	127.00 (63.80-210.80)	115.60 (60.70- 145.37)	195.30 (91.65-231.80)	0.170
Dosis of fosfomycin, gram/day	16 (12-16)	16 (12-16)	12 (10-16)	0.480
Development time of Hypernatremia, day	N/A	4.00 (2.75-7.00)	N/A	

All values are expressed as numbers (percentages) or median (interquartile range). Statistically significant results are indicated in bold.
Group 1: Fosfomycin-induced hypernatremia.
Group 2: No fosfomycin-induced hyponatremia.
APACHE II: Acute Physiology and Chronic Health Evaluation II, N/A: Not applicable

[OP-110]

A Complication to Remember in Regional Anesthesia: Bezold-Jarisch Reflex

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Introduction: The Bezold-Jarisch reflex is condition in which hypotension, bradycardia, apnea, cardiac arrest occur as a result of stimulation by chemical or mechanical receptors during regional anesthesia, upper extremity nerve blocks. It is observed that heart rate falls below 50-30 beats/min for five minutes or the systolic arterial pressure falls below 90 mmHg. The management of patient who developed Bezold-Jarisch reflex after interscalene block in patient who was scheduled for orthopedic surgery will be discussed.

Case: A 73-year-old male patient was planned to be operated for fracture of the upper end of the humerus. The patient with known hypertension underwent ultrasound-guided interscalene block with the risk of ASA2E. Eight minutes after the procedure, the patient was taken to the operating room. Sudden bradycardia, hypotension, loss of consciousness, cardiac arrest developed while positioning. He was intubated and administered 1 mg of adrenaline and 2 minutes of cardiopulmonary resuscitation, and the response was obtained. The patient was hemodynamically stable, was extubated after the operation was completed ICU was taken.

Discussion: While performing upper extremity nerve blocks, other complications such as nerve damage and hematoma should be known. Bradycardia, hypotension, vasovagal syncope, and asystole that responds to CPR in a short time can be seen in the Bezold-Jarisch reflex due to increased parasympathetic activity and decreased sympathetic activity. When the patient is in the supine position after hypotension, bradycardia or asystole in the sitting position; the patient responds very quickly to the intervention and the resulting findings improve. It should be known that the interscalene nerve block develops Bezold-Jarisch reflex in the sitting position after block is performed, it should be known that it responds immediately to supine position. While applying regional block, cardiac monitoring should be performed, the necessary materials needed in case of hypotension, bradycardia, cardiac arrest should be near the patient.

Keywords: Bezold-Jarisch reflex, position, regional anesthesia, ultrasound-guided interscalene block

[OP-111]

Masked Clinic in Patients Diagnosed with COVID-19: A Case of Malaria

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Introduction: In this case, it is aimed to present the diagnosis and treatment management of a patient who was diagnosed with malaria and COVID-19 concurrently with fever, malaise, and vomiting during thepandemic period.

Case: A 37-year-old female patient working at the airport was brought to theemergency room by her relatives due to fever and fatigue. The desaturated patient was intubated in the emergency room and transferred tothe intensive care unit. There are no features on her resume. She has 3 doses of BioNTech vaccine. Torax CT taken was compatible with COVID-19 pneumonia. COVID-19-PCR result was positive. In the patient whose laboratory results are shown in Table 1, macrophage activation syndrome and/or multi-organ dysfunction secondary to sepsis were considered in the foreground and peripheral smear (PS) was performed. A signet ring scene was detected in the smear, and a pre-diagnosis of malaria was considered. The patient had no history of contact or travel. We discussed with fight against malaria unit and a blood sample was sent. On the 3rd day of his hospitalization, he was diagnosed with plasmadium falcifparium malaria. Artesunate treatment was started. Simultaneously, cytokine filter+CRRT was started. PS was repeated in the first week of the treatment. While P. falciparum trophozoite forms were not observed, intense gametocyte forms were observed. Quinine sulfate treatment was started. The patient was extubated on the same day. Five days later, PY was repeated and the patient was transferred to the infection clinic. PS; very few parasites, plasmodium response to treatment were reported. Quinine treatment was completed in 14 days. The patient who developed quinine neurotoxicity and diabetes insibitus in the service follow-ups was treated for these aspects and was discharged home on the 18th day of his admission to the service.

Discussion: With timely treatment in falciparum malaria, the results are satisfactory. Malaria should be considered in the differential diagnosis of patients presenting with fever.

Keywords: COVID-19 pandemic, malaria, intensive care unit

Table 1. Case laboratory parameters

laboratory parameters	Application moment	1st day	3rd day	7 th day	14th day
pH	7.34	7.40			
Po2	67	72			
pco2	41	35			
Lactate	3.6	2.1			
SatO2	90	92			
Urea	95	102			
creatinine	1.5	1.3	2.2	1.1	0.6
ALT	128	181	77	24	18
AST	148	199	96	48	32
Total bilirubin	4.4	4.6	4.1	1.29	0.93
Indirect Bilirubin	3.2	3.3	2.49	0.45	
LDH	718	603			
ferritin	3707				
D-dimer	3.5	3.6	2.0		
wbc	9100				
lymphocyte					
neutrophil	6100	2490	2670	3200	
Platelets	47	19	26	126	187
CRP	175	125	96	69	7.3
Proclacytonin	100	100	75	11.8	0.08

[OP-112]

Pediatric Brain Death and Organ Donation: Case Reports

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Introduction: The main causes of brain death (BD) were traumatic brain injury, non-traumatic intracranial hemorrhage, central nervous system infection, hypoxic-ischemic injury, intoxications, malignancies, infarction, metabolic encephalopathy, etc. According to the literature, the frequency of BD ranges from 5.2 to 37%. Here we report two pediatric cases.

Cases: Case 1: A 17-year-old girl was brought to ER after a suicidal hanging. She presented with cardiac arrest, neurologically unresponsive, and her admission GCS was 3. She was intubated and admitted to the PICU after 5 minutes of cardiopulmonary resuscitation. A continuous infusion of 3% hypertonic saline was started immediately, as well as supportive care. Therapeutic hypothermia was initiated with a target body temperature of 34 °C within an hour. Slow rewarming at a rate of 0.5 °C was performed to reach 36 °C and was maintained for up to 72 hours. On the 4th day of hospitalization hyperglycemia, hypernatremia (non-diabetes insipidus), and hypophosphatemia developed. Brain MRI showed tonsillar herniation, diffuse hypoxic damage, and no evidence of cerebral blood flow. The apnea test was positive for BD diagnosis. After her family approved the donation of their child's organs, her lungs, liver, and kidneys were used for organ transplantation. Case 2: A 10-year-old boy was brought to ER, who was found hanging by his family. Therapeutic hypothermia could not be performed due to technical limitations. The brain MR angiography revealed no evidence of cerebral flow. Despite his family's approval for the donation of their children's organs, he was unable to be an organ donor due to *Candida* spp. in his blood culture.

Discussion: The number of pediatric patients awaiting suitable transplantation has increased globally in recent years. Early BD diagnosis and good donor care after diagnosis may increase the likelihood of pediatric organ donation. National studies should be carried out to determine the prevalence and characteristics of pediatric BD.

Keywords: Hypoxic-ischemic injury, pediatric brain death, pediatric organ donation

[OP-113]

VZV Infection in Intensive Care Unit

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Introduction: We know as VZV causes localized infection. Infections such as encephalitis, pneumonia and myocarditis can be seen in immunosuppressed patients. We aimed to present 2 non-immunosuppressive cases with systemic VZV infection.

Cases: Case 1: VZV Myocarditis A 35-year-old patient applied to hospital with fever, rash, chest pain. Vesicular rash was observed on upper extremities, chest wall, VZV was considered, valacyclovir was started. VZV was found to be IgG positive, IgM negative. Echocardiogram was within normal limits and TnI was high. She stayed in ICU for 24 hours. After the absence of chest pain and enzymes decreased, discharged with antiviral treatment. Case 2: VZV Encephalitis A 84-year-old patient, oriented, was presented to hospital due to inability to walk, impaired oral intake. She was followed up in ward for 2 days. No pathology was detected in MRI. Upon detection of AF, warfarin was started, discharged. A week later due to poor general condition, she was presented to hospital. Urinary tract infection was detected, she was admitted to ward, antibiotherapy was started. The patient with hypoxia and hypercarbia was admitted to ICU with aspiration pneumonia, intubated. Electroencephalography was performed when perioral contractions were observed; epileptiform waves were in the right frontotemporal, levetiracetam was started. The hyperemic lesions spreading in the tracing of the mandibular branch of the trigeminal nerve became vesicular, CSF sampling was performed, Acyclovir was started. Two days later, MRI was within normal limits. VZV PCR was positive. She underwent tracheostomy, taken to the ward on 26th day with ventilator support, and discharged on 43rd day alert and able to follow simple commands.

Discussion: We detected VZV infection with rash in 2 of our non-immunosuppressive patients. VZV infection, which is associated with high mortality and morbidity in adults, should be considered when vesicular rash is seen and should be treated when supported by laboratory.

Keywords: VZV infection, myocarditis, encephalitis

Table 1.

	17.04.2019	18.04.2019	19.04.2019	20.04.2019
TnI (risc: 0.02-0.3)	0.24	0.1	0.076	0.028
ProBNP (n<125)	844	499	437	336
WBC	5470 (lenf 38%)	5490 (lenf 56%)	6250 (lenf 64%)	7130 (lenf 63%)

Table 2.

	Myocarditis	**Encephalitis**
Age	35	84
Gender	F	F
Co-morbidity	-	Parkinson, hypertension, COPD, coronary artery disease, AF
Apache II	4	24
SOFA	1	6
Immunosupression	-	-
Treatment	Valacyclovir	Acyclovir
VZV IgG	0.89 (border)	-
VZV IgM	0.3	-
CSF	-	Prot: 32.4 Glu: 83.7 RBC: 60 WBC<5
Menengitis/encephalitis PCR	-	VZV positive

[OP-114]

A Case Report of Posterior Reversible Encephalopathy Syndrome at 32nd Week of Pregnancy

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Introduction: Posterior reversible encephalopathy syndrome (PRES) is a rare syndrome that can also occur during pregnancy. Although many underlying pathological mechanisms have been proposed, the vasogenic theory is the most postulated theory and leads to hypertension and detoriation of the cerebral autoregulation. PRES patients usually present with hypertension and neurological symptoms including headache, mental deterioration, vision changes, cortical blindness, nausea, vomiting, and epileptic seizures. Diagnosis can be made by neurological examination, and radiologic imaging. With early diagnosis and appropriate treatment, most patients recover without sequelae. Although rare, patients may require intensive care management, and also disease may cause death if not diagnosed and treated early. This presentation will describe a 23-year-old pregnant woman who was admitted to the emergency with seizure.

Case: A 23-year-old pregnant woman was admitted to the emergency with seizures. Her blood pressure was 200/100 mmHg and her Glasgow coma scale was 10 on admission. She was immediately taken to a cesarean section as her prediagnosis was eclampsia. She revealed a diplopia and blurred vision that began 3 days before the admission. Following cesarean section, cranial magnetic resonance imaging showed parietooccipital leukoencephalopathy and she was diagnosed as PRES. Following 4 weeks of follow-up in the intensive care unit patient was discharged with minimal neurological sequela.

Discussion: In a pregnant woman, seizure(s) generally direct the physicians to a diagnosis of eclampsia. Evaluation of the neurological symptoms in all aspects may provide the early diagnosis of PRES. Early diagnosis and appropriate treatment in such patients ensure better neurological outcomes.

Keywords: Pregnancy, posterior reversible encephalopathy syndrome, seizure, eclampsia

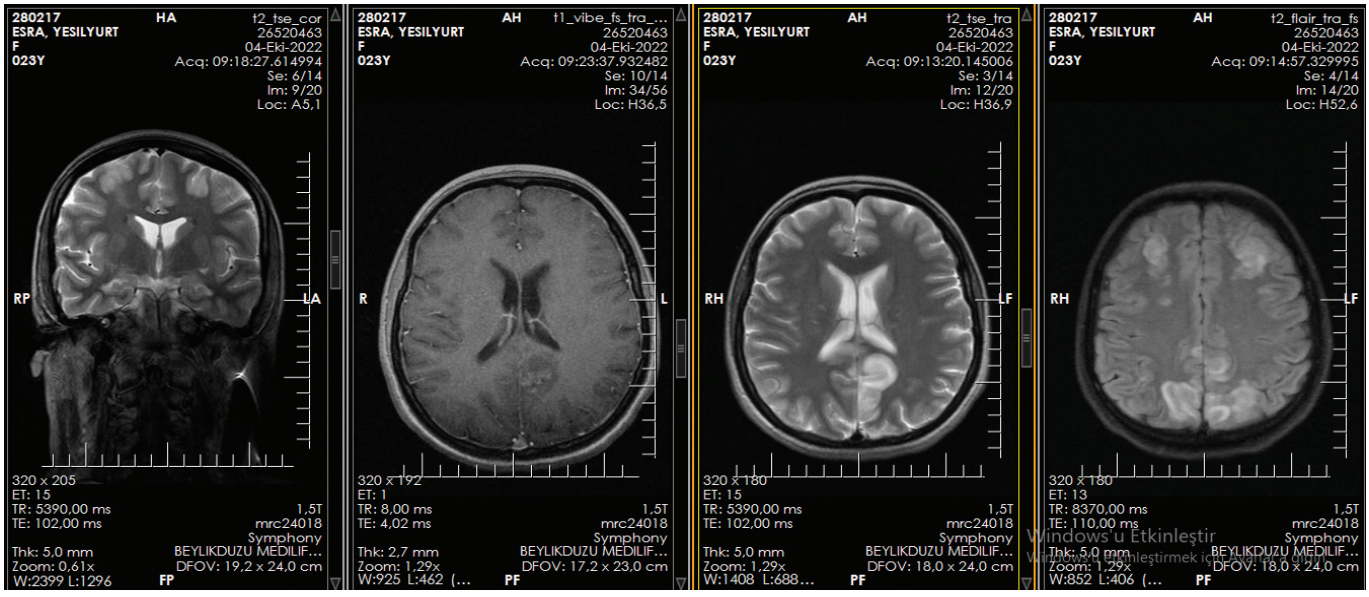

Figure 1. MRI on admission

[OP-115]

A Rare Complication of Craniectomy: Trephined Syndrome

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Introduction: Decompressive craniectomy is one of the increasingly preferred procedures in cases of increased intracranial pressure. However, this procedure can cause changes in cerebrospinal fluid,cerebral blood flow and barometric pressure, leading to trephined syndrome (TS), which is characterized by sudden neurological deterioration in the patient. The aim of this study is to demonstrate the importance of early diagnosis and clinical management of paradoxical brain herniation called TS.

Case: A 65-year-old woman was admitted to the emergency department with complaints of headache, nausea; vomiting and drowsiness. In her past medical history, she was on warfarin for mitral valve replacement. General condition is moderate on physical examination, GCS: 13 and other system examinations were normal. INR >10 and other laboratory values were normal. After imaging studies, subdural hemorrhage due to coumadin overdose was diagnosed and decompressive craniectomy was performed by neurosurgery. Intensive care unit follow-up and treatment were completed and the patient was transferred to the service. During the follow-up,aspiration pneumonia developed and antibiotherapy was completed. Although there was no organic cause to explain the neurologic deterioration, the patient started to lose consciousness and her coordination started to decrease. Brain MRI performed to rule out organic pathologies was reported as paradoxical brain herniation. Due to this diagnosis, the necessary interventions were performed and she was discharged with a full recovery.

Discussion: TS resulting from decompressive craniectomy is a rare clinical condition that is difficult to diagnose with routine laboratory and radiologic methods. TS should be kept in mind in the differential diagnosis of acute GCS regression after postoperative follow-up. TS should be kept in mind in patients with unexplained consciousness disorders, especially after brain surgeries.

Keywords: Subdural hemorrhage, craniectomy, trephined syndrome

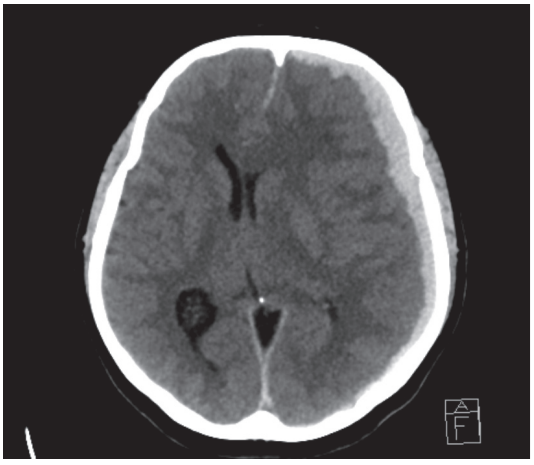

Figure 1. Brain CT subdural hemorrhage

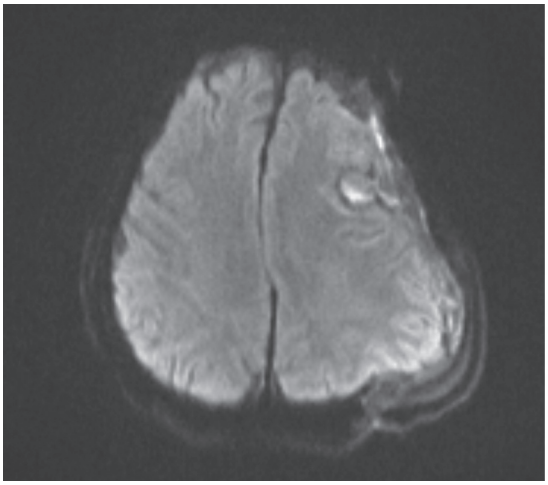

Figure 2. Brain MRI paradoxical brain herniation

[OP-116]

A Rare Cause of Postoperative Unexplained Delirium and Prolonged Intensive Care Hospitalization: Gabapentin Withdrawal Syndrome

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Introduction: Gabapentin is used in psychiatric and neurological disorders such as motor movement disorders. Gabapentin withdrawal syndrome includes a range of symptoms from restlessness and anxiety to autonomic and central nervous system disorders such as tachycardia, hypertension, and tachypnea. In our case, the unsuccessful weaning of the patient was due to gabapentin withdrawal syndrome.

Case: Hysterectomy were performed to a 67-year-old female patient due to an adnexal mass. The patient with known diagnoses of diabetes mellitus, depression and restless legs syndrome was using citalopram, primidone and insulin. The patient was admitted to the intensive care unit (ICU) postoperatively. She was oriented, cooperative, spontaneously breathing and hemodynamically stable. After 12 hours, multimodal sedoanalgesia methods were applied to the patient who had limited cooperation and orientation and also had tachycardia, hypertension, tachypnea and diaphoresis. The patient's neurological status didn't improve and she was hypercarbic and intubated. On cranial CT and MRI, no pathology was observed. The patient was on a daily sedation vacation, continued to be intubated due to the inability to cooperate. On the 5th day of ICU admission, we were informed by the patient's relative that the patient had been using 1800 mg/day gabapentin for 5 years. The patient was given 600 mg gabapentin tablet enterally. She regained consciousness and was extubated. She was oriented and cooperative on gabapentin with no neurological symptoms and discharged to ward.

Discussion: In the differential diagnosis of unexplained autonomic and central nervous system disorders, withdrawal syndromes that may develop due to gabapentinoids should also be considered.

Keywords: Gabapentin withdrawal syndrome, unexplained delirium, postoperative care

[OP-117]

Malaria and COVID-19 Coinfection: A Case Report

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Introduction: During COVID-19 pandemic, treatment processes are disrupted all over the World. Malaria, which is in the first place among the deaths due to infection, is especially common in Sub-Saharan African countries. It should be kept in mind that there may be confusion in the diagnosis due to the similarity of symptoms with COVID-19 disease, and that the two diseases may coexist. Comorbidity of malaria coexisting with COVID-19 is likely to adversely affect the prognosis. In this case, we aimed to share the treatment and follow-up processes of our case; co-infection with COVID-19 and malaria,which is rare in Turkey.

Case: A 32-year-old male patient presented to the emergency department with complaints of fever and respiratory distress. It was learned that the patient traveled to Somalia and his complaints started 4 days ago. The patient with positive SARS-CoV-2 PCR antigen test, tachycardia, hypotension and respiratory distress. Peripheral blood smear and malaria antigen were requested. No parasite was observed in the smear but the patient was positive for *Plasmodium falciparum* antigen. Grade I hepatomegaly and splenomegaly were observed in abdominal USG, and a two-fold increase in ALT was observed in laboratory tests. The patient was started on treatment for 3 days. In addition to malaria treatment, no additional antiviral treatment was given for COVID-19. After the completion of malaria treatment, the patient whose hemodynamics was stable and oxygen requirement was decreased, discharged to the ward on the 5th day.

Discussion: Respiratory viral infections cause susceptibility to co-infections in patients,and coinfections cause an increase in the severity of the disease and mortality. It should be kept in mind that symptoms such as fever, myalgia, and headache, which are common in COVID-19 infection can also be seen in COVID-19 co-infections. In addition, malaria relapse may occur due to a newly developed infection such as COVID-19 in people previously infected with *P. vivax*. Since malaria is a disease with symptoms similar to COVID-19, this infection should be kept in mind for people traveling to Sub-Saharan African Countries where it is endemic.

Keywords: Malaria, COVID-19, co-infection

[OP-118]

A Comparison of 2 Citrate Doses for Continuous Renal Replacement Therapy Among Critically Ill Patients

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Introduction: Regional anticoagulation with citrate is recommended as first-line anticoagulation for patients on continuous renal replacement therapy (CRRT). This study aimed to compare the efficacy and citrate related complications of 2 vs 3 mmol/L citrate anticoagulation regimens for CRRT among critically ill patients.

Materials and Methods: This retrospective study evaluated adult critically ill patients requiring CRRT from January 2019 to December 2022. Patients with 3.0 mmol/L citrate dose (group C3) was compared to those with 2.0 mmol/L (group C2) citrate dose.

Results: Our cohort included 81 patients with 51 males (63%) and a mean age of 61.1±19.0 years. Patients analyzed to group C2 (n=55, 67.9%) and group C3 (n=26, 32.1%). The most common reasons for ICU admission were respiratory problems and postoperative complications (n=21, 25.9%). Metabolic acidosis (n=28, 34.6%) was the most common indication for CRRT. The mean APACHE II scores on ICU admission were similar between the groups (20.6±9.8 in group C2 and 17.5±6.9 in group C3). The mean duration of CRRT stay (63.8±29.2 vs 43.2±18.6 hours, $p<0.001$) and filter life span (59.2±3 vs 41.4±18.5 hours, $p<0.001$) were longer in group C2 when compared to group C3. In both groups, metabolic control including pH, blood urea nitrogen (BUN) and creatinine were similar. Compared with group C2, group C3 had significantly higher effluent rate (30.9±5.9 vs 25.7±6.5 ml/kg/h, $p<0.001$) and total ionized calcium ratio (2.2±1.4 vs 1.9±0.2, $p=0.015$). The mean duration from ICU admission to initiation of CRRT was 60.5±68.2 days in group C2 and 70.9±106.6 days in group C3 ($p=0.33$).

Conclusion: Among critically ill patients requiring CRRT, regional citrate anticoagulation with a lowen citrate dose of 2 mmol/L had adequate metabolic control, filter life span and efficacy with less citrate related complications.

Keywords: Citrate, continuous renal replacement therapy, critically ill, citrate anticoagulation, intensive care unit

[OP-119]

The Effect of Nutrition, Demographic and Clinical Features on Mortality in Patients with Stroke Followed in General Intensive Care Units

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Introduction: Stroke is the second most common cause of death (85%) worldwide. In addition, stroke patients with good nutritional parameters have a lower risk of death and earlier discharge from the hospital. In our study, we evaluated nutritional and other factors affecting intensive care mortality in stroke patients followed in the general intensive care unit.

Materials and Methods: The data of 239 hemorrhagic and ischemic stroke patients followed in general intensive care units following ethics committee approval were evaluated retrospectively. Nutritional, sociodemographic and clinical characteristics of patients with hemorrhagic and ischemic stroke were compared and the effects of these characteristics on mortality were evaluated.

Results: Comparisons of patients with hemorrhagic - ischemic stroke and stroke patients who lived and died was given in Table 1. Results of univariate and multivariate cox regression analysis performed to determine risk factors affecting intensive care mortality was given in Table 2. In the univariate model, stoke type, CPR (cardio-pulmonary resuscitation) requirement during intensive care stay, feeding time rate, nasogastric requirement, oral nutritional status, chronic kidney disease and APACHE II were statistically significant. In the multivariate model, the need for CPR, oral nutritional status, and APACHE II were statistically significant during ICU admission (respectively, $p=0.032$, $p<0.001$, $p<0.001$). Mortality risk was 14.8 times higher in patients who could not be fed orally than in patients who were fed orally. It was determined that a one-unit increase in the APACHE II score increased the mortality risk 1.07 times.

Conclusion: We can say that mortality will decrease in stroke patients who can be fed orally, have a low APACHE II score, and do not need CPR during intensive care follow-up.

