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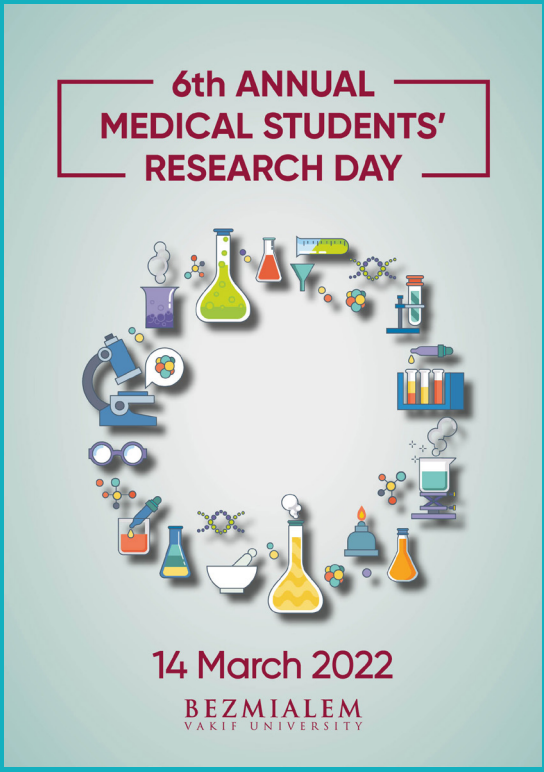

6th ANNUAL MEDICAL STUDENTS' RESEARCH DAY

14 MARCH 2022

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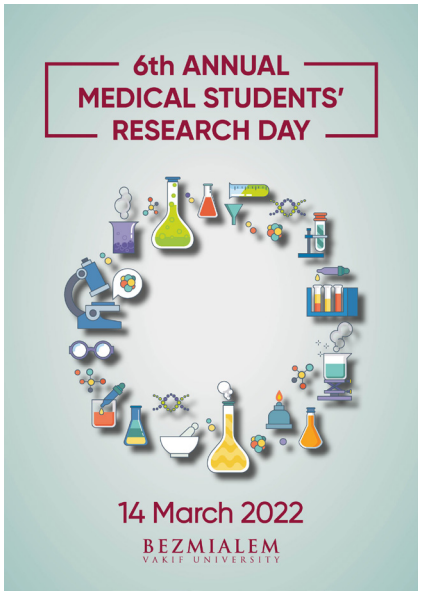
Guest Editor

Meliha Meriç Koç

Bezmialem Vakif University Faculty of Medicine,
Department of Infectious Diseases and Clinical Microbiology



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PREFACE

Training as a physician requires attention not only to knowledge and patient care, but also to lifelong learning and scholarship. Scholarship is an important factor when considering the skills of a physician and the mission of Bezmialem Vakif University (BVU) is to train healthcare professionals and scientists through innovative education models by using modern science and technology in light of the values of our civilization; to conduct research that produce real results as products and services; to provide high quality and accessible healthcare services while improving the health level of our society.

Hence in 2014 Bezmialem Vakif University and Johns Hopkins University (JHU) agreed upon a curriculum development collaboration including the implementation of Scholarly Concentration Module of JHU. This serves as a potential model for translation to other medical curricula outside the United States, as well. The overall course goals and objectives are similar to the Johns Hopkins program and contains 6 modules.

Course Orientation and Module 1. In September of the first year of the program which includes actually the 4th grade of Bezmiâlem medical students, they have a required course orientation that provides an overview of the course objectives and process. Students are asked to begin to think about their scholarly interests. Students are also advised about early stages of research projects, including selecting a mentor, developing a question, and searching the literature.

Modules 2-4. Modules 2-4 continue in the 4th year of medical school. During this time, students are given guidance regarding their own independent project. These later modules focus on human subject protection and logistical issues related to the conduct of the project.

Modules 5-6. Modules 5-6 occur in the second year of the scholarly concentration module taking place during the 5th year of medical school, and most students have had an opportunity to conduct the bulk of the work for their project in the preceding summer. These modules are spent reviewing the progress and discussing how to present the project in an abstract, poster, or oral presentation format.