Keywords: Stroke, mortality, hemorrhagic stroke, nutrition, ischemic stroke

Table 1. Comparisons of patients with hemorrhagic - ischemic stroke and stroke patients who lived and died

	Hemorrhagic stroke (n =103)	Ischemic stroke (n =136)	P	Dead (n =74)	Alive (n =165)	P
Age	68 (24-93) (65±16.22)	71.5 (21-95) (69.56±13.37)	**0.049[a]**	72 (28-95) (68.97±14.84)	69 (21-93) (66.98±14.80)	0.439[a]
Gender						
Male	66 (64.1%)	67 (49.3%)	**0.022[b]**	39 (52.7%)	94 (57%)	0.539[b]
Female	37 (35.9%)	69 (50.7%)		35 (47.3%)	71 (43%)	
ICU length of stay (days)	4 (1-38) (5.65±5.14)	6 (1-34) (7.05±5.04)	**0.004[a]**	3 (1-18) (4.51±3.63)	6 (1-38) (7.32±5.45)	**<0.001[a]**
APACHE II	18 (2-51) (19.87±11.73)	17 (2-52) (18.51±10.29)	0.462[a]	28 (3-52) (30.24±9.95)	14 (2-39) (14.10±6.95)	**<0.001[a]**
Expected mortality %	29.13 (3.8-98) (38.51±29.81)	26.21 (3.8-98.3) (34±25.58)	0.535[a]	63.9 (4.4-98.3) (65.33±23.88)	18.65 (3.8-89.9) (22.83±16.79)	**<0.001[a]**
Mortality	40 (38.8%)	34 (25%)	**0.022[b]**	-	-	-
Number of comorbidities	1 (0-4) (0.98±1.01)	1 (0-5) (1.24±1.05)	0.051[a]	1 (0-5) (1.27±1.17)	1 (0-3) (1.06±0.98)	0.293[a]
Comorbidities						
Hypertension	46 (44.7%)	73 (53.7%)	0.167[b]	31 (41.9%)	88 (53.3%)	0.102[b]
Diabetes mellitus	19 (18.4%)	33 (24.3%)	0.280[b]	17 (23%)	35 (21.2%)	0.760[b]
Coronary artery disease	22 (21.4%)	39 (28.7%)	0.199[b]	19 (25.7%)	42 (25.5%)	0.971[b]
Chronic kidney disease	6 (5.8%)	16 (11.8%)	0.116[b]	13 (17.6%)	9 (5.5%)	**0.003[b]**
Number of patients who underwent CPR during hospitalization	8 (7.8%)	7 (5.1%)	0.408[b]	14 (18.9%)	1 (0.6%)	**<0.001[c]**
Diagnostic groups						
Hemorrhagic stroke	-	-	-	40 (54.1%)	63 (38.2%)	**0.022[b]**
Ischemic stroke	-	-		34 (45.9%)	102 (61.8%)	
Feeding start day	2 (1-4) (1.77±0.75)	2 (1-4) (1.77±0.74)	0.883[a]	2 (1-4) (1.76±0.84)	2 (1-4) (1.78±0.70)	0.489[a]
FTR	0.86 (0.33-1) (0.81±0.18)	0.89 (0.25-1) (0.85±0.17)	0.200[a]	0.80 (0.25-1) (0.77±0.22)	0.90 (0.50-1) (0.86±0.14)	**0.013[a]**
Nutritional features						
NG need	50 (48.5%)	69 (50.7%)	0.737[b]	74 (100%)	45 (27.3%)	**<0.001[b]**
NG feeding time	3 (1-19) (3.82±3.40)	4 (1-17) (4.74±3.79)	0.150[a]	2 (1-17) (3.39±2.95)	5 (1-19) (5.93±4.14)	**<0.001[a]**
PEG need	4 (3.9%)	5 (3.7%)	1.000[c]	0 (0%)	9 (5.5%)	0.060[c]
PEG opening day	5 (1-24) (8.75±10.46)	6 (1-17) (6.40±6.54)	0.730[a]	-	6 (1-24) (7.44±8)	-
PEG feeding time	11 (4-14) (10±4.54)	12 (3-15) (10.40±4.66)	1.000[a]	-	12 (3-15) (10.22±4.32)	-
Number of patients who can be fed orally	58 (56.3%)	90 (66.2%)	0.120[b]	4 (5.4%)	144 (87.3%)	**<0.001[b]**
Oral feeding time	3 (1-14) (4.45±3.81)	5 (1-20) (5.09±3.55)	0.120[a]	1 (1-1) 1±0	4 (1-20) (4.94±3.65)	**0.004[a]**
Nutritional route while lying in ICU						
Oral	51 (49.5%)	65 (47.8%)	0.077[c]	0 (0%)	116 (70.3%)	**<0.001[c]**
NG	41 (39.8%)	41 (30.1%)		70 (94.6%)	12 (7.3%)	
Oral + NG	7 (6.8%)	25 (18.4%)		4 (5.4%)	28 (17%)	
PEG	2 (1.9%)	2 (1.5%)		0 (0%)	4 (2.4%)	
PEG + NG	2 (1.9%)	3 (2.2%)		0 (0%)	5 (3%)	
Nutritional route at discharge						
NG	3 (4.8%)	8 (7.8%)	0.770[c]	-	11 (6.7%)	-
Oral	56 (88.9%)	88 (86.3%)		-	144 (87.3%)	
PEG	4 (6.3%)	6 (5.9%)		-	10 (6%)	

[a]Mann-Whitney test with median (min-max), [b]Ki-kare test, [c]Fisher's Exact test

NG: nasogastric, PEG: Percutaneous endoscopic gastrostomy tube, CPR: Cardio-pulmonary resuscitation, FTR: Feeding time ratio (Ratio of feeding time to intensive care stay)

Table 2. Results of univariate and multivariate cox regression analysis performed to determine risk factors affecting intensive care mortality

	Univariate		Multivariate	
	P values	HR (CI 95%)	*P* values	HR (CI 95%)
Gender Female / male	0.683	-	ni	-
Age	0.866	-	ni	-
Time to start feeding	0.154	-	ni	-
Number of comorbidities	0.266	-	ni	-
HT yes / no	0.059	-	ni	-
DM yes / no	0.635	-	ni	-
CAD yes / no	0.886	-	ni	-
CKD yes / no	**0.023***	2.01 (1.10-3.68)	ns	-
Diagnostic type hemorrhagic / ischemic stroke	**0.005***	1.93 (1.22 – 3.06)	ns	-
Ratio of feeding time to length of stay	**<0.001***	0.06 (0.02-0.19)	ns	-
NG need yes / no	**<0.001***	63.2 (9.53-419.2)	ns	-
CPR application during hospitalization yes / no	**<0.001***	5.16 (2.86 – 9.31)	**0.032***	1.92 (1.06-3.47)
Oral nutrition no / yes	**<0.001***	32.2 (11.7-88.2)	**<0.001***	14.8 (5.15-42.3)
APACHE II	**<0.001***	1.11 (1.09-1.13)	**<0.001***	1.07 (1.04-1.09)

ni: not included in multivariate model, ns: not significant in multivariate model

HR: Hazard ratio, CI: Confidence interval, HT: hypertension, DM: diabetes mellitus, CAD: coronary artery disease, CKD: chronic kidney disease, CPR: Cardio-pulmonary resuscitation, NG: nasogastric

[OP-120]

Cardiac Output Monitoring of a Critically Ill Patient with Severe ARDS Due to Concomitant Viral and Bacterial Pneumonia: A Case Report

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Introduction: Optimal fluid management in ARDS remains challenging because it should provide an adequate oxygen delivery while avoiding inadvertent increase in lung edema, thus balancing a liberal versus a restrictive fluid strategy approach. We present a case of severe ARDS managed with the guidance of cardiac output (CO) monitor and derived parameters.

Materials and Methods: A 60-year-old male with diabetes mellitus, hypertension and cardiac failure was admitted to ICU with severe hypoxemia. His urine antigen test for *legionella* and nasal aspirate material for influenza A - B were positive. There were bilateral, predominantly mid to lower zone non-homogeneous airspace opacity on chest X-ray, ground glass opacities on thoracic CT and his P/F ratio was below 70. He was diagnosed ARDS secondary to viral and bacterial pneumonia. His artero-venous CO_2 gradient was >6 and mean arterial pressure was <60 mmHg. His urine output was <0.5 mL/kg/hr more than 12 hours. Advanced hemodynamic monitoring was initiated to manage fluid resuscitation for him due to cardiogenic and distributive shock unresponsive to initial therapy. Pulse index Continuous Cardiac Output (PiCCO) monitoring revealed CI=3.84 l/min/m^2, GEDI=610 mL/m^2, ELWI=36 mL/kg, PVPI=6.9. Continuous veno-venous hemodiafiltration was initiated for stage II acute kidney injury (AKI). According to high ELWI and PVPI values, severe pulmonary edema was considered and net ultrafiltration was started to achieve negative fluid balance. OxirisR hemofilter was used for cytokine removal. Antibiotics and antiviral mediactions, lung protective strategies and steroids were initiated. Through CO monitoring, negative fluid balance (13.390 mL) was achieved and he was weaned from ventilatory support after 7 days, CRRT was discontiuated after 11 days.

Conclusion: Advanced hemodynamic monitoring may help to improve clinical outcomes among complex patients with severe ARDS and shock.

Keywords: *Legionella*, influenza, pneumonia, cardiac output, hemodynamic monitoring

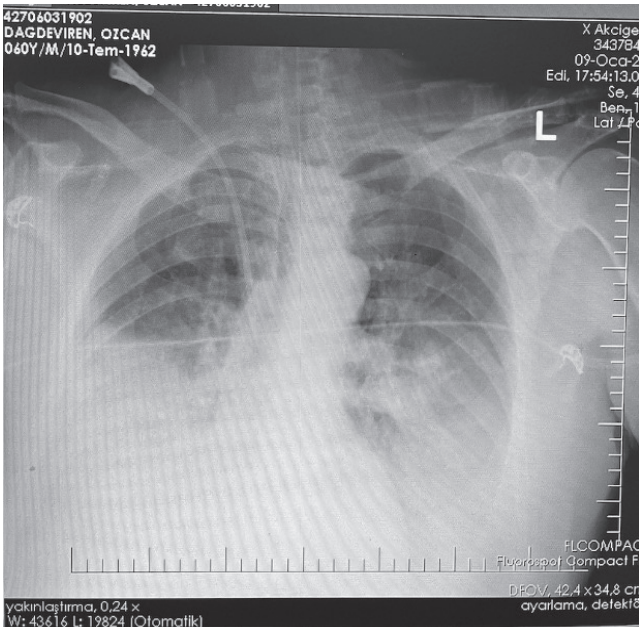

Figure 1. Chest radiograph imaging. Bilateral, predominantly mid to lower zone non-homogeneous airspace opacity

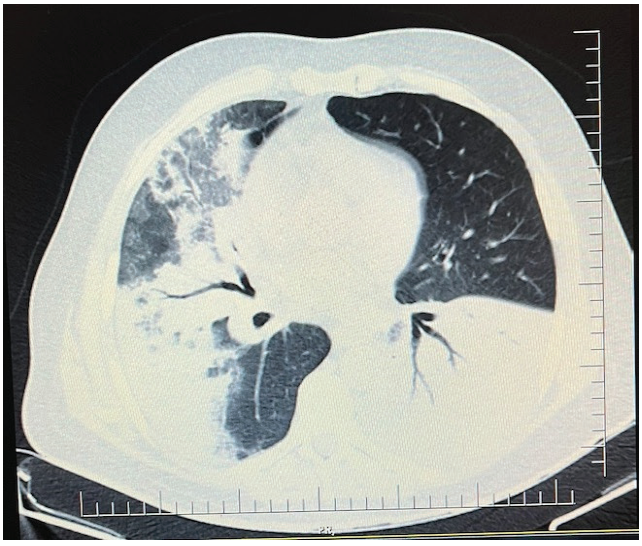

Figure 2. Computed Tomography from patient with influenza pneumonia. Ground glass opacities on thoracic CT

[OP-122]

Intellivent-ASV and Weaning

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Introduction: INTELLIVENT-Adaptive Support Ventilation (I-ASV; C6; Hamilton Medical; Bonaduz, Switzerland) is a closed-loop ventilation mode that continuously controls the patient's ventilation and oxygenation. It sets the minute ventilation, PEEP, and oxygen levels based on the targets set by the clinician and on physiological input from the patient. With this study, we aimed to assess the I-ASV mode's efficacy in the weaning procedure.

Materials and Methods: A total of 140 patients who were over the age of 18 years, did not have a neuromuscular illness, and had been ventilated for at least 48 hours were reviewed. Using the sequential method, patients who met the requirements for weaning were put into two groups: I-ASV and PSV (pressure support ventilation).

Results: In the group using I-ASV, FiO2 was 30.12%±10.04 (25-35%), Pinsp was 8.71±2.78 cm H_2O, and P peak values were 11.67±2.78 cm H_2O, which was significantly lower than PSV mode ($p<0.000$). Again, the PEEP value was 5.14±0.35 cm H_2O, which was statistically significant ($p<0.001$) and lower than the PSV mode. However, in the I-ASV group, asynchrony-tachycardia was observed in 28 (20%) of patients ($p<0.003$) and an increase in nurse workload was observed in 36 (25.7%) ($p<0.000$) of patients. Due to a lack of experience with I-ASV mode during shift changes, a desire to change the mechanical ventilator mode in 33 patients (23.6%) was detected ($p<0.000$) in such cases.

Conclusion: I-ASV had no effect on weaning duration but decreased PEEP, FiO_2, Pinsp, and P peak values in weaning patients. It has been observed, however, that intensive care physicians tend to prefer the classical weaning method they are accustomed to and that measurement problems encountered during automatic weaning increase patient compliance and nurse workload.

Keywords: INTELLIVENT-adaptive support ventilation, automatic weaning

[OP-123]

Acute Elemental Mercury Intoxication by Subcutaneous Injection and Inhalation in a Patient with Dimercaprol Intolerance

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Introduction: Acute mercury intoxication (AMI) rarely reported and is mostly caused by accidental inhalation. However, several cases of subcutaneous injection were reported. AMI may cause hemorrhagic gastroenteritis, cardiovascular collapse, shock, acute kidney injury, and death. Here, we shared a case of acute elemental mercury intoxication.

Case: A 31-year-old man admitted to emergency department with complaints of fever and erythema on his left-hand after an insect bite (his own statement). X-ray revealed a radiopaque foreign body on his left-hand dorsum (Figure 1). Then the patient expressed the self-administration of mercury which was bought online. Laboratory analysis determined 647 µgr/L mercury in blood test and 5514 µgr/day in urine. To define possible mercury inhalation chest computed tomography was planned and multilobar ground glass opacities were shown (Figure 2). The patient underwent operation for removal of subcutaneous mercury and was transferred to intensive care unit (ICU) postoperatively. On admission, the patient did not have any respiratory and cardiovascular symptoms. Urine output was >0.5 mL/kg/h with the normal values of renal function tests. X-ray image revealed that almost all the mercury was eliminated (Figure 3). Dimercaprol therapy was started as an antidote of mercury, but after first dose, the therapy was converted to succimer due to the adverse effects of dimercaprol, including hypertension, tachycardia, and chest pain. Succimer was administered with a dose of 3x800 mg/day, then reduced to 2x800 mg/day. The patient's blood mercury level reduced to 194 µgr/L after therapy. Lung infiltrates resolved. On the 10th day of the ICU admission the patient was transferred to ward with no complication. Written informed consent was obtained from the patient to present this case report.

Discussion: The misuse of mercury may cause death and might be diagnosed with suspicion in some cases. In addition, mercury trade should be regulated and limited by the local authorities.

Keywords: Mercury, intoxication, subcutaneous, dimercaprol, succimer

Figure 1. Foreign body on the left-hand dorsum

Figure 2. Bilateral ground glass opacities related to mercury inhalation

Figure 3. X-ray of the left hand after removal of the mercury

[OP-124]

A Rare But Important Cause of Acute Hypercapnic Respiratory Failure: Immunotherapy-associated Bilateral Diaphragmatic Paralysis

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Introduction: Acute hypercapnic respiratory failure is a medical emergency that can have numerous underlying causes, including central nervous system issues, lung and airway diseases, and diaphragmatic dysfunction. In recent years, immune checkpoint inhibitors (ICIs) have become a widely used treatment for solid organ malignancies, offering promising results for patients. However, ICIs can also cause autoimmune toxicities, including rare but severe neurologic toxicities, such as bilateral diaphragmatic paralysis.

Case: A 70-year-old male patient with chronic obstructive pulmonary disease (COPD) was hospitalised for total gastrectomy. His past medical history was left upper lobectomy due to melenoma metastatis, primary was BRAF negative malignant melanoma of gastric fundus. He was given 2 courses of nivolumab immunotherapy. The patient, who developed hypercarbic respiratory failure after admission to surgical ward, was intubated. After our multiple weaning attempts were unsuccessful, we performed further examinations and treatments. Multiple tests were conducted to rule out other possible causes of the patient's condition, including phrenic nerve involvement, nerve-muscle junction diseases, limbic encephalitis, and paraneoplastic panels, which all returned negative results. The patient was diagnosed with bilateral diaphragmatic paralysis by fluoroscopy. The patient with elevated creatine kinase and antitin antibody positivity was diagnosed with subacute progressive diaphragmatic paralysis after nivolumab. To manage the patient's condition, the patient was given pulse steroid, intravenous immunoglobulin and underwent plasmapheresis. Despite the treatment, the patient required mechanical ventilation support. The patient who underwent tracheostomy due to prolonged intubation. Finally he was discharged with intermittent use of a home type mechanical ventilator.

Discussion: It is important to note that diaphragmatic dysfunction as a side effect of ICI treatment may occur weeks after administration and may be mistaken for other causes of hypercarbic respiratory failure.

Keywords: Acute hypercapnic respiratory failure, bilateral diaphragmatic paralysis, immune checkpoint inhibitors

[OP-125]

Cerebral Salt Wasting Syndrome in Intensive Care Unit: Two Cases

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Introduction: Cerebral salt wasting syndrome (CSWS) is among the differential diagnosis of hyponatremia in intensive care units (ICU). Natriuresis, polyuria and hypovolemia are key components of CSWS. In this presentation, we would like to discuss CSWS with two cases.

Cases: Case 1: A 54-year-old male patient was admitted to emergency department with intracranial haemorrage. On his ninth day, he kept having polyuria and hyponatremia. Serum osmolarity was 270 mOsm/L, urine sodium collected for 24 hours was 163.3 mEq/L and daily urine volume was 4,600 mL. On all these accounts, the patient was diagnosed CSWS. Fludrocortisone 0.2 mg was administered orally twice a day. The patient benefited from his fludrocortisone treatment significantly. Case 2: A 19-year-old male, multipl trauma patient, his GCS score reported to decline from 15 to 6 following a convulsion. Upon clinical suspicion, brain MRI was ordered, which revealed a "starfield pattern". That was suggestive for cerebral fat embolism syndrom. On his ICU follow-up; he became polyuric and hyponatremic. Serum osmolarity was 273.7 mOsm/kg, urine sodium collected for 24 hours was 120.5 mEq/L and urine volume was 5,500 mL a day. Thus, he was diagnosed CSWS. Fludrocortisone was administered within the doses of 0.1 to 0.4 mg a day for 18 days. He was discharged to the ward.

Discussion: CSWS presents with hypovolemia, hypoosmolar-hyponatremia. Whilst investigating a patient with hyponatremia, it is crucial to exclude hypotyroidism, adrenal insufficiency, SIADH and CSWS. Differentiating CSWS and SIADH plays a pivotal role since their treatments are quite opposite. In addition to fluid replacement, if the diagnosis of CSWS can be done correctly, fludrocortisone can be introduced. To conclude; CNS damaged critical patients are prone to develop CSWS. It is the main point to reach the right diagnosis and to highlight the diferantial diagnostic blood parameters.

Keywords: ICU, cerebral salt wasting syndrome, hyponatremia

[OP-127]

Ampicillin-sulbactam-induced Neutropenia - A Case Report

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Introduction: Beta-lactams have different toxicity and side effects to different organs and systems, and haematological toxicity is one of the side effects that can be seen. Beta-lactam-induced neutropenia has been a well-known problem since the beginning of penicillin use. In this case report, we present a patient who was treated in the medical intensive care unit and developed neutropenia with ampicillin-sulbactam use.

Case: An 87-year-old woman patient with a history of type 2 diabetes mellitus, hypertension and Alzheimer's disease was admitted to our hospital with dyspnea. On admission, her temperature was 36.7 °C, with a blood pressure of 80/50 mmHg, a pulse of 112 bpm and an oxygen saturation of 84% on room air. Physical examinations were unremarkable except crepitant crackles on both lower zones of the lungs. Laboratory findings revealed; 11.200 leukocytes/mm^3 (92% neutrophils), platelets 270.000/mm^3, haemoglobin 9.4 g/dL, C-reactive protein 211 mg/L (range 0-5 mg/L) and normal renal and hepatic functions. The patient was diagnosed with hypoxemic respiratory failure, was intubated and admitted to the intensive care unit. She was treated with ampicillin-sulbactam at a dose of 2+1 g every 6 hours. The patient was responding to the treatment and clinically recovering. On day 3 she was extubated. On day 6 the patient developed neutropenia. On day 7 neutropenia worsened, ampicillin-sulbactam was discontinued and the patient was started on levofloxacin. Peripheral smear showed no abnormality. The neutrophil count came back normal 3 days after stopping ampicillin-sulbactam. The sputum culture was negative. The neutropenia of the patient was evaluated as drug related.

Discussion: Unlike neutropenia caused by other non-chemotherapeutic drugs, beta-lactam-induced neutropenia is generally short-lived, reversible on drug discontinuation, and rarely causes infectious complications or death. In infections that require long-term treatment, blood values should be monitored regularly, and the duration of antibiotic therapy should be kept to a minimum in responding patients.

Keywords: Neutropenia, ICU, ampicillin-sulbactam, penicillin

Table 1. CBC profile

Antibiotherapy	WBC	Neu#	Haemoglobin (g/dL)	Platelet
Day 1	11.200	10.300	9.4	270.000
Day 2	12.100	10.700	8.6	296.000
Day 3	10.800	8.700	8.2	277.000
Day 4	11.000	4.600	9.0	269.000
Day 5	10.000	5.000	8.7	253.000
Day 6	8.000	**1.400**	8.2	290.000
Day 7	7.400	**500**	8.6	217.000
Day 8	6.200	**400**	8.7	242.000
Day 9	5.400	**450**	8.4	295.000
Day 10	8.300	**900**	8.9	282.000
Day 11	9.400	6.400	8.5	270.000

[OP-128]

Transmission Route of *Acinetobacter Baumannii* Infection in Earthquake Survivors

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Introduction: *Acinetobacter baumannii* (AB) is a predominant cause of nosocomial infections across the globe. It assumed that transmission is due to interactions between healthcare providers, patients, and contaminated fomites in the environment. Here, we present the transmission of AB in patients who had long-term soil exposure under the debris during earthquakes.

Case: Case 1: A 34 years old male patient was admitted to our intensive care unit (ICU) 24 hours after decompressive craniectomy due to subdural hematoma after being under the rubble after the earthquake. 10,000,000 cfu/mL AB was detected in the deep tracheal aspirate (DTA) culture taken upon admission. Case 2: A 59 years old male patient was admitted to our ICU after staying under the rubble for 24 hours after the earthquake. Thirty minutes of CPR was applied after the crush syndrome. AB (500,000 cfu/mL) was detected in the patient's DTA culture. In the following days,treatment was started due to the development of pnomosepsis. Case 3: A 31-years old male patient was trapped under the rubble for 18 hours. He was admitted to the ICU 36 hours after accident with a history of CRUSH syndrome. One million cfu/mL AB was founded in the DTA culture and 50,000 cfu/mL in the nasal swab culture at the admission. Systemic antibiotherapy was started at the 4th day of hospitalization due to septic shock.

Discussion: AB is associated with a higher mortality rate among infected patients in the last years. It was found that a dry and hot environment was a risk factor for the transmission of AB in American soldiers who went to conflict zones in Northern Iraq. AB was detected in the first admission cultures of our patients, and antibiograms showed that there was no flora element belonging to our hospital. Although *acinetobacter* is thought to be a hospital-acquired pathogen, it should be kept in mind that it is a risk factor for colonization in patients who have been trapped under debris.

Keywords: *Acinetobacter Baumannii*, earthquake, transmission

[OP-129]

Brain Abscess Associated with Down Syndrome and Eisenmenger Syndrome: A Case Report

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Introduction: Trisomy 21, the presence of a supernumerary chromosome 21, results in a collection of clinical features commonly known as Down syndrome (DS). Among patients with DS, we know that intellectual disability and genetic risk factors for congenital heart disease are increased. Eisenmenger syndrome describes congenital heart disease-associated severe pulmonary hypertension accompanied by right-to-left shunting. Patients with congenital cyanotic heart disease, like Eisenmenger syndrome, are at an increased risk of developing intra-cerebral abscesses. It is common practice for abscesses larger than 2 cm to undergo some form of surgical intervention, ranging from aspiration to excision of the abscess.

Case: Thirty-one years old patient with known Down syndrome, VSD/ASD, Eisenmenger syndrome diagnoses presented the emergency department with numbness and dizziness in the right arms and legs. Cranial CT scan was performed and there was a 3.5x1.8 cm brain abscess in right lateral ventricle temporal horn in the inferior temporal gyrus of the right temporal lobe and extended into the ventricle was seen. The patient, who was taken to the intensive care unit due to the development of unstoppable seizure activity. The patient was intubated due to seizure activity. To the patient, appropriate antibiotic therapy was prescribed and extraventricular drainage was placed by neurosurgeons. Patient was extubated after 13 days of antibiotic therapy and was discharged to the infectious diseases service, as the size of the abscess regressed in the control brain MRI.

Discussion: In summary, we reported a rare clinical case report of brain abscess combined with Eisenmenger and DS, which has been successfully treated with intravenous antibiotics and timely ekstraventricular drenage implantation. In order to better understand and ultimately prevent occurrence of this potentially fatal syndrome.

Keywords: Down syndrome, brain abscess, Eismenger syndrome

[OP-130]

New Airway Approach for Tracheal Resection

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Introduction: Tracheal stenosis after prolonged intubation in an intensive care unit (ICU) is a challenging situation for patients and mostly requires tracheal resection. During the surgery in a narrowed airway adequate surgical field and adequate ventilation are of paramount importance. Small-lumen endotracheal tubes with High-Frequency Jet Ventilation (HFJT) could be used but has risks and serious side effects such as high resistance, air-trapping, hypercapnia and potentially inducing barotrauma. A novel ventilating system, TriTube® and Evone® (Ventinova, Eindhoven, The Netherlands), with flow-controlled ventilation (FCV) was introduced, claiming to counter the drawbacks of HFJV.

Case: We present a 31-year-old female patient who was admitted to the ICU four months ago after motor vehicle accident related maxillary surgery and intubated for eight days. The patient had a respiratory compromises and was diagnosed with tracheal stenosis on CT imagining. After a detailed preoperative anesthetic assessment and obtained informed consent, tracheal resection and anastomosis were planned. On the day of the surgery, preoxygenation was done with 100% oxygen for two minutes, then induction was performed with intravenous anesthesia (lidocaine + poropofol + vecuronium + remifentanil). Propofol-remifentanil total intravenous anesthesia (TIVA) method was used to maintain anesthesia.

The first rigid broncoscopy was performed by the surgeon then patient intubated with Tritube with an internal diameter (ID) of 2.4 mm and an outer diameter of 4.4 mm with the laryngoscope. Peripheral oxygen saturation and end-tidal carbondioxide values remained within normal limits during the surgery. The surgical team stated satisfaction with the surgical view and having more space with a uniquely thin endotracheal tube. At the end of the procedure, the patient was extubated successfully with sugammadex in the operating room and transferred to ICU.

Discussion: Tracheal resection is challenging for both surgeon and anesthesiologist due to airway compromise. New techniques are useful to secure the airway and obtain a better surgical field.

Keywords: Ventinova, tritube, anesthesia, tracheal resection

[OP-131]

Happy Ending with Multidrug Intoxication and Lipid Emulsion Treatment in Pregnancy

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Introduction: Suicide attempts and poisonings during pregnancy, both toxic agent(s) and detoxification therapy, It is challenging for healthcare professionals because of their unknown effects on the health of the mother and baby. In this study, we aimed to present the clinical status and treatment of a pregnant woman who had a history of substance abuse and took multidrug for suicidal purposes.

Case: A 27-year-old gravida female patient without any known comorbidity but with a history of substance abuse and who had attempted suicide twice, 10 ceftibuten (400 mg) tablets, 1 fluconazole nitrate swab (600 mgr), 6 quetiapine for suicidal purposes. Methamphetamine was detected in the five-way toxicological scan of the urine. GCS=E1M1V1 and TA=110/70 mmHg, Pulse=110/min, respiratory rate: 9/min, SpO_2: 89% were detected when she was admitted to the ICU. The patient, unconscious and with bradypnea, was intubated using propofol 1 mg/kg and rocuronium bromide 0.6 mg/kg to protect the airway. Since no improvement in consciousness was detected in the first 30 minutes of observation, the patient was started on lipid rescue therapy (ClinOleic 20% IV infusion lipid emulsion) 1.5 mL/kg intravenous infusion in 10 minutes and 0.025 mL/kg IV infusion therapy in eight hours for maintenance treatment. In the patient's follow-up, 12 hours after he was intubated, the patient with GCS=15 was extubated after his vital signs and respiratory parameters were stable.

Discussion: It can be used as a rescue treatment for LET, especially in overdoses of lipophilic drugs, which was first used in the rescue treatment of overdose of local anesthetic drugs. However, more research is needed for the appropriate dose and timing. We have presented the possible mechanisms of action, usage protocols of the lipid emulsion therapy (LET), which we use in the treatment, and the dramatic improvement in our case as the application continues.

Keywords: Pregnancy, Suicide, Drug overdose, Substance abuse, Lipid emulsion therapy

[OP-132]

Myasthenia Gravis as an Unusual Reason of Respiratory Failure: A Case Report

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Introduction: Myasthenia gravis (MG) is an autoimmune neuromuscular disorder characterized by motor weakness involving the ocular, bulbar, extremities, and/or respiratory muscles. Myasthenia graves may present with life-threatening exacerbations leading to respiratory failure requiring intubation or non-invasive ventilation. Respiratory failure results from weakness of the respiratory muscles, while severe bulbar (oropharyngeal) muscle weakness often accompanies respiratory muscle weakness or maybe the predominant feature in some patients. We report the case of a 66-year-old male with MG who presented with isolated respiratory failure and bulbar muscle weakness as her first presenting symptoms.

Case: The patient was intubated in another hospital due to respiratory distress and was transferred to our intensive care unit. No etiology was found to explain respiratory failure in the patient's first laboratory and radiological examinations. The patient was extubated. Hypoxia and respiratory failure developed shortly after, and the patient was re-intubated. Repeated extubating attempts were also unsuccessful. The patient was observed to have excessive salivation, and severe oropharyngeal muscle weakness was detected. In the detailed interrogation, it was learned that the patient used CPAP at night due to obstructive sleep apnea, and he could not swallow solid foods and then liquid foods. As a result of the neurology consultation and further tests, it was determined that there was a myasthenic crisis. A rapid response was obtained to the treatment started (pyridostigmine bromide and prednisolone). The patient was extubated and discharged from the intensive care unit on the 3rd day of admission.

Discussion: As demonstrated in this case, it is essential to consider neuromuscular disorders in respiratory failure unexplained by infections and other common causes of chronic respiratory failure.

Keywords: Respiratory failure, myasthenia gravis

[OP-133]

Postnatal Diagnosed Posterior Reversible Encephalopathy Syndrome

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Introduction: Posterior reversible encephalopathy syndrome (PRES) is clinico-radiological syndrome characterized by headache, convulsions, mental impairment and vision loss. It is also characterized by vasogenic white matter edema primarily affecting the posterior occipital and parietal lobes of the brain. This clinical syndrome is increasingly recognized as a result of improvement and availability of brain imaging, particularly magnetic resonance imaging (MRI).

Case: Twenty-two year old primigravida at 28 weeks gestation presented with generalized tonic-clonic seizures and hypertension. On first examination; she was semi-concious, afebrile, Glasgow coma score was 11, blood pressure was 180/110 mmHg. She had one more seizure while being evaluated then she intubated. Eclampsia was diagnosed and she was transferred to caesarean section after receiving magnesium sulphate. Propofol and rocuronium were used for anesthesia induction. Postoperatively, she was shifted to intensive care unit. After she was extubated on first postoperative day, she described vision loss. Fundoscopic examination indicated retina detachment. Computed tomography (CT) brain revealed vasogenic cerebral edema, bilateral parieto-occipital hypointensities and MRI revealed bilateral parieto-occipital hyperintensities (Figure 1). She was given mannitol. Follow-up laboratuary studies were normal. On the sixth postoperative day blurred vision diminished and she was shifted to gynecology service. Rest of her hospital stay was uneventful.

Discussion: The case described here was admitted to the emergency room with hypertension and seizures, where eclampsia was diagnosed. Following visual loss on postoperative first day, CT and MRI helped us to diagnose PRES. The fact that our patient was not diagnosed at the beginning of pregnancy caused preterm delivery and postpartum PRES. In conclusion, monitoring and treatment of preeclampsia is not only important during pregnancy follow-up to prevent permanent damage, preterm delivery and miscarriage, but also in the postpartum period as the risk of complications persists.

Keywords: Eclampsia, preeclampsia, pregnancy, posterior reversible encephalopathy syndrome

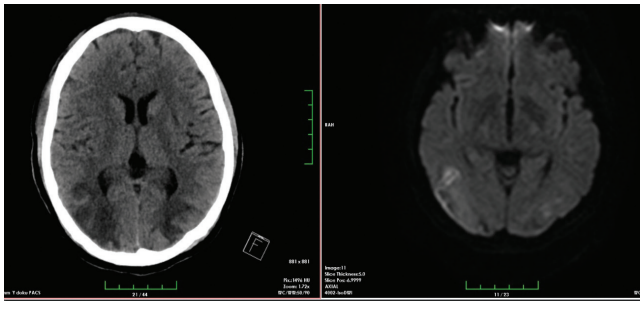

Figure 1.

[OP-134]

The Importance of Postoperative Care After Major Surgery; a Rare Case Report of Cardiomyopathy, Takotsubo Syndrome

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Introduction: Takotsubo syndrome is a rare ischemic dilated cardiomyopathy, which develops with failure to the left ventricle. It may occur in response to excessive emotional or physical stress. In this report, we will share our experience of Takotsubo cardiomyopathy, a rare cardiomyopathy diagnosed after back pain that persisted in the postoperative follow-up in a patient who underwent pancreatectomy.

Case: A 65-year-old female patient was performed a distal subtotal pancreatectomy. The patient was transferred into clinic with stable vital signs. Troponin level was measured because the patient described left flank-back pain at the 4th postoperative hour. Troponin level was 2643 ng/L. ECG was showed sinus tachycardia at 112/min, V2-4 ST segment changes in the anterior leads. Control troponin levels resulted 5232 ng/L, emergency coronary angiography was performed with a preliminary diagnosis of NSTEMI. Minimal coronary artery disease was observed and she was transferred to the coronary intensive care unit. Transthoracic echocardiography performed at the postoperative 16th hour. Left ventricular segmental wall movement disorder, mild tricuspid insufficiency with apical ballooning, the patient was diagnosed with Takotsubo cardiomyopathy. Troponin levels started to decrease with a peak value of 25606 ng/L. The patient was sent to the service 2 days later.

Discussion: Takotsubo cardiomyopathy is present in 1-3% of suspected acute coronary syndromes. The most common symptoms are chest pain and dyspnea, however, ST changes and arrhythmia developed more frequently. Symptoms and transient apical wall movements typically recover within days or 1-2 weeks. Our patient had persistent back pain and non-specific ST changes in the postoperative period. Although back pain was expected in pancreatic surgery, it continued progressively, so a cardiac problem was considered and cardiac enzymes were requested. Major surgeries are an important source of physical and emotional stress. Takotsubo cardiomyopathy should be considered in the differential diagnosis of acute myocardial infarction in the presence of postoperative chest pain.

Keywords: Post-anaesthesia care, Takotsubo cardiomyopathy, acute myocardial infarction

[OP-135]

MODS Caused by Group A *Streptococcus* and Influenza A

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Introduction: Coinfections of influenza virus with bacterial infections are an important cause of morbidity and mortality, especially among high-risk groups like young children and the elderly. *S. pneumoniae* is the most studied bacterium in association with influenza. Co-existence of influenza with group A streptococcal infection (GAS) has been reported in few studies. In this case, we would like to share our experience with our patient, who was admitted to the intensive care unit with a preliminary diagnosis of COVID-19 pneumonia due to clinical and radiological findings, and was diagnosed with Influenza and Streptococcal infection.

Case: A 24-year-old female patient applied to the emergency department with complaints of respiratory distress, cough, and joint pain. On admission to the intensive care unit, with 15 lt/min O_2 support, his SpO_2 was 77%, respiratory rate was 44/min, TA: 110/77 mmHg, and his temperature was 38.8 °C. On thorax tomography, ground-glass areas in both lungs and findings consistent with viral pneumonia are seen. COVID-19 PCR test results were negative. Arrival and exit laboratory values are given in Table 1 and Table 2. Levofloxacin, piperacillin tazobactam, oseltamivir, methylprednisolone were used in the treatment. The patient's need for oxygen and inotropics increased and his hemostasis panel gradually deteriorated. At the 25th hour, the GCS suddenly dropped, the pupils were dilated and the light reflex could not be obtained. Rapid respiratory test and throat culture results, which were sent to the intensive care unit, were reported as influenza and GAS.

Discussion: Co-existence of GAS and Influenza is a rare condition. Bacterial factors as well as viral factors should be kept in mind in patients with severe respiratory tract complaints and organ failure, especially during the seasonal flu months. Other epidemic diseases with similar clinical findings in the COVID-19 pandemic should also be reviewed.

Keywords: Influenza, *Streptococcus*, COVID-19, pneumonia

Table 1. Hospital admission examinations

	Hb	NE	PLT	UREA	KR	PRC	CRP	INR	TropI
Admission	15.2	0.3	133	38.7	1.13	181.5	181.2	1.9	2.5
Latest	12.1	1.7	70	79.61	1.86	431.2	304.4	3.7	22.6

Table 2. Hospital admission examinations

	pH	pCO_2	Lactate	HCO_3	BE
Admission	7.23	32.8	8.2	13.6	-12.5
Latest	7.11	57.0	8.0	17.9	-11.6

[OP-136]

An Acute Renal Failure Induced by Olive Oil Consumption: A Case Report

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Introduction: Drug-induced nephrotoxicity, continues to be one of the leading causes of acute renal failure in hospitalized patients. In this case report, we present a patient who consumed olive oil for three days due to constipation, which led to the induction of acute renal failure.

Case: An 81-year-old man with a history of coronary artery disease and heart failure presented to the emergency department complaining of constipation that had lasted three to four days during the initial evaluation, the patient was found to have a serum urea level of 532 mg/dL, a serum creatinine level of 20 mg/dL, and profound metabolic acidosis, a preliminary diagnosis of acute renal failure was made, and the patient was promptly admitted to the medical intensive care unit. the patient reported having ingested olive oil several times previously without any associated adverse effects. The patient underwent hemodialysis. Following this procedure, laboratory values revealed a urea level of 428 mg/dL and a reduction of the creatinine level to 15 mg/dL. Subsequently, the patient demonstrated spontaneous urine output and did not require any further dialysis sessions. The patient was transferred to the nephrology wards with a creatinine level of 0.93 mg/dL.

Discussion: Acute renal failure is relatively common in intensive care units, the etiology of acute renal failure is multifactorial in most cases, several recent large epidemiological studies have shown that nephrotoxic drugs cause 19-25% of severe acute renal failure. Herbal drug-induced nephrotoxicity continues to be prevalent cause of acute renal failure among hospitalized patients. Although olive oil possesses nephroprotective properties such as anti-oxidant, anti-inflammatory, and anti-apoptotic activity it has demonstrated a paradoxical effect on our patient. This may be due to the patient's repeated ingestion of olive oil at one time or the cumulative dose of over a period of time. We believe that this case is interesting and warrants further investigation

Keywords: Acute renal failure, nephrotoxicity, olea europaea

[OP-137]

Unknown Cardiac Arrest in a Case of Non-perforated Giant Lung Hydatid Cyst

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Introduction: Hydatid cyst is a very common parasitic disease, The disease is most commonly located in the liver (50-70%), the second most frequently in the lung (10-30%), and less frequently (10%) in other organs (heart, brain, spleen, bone). It is endemic in our country in Southeastern Anatolia, Central Anatolia and especially Eastern Anatolia. The possible cause of cardiac arrest of a young female patient was shared.

Case: A 23-year-old female patient, who was intubated and resuscitated for 20 minutes in an external center after unknown cardiac arrest at home was admitted our intensive care unit. She had a poor general condition, unconscious, GCS: 4, NIBP: 60/40 mmHg, peripheral oxygen saturation: 90%, pulse: 100 beats/min, pupillary middilated. Cranial, thoracic, abdominal CTs, necessary imaging and evaluating by echocardiography were done. No abnormality was detected except 15x10 cm non-perforated hydatid cyst in the right lung in thorax CT, intense brain edema in cranial diffusion MRI (Figure 1, 2), and 30% EF in echography. We did not evaluate the images in favor of pulmonary embolism (Figure 3). A cardiac cause was not considered by the cardiologist. The patient with negative indirect hemagglutination test was evaluated as pulmonary hydatid cyst and the operation was planned. Despite all the interventions he died 15th day of his follow-up.

Discussion: Although hydatid cyst is a benign lesion, it can cause asphyxia and anaphylaxis when the cyst ruptures. Despite a large pulmonary hydatid cyst, the patient's history of cardiac arrest without cyst perforation is remarkable. This may be associated with anaphylaxis due to bronchial opening of minimal amounts of cyst content or hematogenous spread. This case is important for demonstrating the necessity of a screening protocol, especially in endemic places such as our region, due to the results of non-perforated cysts, delays in diagnosis and treatment.

Keywords: Hydatid cyst, cardiac arrest

Figure 1. Thorax CT

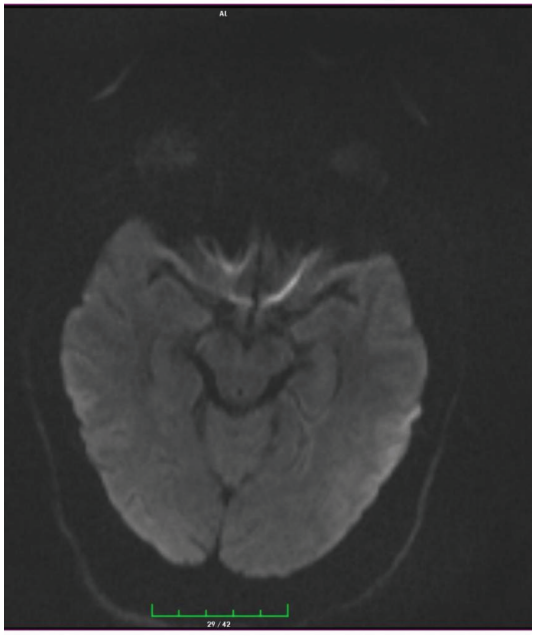

Figure 2. Cranial diffusion MR

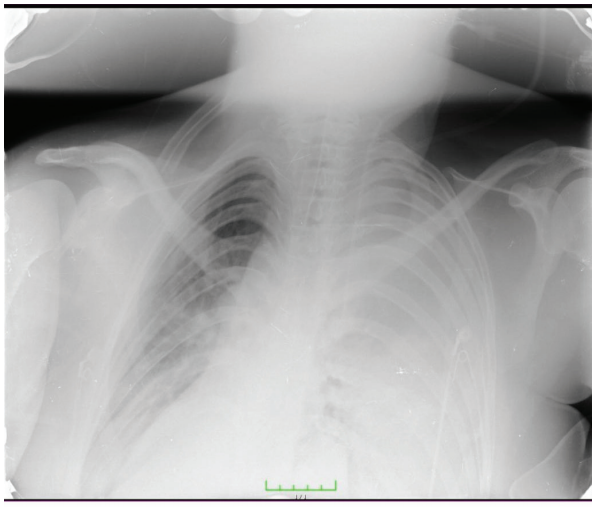

Figure 3. PA chest radiography

[OP-138]

Electrical Impedance Tomography Assistance in Difficult Decision Making; "Influenza-A Related Severe ARDS in a Pregnant Woman"

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Introduction: Electrical impedance tomography (EIT) is a real-time, non-invasive imaging method that evaluates regional lung ventilation. Although it allows the patient to be monitored at the bedside, it can be a good imaging method especially in pregnant women as it does not contain radiation. Twenty-seven weeks pregnant patient intubated with severe ARDS. The case in which our EIT follow-up played an active role in the decision of radiological progression and delivery.

Case: A 28-year-old and 24+4/7 week pregnant woman admitted to our intensive care unit with influenza-A PCR positive ARDS. The patient with bilateral infiltration was started oseltamivir, clarithromycin and methylprednisolone and followed up with high flow oxygen (flow 60 Lt/min, FiO_2 80%).The patient was monitored with EIT because of the concern about computed tomography, which is due to both transport difficulties and pregnancy. An increase in oxygen demand was observed at the 8th hour of hospitalization,and bilateral lung loss was observed in EIT at the same time. The patient, who had confusion and persistent fever, was intubated and emergency cesarean was performed. Linezolid was added after *S. aureus* was isolated in tracheal aspirate culture. The patient was followed up both daily chest radiograph and EIT. The patient was extubated on the 3rd day of hospitalization and transferred to the service on the 7th day of her hospitalization.

Discussion: In the management of pregnant ARDS cases; physicians have to make critical decisions such as birth, termination and intubation. Our patient had severe ARDS and was also 27 weeks pregnant. EIT follow-up was important in the pregnant patient group with limited imaging, since there was no radiation exposure and it gave instant information. This instant information can be used in the pregnant patient population, especially in the follow-up of ARDS patients. These experiences should be supported by multicenter studies.

Keywords: Electrical impedance tomography, ARDS, pregnancy

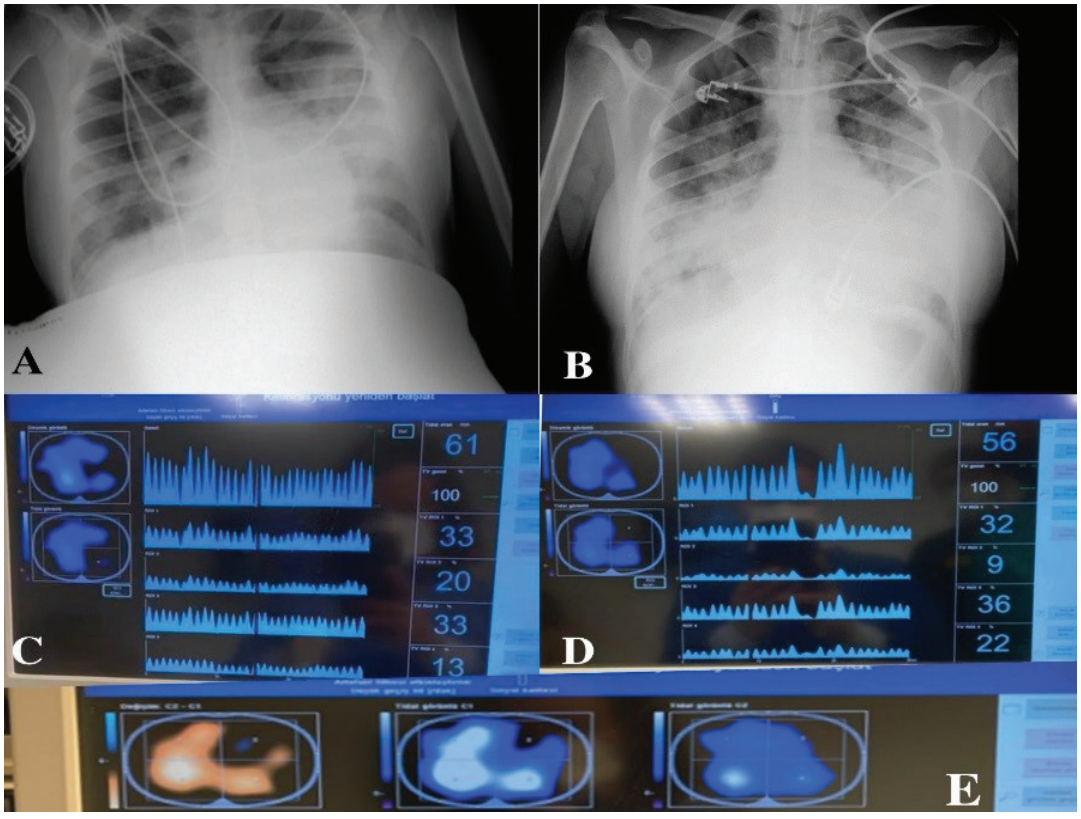

Figure 1. A-C) Chest radiograph and EIT images of the first hospitalization in intensive care unit B-D) Chest radiograph and EIT images before cesarean section, E) Orange color indicates loss in lung volume between two breaths showing at right side

[OP-140]

Development of *Streptococcus consellatus* Abscess in a Diabetic Patient with a Recent History of Periodontal Procedure

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Introduction: *Streptococcus constellatus*, a normal pathogen found in the oropharyngeal, vaginal or gastrointestinal flora has a potential to cause empyema, and necrosis of different organs, especially when associated with comorbid conditions and risk factors. The purpose of this case report is to share our clinical experience with streptococcus constellatus abscess in a diabetic patient with a history of periodontal procedure.

Case: A 64-year-old female patient who had a recent history of periodontal intervention was admitted to the emergency department with abdominal pain. The CT imaging showed abscess formation in the liver (Figure 1). After surgery metronidazole and cefuroxime treatment was started due to *S. constellatus* growth in the abscess culture. Three weeks later, the patient was admitted to the emergency room with unconsciousness. She was intubated. An abscess formation with a 2.5 cm diameter in the periventricular white matter was observed on cranial CT (Figure 2). Amphotercin B, metronidazole, vancomycin and meronem antibiotherapies were started in the following days. There was no improvement in consciousness. Control cranial imaging showed no regression of the intracranial abscess. Desired clinical improvement could not be achieved so intraventricular vancomycin treatment was started based on the *S. constellatus* growth. Patient died due to septic shock at the 14th day of ICU stay.

Discussion: *Streptococcus constellatus* have a potential to cause invasive infection and when suspected immediate surgical approach along with IV antibiotics should be start. In our diabetic patient, rapid progression of lesion had occured despite surgery and broad-spectrum antibiotics. It should always be kept in mind that *S. anginosus* group infection dangerous and can occur in immunocompromised individuals who have risk factors.

Keywords: *Streptococcus constellatus*, diabetes mellitus, abscess

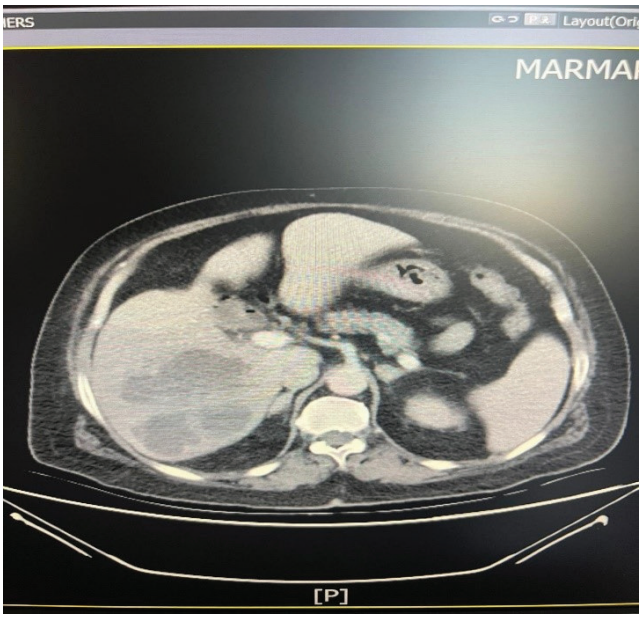

Figure 1. Liver abscess visualized on abdomen CT

Figure 2. Intracranial abscess visualized on brain CT

[OP-141]

Retrospective Examination of Brain Tomographs in Pandemic Intensive Care COVID-19 Patients and Non-COVID-19 Patients

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Introduction: Our aim is to determine the brain damage caused by COVID-19 by examining the brain tomographies and predictive feature by examining the laboratory data at 0. and 7. days.

Materials and Methods: A total of 60 patients, 30 with COVID-19 and 30 with non-COVID-19, were analyzed and patient data were compared. Brain tomography reports taken within the first 72 hours were analyzed. Age, gender, comorbidities, ICU stay, mortality, hemogram, total biochemistry and coagulation parameters were analyzed. Statistical significance level was accepted as $p<0.05$.

Results: Mortality rates and the hospitalization days were higher in the COVID-19 group. Intracranial hemorrhages (ICH) rates were higher in both groups compared to ischemia. ICH was detected in 21 (70%) and cerebral infarction in 9 (30%) patients of COVID-19 patients. Right hemisphere and frontal lobe was the most common in the intracranial hemorrhage region and intraparenchymal hemorrhage (90%) was the most common in the type of hemorrhage. Shifts were found in 42% of the patients. In patients non-COVID-19, 22 (73.3%) patients had hemorrhage and 8 (26.7%) patients had infarction. Left hemisphere and frontal lobe was the most common in the intracranial hemorrhage and intraparenchymal hemorrhage (90%) was the most common in the type of hemorrhage. 31.8% of the patients had shifts. 22% of the patients had cerebral infarct. In COVID-19 patients 77% had right and 33% left hemisphere infarcts. Infarcts were observed in the right hemisphere in 75% of non-COVID-19 patients and in the left hemisphere in 25%. D-dimer, PLT, neutrophils, AST, ALT, BUN, and urea were found to be statistically significantly higher in the COVID-19 patientS. PaO_2/FiO_2 ratios were found to be statistically significantly lower in the COVID-19 patient group. Hospitalization and 28-day mortality rates of the groups (%).

Conclusion: We concluded that while the pathogenicity of COVID-19 and preventive treatment approaches affect neurological complications, ischemic or hemorrhagic type proportionally changes and has a bad effect on prognosis.

Keywords: COVID-19, brain damage, computer tomography, intensive care unit

Table 1. Hospitalization and 28-day mortality rates of the groups (%)

	Group 1 (n=30)	Group 2 (n=30)	p
Total days of hospitalization	18,2667	16,1000	0.783
Mortality rates	83.3% (n=25)	63.3% (n=19)	0.080

n: Number of patients

Table 2. Cranial hemorrhage characteristics between groups

	Patients (n)	R	L	Bilateral	IPH	Cerebellar + brainstem	SHIFT	SAH
COVID-19	21	13	10	3	17	4	9	7
Non-COVID	22	11	13	4	19	3	7	3

SAH: Subarachnoid hemorrhage, IPH: Intraparenchimal hemorrhage, R: Right, L: Left

Table 3. Cranial infarct characteristics between groups

	Patients (n)	Right	Left	Cerebral	Cerebellar brainstem
COVID-19	9	7	2	7	2
Non-COVID	8	6	2	7	1

[OP-142]

Venous Air Embolism: Two Case Reports

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Introduction: Air embolism is a rare condition that occurs when air bubbles enters the arterial or venous circulatory system directly or by the effect of a pressure gradient. The results mainly depends on the location and total volume of the embolised gas, while it can be asymptomathic or fatal.

Case: In this serial we report two iatrogenic cases of venous air embolism caused by a central catheter and a peripheral venous cannula. A 75-year-old male underwent a proximal humerus endoprosthetic surgery for the methastatic lesion of a primary lung tumor. On the seventh day of the surgery, after removal of the right internal jugular catheter in orthopedic department, in a sitting position, the patient desaturated and had a generalised tonic clonic seizure. A CT scan demonstrated the air images in the right internal jugular vein, bilateral cavernous sinus and masticatory muscle space. The patient was diagnosed with cerebral venous air embolism. A 75-year-old male admitted to the COVID-ICU, referred from the emergency department (ED), with dyspnea and loss of consciousness. The patient was intubated and hydrated via peripheral intravenous cannula in ED. The diagnostic CT images revealed the air densities in bilateral right internal jugulary veins, bilateral brachiocephalic veins and in the main pulmonary artery. Both patients were mechanically ventilated at FiO_2 100% at the convenient positioning.