Medical Student Research Symposium. Each student presents their scholarly project at Medical Student Research Symposium (MSRS). During the day a judging process of posters, oral presentations, and podium presentations by course faculty takes place.

This Supplement of Bezmialem Science is dedicated to these presentations which were selected to be presented either orally or as posters by the faculty of the Scholarly concentration module.

Each project has been peer reviewed by faculty both from BVU and JHU and we are all proud to complete the sixth course with great success.

I would personally like to extend my sincere thanks to our collaborators in JHU and my faculty dedicated to scholarly concentration module here in BVU as well as the my students, scientists of the near future.

Rümeyza Kazancıoğlu, MD
Bezmialem Vakif University
Rector

RESEARCH DAY

14 March 2022

09.0-09.15: Introduction
09.15-10.00: Podium I (Oral Presentation)
10.10-10.20: Coffee Break
10.20-11.15: Podium II (Oral Presentation)
11.15-11.25: Coffee Break
11.25-12.20: Poster Presentation
12.20-13.20: Lunch
13.20-14.40 Short Oral Presentation

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BEZMIALEM VAKIF UNIVERSITY
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BEZMİÂLEM science

6th ANNUAL MEDICAL STUDENTS' RESEARCH DAY

14 MARCH 2022

ORAL PRESENTATIONS

Guest Editor
Meliha Meriç Koç
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Department of Infectious Diseases and Clinical Microbiology

OP-1

The Effect of Tocilizumab Use on Antibody Level in COVID-19 patients

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Introduction: Severe acute respiratory infection-coronavirus disease-2 (SARS-CoV-2) causes a hyper-inflammatory response associated with a Macrophage Activation Syndrome (MAS). The use of tocilizumab for treating MAS may affect the level of antibodies. In this study, we investigated whether tocilizumab could affect the antibody response in patients.

Method: Fifty-five coronavirus disease-2019 (COVID-19) patients who developed MAS and 55 patients who did not develop MAS were included in the study. There were 25 patients using tocilizumab in the MAS group. We used the blood, which was taken at the time of discharge. Spike antibodies against COVID-19 were examined from the collected blood. The SARS-CoV-2 immünglobulin G (Abbott, USA) commercial kit will be studied quantitatively with the incandescent microparticle immune analysis (CMIA) method on the Architect i1000 (Abbott, USA) device. Statistical analysis was performed using the student t-test.

Results: There was no statistical difference between the MAS group and the control group. High-level antibody response was statistically higher in the MAS group (>5,000) ($p<0.05$). However, there was no statistical difference in the antibody response between patients who used and did not use tocilizumab ($p>0.05$).

Conclusion: MAS group has increased antibody response. There was no evidence that the use of tocilizumab altered the antibody response. Large-sample studies are needed for more precise effects of tocilizumab.

Key words: Tocilizumab, COVID-19, MAS, antibody response

OP-2

Investigation of Cytotoxic, Apoptotic and Genotoxic Effects of Different Concentrations of Mulberry Seeds (Peganum harmala) Extract on Human Colon Cancer Cells

Muhammed Fatih CİVAN[1], Öznur YAŞAR[2], Fatmanur Babalı BALIBEY[2], Abdürrahim KOÇYİĞİT[2]

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Introduction: Colorectal cancer it is the third most common cancer in the world. Peganum harmala active ingredient, whose anti-cancer and immunomodulatory effects have been demonstrated *in vitro* and *in vivo* studies, is a candidate molecule that can be used as an alternative to conventional cancer treatments. In this study, we will investigate the cytotoxic, apoptotic and genotoxic effects of Peganum harmala on human colon cancer cells.