Discussion: Even air embolism is rare, it is also a potentially fatal condition. In this iatrogenic case serial we aimed to remind the severity of the results of the insertions and removal of the venous catheters or canulas. Best treatment is still prevention

Keywords: Air embolism, central venous catheter, peripheral venous canula

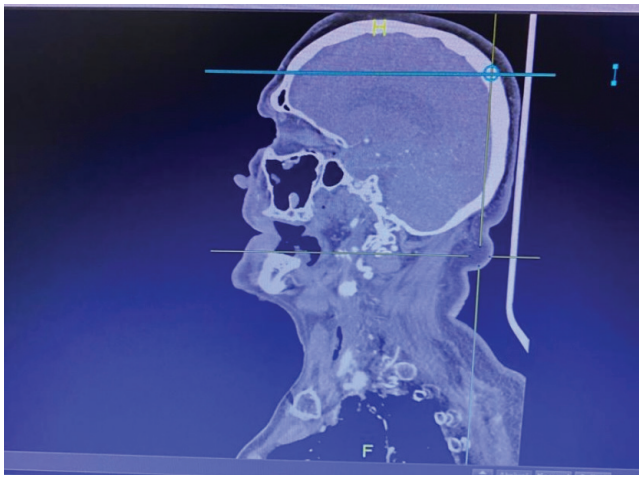

Figure 1. Air densities in the internal jugular vein masticatory muscle space

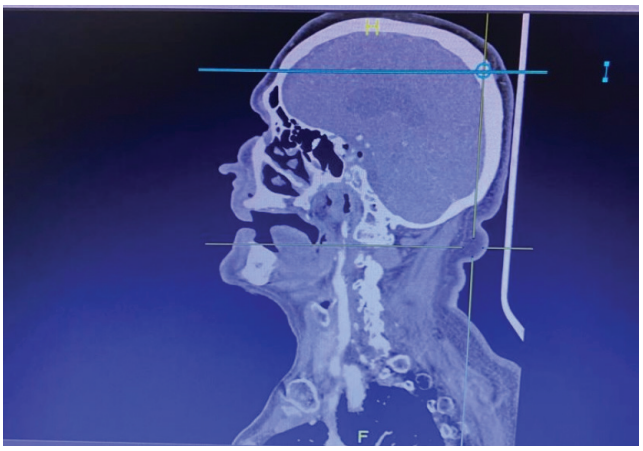

Figure 2. Air densities in the masticatory muscle space pulmonary artery

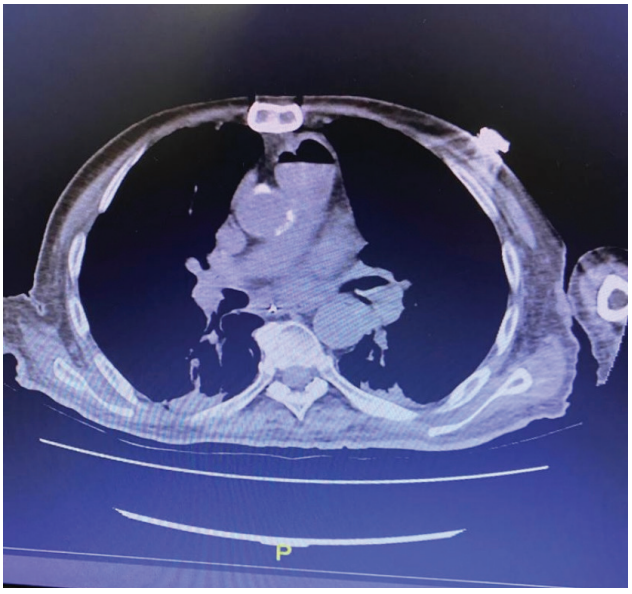

Figure 3. Air densities in the main pulmonary artery

[OP-144]

The Importance of Fluid Management in Crush Syndrome

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Introduction: Uncontrolled and non-patient-based fluid therapies can cause serious fatal complications.

Case: The general condition of the patient, who was under a dent for 24 hours due to the 6 February 2023 earthquake, was medium, ta: 135:76, pulse: 82, SpO_2: 94 (with nasal O_2), k: 3.9, urea 79.8, cre: 4.1 and a 39-year-old male patient was admitted to the external center. The patient, who underwent right leg knee amputation and urine output, is given fluid therapy at 300 ccc/hour. After 9 days, the patient whose respiratory functions worsened was hospitalized by us. The patient whose respiratory functions worsened was intubated. Pulmonary edema due to volume load was detected in the patient and the patient was taken to emergency ultrafiltration. The patient underwent intermittent ultrafiltration for 3 days and was diagnosed with ards due to pulmonary edema. Patient receiving ARDS treatment 4. The day was extubated with the support of high flow O_2.

Discussion: Fluid management in Crush syndrome should be patient-based and volume load including fatal complications should be carefully avoided. In fluid management, the urine output of the patient should be closely monitored and revised daily. In severe excess of fluid should be considered ultrafiltration.

Keywords: ARDS, pulmonary edema, crush, ultrafiltration

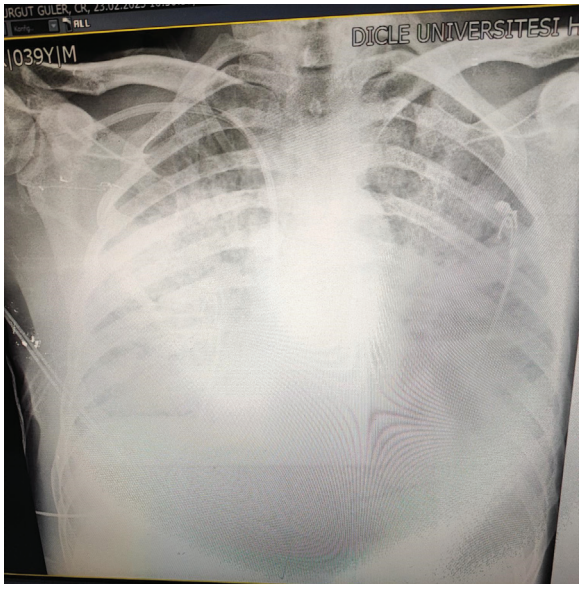

Figure 1. Pulmonary edema before ultrafiltration

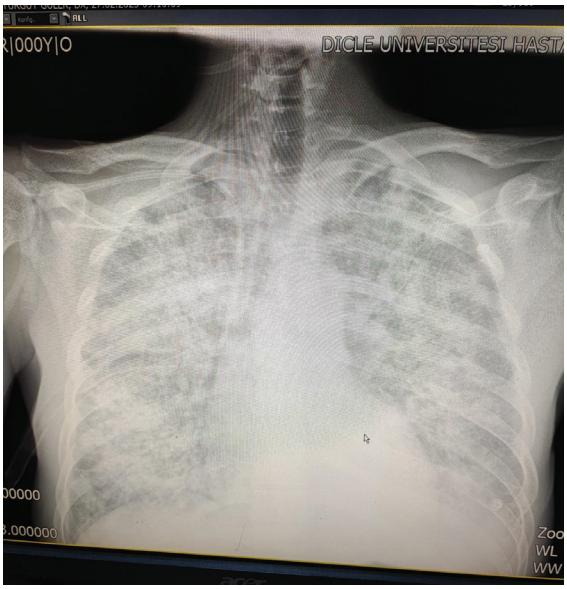

Figure 2. ARDS

[OP-146]

The Effectiveness of Cardiac Output Monitoring in the Critically Ill Patient with Cocaine Toxicity

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Introduction: Cocaine toxicity is a clinical condition that includes acute toxicity and/or chronic complications affecting multiple organs and may require intensive care support. Cardiac output (CO) monitoring may be benefical for the management of critically ill patients with cocain toxicity.

Case: A 26-year-old male patient was admitted to the intensive care unit (ICU) with hyperlactatemia and agitation. On ICU admission, his APACHE II score was 15, SOFA score 2, and GCS 15. Acidemia persisted despite supportive care, including intravenous fluids, sodium bicarbonate, antibiotics, vasopressors, and inotropes. The patient was intubated because of severe agitation and pulmonary edema. Transpulmonary thermodilution (PiCCO®) was used in addition to echocardiography (ECHO) to determine the type of severe shock as the patient did not respond the initial therapy. Monitoring findings included decreased global end diastolic volume, cardiac output, systemic vascular resistance index, global ejection fraction, increased pulmonary vascular permeabilty index and extravascular lung water index. ECHO revealed an impaired cardiac contractility. He had distributive, cardiogenic and hypovolemic shock. Therefore, we had to give 36 liters of fluid intravenously (IV) over 24 hours and high-dose vasopressor and inotropic therapies were applied. Methylene blue was used for refractory vasoplegia and IV lipid solution was administered beaouse of history of cocaine usage. Continuous veno-venous hemodiafiltration (CVVHDF) with a cytokine-removal filter was performed due to stage II acute kidney injury. He was weaned from the mechanical ventilator and CVVHDF on 4th day of ICU admission and was discharged from the hospital on the 11th day of hospital admission.

Discussion: Illicit drug usage and cocaine toxicity should be kept in mind if the presence of severe shock and hyperlactatemia of unknown cause. CO monitoring may play a central role in the rapid treatment and management of drug-induced toxicity and severe shock.

Keywords: Cocaine toxicity, cardiac output monitoring, hyperlactatemia, ICU, severe shock

[OP-147]

Comparison of Supportive Intermittant Mandatory Ventilation and BiLevel Ventilation used in Intubated COVID-19 Associated Respiratory Failure in Terms of Mortality and Oxygenation

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Introduction: BiLevel invasive mechanical ventilation is a pressure-controlled, time-triggered ventilation mode that allows spontaneous breathing used in ARDS. Experiences with this mode are scarce in the literature. Similarly, data on the ventilation strategy in COVID-19 associated ARDS (CARDS) are scarce, and we see that protective lung ventilation strategies are recommended in these patients. In our study, it was aimed to investigate the effect of mortality and oxygenation between patients using SIMV and BiLevel modes by using protective lung ventilation strategy in critically ill patients diagnosed with CARDS.

Materials and Methods: The data of intubated patients diagnosed with CARDS in the ICU between January and March 2021 and for whom SIMV and BiLevel modes used were included. Demographic data, arterial blood gas data and ventilator parameters were recorded and analyzed retrospectively.

Results: The demographic data was similar between the groups. The mean tidal volume in the SIMV group was lower than in the BiLevel group (492 mL vs 587 mL p=0.018). Inspiration time was found to be longer in the BiLevel group (Tins: 1.20 sec vs 2.54 sec p=0.002). In the arterial blood gas (ABG) analysis taken in the 24th hour after intubation, the PCO_2 values were lower in the BiLevel group and the pH values were higher (for PCO_2, 57,6 mmHg vs 43.85 mmHg p=0.035; pH 7.4 vs 7.2 p=0.046) and, no difference was found between other blood gas ABG parameters. There was no difference between the groups about the ventilator parameters (PEEP, Pmean, Pplato, RR). Also there was no difference in terms of mortality.

Conclusion: Although the positive effect of the use of BiLevel mode on mortality and oxygenation could not be determined, it is seen that it provides better carbon dioxide excretion and more normal blood pH within the limits of safe lung ventilation strategy use.

Keywords: Acute respiratory distress sydrome, bilevel, COVID, ventilation

Table 1. Comparison of two groups

	SIMV group (n=9)	BiLevel group (n=7)	p value
Age	71 (±7.6)	58 (±12.20)	0.27
Gender (F)	5 (55.6%)	2 (28.6%)	0.35
Mortality	8 (88.9%)	5 (71.4%)	0.55
BMI (kg/m^2)	29.3 (8.4)	26.1 (8.9)	0.633
APACHE II	18 (7.0)	15 (10.0)	0.964
Flow mL/dk	70 (15.0)	70 (30.0)	0.712
PEEP (cmH_2O)	10.0 (2.0)	8.0 (0)	0.180
Port (cmH_2O)	16.0 (8.0)	25.0 (11)	0.063
Pplato (cmH_2O)	25.0 (±3.27)	27.14 (±5.08)	0.323
Cstat (cmH_2O)	27.88 (±9.87)	31.57 (±12.93)	0.528
Fr	16.0 (1.5)	15.0 (3.0)	0.291
RR	22.37 (±5.78)	20.28 (±4.95)	0.468
Tidal volume (mL)	492.0 (±87.35)	587.14 (±36.38)	0.018
Tidal (L/dk)	10.84 (±2.88)	9.22 (±2.71)	0.274
MV FiO_2	100	100 (10.0)	0.098
Tins	1.20 (±0.23)	2.54 (±1.02)	0.002
pH	7.27 (±0.15)	7.41 (±0.06)	0.046
pO_2	66.94 (±14.23)	66.65 (±21.97)	0.975
pCO_2	57.62 (±15.99)	43.85 (±4.74)	0.035
Lac	2.00 (3.70)	2.70 (2.2)	0.595

[OP-148]

Fibrinolytic Therapy in Very Elderly Patient with Pulmonary Embolism: Age is not a Contraindication

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Introduction: Pulmonary embolism (PE) is a life threatening medical condition, and 34% of the patients died suddenly or within a few hours of the acute event before therapy could be initiated. Lysis of clot can be achieved faster with fibrinolytic therapy in high risk PE patients. But fibrinolytic therapy is administered with great caution in elderly patients because the risk of complications is thought to be higher than in non-elderly patients. We aimed to describe clinical and treatment characteristics of the very elderly PE patient that received with fibrinolytic therapy.

Case: An 83-year-old female patient with history of alzheimer disease admitted to the emergency department with new onset shortness of breath, chest pain and an episode of syncope. On presentation to the emergency room, she was hemodynamically unstable, heart rate was 105 beats/min, blood pressure was 80/50 mmHg, respiratory rate was 25 breaths/minute, and saturation was 85% on room air. She has been admitted to the intensive care unit due to shock and acute respiratory failure. A bedside ECHO was performed to diagnose the differential diagnosis of cause of shock in the patient, and right ventricular dilation and dysfunction were detected. After hemodynamic stabilization of the patient, a CTPA was performed. The CTPA revealed multiple scattered thrombi in both pulmonary artery branches (Figure 1). Fibrinolytic therapy with recombinant tissue plasminogen activator was administered. Patient clinical condition and laboratory findings were significantly improved, and was discharged was discharged from the intensive care unit on the fifth day of admission and transferred to the ward.

Discussion: Clinical studies have shown that in patients with PE who received fibrinolytic therapy, the rates of death and illness associated with this condition are similar between older and younger age groups. Thus, age should not be regarded as a contraindication to fibrinolytic therapy in patient with PE.

Keywords: Fibrinolytic treatment, elderly, pulmonary embolism, high risk

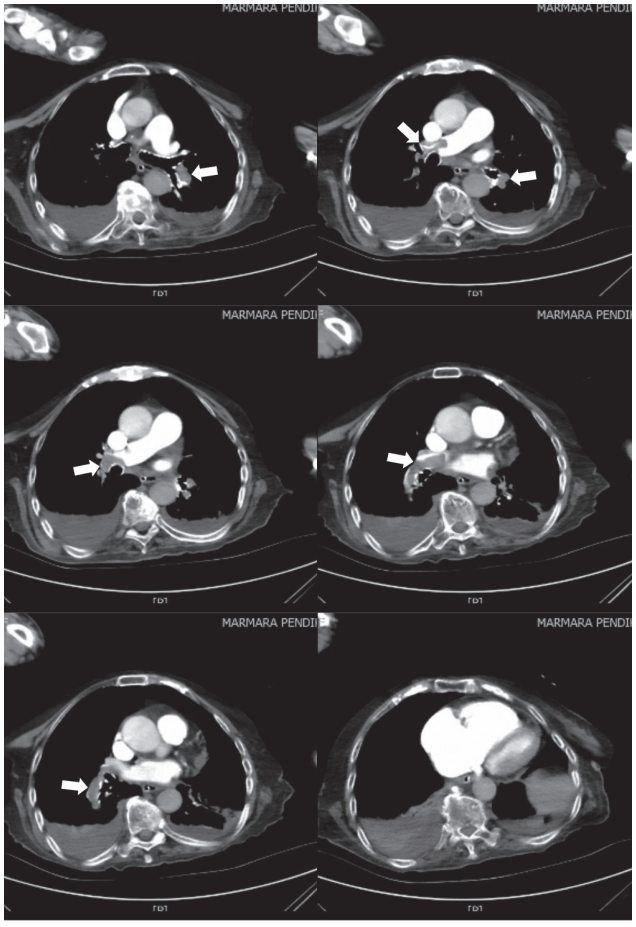

Figure 1. Thorax computed tomography angiography showing multiple scattered thrombus in both pulmonary artery branches (white arrows), right ventricle enlargement and bilateral pleural effusions

[OP-149]

Anticholinergic Toxic Syndrome Associated with Atropa Belladonna: Case Report

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Introduction: Anticholinergic toxic syndrome (ATS) may occur due to various drugs such as tricyclic antidepressants, antipsychotics, antihistamines, atropine and scopolamine, or it may occur by consuming some herbs in different ways. In this article, we aimed to share a case of anticholinergic syndrome that develops with the ingestion of Atropa Belladonna fruits.

Case: A 60-year-old male patient was brought to the emergency room by his relatives complaining of confusion, restlessness, agitation and dreaming. On his first physical examination, his general condition was poor, his Glasgow Coma scale (GCS) was 9 and his breathing was irregular. Non-invasive blood pressure was 180/100 mmHg, pulse rate was 115/min, respiratory rate was 23/min and fever was 38.2 °C when taken to the emergency room. On neurological examination, both pupil isochoric, mydriatic and light reflexes were bilateral normal. On physical examination, the facial area was hyperemic, the oral mucosa had a dry appearance, and auscultation and breathing sounds were normal. The patient, whose relatives stated that he ate forest fruit whose name they did not know, was diagnosed with ATS due to Atropa Belladonna intoxication based on the available clinical findings and literature information. The patient, whose general condition worsened and breathing was irregular, was electively intubated upon the development of abdominal breathing, intercostal retraction and tonic clonic seizures for 15 seconds. Within 24 hours of admission to the Intensive Care Unit, the patient's vital signs were stable and the blood gas parameters were consistent with the FiO_2 level, and the patient was discontinued sedation and extubated as GCS 15 following the weaning process.

Discussion: Treatment of Atropa Belladonna intoxication is conservative and symptomatic. Patients with central findings should be closely monitored hemodynamically in their ICUs. In patients presenting with anticholinergic symptoms, the consumption of such plants as well as the use of anticholinergic drugs should be questioned.

Keywords: Atropa belladonna, intoxication, anticholinergic toxic syndrome

[OP-150]

Scorpion Sting-related Kounis Syndrome: A Rare Case Report

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Introduction: Kounis syndrome (Ks), also known as allergic angina syndrome, is a rare acute coronary disease that develops due to allergic, hypersensitivity, and anaphylactic reactions. Incorrect diagnosis of KS is important for allergenic signs and clinical symptoms, history of allergies, the results of laboratory tests, electrocardiogram, echocardiogram, and other radiological imaging. In this case report, we aimed to report a rare case of Ks caused by a scorpion sting.

Case: A 25-year-old female patient with no known comorbidities was admitted to the emergency department (ED) with nausea, dizziness, shortness of breath, and chest pain after a scorpion sting. On admission, heart rate was 133 s/min, respiratory rate was 32/min, and blood pressure was 110/65 mmHg. The patient stated that having presented at another healthcare facility, symptoms had started 4 hours previously. Electrocardiography showed minimal ST-elevation in leads V2-V4 and ST-depression in leads V1-V2 derivation. Echocardiography revealed an EF: 20%, mild to moderate mitral valve regurgitation, tricuspid valve mild regurgitation, and minimal pericardial effusion. Laboratory parameters are shown in Table 1 and the chest CT Figure 1. After conventional therapy and medical treatment, the respiratory rate and SpO_2 gradually, EF was 55%, and the patient was suggested to rest at home with planned medical treatment.

Discussion: Ks, in which many factors [drugs (antibiotics (27.4%), analgesics, anesthetics], foods, and environmental exposures [Latex, Insect bites (23.4%)] are blamed for its etiology and its pathophysiology have not been fully elucidated. According to the new classification of Ks, it is divided into four subtypes have been described. Type 1, myocardial Infarction is the most common variant of Ks, which is caused by vasospasm of normal or near-normal coronary arteries. In our case, allergic history, clinical findings, and laboratory results also support type 1. Early diagnosis and treatment play an essential role in the prognosis of the disease regarding morbidity and mortality rates.

Keywords: Scorpion sting, acute coronary disease, kounis syndrome, allergic angina syndrome

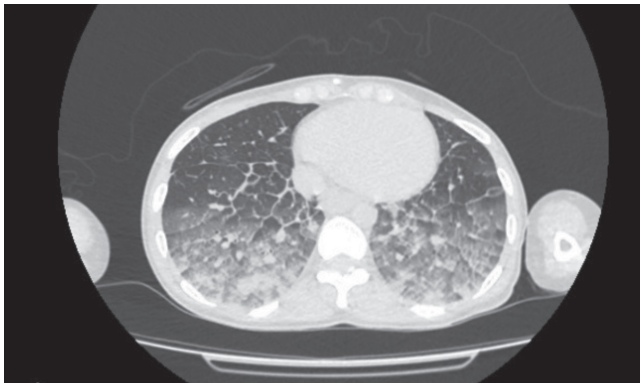

Figure 1. Shows the patient had in both lungs, especially in the periphery minimal ground glass density, focal consolidations, and pleural effusion

Table 1. Laboratory findings on admission to the emergency department

	Normal range		**Normal range**
Hemoglobin level, g/dL	**12.6** (13.5-18)	C-reactive protein, mg/L	**16** (0-5)
White blood cell, $10/mm^3$	**16.9** (4-10.5)	D-dimer, μg/L	**922** (0-242)
Neutrophil count, $10/mm^3$	**16.2** (1.8-7.42)	LDH, U/L	**611** (<248)
Lymphocyte count, $10/mm^3$	**0.45** (0.85-3)	Troponin, ng/L	**618** (0-14)
Eosinophil count, $10/mm^3$	**0** (0.03-0.27)	CK, U/L	**4136** (<146)
Platelet count, $10/mm^3$	**417** (150-450)	CK-MB, U/L	**91** (<24)
Procalcitonin, ng/mL	**0.12** (0-2)	Alanine transaminase, IU/L	**60** (0-50)
Aspartate transaminase, IU/L	**53** (10-50)	Immunoglobulin IgE, IU/mL	**624** (0-100)

[OP-151]

Is a Ph of 6.9 Survivable? Metformin-related Severe Metabolic Acidosis: Two Cases Report

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Introduction: Lactic acidosis type B (LA) is a mortal side effect associated with metformin use. We aim to report two cases who followed up with metformin-related severe metabolic acidosis in the intensive care unit (ICU).

Case: Case 1: A 64-year-old female patient with chronic kidney disease, DM, gout, and hypothyroidism comorbidities was admitted to ICU with dyspnea and weakness. It was learned that she had used 1,000 mg of metformin daily. On admission, vital signs were HR: 110s/min, RR:40/min, and BP: 110/65 mmHg. Glasgow coma scale (GCS): 14 tended to sleep and the physical examination findings were normal. Laboratory results are shown in Table 1. Arterial blood gas analysis was measured at pH: 6.69, pCO_2: 17.30 mmHg, pO_2: 214 mmHg, HCO_3: 3.4 mmol/L, lactate: 19 mmol/L, and BE: -29.8 mmol/L. The patient, whose breathing worsened progressively, was intubated electively and applied pressure-controlled ventilation. Continue renal replacement (CRRT) and medical treatment (antibiotics, inotropic drug infusion, $NaHCO_3$ infusion) were applied and metabolic acidosis regressed on the 20th hour of follow-up. The patient was extubated on the 12th day because of low GCS follow-up and was discharged on the 15th day of the ICU follow-up with medical treatment recommendations. Case 2: A 24-year-old female patient with bipolar disorder was admitted to the emergency department with dyspnea and abdominal pain. It was learned that she used 2,000 mg of metformin to lose weight daily. On admission, vital signs were HR: 91 s/min, RR: 30/min and BP: 120/80 mmHg. The physical examination findings were normal and GCS: 14. Laboratory results are shown in Table 1. Arterial blood gas analysis was measured at pH: 6.91, pCO_2: 24.8 mmHg, HCO_3: 6.2 mmol/L, lactate: 25 mmol/L and BE: -28.1 mmol/L. CRRT and medical treatment ($NAHCO_3$ infusion) were applied and metabolic acidosis regressed at the 6th hour of follow-up. She was discharged on the 15th day of the ICU follow-up with medical treatment recommendations.

Discussion: The mechanism by which metformin causes lactic acidosis is unclear. Metformin-using is contraindicated if GFR <30 mL/min and renal function tests should be closely examined. In the development of metformin-induced LA, early CRRT is effective in morbidity and mortality. Detailed anamnesis, early diagnosis, and effective treatment are life-saving.

Keywords: Metformin, CRRT, lactic acidosis, severe metabolic acidosis

Table 1.

	Case 1	Case 2	Normal range
Hemoglobin L, g/dL	8.4	12.1	12.5-16
WBC, $10^3/mm^3$	**15.8**	**34.5**	4-10.5
Neutrophil, count	13.56	**26.75**	2-7.15
Lymphocyte, count	1.36	**4.12**	1.16-3.18
Neutrophil-lymphocyte ratio	9.97	6.49	
PLT, $10^3/mm^3$	320.0	356.0	150-450
BUN, mg/dL	**63**	9	8-20
Creatinine, mg/dL	**4.82**	**1.76**	0.66-1.09
GFR, mL/m/1.73 m^2	9	40	90≥
Sodium, mmol/L	142	133	136-146
Potassium, mmol/L	**5.3**	4.1	3.50-5.1
Cloride, mmol/L	**89**	**96**	101-109
CRP, mg/L	**33.7**	1.1	0-5
D-dimer level, μg/L	**7160**	**594**	0-242
	Case 1	**Case 2**	**Normal range**
Hemoglobin L, g/dL	8.4	12.1	12.5-16
WBC, $10^3/mm^3$	**15.8**	**34.5**	4-10.5
Neutrophil, count	13.56	**26.75**	2-7.15
Lymphocyte, count	1.36	**4.12**	1.16-3.18
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Potassium, mmol/L	**5,3**	4.1	3.50-5.1
Cloride, mmol/L	**89**	**96**	101-109
CRP, mg/L	**33.7**	1.1	0-5
D-dimer level, μg/L	**7160**	**594**	0-242

[OP-152]

Bilateral Hypoglossal Nerve Palsy After Pulmonary Valve Replacement, a Case Report

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Introduction: Isolated cranial nerve injuries are very rare complications of intubated patients who were under general anesthesia. The most common cranial nerve paralyzes are hypoglossal, lingual, and recurrent laryngeal. We present a 15-year-old male patient with bilateral hypoglossal nerve injury without any realised-complication during intubation or post-operation.

Case: A fifteen-year-old boy, who had operation of pulmonary valve replacement was treated with ECMO due to hypotension and increased lactate level after him being admitted to intensive care unit. He was under five days of ECMO and intubated for eighteen days. The patient had made good progress and was extubated with a gloskow scale of 15. In addition, his mechanical ventilation settings were; 35% of FiO_2, PEEP of 5 cmHg, and 6 cmHg of over-PEEP pressure with a normal chest X-ray. Unfortunally the patient presented respiratory distress with desaturation and re-entubated. Openning a tracheostomy was decided due to prolong entubatıon. We realized his oral intake wasn't well enough and he wasn't able to stick out his tongue in morning visit on twenty days of ICU. Although his cranial CT and MR revealed no abnormality, his EEG showed isolyted hypoglossal nerve paralysıs. Subsequently deksametazon and vitamine B complex were prescribed. He was discharged from intensive care unit with full recovery of cranial nerve at post-op 68 days.

Discussion: Orotracheal intubation could cause a wide range of complication from minor sore throats to life-threatening respiratory problems. isolated nerve damagemay be caused by the stretching and compression of thenerves during airway management. Possible reasons are; mask ventilation, oropharyngeal airway, cricoid pressure, high cuff pressure of endotracheal tup (ETT), malposition of ETT, head and neck positions during intubation or post-operation. Consequently, we must be aware of the risk factors to reduce nerve injuries incidence and symptoms should be recognized to diagnose early especially with failed extubation.

Keywords: Hypoglossal nerve paralysis, orotracheal intubation, postoperative complications, pulmonary valve replacement

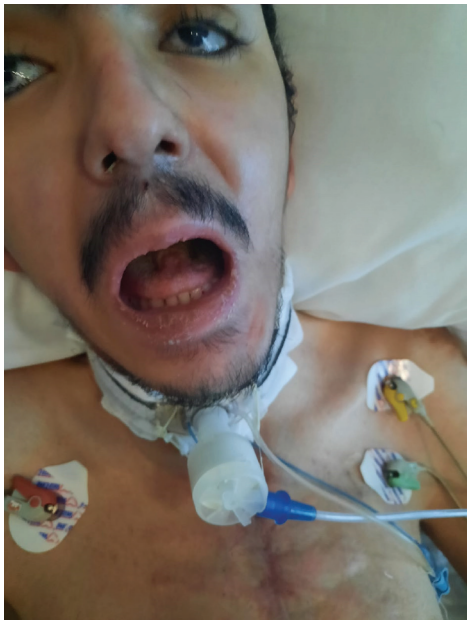

Figure 1.

Figure 2.

Figure 3.

[OP-153]

Systemic Capillary Leak Syndrome After COVID-19

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Introduction: Systemic capillary leak syndrome (SCLS), also called Clarkson's disease, is a severe, rare disease characterized by hypovolemic shock secondary to capillary leak which occurs in the context of monoclonal gammopathy. It usually has a triggering factor, which tends to be an infection (generally viral). We aimed to present and discuss SCLS developing in a patient who had had severe acute respiratory syndrome coronavirus-2 (SARS CoV-2) infection in the previous days.

Case: The patient is a 51-years-old male who consulted with clinical symptoms that had been ongoing for ten hours characterized by general malaise, diarrhea and episodes of fever. In the emergency room, the diagnosis of COVID-19 infection was confirmed by reverse transcription polymerase chain reaction (RT-PCR) test. Norepinephrine infusion was started after hypotension developed on the 10th day in the patient who was intubated on the 2nd day in the intensive care unit. On the 11th day, urinary output decreased, inotropic support increased, and anazarca-style edema developed. On the 12th day, the patient's serum hemoglobin level increased (from 10.2 g/dL, to 12.2 g/dL), serum albumin level decreased (from 36.6 g/L, to 25.4 g/L), and diffuse edema increased. With these findings, a diagnosis of SCLS was made. IVIg 1 g/kg, methylprednisolone 1,000 mg/for 3 days was commenced. Continuous venovenous hemodiafiltration (CVVHDF) was applied for 3 days. The patient died on the 15th day of his intensive care hospitalization.

Discussion: There are no specific diagnostic criteria for SCLS, so recognizing this disease can be difficult. The diagnosis of SCLS may be overlooked in common infection pandemics such as the COVID-19 pandemic. Its prognosis is still unclear and there is no recommendation for treatment other than oxygenation, steroids, and IVIg. It should be supported with other symptomatic treatments.

Keywords: COVID-19, intensive care, IVIg, steroids, systemic capillary leak syndrome

[OP-154]

Posterior Reversible Encephalopathy Syndrome (PRES) Presented with Disseminated Varicella Zoster Virus Infection (VZV) with Acute Abdomen Syndrome; A Case Report

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Introduction: Posterior reversible encephalopathy sydrome (PRES) is an acute-rapidly progressive neurological sydrome characterized by symmetric bilateral vazogenic edema in parietal and occipital cortex of brain on magnetic resonance imaging (MRI). It is mostly associated with multiple etiologic factors; hypertension, uremia, pregnancy, immunosupression, drugs, infection of Gram-positive organisms, viral infections; HIV and influenza-A encephalitis are a known cause of PRES. However clinical and neuroimaging consistent with PRES isn't usually known with Varicella Zoster virus (VZV) encephalitis and acute abdominal syndrome.

Case: Here we present a case of a 63 year-old male patient admission to intensive care unit with code-blue after severe abdominal pain and epileptic seizure following respiratory arrest under mechanical ventilation with a background history of gastric lymphoma underwent bone-marrow transplantation seven years ago in complete remission admitted to our hospital after severe abdominal pain with MRI findings of PRES, skin rash and sepsis secondary to disseminated VZV septisemia and encephalitis with acute abdominal syndrome. On day 2; elevated amylase-lipase levels and thrombosytopenia were observed and fever developed with neutropenia. In contrast abdomen CT seen assicetes perisplenic and perihepatic area and undergone to laparoscopic surgery with findings of acute abdominal sydrome clinic and wasn't found any pathology except assicetes also with flow-cytometric measurements searching for lymphoma. After skin eruptions spread over-face VZV-DNA PCR found positive and started treatment with acyclovir IV 3x10 mg/kg-per a day. Simultaneously VZV-PCR was detected positive in cerebrospinal fluid. Patient was discharged on 14th day.

Discussion: Although recognition of viral diseases as triggers of PRES exists in the literature, we report a rare association of PRES with disseminated VZV septisemia and encephalitis with acute abdomen syndrome. Early administration of acyclovir in our case resulted in rapid clinical improvement despite of septic shock and respiratory arrest. Physicians should be aware of this possibility.

Keywords: PRES, VZV, septisemia

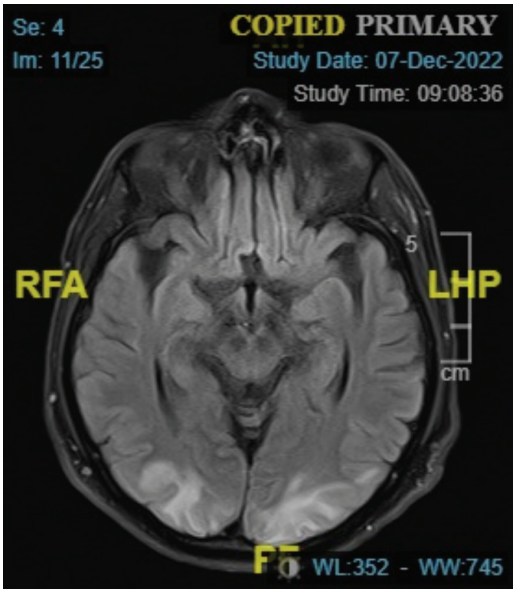

Figure 1. MRI findings

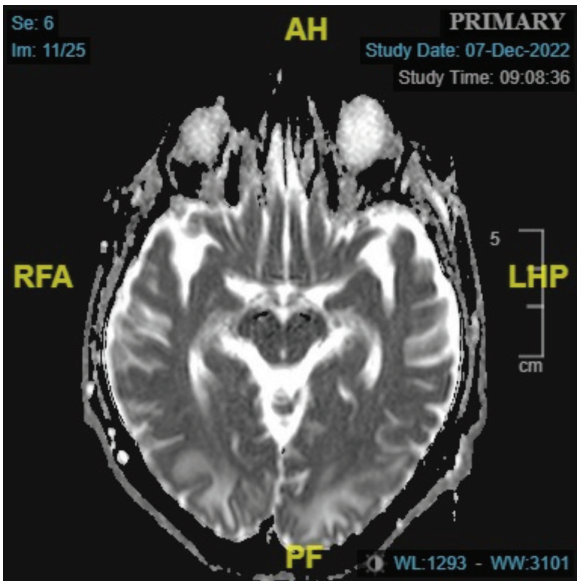

Figure 2. MRI findings

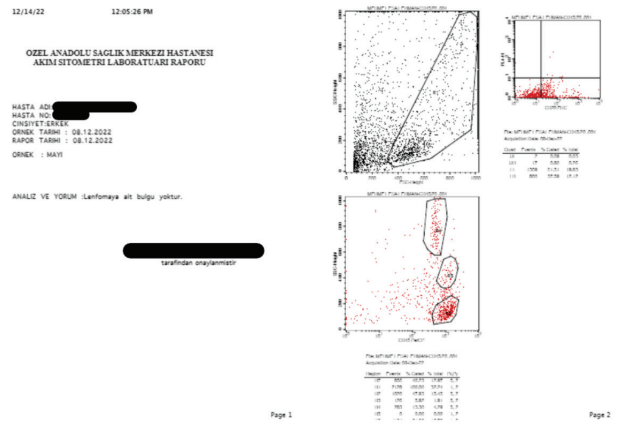

Figure 3. Flow cytometry

[OP-155]

Legionary Disease During COVID Pandemic

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Introduction: *Legionella pneumophila* is a bacterial pneumonia agent that can be transmitted from various water sources in nature and air conditioner. in our case; We will describe the diagnosis and treatment process of the patient who was hospitalized with a preliminary diagnosis of covid pneumonia (fever, cough and shortness of breath) and diagnosed with legionella disease with a suspicious approach with his history and laboratory values.

Case: Fifty-six years-old male patient with no additional disease, 30 pack/year smoking history. The patient applied to the hospital, with the symptoms of shortness of breath, cough and fever. The general condition of the patient was moderate, cooperative. Physical examination; sounds were decreased and bilateral ralles were present in the lower zones. Patient's vital signs; fever 36.3 C, pulse 108/minute, SPO_2 (room air) 93%. Initial labarotory studies showed that white blood cell, neutrophil and lymphocyte ratio, hemoglobin, C-reactive protein, ferritin, sodium, D-dimer were: 7.85 mcl, %40 and %55, 11.8 g/dL, 134 mg/dL, >2,000,00 ng/mL, 130 mmol/L, 2 µg/mL respectively. The patient was admitted with diagnosis of COVID-19 pneumonia (Figure 1, 2). Moxifloxacin and prednisolon (40 mg) were started. COVID PCR test resulted negative. On the 2nd day, he was transferred to the ICU and he was intubated. The patient with ARDS was given 250 mg pulse steroid therapy for 3 days. In the future, immunosuppressive pneumonia was added to the table. Despite antibiotherapy, the patient's need for inotropes and the patient died on the 12th day of his hospitalization.

Discussion: Although *L. pneumophila* is a uncommon cause of community-acquired pneumonia. Owing to this case, the water and ventilation systems of our hospital were scanned and legionella was detected in the water in the patient's room. Thereupon, necessary arrangements were made for the water of our hospital. In conclusion; diagnostic approach is very important in terms of diagnosing the patient's disease correctly, as well as protecting public health.

Keywords: *Legionella pneumophila*, COVID-19 pneumonia

Figure 1. First lung graphy; right upper lung lober pnomonia

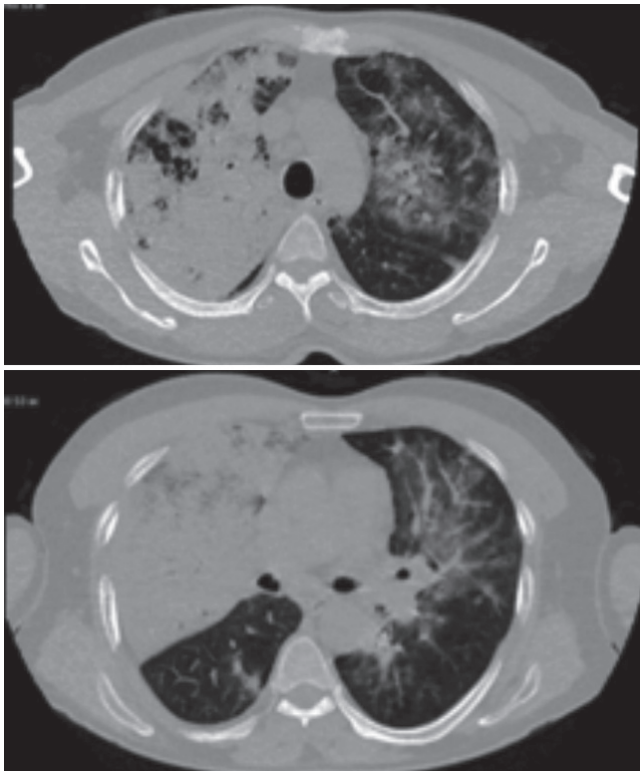

Figure 2. Bilateral opacities (especially right upper loberconsolidated involvement), and mediastinal lymp nodes

[OP-156]

Our Extracorporeal Membrane Oxygenation (ECMO) Experiences in the COVID-19 Pandemic and Intensive Care Unit

Şule Vatansever, Kamuran Uluç, Şükran Merve Çolakoğlu, Rabia Sarı Küçük, Gaye Şensöz, Namigar Turgut

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Introduction: The need for mechanical ventilation and mortality rates are high as a result of acute respiratory distress syndrome (ARDS) developing after COVID-19. The role of Extracorporeal Membrane Oxygenation (ECMO) supportive therapy in the COVID-19 pandemic is still unclear. In our study, we aimed to share the effectiveness of the ECMO supportive treatment, the difficulties we encountered, and our clinical experiences in 26 patients with ARDS caused by COVID-19 pneumonia in the intensive care unit of a third-level training and research hospital during the pandemic period.

Materials and Methods: Patients who received ECMO support between 11.03.2020 and 01.03.2021 in the University of Health Sciences Turkey, Prof. Dr. Cemil Taşcıoğlu City Hospital were evaluated retrospectively. During the study period, ECMO supportive treatment was applied to 26 patients due to ARDS.

Results: A total of 26 patients underwent V-V ECMO and 2 patients could be decannulated. Sixteen (61.5%) of the patients were male, 10 (38.5%) were female, with a mean age of 51.3 (29-71). Mean time from hospitalization to intubation was 10.1±5.9 (1-27) days, mean duration of stay on mechanical ventilator before ECMO was 9.7±7.2 (1-28) days, mean duration of stay on ECMO support was 12. It was found to be 3 (1-23) days (Table 1). Of the 26 patients who received ECMO support, 24 died. One of the surviving patients left ECMO support after 13 days and the other 16 days later. After ECMO, MV support continued for 21 days and 16 days, respectively. Surviving patients were discharged with full recovery. ECMO was terminated due to bleeding in two patients and cannula removal in two patients.

Conclusion: ECMO supportive therapy is associated with high mortality in ARDS patients developing after COVID-19. However, in COVID 19 disease, ECMO is a life-saving support method when applied in the early period. The usefulness of ECMO as a rescue therapy in critically ill patients with ARDS due to COVID-19 has so far been limited and more studies are needed for its application in these patients.

Keywords: Extracorporeal membrane oxygenation, intensive care unit, acute respiratory distress syndrome, COVID-19

Table 1. Characteristics of the extracorporeal membrane oxygenation patients due to COVID-19

Gender n (%)	Male	16 (61,5%)
	Female	10 (38,5%)
Age Mean±SD (Min-Max)		51,3±10,0 (29-71)
Body mass index, kg/m^2		29,0±2,2 (26-34)
Comorbidity n (%)	No	12 (46,2%)
	Yes	14 (53,8%)
	Diabetes	9 (34,6%)
	Hypertension	8 (30,8%)
	Coronary artery disease	7 (26,9%)
	Chronic dialysis	2 (7,7%)
	Asthma/chronic obstructive pulmonary disease	3 (11,5%)
Cigarette n (%)		8 (30,8%)

Before ECMO	
Number of Intubation Days Mean±SD (Min-Max)	10,1±5,9 (1-27)
The Number of Prone Position Days Mean±SD (Min-Max)	8,8±4,8 (3-23)
Prone Position Average Hours/Day Mean±SD (Min-Max)	17,3±1,2 (16-20)
Murray Score Mean±SD (Min-Max)	12,0±1,3 (9-14)
PEEP Mean±SD (Min-Max)	11,5±2,3 (6-14)

ECMO cannulation time after intubation	9,7±7,2 (1-28)
Duration of stay on ECMO support Mean±SD (Min-Max)	12.3 (1-23)

Type of ECMO türü n (%)	V-V	26 (100%)
	Screening	
Complication n (%)	Bleeding	2 (7,7%)
	Cannula Exit	2 (7,7%)
	No	22 (84,6%)
Last State n (%)	Exitus	24 (92,3%)
	Discharged With Healing	2 (7,7%)

[OP-158]

Management of Serotonergic Syndrome in a Critically Ill Patient after Suicide with Polypharmacy

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Introduction: Serotonin syndrome is a life-threatening drug reaction that results in neuromuscular dysfunction and mental status changes due to intoxication and drug interactions. Hemoadsorption devices are potential therapeutic tool for intoxication due to their highly efficient elimination capacity of endogenous and exogenous hydrophobic substances. In this case, we aimed to present effect of extracorporeal supportive treatment in a patient who developed serotonergic syndrome due to Selective Serotonin Reuptake Inhibitor (SSRI) drug overdose.

Case: A 34-years old female patient without a past medical history was admitted to the intensive care unit from the emergency department with the diagnosis of drug intoxication. She had taken pregabalin 75 mg (n=41), duloxetine 60 mg (n=22) and tramadol 100 mg (n=17) orally. Upon admission to the emergency service her Glascow Coma scala was 15 and arterial blood gases showed both respiratory and metabolic acidosis (pH: 7.19, lactate: 4.4 mmol/L, PO_2: 75 mm/Hg, PCO_2: 50 mmHg, HCO_3: 18.2, BE: -9). She was intubated due to progressive dyspnea and tendency to sleeping and the coma. Physical examination revealed myoclonic contractions in the proximal upper and lower extremities, and serotonergic syndrome was considered using as Hunter's criteria. Cyproheptadine, a specific serotonin antagonist, was used as an antidote. Due to the development of metabolic acidosis and ongoing intermittent contractions, dialysis treatment was applied for two days with simultaneously carbon filter. Dialysis treatment was terminated on the 3rd day and the patient was extubated. No myoclonic contraction was observed during the following days and the patient was discharged to the ward on the 5th day of the intensive care unit.

Discussion: Serotonin syndrome can result in significant morbidity and mortality including acute encephalopathy, renal failure and cardiac arrest. In addition to supportive treatments and antidotes, hemofiltration and hemoabsorption treatments are used especially in complicated cases. In our patient, rapid clinical recovery was achieved after simultaneous CRRT and hemoadsorption treatments which was used due to persistent myclonus despite use of special antidote cyproheptadine.

Keywords: Serotonergic syndrome, hemoadsorption, carbon filter, intoxication

[OP-160]

Liver Dialysis in Liver Trauma

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Introduction: Severe hyperbilirubinemia in critical patient is an independent risk factor for morbidity-mortality, even in the absence of liver failure. In our presentation, the efficacy of liver dialysis in a patient who developed isolated hyperbilirubinemia after liver trauma was discussed.

Case: Fifty-four Y/F patient was admitted to the intensive care unit (ICU) with body trauma as result of falling from height. The examinations were normal except for low Hb (6.8 gr/dL) and liver function tests (LFT) elevation (AST: 352 U/L, ALT: 528 U/L). Abdominal tomography revealed contusion in the right lobe of the liver and minimal perihepatic fluid. Total 3 RBS and 3 FFP were performed. From the 3rd day, AST: 88 U/L, ALT: 120 U/L and Hb: 8 gr/dL stabilized. However, from the 4th day, direct bilirubin (DB) level increased gradually (5.7 mg/dL, 17.24 mg/dL, 30.7 mg/dL, 38.2 mg/dL, 45.6 mg/dL), but no increase in LFT was observed. The patient's clinic and laboratory were stable, except for jaundice. CT-angio and MRCP performed for hyperbilirubinemia revealed 10-12 cm hematoma in the right lobe of the liver and compressing the bile ducts. Hematoma drainage and bland embolization to the right hepatic artery were planned by interventional radiology. Liver dialysis was performed with (CytoSorbTM300) filter in order to decrease the bilirubin level during the preparations. The DB was decreased from 45.6 mg/dL to 21.06 mg/dL after 16 hours of liver dialysis with 2 filters in total. After dialysis, hematoma was drained and bland embolization was performed. DB regressed to 6.2 mg/dL in the next 6 days. On the 16th day after admission,the patient was discharged to the clinic.

Discussion: (CytoSorbTM300) is an extracorporeal blood purification filter with a large absorption surface that can adsorb molecules up to 55 kDa. Although it is mostly used in septic shock, it is also indicated for hyperammonemia, hepatic encephalopathy and hyperbilirubinemia caused by liver failure. In our case, purification with (CytoSorbTM300) filter effectively reduced the bilirubin level until the problem was detected and treated. As result; the cause of post-traumatic DB elevation may be hematoma compressing the bile ducts.We concluded that liver dialysis is time-saving and life-saving while the preparations continue for intervention.

Keywords: Hyperbilirubinemia, liver dialysis, liver trauma

[OP-161]

Critical Care Follow-up of Esophagus Perforation in a Patient After Foreign Body Aspiration

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Introduction: Esophageal perforation is a rare potentially life-threatening event. Early clinical suspicion and treatment is important for case management to achieve a good outcome. In this case, we aimed to describe the treatment plan of a patient in the intensive care unit who had esophageal perforation due to chicken bone aspiration.

Case: A 48-year-old male patient with no comorbidities was admitted to the emergency department with complaints of pain and burning in the throat that started after eating chicken. Physical examination revealed swelling and fever in the left parotid gland region. Perforation in the upper esophagus was detected in the thorax CT (Figure 1). Tissue cultures were taken from the perforated area and pleura. Empirical meropenem 3x2 gr, vancomycin 2x1 gr and anidulafungin 1x100 mg was started. On the 8th day of the post-op follow-up, when purulent content came from the thoracic drain, leakage was detected with oral methylene blue test. The patient was re-operated, and esophagostomy and tube jejunostomy were done. Polymyxin B 2x120 mg was added to the treatment because of the acinetobacter baumani growth in the tissue and blood culture. Nutritional support was provided with parenteral way. The need for vasopressors decreased with antibiotics, appropriate fluid and other conventional treatments. He was extubated and then discharged to the service on the 24th day of hospitalization.

Discussion: Management of esophageal perforations and subsequent major complications requires a multidisciplinary approach. Mortality can decrease with early diagnosis, appropriate surgery according to the clinical situation and effective treatment approaches in intensive care units. Our patient was discharged to the ward with early focal control and effective treatment with appropriate fluid-vasopressor and antibiotherapy.

Keywords: Esophagus, perforation, chicken, bone

Figure 1. Thorax CT view of perforation of the upper segment esophagus

[OP-162]

Incessant Status Epilepticus and Acute Kidney Injury Due to Ketamin Abuse: A Case Report

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Introduction: Ketamine is an N-methyl-aspartate receptor blocker which is used frequently as an anesthesic agent. However, its abuse as a recreational drug may lead to ketamine toxicity. Herein, we report a patient with status epilepticus and acute kidney injury (AKI) due to ketamine abuse.

Case: Twenty-four years old male patient was found unresponsive and having incessant seizures in his room and brought to the emergency department (ED). Medical history revealed a ketamine abuse for the last year and a visit to ED 3 days prior to the incident with a feeling of twitching in his face. He was advised to seek a neurologist and discharged home. Cranial CT ruled out any bleeding or mass. He was intubated and transferred to neuro-critical care. Further investigations ruled out meningitis. On the third day of his stay, AKI developed due to severe rhabdomyolysis and the patient was transferred to our ICU. Blood gas and biochemistry analysis showed severe acidosis (Table 1). Continuous renal replacement therapy (CRRT) with a conventional haemodialysis filter (Prismaflex M150, Baxter, France) was initiated. Although his acidosis improved, creatinine kinase levels were still high. High cut-off filter was employed (Oxiris, Baxter, France). Subsequently, creatinine kinase and acidosis both improved and patient was extubated on his 7th day of admission. MR imaging obtained on the 10th day of ICU stay did not reveal any pathology and the patient was transferred to the nephrology ward albeit with substantial loss of kidney function.

Discussion: Toxicity due to ketamine abuse may lead to a wide spectrum of pathologies including seizures, rhabdomyolysis, and ulcerative cystitis. Although ketamine cannot be cleared-off from the body with CRRT, it is effective in managing its side effects as seen in our patient. Therefore, early initiation of CRRT with a high cut-off filter can be considered in such cases.

Keywords: Ketamine, drug abuse, rhabdomyolysis, acute renal failure

Table 1. Blood gas and biochemistry analysis

	Day 0	Day 1	Day 3	Day 5	Day 7
Ph	6.7	7.35	7.31	7.37	7.44
BE (mmol/L)	-30	-5	-5	0.6	2.3
HCO_3 (mmol/L)	6	20	21	25.8	26.6
Lactate (mmol/L)	18	1	1.14	1.4	1.4
Creatinin (mg/dL)	1.84	7.51	8	5.9	3.92
Creatinin kinase (U/L)	-	4,824	11,640	3,683	1,242
Urine myoglobin (ng/mL)	-	-	>10,000		

BE: Base excess, HCO_3: Bicarbonate

[OP-163]

HSV or SARS-CoV-2 Encephalitis or to Take ARMS Against a Sea of Troubles (W. Shakespeare)

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Introduction: Besides frontotemporal lobe involvement is common in HSV and COVID-19 encephalitis we want to report coexistence of this two viruses.

Case: Published data have been suggesting that encephalitis is one of the most fatal neurologic manifestations of COVID-19 involving both adult and pediatric patients (10-12) HSV encephalitis is one of the most common causes of sporadic encephalitis. There have been cases reporting systemic and pulmonary reactivation of HSV due to immune dysregulation following COVID-19 infection. A 88-year-old woman diagnosed with Alzheimer's was admitted to the ICU with fever and general condition disorder. On admission, the patient with fever and neck stiffness was found to be positive for HSV DNA in the CSF sample studied with LP, and positive for COVID PCR in the nasopharyngeal swab sample taken together.While Covid PCR test was positive in the CSF sample studied with LP performed on the 9th day of intensive care hospitalization, HSV DNA was found to be negative in the patient whose acyclovir treatment was continued. The COVID PCR test was also positive in the nasopharyngeal swab sample taken at the same time. Cardiac arrest occurred after sudden desaturation and the patient was resuciated for 6 minutes at 11th day of the ICU. Left frontotemporal epileptic activity in the bedside EEG and was evaluated in favor of focal disorganization. Besides frontotemporal lobe involvement is common in HSV and COVID-19 encephalitis we want to report coexistence of this two viruses. We guess this case report should help professionals to remind co-infections of HSV and SARS-CoV-2 cure the morbidity appropriately.

Discussion: Besides frontotemporal lobe involvement is common in HSV and COVID-19 encephalitis we want to report coexistence of this two viruses. We guess this case report should help professionals to remind co-infections of HSV and SARS-CoV-2 cure the morbidity appropriately.

Keywords: SARS-CoV-2 encephalitis, HSV encephalitis, neck stiffness, fever, cerebrospinal fluid sample

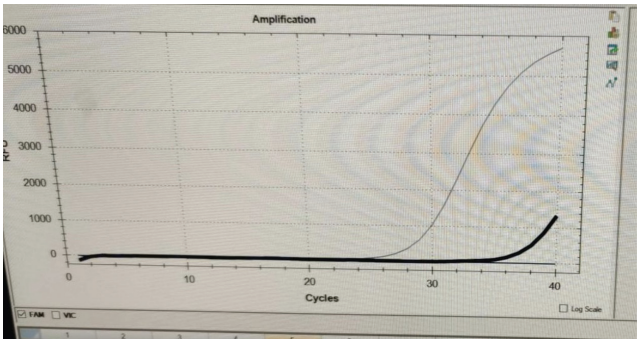

Figure 1. CSF PCR

[OP-164]

A Rare Condition that Must be Kept in Mind in the Diagnosis of Thrombocytopenic Thrombocytic Differential; Cerebral Malaria

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Introduction: Malaria is an infectious disease that develops when the parasite-carrying female anopheles mosquitoes inoculate human erythrocytes with *Plasmodium* parasites during their feeding. Symptoms in malaria are not specific and resemble other systemic viral disease findings. It continues with headache, weakness, fatigue, fever, chills, chills, sweating, loss of appetite, vomiting. Severe malaria may develop, especially in patients with organ involvement, presents with coma (cerebral malaria), metabolic acidosis, anemia, hypoglycemia, acute renal failure, pulmonary edema. If severe malaria is not treated, the majority of patients may die.