Method: *Peganum harmala seed extract (PHSE)* has been prepared with 80% MeOH:dH_2O solution for two days, MeOH was evaporated by vacuum evaporator and then lyophilized. HT29 colorectal cancer cells and healthy colon epithelial cells (CCD-1072) were incubated with different concentrations of PHSE (200–900 ug/mL) for 24 h. MTT assay was used to measure cytotoxicity of *PHSE* on each cell line. A fluorescent probe, H_2DCF-DA, was used to measure the levels of intracellular reactive oxygen species. Apoptosis was measured using the AO/EB dye using fluorescence microscope. The effect of *PHSE* on DNA damage was evaluated by alkaline single cell gel electrophoresis (Comet assay method) modified by Singh et al.

Results: Peganum harmala seeds extract decrease cell viability and increased intracellular ROS formation in HT29 and CCD cells. The genotoxicity of *PHSE* on colon cancer increased significantly by concentration-dependently damaging the DNA. 300ug/mL and 500 ug/mL doses of *PHSE* showed higher genotoxicity than the control, respectively. Also, it has higher genotoxicity in colon cancer compared to healthy cell.

Conclusion: The results of this study show that the Peganum harmala extract increased intracellular ROS generation in HT29 and CCD cells. It caused the formation of apoptotic and necrotic cells in the body. The Peganum harmala extract showed higher genotoxicity than the control.

Key words: Colon cancer, peganum harmala, cytotoxicity, genotoxicity, apoptosis

OP-3

Comparison of Renal and Metabolic Effects of Empagliflozin and Dapagliflozin on Type 2 Diabetes-Induced Rats

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Introduction: Diabetes mellitus is a disease that affects millions of people worldwide. Extensive randomized clinical studies are ongoing on SGLT-2 inhibitors, Empagliflozin and Dapagliflozin, in patients with heart failure and chronic renal failure. The aim of this study is to investigate the equivalence and superiority of different SGLT2 inhibitors by comparing the metabolic and renal effects.

Method: Six week old 44 male Sprague-Dawley male rats were divided into four groups treatment, placebo and control. Throughout the trial, rats had unrestricted access to food and water (ad libitum) and were kept at a standard temperature, humidity and light level.

Streptozotocin was given intraperitoneally after a two-week high-fat diet, and groups were randomly divided based on mean glucose levels. Dapagliflozin and Empagliflozin were administered daily at 13:00, for 1 month. Blood samples and glucose levels were measured at certain intervals. For all groups, urine samples were collected before the treatment and after 1 month of treatment with metabolic cages. Urine samples were analysed with nuclear magnetic resonance.

Results: The Empagliflozin-treated group had considerably decreased blood glucose levels as compared to the Dapagliflozin-treated group ($p<0.001$). In comparison to the placebo group, blood urea nitrogen showed a significant decrease in the Dapagliflozin ($p=0.001$) and Empagliflozin treatment groups ($p<0.001$). Levels of urinary protein and microalbumin increased in the Placebo and Dapa-treated groups ($p=0.002$ and $p=0.006$), but not in the Empa-treated group.

Conclusion: According to the first-ever head-to-head animal model to assess distinct molecules in the same class of SGLT-2 inhibitors, Empagliflozin outperforms Dapagliflozin in terms of blood and urine parameters.

Key words: Empagliflozin, Dapagliflozin, SGLT-2 inhibitor, NMR analysis, diabetic rats

OP-4

Metastatic Breast Cancer: Can Risk of Metastasis be Predicted Through Digital Pathology Images Assessed by Machine Learning?

Şeyma Merve KÜÇÜKTİRYAKİ[1], Yasir KESKİN[2], Zühal GÜCİN[3]

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Introduction: Breast cancer (BC) is the most frequent malignancy in women worldwide and is curable in ~70%-80% of patients early-stage, non-metastatic disease. Advanced BC with distant organ metastases is considered incurable with currently available therapies and associated with low overall survival. Therefore, the prediction of metastases after resection is clinically important. Detecting metastatic BC earlier and administering new targeted therapies at these earlier timepoints might improve survival and might be our best opportunity to improve patient outcomes.

Method: ***Sample information:*** We included 15 early primary BC and 15 advanced primary BC (in total 30) female patients who underwent mastectomy or breast conserving surgery in Bezmialem Vakıf University. The patients were categorized into two groups: Group 1, early-stage BC patients (12 for training and 3 for test); Group 2, advanced BC patients (12 for training and 3 for test). ***The region of interest (ROI) selection and image size:*** Formalin-fixed, paraffin-embedded HE-stained slides were scanned using BioTek Cytation 5 at x20 image magnification. Under x20 image magnification, 20 and 10 ROIs per sample were selected and annotated by a pathologist in BC and surrounding non-BC areas, respectively. ***ROI feature measurement:*** The morphological features of the ROIs were analyzed using QuPath (https://qupath.readthedocs.io/en/stable/docs/intro/about.html). Each ROI contained 232–1115 nuclei.

Results: We analyzed the nuclear information belonging to Group 1 and Group 2 with 85 QuPath outputted nucleus features. The support vector machine-based prediction method separated the two groups with 91% accuracy.

Conclusion: There has been no other method to predict BC metastases except clinical observations. We developed a metastasis prediction method based on machine learning by using nuclear information (average, standard deviation, heterogeneity) of BC patient tissues. We believe with a featured microscope for digital imaging and bigger sample size, higher accuracy value can be met. Our method shows promise as a novel follow-up method to review the frequency of imaging and determine the need for additional treatment.

Key words: Machine learning, AI, breast cancer, digital pathology

OP-5

Relationship of Carotis Lesions with Thyroid Diseases

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Introduction: Thyroid gland has critical functions for our body with the hormones it secretes. Thyroid gland dysfunction is associated with cardiovascular diseases. Cardiovascular events related to atherosclerotic plaques are seen in patients with abnormal thyroid-stimulating hormone values. Our study aims to examine the relationship between carotid lesions and thyroid diseases.

Method: Computed tomographic angiography (CTA) was used to collect data. All CTA scans were performed on a 128-row multidetector CT scanner (Somatom Definition, Flash; Siemens Healthcare, Erlangen, Germany). The plaques formed in the carotid interna artery were analysed as soft, calcific, and mixed type. It was determined on which side the plaques were located. The relationships between these patients with hypertension, diabetes, hyperlipidemia and smoking were examined. The normal TSH value of these patients was evaluated as 0.5–4 mIU/L and T4 value as 0.6–12 mIU/L. Values in between were evaluated as subclinical. The relationship of carotid plaques between subclinical and clinical hypothyroidism and hyperthyroidism was examined.

Results: Ninety patients aged between 18 and 80 years were analysed with CTA. 54 of 90 patients were male and mean age was 61,57. Results of plaque types: Normal 36.7%, Calcific 38.9%, Soft 4.4%, Mixt 20%. Results of side: Normal 36.7%, Right ICA 5.6%, Left ICA 10%, Bilateral 47.8%. Results of hypertension (HT), diabetes mellitus (DM), hyperlipidemia (HL) and cigarette: HT 64.4%, DM 62.2%, HL 31.1% and cigarette 17.8%. Results of thyroid clinical outcomes: Normal 33.3%, Subclinical hypothyroidism 2.2%, Subclinical hyperthyroidism 50%, hyperthyroidism 11.1% hypothyroidism 3.3%. The result we obtained is subclinical, and clinical hypothyroidism and hyperthyroidism do not differ in meaning.

Conclusion: In conclusion, thyroid gland dysfunction is related to carotid plaque formation. However, the types of plaque may not be correlated to the level of TSH.

Key words: Carotid lesions, plaque, hypothyroidism, hyperthyroidism, CTA

OP-6

The Effect of Bemiparine Na and Hyaluronic Acid on Postoperative Adhesions in Rat Uterine Horn Model

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Introduction: Pelvic adhesions are abnormal fibrous connections between tissues and are one of the main causes of infertility. Barrier agents prevent the formation of these adhesions. Low-molecular-weight heparin has an effect that inhibits adhesion formation by decreasing the thrombin formation. This study aims to observe the independent effects of Bemiparine Na and hyaluronic acid (HA) on pelvic adhesion formation, and to observe the possible synergistic effects of their combined use.