Case: A 31-year-old male patient with no known systemic disease was admitted to the emergency department with fever and abdominal pain, he couldn't recognize his relatives. The patient has a history of visit Ghana a week ago. The patient didn't receive prophylaxis before his visit. In the physical examination, the patient's general condition was evaluated as good and conscious. No pathological finding was detected, cardiac, lung examinations were normal. There was tenderness in the abdomen of the patient. WBC: 11,000 10^9/L, hemoglobin: 9.9 g/dL, platelet: 34 10^9/L. *Plasmodium* was scanned in the thick drop peripheral smear of the patient and it was observed that there were schistocytes,trophozoites in the erythrocytes in each area in the peripheral smear. As a result of the examinations and peripheral smear, the patient was referred to an advanced center with the preliminary diagnosis of cerebral malaria that causes TTP. Because there was no bacterial or viral pathogenes in the lumbar puncture which is performed in an external center, meningitis was ruled out and the patient was diagnosed with cerebral malaria.

Discussion: A patient who applied to the emergency department with the complaints of fever and abdominal pain and was diagnosed with cerebral malaria in the physical examination. Anamnesis taken from patients can be life-saving. More effort should be made to give prophylaxis to patients in order to prevent severe malaria.

Keywords: Cerebral malaria, thrombocytopenic thrombocytic purpura, abdominal pain, fever

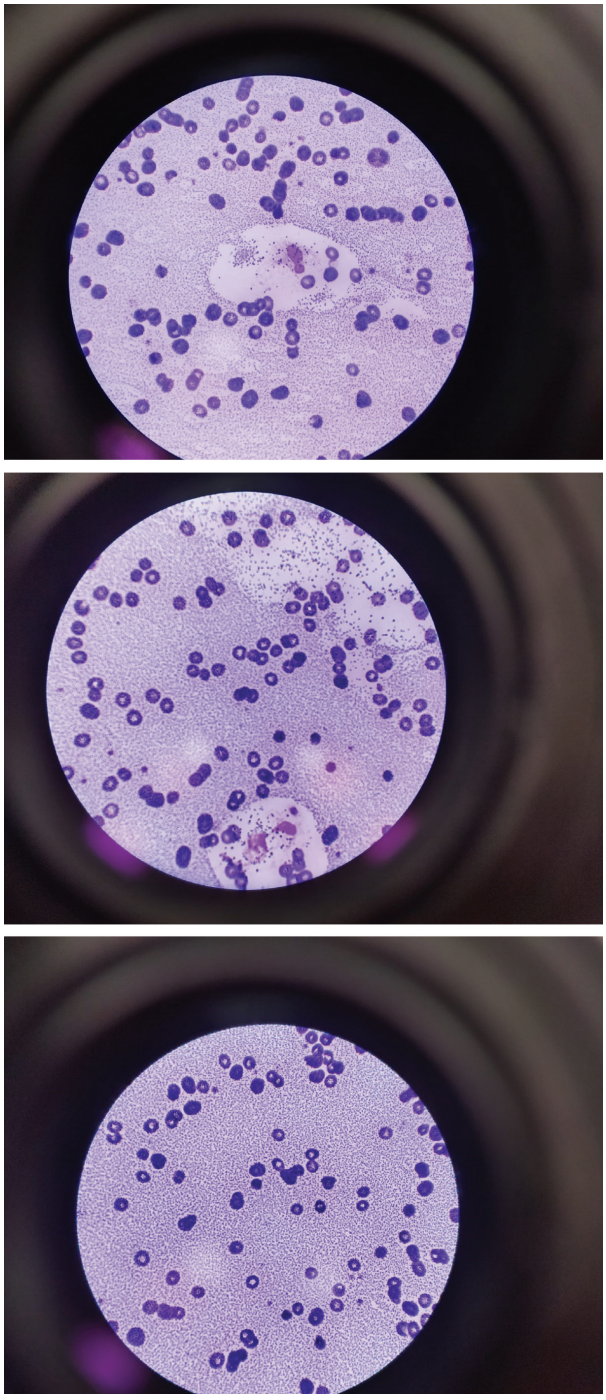

Figure 1. Peripheral smear

[OP-166]

Legionella Pneumonia

Sibel Önen Özdemir[1], Ziya Hasanov[2], Onur Mert[2], Müge Kaya[2], Erdem Sünger[2]

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Introduction: *Legionella pneumonia* can be seen as a simple upper respiratory tract infection, or it can occur as a mortal pneumonia clinic. It can be a factor in community-acquired or hospital-acquired pneumonia. Reaches lungs by inhalation of water aerosols containing *Legionella*.

Case: A 57-year-old patient has only diabetes mellitus. He had respiratory distress, fever for 3-4 days, and cough. He was admitted to the intensive care unit as intubated. Fever 38 °C, blood pressure 80/40 mmHg, heart rate 115/min, FiO_2 100% SpO_2 87%. Norepinephrine infusion was started. Lab results as follow: creatinine 2.2 mg/dL and urea 75 mg/dL. AST: 64 U/L, ALT: 53 U/L, CRP 621.88 mg/L, WBC: 11.5, ph: 7.11, pO_2 80%. In thorax CT, infiltration was seen on the right. The patient's culture were taken, and empiric moxifloxacin and ceftriaxone were started. Hemodiafiltration was started because of its anuric course and resistant acidosis. When the anamnesis was deepened, it was learned that the patient had returned from a spa holiday 3 days ago. It was learned that there were no similar symptoms in family members. Antibiotherapy levofloxacin and meropenem were changed on the second day. Prone position was applied due to ARDS on the 3rd day. It was followed in this way for 16 hours and an improvement in pH and an increase in oxygenation were observed. When he was placed in the supine position again, his values deteriorated and the patient died on the 5th day. While there was no growth in culture, legionella PCR was positive.

Discussion: *Legionella pneumophila* can be fatal if not diagnosed and treated promptly. Although it is a preventable disease, it is important in terms of its fatal course. The ECMO could have benefited, but we did everything possible with the facilities available in the town hospital.

Keywords: *Legionella, pneumonia*, ARDS

Figure 1. Hospital admission CT image

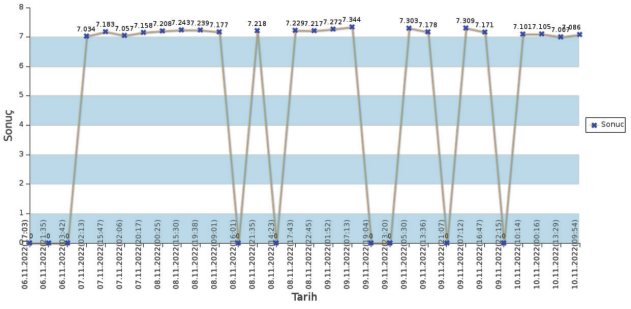

Figure 2. Right pneumonic infiltration, blood gas chart

ULUSAL SOLUNUM YOLU PATOJENLERİ REFERANS LABORATUVARI

Çalışılan Analiz	Birim	Yöntem	Tayin Limiti	Referans Değer	Analiz Sonuçları	Numune Cinsi	Sonuç Tarih - Saati / Onaylayan
*Legionella Üriner antijeni (ICT)		Immunokromatog rafik test yönt			NEGATİF	İdrar	08.11.2022 17:18 / DEMET FURKAN SEVİNDİ
*Legionella PCR (Dna izolasyon,amplifikasyon,elek troforez) (Klinik örnekte) Konvansiyonel		Konvansiyonel in-house PCR(iki			POZİTİF	Balgam	15.11.2022 11:12 / NURİYE UNAL ŞAHİN

Figure 3. pH change lab result

[OP-167]

Tracheal Bronchus We Detected During Tracheostomy Procedure: A Case Report

Fatih Kılıç, Saliha Erkan Başdelioğlu, Süheyla Abitağaoğlu, Arzu Yıldırım Ar

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Introduction: We aimed to present a case of tracheal bronchus, which was diagnosed incidentally under fiberoptic bronchoscopy in our intensive care patient who underwent bedside elective tracheostomy, in the light of literature.

Case: A 72-year-old male patient who underwent decompressive craniectomy operation due to acute subdural hematoma after a simple fall in the service follow-up of our University of Health Sciences Turkey, İstanbul Fatih Sultan Mehmet Health Training and Research Center Hospital in February 2023 was admitted to our intensive care unit for postoperative intensive care follow-up. In the follow-ups, the patient whose Glasgow Coma score was below 8 and was followed-up with orotracheal intubatedmechanical ventilator support; Bedside percutaneous tracheostomy was performed with fiberoptic bronchoscopy on the 9th day of intensive care unit follow-ups. In fiberoptic bronchoscopy, there was an accessory bronchus approximately 2.5-3 cm above the carina, directly separating from the right wall of the trachea and extending towards the right upper lobe parenchyma.

Discussion: Tracheal bronchus is a rare congenital anomaly defined as an abnormal bronchus originating from anywhere from the cricoid cartilage to the carina. It was first described by Sandifort in 1785 as the right upper lobe bronchus originating from the trachea. Although patients are often asymptomatic and incidentally detected; it may cause clinical findings in a spectrum ranging from recurrent lung infections, purulent secretion, stridor, and foreign body aspiration. In diagnosis, X-ray, computed tomography, bronchoscopy, MR imaging allow tracheobronchial tree to be visualized. Virtual bronchoscopy with computed tomography is a new method used in the imaging of the tracheobronchial tree in recent years thorax computed tomography image

Keywords: Tracheal bronchus, bronchial anomaly, rare case

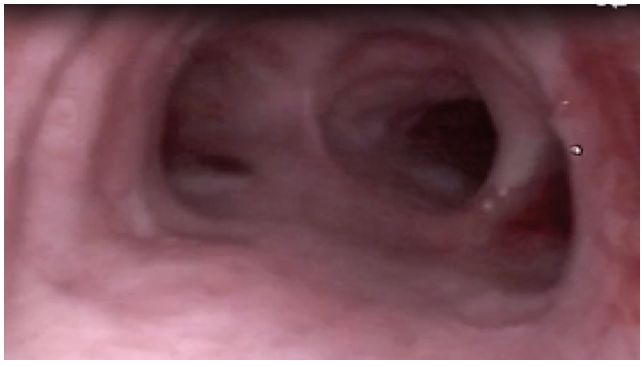

Figure 1. Carina level view of fiberoptic bronchoscopy

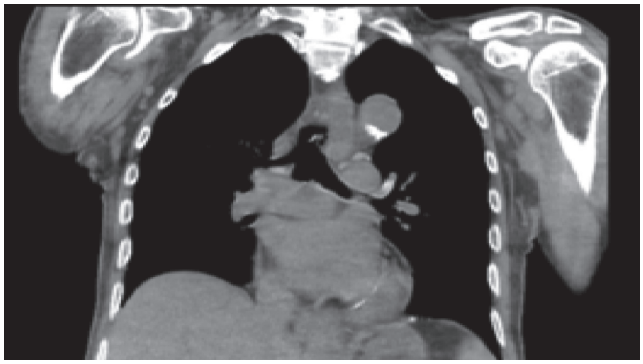

Figure 2. Thorax computed tomography image

[OP-168]

Multisystemic Influenza and CIRCI

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Introduction: Viral pneumonia etiology includes influenza, cytomegalovirus, respiratory syncytial virus and newly defined species such as coronovirus. It can progress to ARDS and organ involvement such as myocardium, pericardium, pancreas can be seen.

Case: Fifty-three-year-old woman came to ER with shortness of breath and fever, diagnosed influenza A pneumonia. Oseltamivir, moxifloksasin, piperacillin tazobactam were started to patient who had not history of chronic diseas. Saturation was 70% with nasal 10 Lt/min oxygen at ICU admission. High flow nasal cannula was applied in awake prone after BPAP with both FiO_2 %100. Methylprednisolone, furosemide added to order. Cardiology consult requested due to elevated cardiac markers, bradycardia and colchicine recommended patient having viral myocarditis. Theophylline and salbutamol were added. Patient described abdominal pain, lipase level was 914 u/L, images were clear for biliary etiology, patient accepted as viral pancreatitis. Oseltamivir was completed for 5, moxifloxaline for 7, and piperacillin-tazobactam for 14 days. Non-albicans candida grew in urine culture, 20th day of hospitalization, caspogungin was started. Bpap continued until the 21st day while high flow ended on 10th day and patient was taken to room air 22nd day. Methylprednisolon reduced to 2 mg/kg/day after 9th day, and patient developed hypotension resistant to norepinephrine and fluid. Cortisol level requested due to suspicion of CIRCI. Plasma cortisol level was 53.5 microgram/dL. Hydrocortisone 200 mg/day was started. Norepinephrine was discontinued on 26th day and hydrocortisone was discontinued on 28th day. Patient transferred to ward on 29th day of hospitalization.

Discussion: The patient completed İCU stay with NIV and awake prone. ARDS was contreversial due to minimal effusion and atelectasis, continued high FiO_2 requirement despite regression of atelectasis and effusion end of the first week has shown importance of methylprednisolone. CIRCI response was observed with hydrocortisone. Patient discharged from ward 3 days later.

Keywords: Influenza, ARDS, pneumonia, CIRCI, NIV

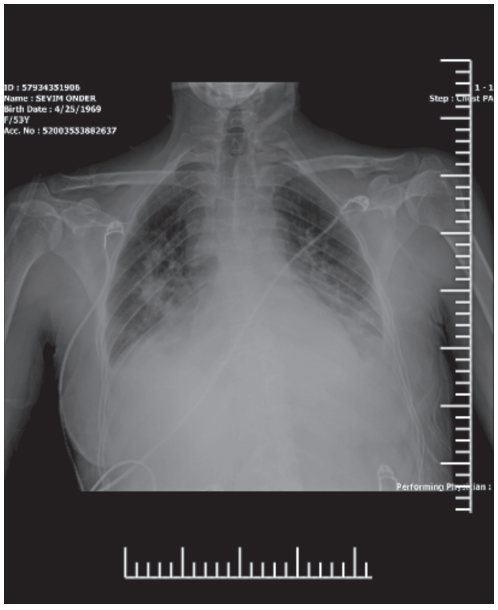

Figure 1. ICU admission

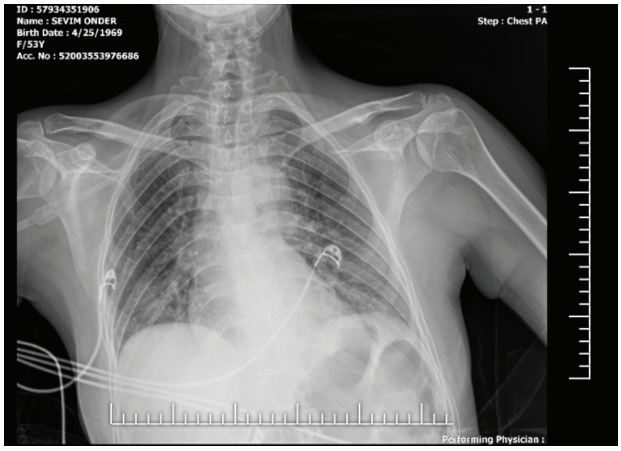

Figure 2. After methylprednisolone

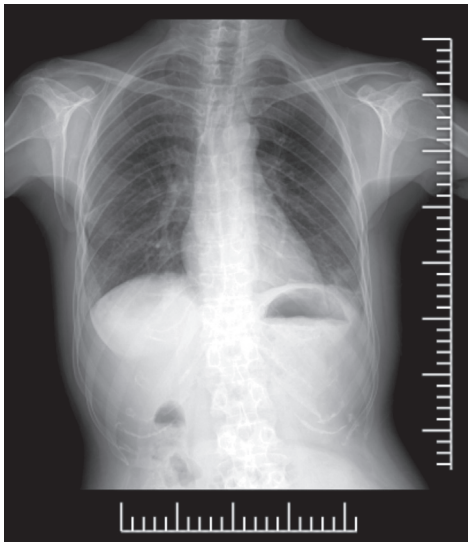

Figure 3. Before discharged

[OP-170]

Electrical Injury and Rare Complication in Intensive Care Unit: A Case Report

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Introduction: Electrical injuries can damage numerous tissues and organs, such as the heart, skin, muscle, kidneys, and vascular and nervous systems. Central nervous system complications that may be seen following exposure to electrical current include myelopathy, encephalopathy, cerebral hemorrhage, ischemia, edema, hydrocephaly, and venous thrombosis. Traumatic brain injury may also develop in these patients.

Case: A 48-year-old man fell from a height following high-voltage electrical injury and was intubated in the emergency department. Fractures were present in the pelvis and sacrum. He was intubated and hemodynamically stable. Second-degree burns were observed on approximately 25% of the body. Blood pressure under inotropic support was 62/44. The patient was extubated on the fifth day of hospitalization. However, due to increasing oxygen requirements he was re-intubated on the 8th day. No light reflex was detected on the 15th day of hospitalization. Sedation was stopped. The patient's Glasgow coma scale (GCS) score was 3. Computed tomography (CT) of the brain was requested and revealed widespread edema. The apnea test result on day 17 of hospitalization of this patient, with a GCS score of 3, was indicative of brain death. No brain stem reflexes were detected. Cranial CT angiography supported brain death, and brain death was declared.

Discussion: Electrical injuries are traumas causing damage to several systems and involving high morbidity and mortality. Mortality and morbidity depend on the degree ofmyocardial necrosis and central nervous system damageand on the extent of secondary multiorgan failure. Loss of consciousness, seizure, emotional alterations, and acute motor and sensory losses may be seen in the early post-injury period. Late period complications include severe conditions such as infarct, hematoma, and cerebral edema, although it has also been suggested that no cause and effect relationship exists. Cerebral edema and brain death in electrical injuries are rare. Patients' consciousness levels must be closely monitored.

Keywords: Electrical injury, brain odeme, brain death

[OP-171]

Extracorporeal CO_2 Removal in a COPD Patient with Hypercarbic Respiratory Failure

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Introduction: Extracorporeal carbon dioxide removal ($ECCO_2R$) is a respiratory support technique that provides only decarboxylation with low blood flow (0.3-1.0 L/min) without making a significant difference in blood oxygenation. In this report, we planned to present our clinical experience with $ECCO_2R$ in a patient who developed hypercarbic respiratory failure due to exacerbation of chronic obstructive pulmonary disease (COPD).

Case: A 74-year-old male patient with hypertension and diabetes, who used a BiPAP device and oxygen concentrator at home due to COPD, presented to the emergency department with shortness of breath and respiratory distress. During the follow-up, the patient who had a hypercapnia and admitted to the intensive care unit (ICU). The VV-$ECCO_2R$ (multi $ECCO_2R$ ®-Fresenius Medical Care) was started on the 3rd day of hospitalization for the patient who needed NIMV for an average of 16-18 hours per day and remain hypercarbic despite NIMV support. The extracorporeal blood flow was set at 200 mL/min and maintained stable, while the sweep gas flow was adjusted to be 3-5 L/min according to the PCO_2 value. The patient was followed with high flow oxygen support without need for NIMV from beginning of the $ECCO_2R$. The patient, whose hypercarbia regressed, was weaned from $ECCO_2R$ at the 40th hour (Table 1). The oxygen support was maintained with a simple face mask and he was transferred to the service on the 13th day of hospitalization.

Discussion: Current evidence regarding the use of $ECCO_2R$ in patients with obstructive diseases remains limited. Patient selection, type of $ECCO_2R$ device used and anticoagulation strategy seem important in order to benefit from $ECCO_2R$. In our patient with severe exacerbation of COPD, we decided to treat the respiratory acidosis by removing CO_2 with an artificial lung. The use of $ECCO_2R$ allowed avoiding intubation and invasive mechanical ventilation and finally he was discharged from the ICU.

Keywords: Extracorporeal carbon dioxide removal, chronic obstructive pulmonary disease, $ECCO_2R$, COPD

Table 1. Respiratory dinamics and blood gas parameters pre-during and after $ECCO_2R$

Parameters	Respiratory rate	ph	PCO_2	PO_2	HCO_3	Sweep gas flow	$ECCO_2R$ flow
Pre $ECCO_2R$ (NIMV)	28	7.31	96	54	40.4	-	-
After $ECCO_2R$ at the 1st hour	19	7.48	59	157	40.9	5 Lt/min	200 mL/min
6th hour parameters	18	7.43	57	103	37.2	3 Lt/min	200 mL/min
12th day parameters	18	7.47	53	78	36.5	3 Lt/min	200 mL/min
18th hour parameters	21	7.39	60	93	33.1	3 Lt/min	200 mL/min
24th hour parameters	20	7.42	56	89	33.7	3 Lt/min	200 mL/min
30th hour parameters	16	7.43	54	106	33.2	3 Lt/min	200 mL/min
36th hour parameters	16	7.41	47	83	29.5	2 Lt/min	200 mL/min
After $ECCO_2R$ weaning, 1st hour, face mask 5 L O_2	16	7.38	60	114	31.5	-	-
After $ECCO_2R$ weaning, 6th hour, face mask 5 L O_2	18	7.36	61	67	30.5	-	-

[OP-172]

Methotrexate-induced Toxic Leukoencephalopathy in Intensive Care Unit: A Case Report

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Introduction: Morphea is a disease characterized by localized cutaneous involvement of the scleroderma. Methotrexate (MTX) is an agent used in the treatment of various dermatological diseases due to its immunosuppressive effect. MTX may be associated with neurotoxicity due to its ability to cross the blood-brain barrier. MTX-related leukoencephalopathy may exhibit a wide spectrum, from epileptic seizures to encephalopathy.

Case: A 43-year-old man was started on 15 mg subcutaneous MTX once weekly due to morphea. Treatment was planned for eight weeks, and he received seven doses. The patient presented to the emergency department due to statusepilepticus and was intubated. In terms of blood biochemistry, were normal. No pathological finding was observed in other electrolyte levels. No epileptic activity was determined at electroencephalography (EEG). A widespread decrease was observed in bioelectrical activity. Magnetic resonance imaging (MRI) of the brain was reported as "interpreted in favor of leukoencephalopathy associated with toxic metabolic diseases". The patient's GCS was 15, and his hemodynamic status was stable. Weaning was successfully performed on day five of hospitalization. Sufficient toleration was observed and the patient was transferred to the neurology ward.

Discussion: The treatment of morphea must be planned depending on the clinical subtype involved and the involvement pattern. Sever cases are treated with MTX, either alone or in combination with methylprednisolone. Studies of the efficacy of MTX in patients with morphea have described it as effective, the most common reported side-effects being alopecia, nausea, headache, fatigue, and hepatotoxicity. Leukoencephalopathy is seen in chronic MTX neurotoxicity. Quadriparesis, coma, or death may even occur in severe cases. MTX-related leukoencephalopathy was diagnosed on the basis of clinical and radiological findings in our case. The patient improved after one-week intensive care and was transferred to the neurology ward. Systemic side-effects in patients started on MTX should be carefully followed-up, and neurological examination in terms of neurotoxicity should also not be overlooked.

Keywords: Methotrexate-induced leukoencephalopathy, neurotoxicity

[OP-174]

A Rare Cause of Diffuse Alveolar Hemorrhage: Falciparum Malaria

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Introduction: Malaria is a parasitic infection disease caused by *Plasmodium* species, which begins with fever attacks. *P. falciparum* malaria can lead to lethal complications and requires urgent treatment. Pulmonary hemorrhage and ARDS are rare conditions in the course of Falciparum malaria. The purpose of this report is to draw attention to this condition by presenting the case of a healthy young male patient who developed severe pulmonary hemorrhage and followed by ARDS, with a travel history to Gabon.

Case: An 18-year-old male patient with no chronic illness who presented with jaundice, abdominal pain, and hemoptysis; returned from Gabon about 2 weeks ago. Artesunate treatment was started upon detection of *P. falciparum* trophozoites in thick drop preparations. The patient, was admitted to the intensive care unit with malaria diagnosis. Bilateral pulmonary artery embolization was performed by interventional radiology upon active bleeding seen in the left lower lobe entrance during bronchoscopy. Continuous renal replacement therapy was started due to acute renal failure. On the 4th day of follow-up, despite NIVM and HFOT support, he was electively intubated due to arterial blood gas results of pH: 7.11, pCO_2: 84.7 mmHg, pO_2: 53.6 mmHg. Parasites were not detected in the thick drop preparations on the 6th day of treatment. tracheostomy was performed 23rd day of entubation, The patient was decannulated on the 43rd day of admission and discharged with full recovery.

Discussion: Malaria should be considered first in patients with a travel history to areas where malaria is endemic. Severe pulmonary hemorrhage as a cause of ARDS in *Falciparum malaria* is rare. The pathophysiology of this condition in the course of the disease still remains unclear. The prognosis is poor in patients who develop ARDS as a pulmonary complication of severe malaria. The rapid recognition and multidisciplinary management of malaria are important to reduce mortality rates.

Keywords: *Falciparum malaria*, ARDS, diffuse pulmoner hemorrhage

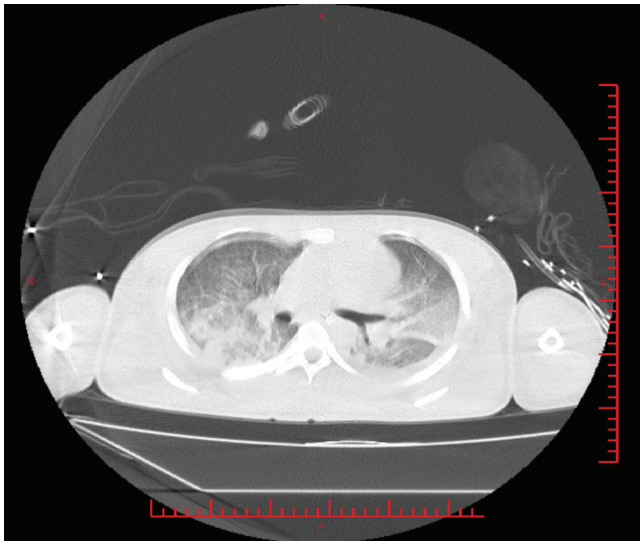

Figure 1. Photo of diffuse pulmoner hemorrhage

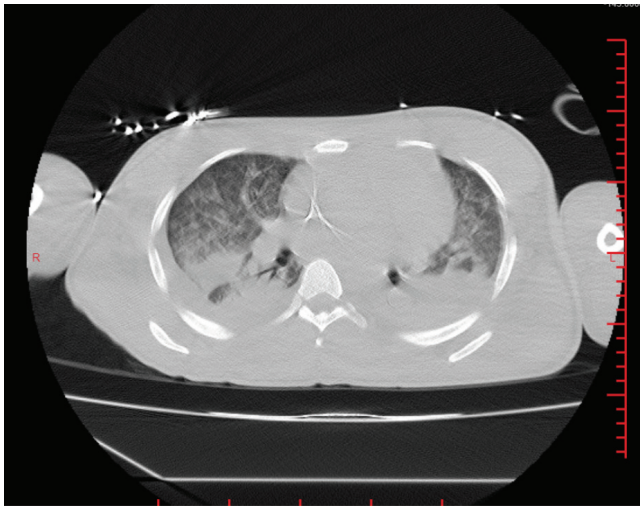

Figure 2. Photo of diffuse pulmoner hemorrhage

[OP-176]

Association Between Nitrogen Balance, Muscle Loss and Clinical Outcomes in Neurocritically Ill Patients

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Introduction: Protein catabolism and acute muscle wasting are common in critically ill patients, however, the relationship between catabolism, skeletal muscle loss, and prognosis remains unclear. The aim of this study was to evaluate the relationship between changes in skeletal muscle and nitrogen balance and neurological outcomes.

Materials and Methods: This was a prospective observational study in neurocritically ill adult patients expected to stay in the intensive care unit (ICU) for ≥10 days were included. Nitrogen balances were calculated on study days 3 and 7. The outcomes were compared according to the improvement/worsening of nitrogen balance on follow-up measurements. The main outcome was 10 day-loss of rectus femoris muscle cross-sectional area determined by ultrasound. Secondary outcome was poor neurological outcomes as evaluated on the Glasgow Outcome scale at discharge from the ICU.

Results: Over a 14-month period, 217 patients were assessed for eligibility and consequently, 44 patients were included. Both groups had no differences in primary diagnosis, comorbidities, baseline physiological scores, malnutrition risk, anthropometric and ultrasound measurements, and clinical outcomes ($p>0.05$). Improvement of nitrogen balance was not associated with poor outcomes at ICU discharge ($p>0.05$). Clinically significance muscle wasting was associated with a higher risk of poor neurologic outcomes (OR=1.228; 95% CI=1.012-1.410; $p=0.042$).

Conclusion: Acute muscle wasting is associated with poor neurologic outcomes in neurocritically ill patients, even after adjusting for confounding variables.

Keywords: Nitrogen balance, muscle loss, neurocritically ill patients

[OP-177]

Treatment Management in a Patient with a Transfusion Reaction in the Intensive Care Unit

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Introduction: Although transfusion of blood products is often vital, they can cause serious reactions.

Case: A 16-year-old male patient was admitted to intensive care, with the diagnosis of multiple fractures in 4 limbs,vertebral and pelvic fractures, after a motor accident. The patient has a story of celiac in history. External fixator for 4 extremities was applied to the patient by the orthopedics clinic. During the operation, 16U erythrocyte suspension and 4U fresh frozen plasma were replaced to the patient. After the operation, respiratory functions were extubed in ICU. The patient was followed in postoperative intensive care and on day 10 orthopedic clinic planned operation again. The patient was operated. A erythrocyte suspension replacement was planned for the patient with low postoperative hematocrit values (htc: 24.8). When blood transfusion was applied, transfusion stopped upon the development of high fever (38.7), tachhycardia (pulse: 149), follow-up (RR: 29) developed in the patient. The patient has developed significant icter on the sclera and the skin after transfusion and it was observed to have a total bil: 4.74. Alloimmunisation was consıdered ın the patient and the patient was consulted wıth pediatric hemetology. No pathological finding was detected on peripheral spread. Ursofalk was started due to high bil levels (total bil: 4.39). Fe replacement was planned instead of blood replacement. Cerebral salt loss developed 14 days after installed in the patient without significant head trauma (brain CT: natural, GCS: 15 cooperative oriented). Fludrocortison was started to the patient with serum na: 137, urine na: 150, urine density: 1050, urine output: 3.4 cc/kg/h. On the 19th day of his hospitalization, the patient whose polyuria and salt loss improved, was transferred to the orthopedic clinic.

Discussion: In the intensive care unit, patients who have massive transfusions and especially those with autoimmune diseases should be alerted in terms of blood reactions.

Keywords: Blood reactions, celiac, massive transfusions

[OP-178]

Infective Endocarditis in Intensive Care Unit: Five Cases

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Introduction: Infective endocarditis (IE) is a rare disease with high mortality and morbidity, its incidence in the world is approximately 6/10,000. Heart valve diseases, chronic hemodialysis, iv. catheters, infections, iv. substance use is among the risk factors for IE. Frequent need for central venous catheters, infections and hemodialysis need in the ICU predispose to IE. We aimed to present five cases of IE followed in our ICU.

Case: Five patients (3 female, 2 male) were admitted to the ICU with the diagnoses of respiratory failure, septic shock, sepsis, ARF. In the blood cultures of the cases, IE findings were detected in the ECHO performed on *Candida albicans* growth in 1 and *Staphylococcus aureus* in 3 cases and *Mucormycosis* growth in tissue culture. One patient had an indwelling catheter, one had a prosthetic valve, and 2 patients were hemodialysis patients. Appropriate antibiotics were administered to the patients. One patient was mortal, the patient with an indwelling catheter was removed and discharged to the ward. Two out of 3 patients followed in ICU are still in tracheotomy and IMV.

Discussion: In the IE consensus report, comorbidities such as advanced age, heart valve diseases, use of prosthetic valves, chronic hemodialysis were reported as risk factors that increase mortality. *Staphylococcus aureus* was found to be the most common causative agent in developed countries, and the causative microorganism was *Staphylococcus aureus* in all three of our cases. *Candida endocarditis* is the most frequently isolated fungal agent among fungal endocarditis.It is seen in 1-10% of IE cases and has a mortality rate of more than 50%. In patients with fungal endocarditis, blood culture can be detected only in 50%. Therefore, patients with suspected IE require echocardiographic examination as soon as possible. Despite appropriate antimicrobial therapy, its eradication is difficult and there are guidelines recommending surgical treatment, especially fungal endocarditis. It is a disease with a high mortality and morbidity rate and requires a multidisciplinary approach in treatment.

Keywords: Infective endocarditis, fungal endocarditis, ECHO, intensive care unit

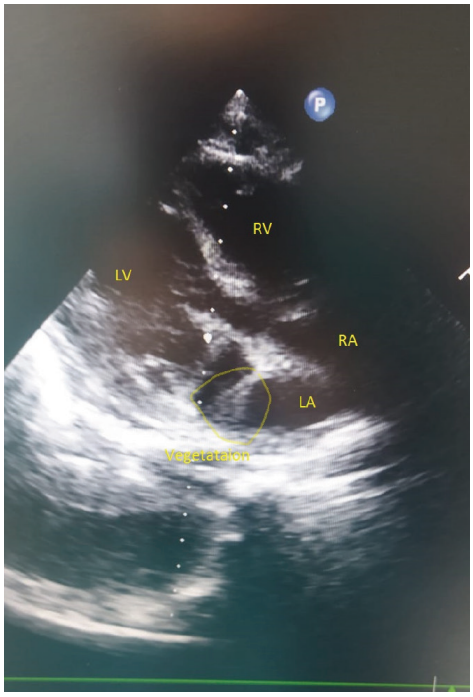

Figure 1. Vegetation in the LA (Case 5)

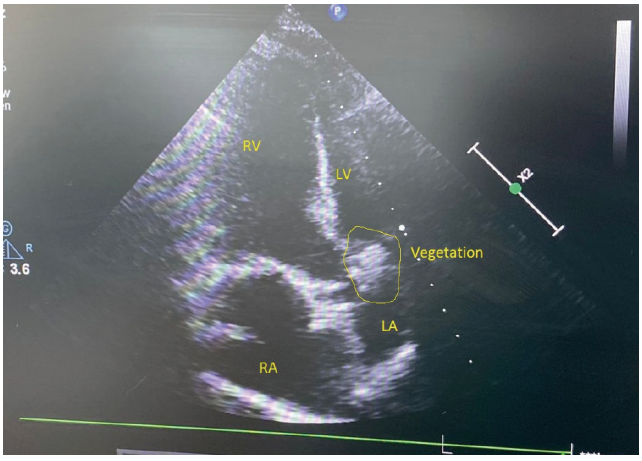

Figure 2. Vegetation-on the tricuspite valve on the LA (Case 1)

Table 1. Characteristics of the cases					
	Case 1	**Case 2**	**Case 3**	**Case 4**	**Case 5**
Age	74	60	74	71	34
Gender	Female	Male	Female	Male	Female
Comorbidities	HT, DM, CHF, PTE	AF, AVR, MVR	DM, HT, CRF, CVE	HT, DM, CRF	DM
Intensive care admission indication	Respiratory failure	Septic shock, ARF	Septic shock	Sepsis	Sepsis
Length of stay in ICU	88 days (still- continuing)	11 days	62 days (still -continuing)	10 days	5 days (still-continuing)
IMV requirement	+	+	+	-	-
Duration of IMV	88 days	6 days	62 days	-	-
Location of the central venous catheter	Right juguler vein	Right femoral vein	Right juguler vein	Left subclavian vein indwelling catheter	NA
Blood cultures	*Candida albicans*	*Staphylococcus aureus*	*Staphylococcus aureus*	*Staphylococcus aureus*	*Mucormycosis*
ECHO findings	1.3x1.1 cm amorf and vegetataion- specially suggested of candidal vegetation- on the tricuspite valve on the posterior leaflette left atrium surface	6-8 mm vegetation with fiberilar movement, in the aventricular face, in the conjunction of the aortic and mitral valve	Aortic valve calcific, hyperecogenic appearance with moving 1.5x1.5 cm on the valve	Vegetation on the surface of the tricuspit valve of the right atrium	Vegetation in the left atrium
Antibiotherapy	Anidulafungin	Rifampicine Daptomycin Cefazolin Polymyxin B Sulfate Teicoplanin Imipenem	Pip-tazo Meropenem Teicoplanin Cefazolin	Teicoplanin Meropenem	Amphotericin B
Mortality	Alive	Exitus	Alive	Alive	Alive

[OP-179]

Evaluation of Clinics and Prognoses of COVID-19 Patients with Ferritin, D-dimer, FAD-85 Score in ICU

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Introduction: COVID-19 is a serious disease that can cause severe acute respiratory distress syndrome and end-stage organ failure. Clinicians need early and effective indicators to evaluate prognosis and prevent mortality in such infections. The FAD-85 score is used as an early marker calculated by the patient's age, ferritin level and D-dimer level. In this study, it was aimed to investigate the effects of FAD-85 score, D-dimer and ferritin values on prognosis and mortality during admission to the intensive care unit (ICU).

Materials and Methods: The data of 204 patients hospitalized with the diagnosis of COVID-19 in the tertiary ICU between April 1, 2021-March 31, 2022 were retrospectively analyzed. Demographic characteristics of the patients, invasive/non-invasive mechanical ventilator or high flow oxygen requirement and duration, tracheostomy and intubation status, length of stay in hospital and ICU and 1-month mortality were evaluated. From laboratory parameters, leukocyte, lymphocyte, ferritin, D-dimer, procalcitonin, C-reactive protein (CRP), lactate dehydrogenase levels were recorded. Age + 0.01 x ferritin + D-dimer formula was used for the FAD-85 score.

Results: In this study, in which 204 COVID-19 patients were examined, the conditions predicting 1-month mortality; male gender (p=0.029), presence of intubation (p<0.001), increased CRP (p=0.002), low lymphocyte levels (p=0.009), FAD-85 >85 (p=0.001) and high ferritin (p=0.044) was found. In addition, presence of intubation [OR (95% CI) : 3.941 (2.115-7.343)], high CRP [OR (95% CI) : 1.004 (1.000-1.008)], and FAD-85 score >85 [OR (95% CI): 2.462 (1.313-4.617)] were found to predict mortality.

Conclusion: It has been understood that the FAD-85 score, which can be calculated in a simple way, is effective in predicting mortality in COVID-19 patients. It has been found that patients with FAD-85 >85, high CRP and patients who leading to intubation are more mortal. Therefore, timely effective treatment is extremely important in these patients. High FAD-85 score, high CRP and presence of intubation provide important information about the severity and prognosis of COVID-19 patients in ICU.

Keywords: Intensive care unit, COVID-19, FAD-85 score, D-dimer, ferritin

[OP-181]

Evaluation of Pulmonary Toxic Effects of Electronic Cigarette Vapour and Cigarette Smoke in Animal Model

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Introduction: In none of the studies in the literature, it has not been clearly revealed which of the pulmonary toxic effects of electronic cigarette vapor. In this experimentally planned study, primarily the potential histopathological effects of e-cigarette vapor on the lung bronchus and alveolar epithelium of rats, as well as the inflammatory and oxidative stress effects in lung parenchyma tissue and serum, were compared with tobacco cigarette smoke; secondly, it was aimed to investigate the roles of e-cigarette components (PG, VG, flavorings and nicotine) on these possible toxic effects.

Materials and Methods: Sixty rats, included in the study were divided into six equal groups. The rats in the first 4 groups were exposed to the vapors of different components of the e-cigarette. The fifth group was exposed to tobacco cigarette smoke. Rats in the control group, were not exposed to any chemical or physical stimuli during the study period. At the end study, sacrified and appropriate tissue samples were taken. Histopathological evaluation was performed by a double-blind specialist pathologist.

Results: As a result of the analysis of our study in which we evaluated the e-liquid components, we think that the reason for the pro-oxidant and pro-inflammatory effect is the nicotine in the liquid content, that the aroma does not potentialize the nicotine effect, on the contrary, it can reduce the effect of nicotine towards the anti-inflammatory and antioxidant side with a mechanism.

Conclusion: While many studies on electronic cigarettes agree on the pulmonary toxicity of e-cigarette vapor, it is about determining which content in e-cigarette liquid will associate this toxicity, which pathway the content causes toxicity, a marker that can be standardized and measured, and compatible with e-cigarettes. They also agree that additional studies are still needed.

Keywords: E-cigarette, tobacco, cigarette, inflammation, oxidation

Figure 1. A view from the working layout

Table 1. Distribution of rats to study groups by exposure

Group		n	Exposure	Time
1	E-cigarette	10	E-cigarette vapour (PG/VG: 20/80)	2 h/day
2	E-cigarette	10	E-cigarette vapour (nicotine 12 mg/mL, PG/VG: 20/80)	2 h/day
3	E-cigarette	10	E-cigarette vapour (flavour, PG/VG: 20/80)	2 h/day
4	E-cigarette	10	E-cigarette vapour (flavour, nicotine 12 mg/mL, PG/VG: 20/80)	2 h/day
5	Cigarette	10	Cigarette smoke (1 mg/per nicotine)	2 h/day
6	Control	10		

[OP-182]

A Rare Case of Intoxication: Return From Fulminant Hepatitis by Plasmapheresis: RE-BORN

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Introduction: In valproicacid (VPA) toxicity; electrolyte disturbances, metabolic acidosis, hepatotoxicity, encephalopathy, pancreatitis, bone marrow suppression, may occur. However, there is no specific antidote. Liver transplantation is required in the development of fulminant hepatitis and the survival rate of patients falls below 20% if transplantation cannot be performed.

Case: A 61-year-old male patient with COPD and bipolar disorder was accepted to our intensive care unit with a history of taking unknown doses of valproic acid as GCS: 9. Arterial blood gas showed metabolic acidosis. He was intubated due to regression of GCS and respiratory distress. IV Carnitine and supportive treatments were started. Noradrenaline infusion was started because of hemodynamic instability. Hemodialysis was applied for 3 days. Liver transplantation indication was made with the diagnosis of fulminant hepatitis by the Malatya İnönü University transplant team. However, the patient could not be transferred for transplantation due to hemodynamic instability and persistence of respiratory acidosis. Plasmapheresis was applied for 5 sessions. The patient's unconsciousness improved and was extubated in a controlled manner and followed up in a stable manner.

Discussion: Fulminant hepatitis, neurological disorders, thrombocytopenia and respiratory depression were observed in our case. It is known that VPA does not benefit from hemodialysis due to more than 90% binding to plasma proteins, but this situation has been contradictory in studies. Although its efficacy is limited, we administered L-carnitine to our patient in standard doses, which is recommended in many studies in VPA intoxication. But there was no improvement. This can be caused by the high blood concentration of VPA and the development of fulminant hepatitis. We suggest that plasmapheresis should be kept in mind in cases where liver transplantation is not possible and resistant to alternative treatment modalities in VPA toxicity.

Keywords: Valproic acid, hepatotoxicity, transplantation, plasmapheresis

Table 1. Laboratory findings

Day	VPA	INR	AST	ALT	FBRN	PLT	NH3	TBIL	DBIL	pH	HCO_3	pCO_2	Lactate	GCS
0	557	3.8	2241	2568	1.1	70	103	2.4	0.6	7.13	14.2	61.2	4.1	9
1st (HD-1)		3.4	2318	2618	1.4	49	141	5.1	0.81	7.21	21.3	45.9	3.3	8
2nd (HD-2)		2.3	2194	2356	1.7	52	73	3.8	0.4	7.33	22.6	49.6	2.5	8
3rd (HD-3)	382	3.1	1985	2033	1.78	45	42	2.2	0.9	7.46	29.3	50.1	2.2	9
4th (PF-1)		2.1	817	919	1.9	44	<20	2.4	0.85	7.42	25.6	44.3	2.1	10
6th (PF-2)		1.6	435	576	2.2	85		1.9	0.92	7.38	23.5	51.1	2.4	12
8th (PF3)		1.3	139	213	2.2	89		1.6	0.88	7.46	24.4	41.5	1.6	14
10th (PF-4)		1.1	88	110	2.32	110		1.1	0.66	7.44	26.1	55.4	1.4	15
12th (PF-5)	<25	1.1	36	51	2.3	149		1.2	0.62	7.39	25.9	57.1	1.1	15

VPA: Valproic acid, AST: Aspartate aminotransferase, ALT: Alanine aminotransferase, FBRN: Fibrinogene, TBIL: Total bilirubine, DBIL: Direct bilirubine, PLT: platelete, GCS: Glasgow coma scale, HD-1: Hemodialysis 1st session, PF-1: Plasmapheresis 1st session

[OP-183]

Life Saving in Propafenone Intoxication: Iv Lipid

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Introduction: Propafenone is a class 1C antiarrhythmic drug. It also has beta-blocker and calcium channel blocker activity. It can cause serious rhythm disturbances, and death in high doses. In case of toxicity, there is no specific treatment and no antidote. It is lipophilic and more than 90% bound to plasma proteins. Iv lipid emulsion creates a separate lipid compartment in the plasma, keeping lipophilic drugs there and reducing the undesirable effects of these drugs. In this case, we evaluated the efficacy of lipid emulsion therapy in an unstable patient who received high-dose propafenone.

Case: A 19-years-old female patient with no history of additional disease applied to the emergency service with nausea and dizziness 2 hours after taking 15 rhytmonorm 150 mg tablets for suicide purposes. The patient had a GCS of 15 on admission, and no pathology other than sinus tachycardia was detected in the ECG (Figure 1). Then sudden epileptic seizure developed, bradycardia, QRS enlargement and 1st degree AV block were observed (Figure 2). Afterwards, ventricular tachycardia developed (Figure 3) and cardioversion was applied once. The patient was taken to the intensive care unit for further examination and treatment. Because of the ventricular tachycardia again, cardioversion was performed for the second time. In addition to supportive treatment, iv lipid emulsion at recommended doses was started. She regained consciousness and her acidosis improved. ECG rhythm and vitals returned to normal. She was discharged on the 3rd day of her hospitalization.

Discussion: Propafenone toxicity can be life-threatening, primarily as a result of cardiac rhythm disorders. Although there is no standard procedure and antidote for treatment, lipid emulsion in addition to supportive treatment seems to decrease mortality by increasing clinical survival.

Keywords: Propafenone, iv lipid, intoxication, ventricular tachycardia, seizures

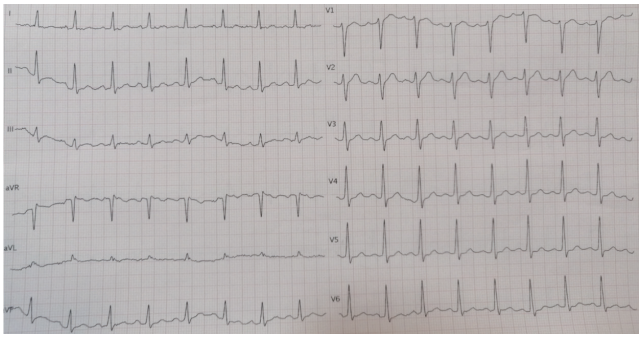

Figure 1.

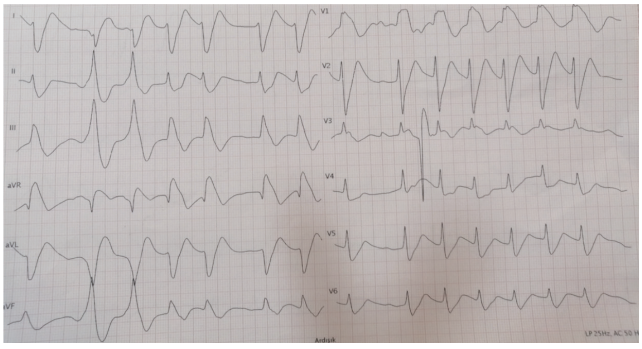

Figure 2.

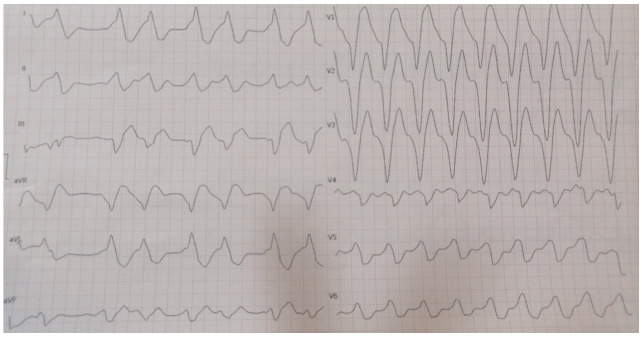

Figure 3.

[OP-184]

Fat Embolism Syndrome of Responding Dramatically to High-dose Steroid Therapy: A Case Report and Review of the Literature

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Introduction: Fat embolism syndrome (FES), a rare occurrence in cases with long bone fractures, including femoral shaft fracture has a clinical triad of neurological, respiratory and dermatological involvement, as a result of the occlusive effects of fat globules entering the bloodstream from the damaged tissue and inflammation associated with circulating toxic substances. Treatment is usually supportive, and corticosteroid treatment is suggested against its biochemical effects, but there is no clear information about its optimal dose. Herein, we present a critical case of FES in whom we received a dramatic response after 28 hours with a high dose of methylprednisolone treatment, 3x1500 mg, which we applied twice intermittently.

Case: While the 33-year-old male patient was being followed up by orthopedics dueto fractures of the tibia, femur shaft, acetabulum and sacrum on the left side, he was transferred to our anesthesia and reanimation intensive care unit after his general condition deteriorated. In our first evaluation, Glasgow coma score was 3 points, FiO_2: 90%, PaO_2: 55 mmHg, norepinephrine dose was 0.9 mcg/kg/min. Differential diagnostic tests were performed on the patient and a diagnosis of YES was made. Methylprednisolone treatment at a dose of 3x1500 mg was started in the case, which we thought would be fatal. In the case, a surprising development was recorded after 28 hours.

Discussion: Based on our experience, considering the criticality of the cases with FES, we suggest that high-dose steroid therapy can be tried for suppression of inflammation. More studies are needed on the use of steroids, especially in the treatment phase of FES.

Keywords: Corticosteroid treatment, fat embolism syndrome, inflammation, intensive care unit, management

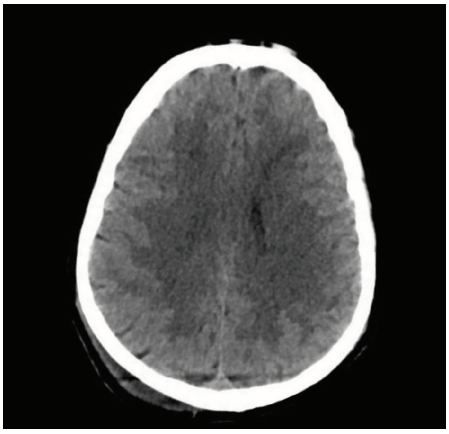

Figure 1. Axial section of computerized brain tomography showing millimetric hypodense and hyperdense areas in the bilateral deep white matter, suggesting fat embolism syndrome

Figure 2. Photograph of the case demonstrating subconjuctival petechiae in our case with FES

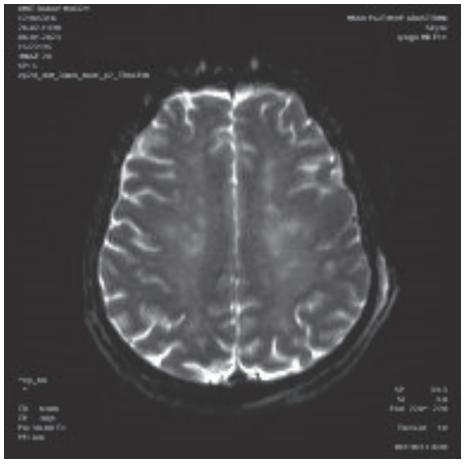

Figure 3. Magnetic resonance imaging of the brain revealing multiple hyperintense foci, called "starfield patterns", in the white matter and subcortical region of both cerebral hemispheres of our case with FES

[OP-185]

Critical Illness Polyneuromyopathy: A Case Report

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Introduction: In patients hospitalized in the intensive care unit (ICU); muscle atrophy and neuromuscular weakness may develop due to infection, trauma, surgery, burn. In this case report, we aimed to share the diagnosis and treatment process of our patient.

Case: A 71-year-old female patient was admitted to our ICU with the diagnosis of COVID-19. High flow oxygen therapy and non-invasive mechanical ventilation were applied. Due to the progression of respiratory failure, she was intubated and sedated with midazolam-remifentanyl infusion. Sedation was terminated 48 hours later. No extremity movement was observed after the sedation was terminated. No pathology was detected in the brain CT except for chronic ischemic changes and atrophy. The diagnosis of GBS was excluded because CSF analysis was normal and motor dysfunction findings were prominent in EMG. The diagnosis of CIPM was made with EMG. Extremity movements of the patient started with appropriate treatments and physical therapy exercises. She was transferred to the palliative care unit as GCS: 13 with tracheostomy accompanied by a home ventilator.

Discussion: Neuromuscular weakness in intensive care patients is usually considered when patients cannot get rid of mechanical ventilator support, and the onset of diagnosis is usually unknown. Main clinical features; distal predominantly muscle weakness, hyporeflexia/areflexia, and muscle atrophy. The diagnosis of this disease was made by EMG. The duration of stay in mechanical ventilation, ICU and hospital stay is prolonged in patients who develop CIPM. So the quality of life of patients reduces and the cost of treatment and care increases. Awareness should be raised in ICUs, especially in critically ill patients who are dependent on mechanical ventilators, administered sedation, neuromuscular blockers, and steroids.

Keywords: Critical illness, electro myelography, polyneuromyopathy, mechanical ventilator

[OP-186]

Rare But Serious: Tetanus

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Introduction: Tetanus is an acute toxemic infectious disease characterized by tonic convulsions caused by the neurotoxin secreted by *Clostridium tetani*. Trismus, risus sardonicus, dysphagia, opistotonus, laryngospasm, dyspnea, and abdominal rigidity may develop. Diagnosis is based on the demonstration of the toxin in body fluids in the presence of trismus, dysphagia and spasms.

Case: A 62-year-old female patient was followed by our intensive care unit with the diagnosis of tetanus, with muscle spasms and dyspnea and 1 dose of tetanus IG was administered. She was intubated. 500 IM tetanus IG was performed. Sudden cardiac arrest developed on the 2nd day of the patient's admission. Spontaneous circulation was achieved with CPR for 10 minutes. Muscle relaxant treatment was started because of the increased contractions. 3 gr/day IV magnesium sulfate infusion was given to prevent muscle rigidity and spasms. She was weaned off the mechanical ventilator on the 25th day of hospitalization. On the 33rd day, she was transferred to the infectious diseases service. The patient was followed up in the service for 1 month, was discharged with fully mobile and tracheotomy closed spontaneously.

Discussion: Wound cleaning, antimicrobial therapy, toxin neutralization and supportive treatment are the basics of treatment. Human TIG should be performed immediately after diagnosis. Tetanus vaccine was administered to our patient in the emergency department, and immunoglobulin was administered in our intensive care unit. These patients should be followed up in the intensive care unit considering the airway distress and the need for mechanical ventilator. Although the incidence is decreasing with widespread immunization, it should be kept in mind that it is an acute and fatal disease in unvaccinated and traumatized individuals.

Keywords: Tetanus, immunoglobulin, neurotoxin, respiratory failure, vaccine

[OP-188]

Labbe Vein Trombosis with History of COVID-19

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Introduction: Labbe vein, inferior anastomotic vein, thrombosis is rare and accompanied with major vein thrombosis. Risk factors; malignancy,infections, pregnancy, oral contraceptivesand trauma. We would like to present the case with Labbe vein thrombosis 1 month after COVID-19.