Method: Twenty non-pregnant female Sprague-Dawley rats weighing 180–220 g were used for postoperative adhesion formation. The rats were randomized into four groups after ten standard lesions were inflicted in a right uterine horn using bipolar cauterization with 10w power. The rats were treated with 700 U Bemiparine Na, 0.5 mL HA and both agents. No medication was given to the control group. The uterine horns of 20 rats were evaluated for the type, tenacity and extent of the adhesions and fibrosis. Vascular endothelial growth factor (VEGF) and TGF-B immunohistochemical stains were studied on the tissue samples.

Results: Macroscopic adhesion scores, including type, extent and total scores in the Bemiparine Na+HA group were significantly lower than those in group Control and group HA ($p<0.05$). Among these three categories of scoring, group Bemiparine Na + HA had a significantly lower score than group HA in adhesion type ($p<0.01$) and group Bemiparine Na had a slightly lower score than group HA in adhesion extent ($p<0.05$). There were no statistical differences across all four groups in the microscopic inflammation, fibrosis, and immunohistochemistry staining.

Conclusion: Thus, Bemiparine Na and HA combination is effective on pelvic adhesions by macroscopic evaluation but there were not significant differences between groups in terms of immunohistochemistry and microscopic evaluation.

Key words: Pelvic adhesions, bemiparine Na, hyaluronic acid, VEGF, TGF-B

OP-7

COVID-19 Associated Sleep Disorders and the Role of Inflammation in the Pathogenesis

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Introduction: Coronavirus disease-19 (COVID-19) activates the inflammatory pathways and have high levels of circulating tumor necrosis factor (TNF)-α, interleukin (IL)-1β, IL-6, IL-10. Insomnia is a common sleep disorder in COVID-19 patients. Previous research has demonstrated that extreme elevations in IL-1β and TNF-α can impair sleep. Based on these findings, we hypothesized that COVID-19 and insomnia cooperation developing on an inflammatory background. Our purpose is to research immunopathologies of insomnia and COVID-19 patients and to reveal their association.

Method: The number of people participating in this study was determined as 96. Three groups: 1) COVID-19 patient with insomnia, 2) COVID-19 patient without insomnia, 3) Healthy people were designed. Socio-demographic Form, Epworth Sleepiness scale (ESS), Pittsburgh Sleep Quality index (PSQI), Beck Anxiety Inventory (BAI), Insomnia Severity index (ISI) was applied. BDNF, IL-6, TNF-α, IL-1β, IL-10, MMP-9 levels were measured in the volunteers' blood.

Results: Based on blood samples from 96 volunteers; BDNF ($p<0.001$), IL-6 ($p<0.001$), TNF-α ($p<0.001$) ($p<0.036$), IL-1β ($p<0.001$), IL-10 ($p<0.001$) values were shown a significant difference in insomnia patients compared to COVID-19 patients without insomnia and control group ($p<0.001$). Insomnia patients were increased cytokine levels than the other groups. Wherewithal COVID-19 patients without insomnia were increased cytokine levels than the control group. MMP-9 levels were not shown a significant difference between insomnia patients compared to COVID-19 patients without insomnia ($p=1$). But MMP-9 levels were not shown a significant difference between the control group and COVID patients ($p<0.001$). ESS, PSQI, BAI, ISI scores were shown a significant difference in insomnia patients compared to COVID-19 patients without insomnia and control group ($p<0,001$).

Conclusion: Based on the data obtained, the basis of insomnia is inflammatory pathogenesis. Insomnia patients had increased inflammatory cytokines and PUKI, BAI, ESS, ISI scores. Our results should be confirmed with further experimental and clinical studies.