Case: Twenty one years male admitted to hospital with headache, vomiting, behavioral changes. He had no chronic illness except anemia. He had flu with other friends 1 month ago COVID PCR negative. At physical examination GCS:11, pupils isocoric, LR +/+. Right sided hemiparesis. BP: 130/70, HR: 70/mn. At brain CT; hematoma at left temporal pole, peripheral edema, shift on middle line. He had emergency surgery. Craniotomy, evacuation of hematoma and duraplasty were performed. Than he followed in ICU as intubated. Anitedema and antiepileptic treatment were arranged. COVID-19 antibody IgG and IgM positive. His CT and MR images are evaluated by neurology and radiology. Presence of giriform thickness and swelling at a certain area of brain cortex which suggest hemorrhagic venous infarction made diagnose him with Labbe vein thrombosis. Anticoagulation therapy started. He was extubated after 12 days and discharged from ICU after 18 days.

Discussion: Labbe vein drains lateral temporal lobe and is running into transverse sinus. Its thrombosis is seen mostly with other vein thrombosis. Headache, seizure, focal neurological deficits can be present. It is difficult to detect radiologically since people have serebral venous system differences and variations. Hemorrhagic infarct in temporal lobe should suggest Labbe vein thrombosis. MR venography is used. Cerebral vein thrombosis rate was considerable in COVID-19 patients. Also in anemic patients it is more likely to be seen. Classical treatment includes anticoagulation and treatment with anti epileptic and anti edema drugs. Thrombectomy, thrombolytics and decompression surgery can be applied. Our case has risk factors like covid and anemia. He was difficultly diagnosed. But after the treatment he discharged from ICU as a healthy person.

Keywords: Labbe vein thrombosis, COVID-19

[OP-189]

Botulism Intoxication: A Case Report

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Introduction: Botulinum neurotoxin is one of the most potent toxins, produced by *Clostridium botulinum*. The most common mode of transmission is caused by the consumption of foods contaminated with botulinum neurotoxin. It progresses with severe gastroenterological and neurological findings. Rapid diagnosis and initiation of treatment are very important in terms of clinical course.

Case: The female patient with a known diagnosis of asthma and type 2 DM presented with weakness, abdominal pain, difficulty in swallowing and blurred vision. The patient had a history of canned consumption 2 days ago. The patient had respiratory distress in the follow-up and botulismus was the preliminary diagnosis. Her GCS was 13, vitals were stable. Laboratory parameters were normal. The patient was immediately given the appropriate dose of botulismus antitoxin. The patient was intubated on the first day of follow-up due to the worsening of respiration and consciousness. Tracheotomy was opened on the 16th day. The patient, was transferred to the 3rd step intensive care unit of the province where they lived, with traceostomy and oxygen support, on the 85th day of hospitalization, upon the request of the patient's relatives.

Discussion: Botulism is a serious poisoning that can result in death if early diagnosis and treatment is not provided. Ingestion of contaminated food results in muscle weakness and paralysis. The patient's symptoms and findings on admission should be carefully examined, and the history should be carefully questioned. Recovery can be achieved by early diagnosis, rapid administration of antitoxin and being prepared for complications. In our patient, the first symptoms were abdominal pain and blurred vision, and subsequently, respiratory failure and need for mechanical ventilation developed rapidly. EMG also showed presynaptic conduction disorder and supported botulismus. The most important points in treatment are decontamination, application of specific antidote and support of respiratory function.

Keywords: Botulinum neurotoxin, *Clostridium botulinum*, antitoxin, canned food

[OP-190]

Hyperbaric Oxygen Therapy in a Case with Clostridial Gas Gangrene: A Case Report

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Introduction: Gas gangrene is a severe necrotizing clostridial infection often associated with trauma and surgery. Its incidence is 4 in 1,000,000 cases and the mortality reaches 52%. A combination of radical surgical debridement, broad-spectrum antibiotherapy, and hyperbaric oxygen therapy is preferred in treatment. In this case, we aimed to present a case of gas gangrene, which developed in an immunosuppressed patient and was successfully treated.

Case: A 43-year-old female patient applied to the emergency department of an external center due to abdominal pain. The patient with a history of injections in the right forearm was applied to the emergency department of our hospital with complaints of severe pain, redness, and swelling in the right forearm on the third day following the injection (Figure 1a). In the patient's history, there were diagnoses of multiple myeloma, third-degree tricuspid insufficiency, and primary pulmonary hypertension. It was learned that she had received intermittent antibiotic therapy due to neutropenic fever in the last year. Clostridium perfiringens was isolated from the culture taken from the patient. Surgical debridement and broad-spectrum antibiotic therapy were planned for the patient. On the 13th day, it was observed that there was not enough healing in his wound. Therefore, six sessions of hyperbaric oxygen therapy were planned for the treatment, and then a free flap was applied to his arm. The patient was discharged home in good health on the 49th day of admission (Figure 1b).

Discussion: Gas gangrene is a severe life-threatening disease. Early diagnosis, antibiotic therapy and especially radical debridements can be successful in treatment. Hyperbaric oxygen therapy offers a chance to control the infection faster and avoid amputation. As a result, in this immunosuppressed patient, early surgical debridement, antibiotherapy, and hyperbaric oxygen therapy were successfully applied together and the extremity was preserved in the patient.

Keywords: Hyperbaric oxygene therapy, gas gangrene, multiple myeloma, *clostridium perfringens*, immunsuppressed

Figure 1a. Images of the patient's arm affected with gas gangrene when she was first admitted to the intensive care unit

Figure 1b. Images of the patient's arm affected with gas gangrene when she was discharged home

[OP-191]

Difficulties in Creutzfeldt-Jakob Case in the Intensive Care Unit

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Introduction: Creutzfeldt-Jakob disease (CJD) is a fatal neurodegenerative disease from infectious spongiform encephalopathies. It is a prion disease that presents with cognitive and mental deterioration, cerebellar ataxia, myoclonic movements, and vision loss. CJD progresses very rapidly and causes death. We aimed to present a case of CJH diagnosed in the intensive care unit and its difficulties in the intensive care unit.

Case: Seventy eight year old female patient had a history of hypertension, hypothyroidism, autoimmune encephalitis and was hospitalized in the geriatric ward. Neurological complaints gradually deteriorated. She was transferred to the intensive care unit due to the development of urosepsis. The complaints of dysarthria, swallowing disorder, forgetfulness, and ataxia had started one year ago and gradually progressed. GCS was 7, patient intubated and mechanical ventilation was started. Severe diffuse cerebral dysfunction was detected in EEG. On MRI, cortical diffusion restriction, chronic ischemic changes and cortical ribbon sign which is pathognomonic for CJD were observed. The patient was diagnosed with CJH according to Centers for Disease Control and Prevention (CDC) criteria. Levatiracetam treatment was started for spontaneous myoclonies. Due to the high risk of contamination with the secretions and body tissues and fluids of the patient, the isolation measures were taken at the highest level and interventional procedures were avoided. She has been in our unit for 198 days.

Discussion: Cerebrospinal fluid and brain tissue are at high risk for infection transmission in patients with CJD. Therefore, interventional procedures such as lumbar puncture and brain biopsy are not possible. Diagnosis of CJD is made by evaluating the clinical findings and CDC diagnostic criteria together. In our case, in addition to rapidly progressive dementia, myoclonus, visual, akinetic mutism and extrapyramidal findings were present. Cortical ribbon appearance is evident in brain MRI. The diagnosis was made according to the CDS criteria.

Keywords: Intensive care, Creutzfeldt-Jakob disease, prion

[OP-192]

Paroxysmal Sympathetic Hyperactivity in the Intensive Care

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Introduction: Paroxysmal sympathetic hyperactivity (PSH) is an acute and serious condition that occurs after diffuse and multifocal brain injuries. It is characterized by fever, tachycardia, hypertension, tachypnea, and excessive sweating. Early diagnosis and treatment are essential, otherwise the damage may be permanent and lead to serious complications. We presented two critical cases with PSH, to emphasize the importance of early diagnosis.

Cases: Case 1: A 35-year-old woman had cardiopulmonary arrest during in vitro fertilization and was admitted to the intensive care unit (ICU) with the diagnosis of hypoxic-ischemic encephalopathy after resuscitation. Diffuse chronic ischemic changes were detected at magnetic resonance imaging. Diffuse dystonic contractions, fever, tachycardia, tachypnea and excessive sweating were observed. Seizure activity and infection were observed. Despite administration of paracetamol, hydration and sedation, the symptoms did not regress. Electroencephalography showed epileptiform activity. The frequency of attacks could not be reduced. After sedation and propranolol treatment, the frequency of attacks decreased. Case 2: Twenty three-year-old patient was admitted to the ICU after a traffic accident with traumatic brain injury, cerebral edema, subarachnoid hemorrhage, maxillofacial injury and extremity fractures. He had dystonic contractions, hypertension, tachycardia, sweating and fever attacks in the ICU. These symptoms were considered as a septic attack, cultures were taken and antibiotic treatment was started. However the symptoms persisted, EEG was performed and moderate-severe cerebral dysfunction was detected. Brain MRI was consistent with early subacute diffuse axonal damage. After propranolol and gabapentin were added, the attacks disappeared.

Discussion: PSH can be seen in patients with traumatic-hypoxic brain injury. It is manifested by recurrent episodes of tachycardia, hypertension, tachypnea, fever, exaggerated sweating and dystonic posture in patients with severe brain damage. PSH treatment include sedatives, beta blocker, and gabapentin. With early diagnosis of this disease, permanent damage and unnecessary treatments can be prevented.

Keywords: Intensive care, paroxysmal sympathetic hyperactivity, diagnose

[OP-193]

A Case of Takotsubo Syndrome and Small Bowel Perforation Due to Blunt Trauma

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Introduction: Intestinal failure is the inability of the gut to absorb necessary water, macronutrients (carbohydrate, protein, and fat), micronutrients, and electrolytes sufficient to sustain life and requiring intravenous supplementation or replacement. Short bowel syndrome in adults is defined as less than 180 to 200 centimeters of remaining small bowel. Takotsubo cardiomyopathy (also called transient apical ballooning and stress cardiomyopathy), left ventricular dysfunction, which can be remarkably depressed, recovers within a few weeks. in this case report, the association of small bowel perforation and Takotsubo syndrome, which developed as a result of blunt trauma due to a rare cow kick, was discussed in a 31-year-old male patient.

Case: Our patient applied to an external center with abdominal pain after hitting the metal barrier with the kick of a cow. Acute pathology was not detected in the abdomen in the CT scans of the abdomen. Then the patient who developed SVT and hypotension during the emergency department follow-ups was re-imaged. In the abdominal CT, subdiaphragmatic free air, ileus at the small intestine level, air in the intrahepatic portal vein branches were observed. Emergency laparotomy was performed. The patient, who had intraoperative resistant SVT attacks and high-dose norepinephrine needs, was consulted with the cardiologist. EF was found to be 30% in his ECHO. Takotsubo syndrome was considered in the patient whose EF was evaluated as 45% on the 20th day in the cardiology controls. In this process, short bowel syndrome was considered due to the daily discharge of 7000 mL from the jejunostomy. The patient's parenteral nutritional support was continued at a total of 45 kcal/kg/day, both enteral and parenteral. On the 45th day of his hospitalization, the patient was transferred to service.

Discussion: Takotsubo syndrome seen with blunt trauma and short bowel syndrome following small bowel perforation are rare and difficult to manage associations.

Keywords: Short bowel, takotsubo, blunt trauma

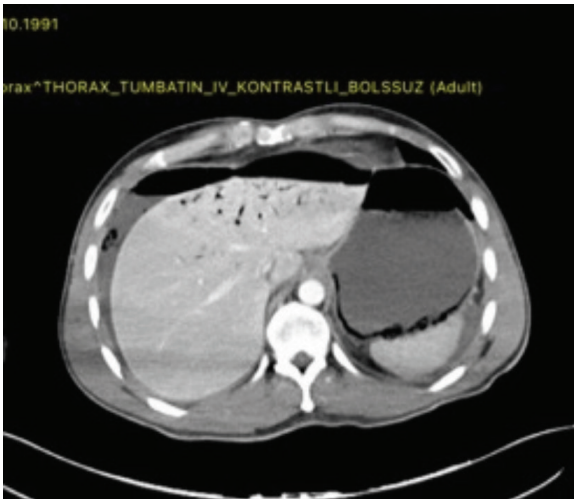

Figure 1. Abdomen CT scan 1

Figure 2. Abdomen CT scan. Subdiaphragmatic free air, pneumotosis intestinalis in the stomach wall, ileus at the level of the small intestine, air in the branches of the intrahepatic portal vein, dense fluid in the pelvis

[OP-195]

The Role of the Extracorporeal CO_2 Removal in a Patient Who Had a Near-fatal Asthma Attack

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Introduction: Extracorporeal carbon dioxide removal ($ECCO_2R$) is a respiratory support method that solely offers decarboxylation with minimal blood flow (0.3-1.0 L/min). Here we present the $ECCO_2R$ treatment in a patient who was intubated due to hypercarbic respiratory failure after an asthma attack.

Case: A 18-year-old male patient with a diagnosis of asthma admitted to the emergency room with respiratory distress. He was suffering with persistent wheezing and dyspnea. Physical examination showed decreased auscultation in both lungs. Chest X-ray was normal and the blood gas analysis showed a deep respiratory acidosis (Ph: 6.98, pCO_2: 162 mmHg, pO_2: 208 mmHg, HCO_3: -26.4, BE: -1.6). The patient was intubated and admitted to the intensive care unit (ICU). He was treated with budesonide + salbutamol + ipatropiumbromide + theophylline + intravenous steroid and magnesium sulfate during that period. Neuromuscular blocking agent was added to treatment in addition to deep sedation due to ongoing bronchospasm. Hypercapnia and respiratory acidosis was persist despite high mechanical ventilatory support (PEEP: 10 cmH_2O, Psupport: 35 cmH_2O, respiratory rate: 30, FiO_2:%40). The VV-$ECCO_2R$ (multi $ECCO_2R$®-Fresenius Medical Care) was started on the 2nd day of hospitalization. The extracorporeal blood flow was set at 300-350 mL/min, while the sweep gas flow was adjusted to be 3-6 L/min according to the pCO_2 value. Unfractionated heparin was used for systemic anticoagulation. In times hypercarbia regressed gradually, blood gas parameters improved and ventilatory supports decreased (Table 1). He was successfully weaned from the $ECCO_2R$ on the 5th day and then extubated. He was discharged to the ward with nasal oxygen support.

Discussion: Most asthma attacks can be treated but some patients remain uncontrolled despite adequate therapy. The use of $ECCO_2R$ has been shown for the possibility of earlier extubation after severe asthma attack who need invasive-mechanical ventilation. In our patient, who was suffering from life-threathening asthma attack and finally discharged from the ICU, VV-$ECCO_2R$ corrected hypercapnia and acidosis, allowed the reduction of other supportive measures and the favored the weaning from mechanical ventilation.

Keywords: $ECCO_2R$, extracorporeal carbon dioxide removal, asthma attack, hypercapnia

Table 1. Respiratory dinamics and blood gas parameters pre-during and after $ECCO_2R$

Parameters	Sweep gas flow	$ECCO_2R$ flow	Ph	PCO_2	PO_2	Respiratory rate	FiO_2	PEEP	Psupport
Pre $ECCO_2R$ (MV)	-	-	6.99	134	91	30	40	10	35
After $ECCO_2R$ at the 1st hour	5 lt/min	300 mL/min	7.22	85	72	18	40	6	35
6th hour parameters	6 lt/min	350 mL/min	7.29	62	183	18	35	6	30
12th day parameters	6 lt/min	300 mL/min	7.27	57	139	18	30	6	27
18th hour parameters	6 lt/min	200 mL/min	7.25	59	142	18	30	6	27
24th hour parameters	5 lt/min	200 mL/min	7.33	65	114	16	30	5	22
30th hour parameters	3 lt/min	200 mL/min	7.43	77	132	15	30	5	16
36th hour parameters	3 lt/min	200 mL/min	7.49	64	80	15	30	5	18
$ECCO_2R$ weaning	3 lt/min	200 mL/min	7.48	58	105	18	30	5	14
After $ECCO_2R$ weaning, 1st hour, MV	-	-	7.52	52	110	14	30	5	10
After $ECCO_2R$ weaning, 24th hour, 2 lt O_2 nasal cannula support	-	-	7.53	44	98	18	-	-	-

[OP-196]

A Consequence of Fluid Therapy Algorithm of Diabetic Ketoacidosis: Iatrogenic Hyperchloremic Acidosis

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Introduction: Since the aim of fluid therapy in diabetic ketoacidosis (DKA) is to remove ß-hydroxybutyrate with Na from the kidneys, the first recommended fluid is 0.9% NaCl. BECl (Na-Cl-32) is the best chloride evaluation. Administering fluids with BECl <32 in DKA may cause hyperchloremic acidosis. This study investigates the effect of the administered fluids with BECl <32 and BECl ≥32 on metabolic acid-base status in the first 6 hours of DKA.

Materials and Methods: Patients with DKA admitted to intensive care units (ICU) in the last 15 years were retrospectively evaluated. Demographic data, blood gas samples, and strong ion gap (SIG) were recorded at the ICU admission and the 6th hour. According to BECl values of administered fluids in the first 6 hours, patients were separated into two groups: Group I (Fluids with BECl<32) and group II (fluids with BECl ≥32). SPSS Version 28 was used for statistical analysis.

Results: DKA was detected in forty-seven (0.2%) of 15,364 patients. Thirty-two (GI=26; GII=6) patients with DKA were included in the study. Demographics and blood gas parameters at the ICU admission and SIG, Na, K, lactate, and glucose levels at the 6th hour were similar in groups. At the 6th hour, pH, $PaCO_2$, HCO_3, SBE, and Na-Cl difference in GI were significantly lower ($p<0.001$, $p=0.016$, $p=0.011$, $p=0.022$ and $p<0.001$, respectively), whereas Cl was significantly higher than GII ($p=0.023$).

Conclusion: Although SIG is decreased by administering fluids with BECl <32 in DKA, the reason for the lack of expected increase in HCO_3 and SBE and continued hypocapnia at the 6th hour is the iatrogenic hyperchloremia. Hence, the usage of fluids with BECl <32 in DKA should be avoided, and the fluid therapy algorithm of DKA should be reconsidered.

Keywords: Diabetic ketoacidosis, hyperchloremic acidosis, fluid therapy

[OP-197]

Two Cases of Botulism After Intragastric Botilinum Toxin-A

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Introduction: In the last couple of years endoscopic intragastric botulinum toxin A (BTX-A) injection has been used for weight loss. Examples of adverse reactions included dysphagia, generalized paralysis, respiratory depression, and death. In this case report we are reporting 2 cases of botulism ofter intragastric BTX-A injection.

Case: A 46-year-old female patient was admitted to another hospital 5 days after the intragastric injection of BTX-A with the complaints of diplopia, significant dysphagia, and impaired speech. Since they could not obtain antitoxin, she was referred to our hospital and admitted to the intensive care unit (ICU). On arrival, the patient was conscious, oriented and cooperative. There was diplopia in bilateral distance and outward gaze. Polyvalent botulinum antitoxin was applied. After 24 hours of antitoxin administration, the patient's symptoms significantly regressed, and she was discharged from the ICU. A 35-year-old female patient is admitted to our hospital 1 week after the intragastric injection of BTX-A and is admitted to the ICU. She experienced mild nausea-vomiting in the first days after the procedure, but these complaints increased as of the 4th day, in addition to respiratory distress, diarrhea, drooping eyelids, double vision and blurred vision. However, these complaints had regressed when she applied to the hospital. On arrival, the patient was conscious, oriented and cooperative. Antitoxin administration was not considered due to regression of symptoms. On the 2nd day of his hospitalization, the patient left the hospital voluntarily.

Discussion: Both of our patients recieved BTX-A for weight loss. In our literature review, we did not find a case of botulism developing after intragastric BTA-X injection. Antitoxin is the mainstay of treatment. Antitoxin acts by binding to and neutralizing free botulinum toxin. The timeframe within which it is clinically efficacious is unknown. Only one of our patients needed antitoxin, and her symptoms regressed within hours.

Keywords: Botulism, intragastric botulinum toxin-A, weight loss, botilinum toxin-A

[OP-198]

Acute Pancreatitis Due to Propofol: Case Report

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Introduction: Propofol is a lipid-based hypnotic agent that is often preferred as a sedative agent in intensive care units due to its short-acting effect. While pain at the injection site, dose-dependent hypotension, allergic reactions, respiratory depression and hypertriglyceridemia are common side effects, it is rarely known to cause acute pancreatitis. We aimed to present a case who was followed up in our intensive care unit with acute respiratory distress syndrome (ARDS) and developed acute pancreatitis due to propofol infusion.

Case: A 42-year-old female patient has a known diagnosis of multiple myeloma. She was admitted to the intensive care unit due to hypoxemic respiratory failure due to ARDS, she was intubated on the first day and invasive mechanical ventilation support was started. Analgosedation was achieved with dexmedetomidine infusion, with a Richmond Agitation-Sedation Scale (RASS) of 0/-1, antibiotic treatments which started at hospital admission were continued and enteral nutrition therapy was initiated. Propofol infusion was started as 1 mg/kg/h on the 7th day of her hospitalization because her RASS score was around +1/+2. Approximately 48 hours after the start of propofol infusion, serum amylase level increased from 84 (U/L) to 1114 (U/L) and propofol infusion was terminated. In the examinations for the etiology of pancreatitis, serum triglyceride (TG) level was found to be normal, and in the abdominal tomography imaging of the patient excluded a biliary cause of the pancreatitis findings consistent with edematous pancreatitis were detected and neither viral nor bacterial cultures showed positive results, making an infectious cause for the pancreatitis very unlikely. After stopping the propofol infusion,serum amylase level was 921 (U/L) 24 hours, and 362 (U/L) after 48 hours.

Discussion: Propofol is proposed to cause pancreatitis by elevating the TG level. Not all cases of propofol-induced pancreatitis are due to HTG they suggest an association of propofol with pancreatitis but the mechanism in the absence of HTG is an area of uncertainty. We have focused on this possible complication of propofol. It's possible that cases of drug-induced acute pancreatitis are under-recognized.

Keywords: Propofol, pancreatitis, drug induced pancreatitis

[OP-199]

A Rare Case Report: Hereditary Angioedema

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Introduction: Hereditary angioedema is a rare autosomal dominant inherited disease characterized by recurrent episodes of angioedema involving the skin, gastrointestinal tract and upper respiratory tract mucosa, often without urticaria.

Case: A 36-year-old female patient, known to have hereditary angioedema type-3, presented to the emergency department with abdominal pain, urticaria starting from the lower extremities and non-existing edema. Patient was taken to the intensive care unit due to the development of edema in the face, regression in consciousness, and respiratory distress. patient started with recurrent urticaria and then hiccups developed in the follow-up. 1 mg/kg methylprednisolone and tranexamic acid were administered. Due to the lack of C1 esterase inhibitor solution in the hospital, 2 units of fresh frozen plasma (FFP) was administered to the patient. Attacks regressed after FFP and steroid applications. On the 3rd day of the follow-up, the patient without symptoms was discharged.

DISCUSSION: Angioedema attacks may occur spontaneously, but trauma, anxiety, menstruation, infections, alcohol, pregnancy, or medications such as estrogen and ACE inhibitors may also trigger attacks. Data on the efficacy of relapse treatment in HAE with normal C1-INH are limited by studies and case reports. Icatabant acts by antagonizing the bradykinin-2 receptor. C1-INH concentrate acts by raising the threshold for kallikrein activation and bradykinin formation. In the absence of C1-INH concentrate, it is recommended to give 1-2 units of FFP within 1-2 hours. Antifibrinolytic drugs also have a place in the short- and long-term profile axis of hereditary angioedema. For this purpose, tranexamic acid and epsilon amino caproic acid are used. However, the mechanisms of action are not fully known. HAE patients with normal C1-INH are not expected to respond to epinephrine, glucocorticoids, and antihistamines. In cases histaminergic angioedema is suspected to accompany the picture, they are recommended to be applied without delay.

Keywords: Hereditary angioedema, C1 esterase inhibitor

[OP-200]

A Case of Extracorporeal Membrane Oxygenation Therapy in Severe Acute Respiratory Distress Syndrome Assosiated with Multipathogen Induced Pneumonia

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Introduction: Experiences in the COVID-19 pandemic have also shown us that extracorporeal membrane oxygenation (ECMO) is very effective in facilitating the response to treatment in severe acute respiratory distress syndrome (ARDS) patients who do not respond to conventional methods.

Materials and Methods: The case we are going to present was 46 years old, influensa positive female with known diabetes mellitus, who was intubated with severe ARDS, which developed as a result of pneumonia caused by viral, bacterial and fungal pathogens. Despite positive pressure ventilation, prone position, neuromuscular blockade to eliminate ventilator asynchrony and appropriate medical treatment, the patient's hypoxemia could not be corrected. In arterial blood gas evaluation, pO_2: 68.5 mmHg, pCO_2: 28.5 mmHg, SpO_2: 97.7%, pO_2/FiO_2 ratio was 97. She has severe ARDS (Figure 1).

Results: Venovenous ECMO was started to the patient for the treatment of severe ARDS. the arterial blood gas taken at this time, pO_2: 147 mmHg, pCO_2: 30 mmHg, pO_2/FiO_2>300, was observed. On the 8th day of the procedure, ECMO was successfully decannulated. No complications were encountered during the ECMO procedure. On the 33rd day of hospitalization, the patient was discharged home without the need for oxygen support.

Conclusion: With this case, we have seen once again that ECMO, with a professional multidisciplinaryapproach and start in correct time, is of great importance in improving the prognosis in youngpatients with severe ARDS without serious co-morbidities.

Keywords: Extracorporeal membrane oxygenation, ECMO, acute respiratory distress syndrome, ARDS

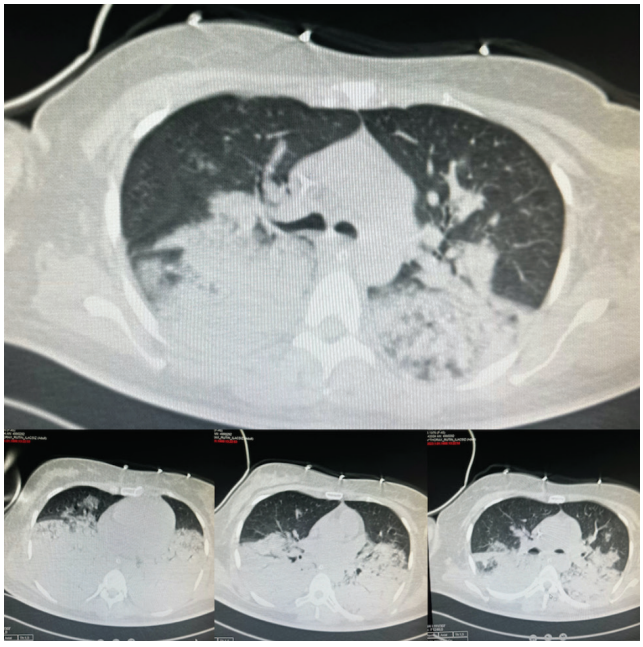

Figure 1. This computed tomography images showing extensive multifocal ground-glass opacities bilaterally

Table 1.

	Admission	NIV	Intubation	Prone	ECMO1	ECMO3	ECMOlast	Before discharge
PaO_2/FiO_2	220	300	192	91	198	234	557	335
SOFA	7	6	7	9	11	11	6	1

ECMO1: 1st day ECMO, ECMO3: 3rd day ECMO