Key words: COVID-19, insomnia, cytokines

OP-8

Quorum-Sensing Inhibition by Furanone Compounds and Therapeutic Effects on *Pseudomonas Aeruginosa* Keratitis Rabbit Model

Aleyna DAL[1], Ahmet ELBAY[2], Emine Rümeysa HEKİMOĞLU[3], Bilge SÜMBÜL[4], Abdurrahim KOÇYİĞİT[5], Fatmanur BABALI BALIBEY[5], Zeynep ÖZMAN[5]

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Introduction: Keratitis is the inflammation of the cornea and associated with both infectious and non-infectious diseases. A mechanism called Quorum Sensing (QS) is the communication between bacterial cells reliant on cell density and the concentration of specific signaling molecules. Inhibitors of QS are an advanced strategy discovered to decrease *P. aeruginosa* pathogenesis and its virulence. Based on the previous studies and proven effects of furanones as a QS inhibitor on pseudomonas infection, this study aims to investigate QS inhibition by furanone compounds in *P. aeruginosa* keratitis rabbit model.

Method: Thirty adults New Zealand white rabbits were used in this study. Corneas of anesthetized rabbits were intrastromally injected with bacteria. Rabbits were randomly divided into six groups. Control group only infected with *P. aeruginosa*. Starting 1 hour after inoculation 0.1 mg/mL (B), 0.2 mg/mL (C), 0.3 mg/mL (D) Furanone, 50 mg/mL ceftazidime (A) and 20% dimethyl sulfoxide (E) were used with one drop per hour. Rabbits were sacrificed 3 days later and corneas were collected.

Results: Collected samples were evaluated clinically, histologically and biochemical. In all evaluations, the therapeutic response in the antibiotic group was better than other groups. Slit lamp examination score of Group C was significantly lowered compared to the control ($p=0.009$). Histological evaluation shows that inflammation is decreased in B, C, and D groups. Reactive oxygen species values were significantly lower in group B ($p=0.001$) and C ($p=0.01$). And there was no statistical significance among Superoxide dismutase values.

Conclusion: The comprehensive findings demonstrate that furanone showed an anti-inflammatory effect. However, its therapeutic effect has not been observed to be sufficient compared to antibiotics. Further investigation is necessary to explore the protective effects and mechanism of furanones on pseudomona keratitis.

Key words: Keratitis, *P. aeruginosa*, quorum-sensing, furanone

OP-9

Whole Genome Sequencing Analysis of *Neisseria gonorrhoeae* Isolates From Turkey: An Observational Study

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Introduction: *Neisseria gonorrhoea,* the agent of sexually transmitted infections, remains a major public health concern. Whole genome sequencing (WGS) of the agent can provide insights on antimicrobial resistance, pathogenicity, and epidemiology of the bacteria, among others. The aim of this study is to sequence and characterize the whole genome of nine *Neisseria gonorrhoeae* strains and to understand their epidemiological origins, and the resistance determinant genes.

Method: *N. gonorrhoeae* strains were obtained from different clinical microbiology laboratories. The isolates were cultured on Thayer-Martin medium and antimicrobial susceptibility test was done using disk diffusion method. DNA was extracted from bacterial suspensions using the DNA Kit and WGS sequencing was done. Genes involved in antimicrobial resistance were detected using various bioinformatics tools. Phylogenetic analysis based on 50S ribosomal protein L6 was carried out to determine the evolutionary origin of the isolates. Basic Local Alignment Search Tool search with the protein identified close homologs, which were aligned for maximum likelihood tree generation (bootstrap of 100).

Results: Six of the *N. gonorrhoeae* isolates were susceptible to ceftriaxone and three of them were resistant or intermediate to penicillin. All *N. gonorrhoeae* isolates possessed *norm, mtrC, mtrR, mtrF, mtrA, farB, DfrA42, macA,* and *macB* genes as genetic resistance determinants. Only one isolate contained *tetM* gene, a tetracycline-resistant determinant. Phylogenetic analysis revealed that our strains formed a statistically significant clade with isolates from Korea, Canada, USA and Russia.

Conclusion: The nine *N. gonorrhoeae* strains circulating in Turkey do not appear to pose a significant threat to public health since they do not have any novel antimicrobial resistance features. Phylogenetic analysis revealed that our clinical strains share common origin with isolates from diverse regions of the world.

Key words: *N. gonorrhoeae,* whole genome sequencing, antimicrobial resistance, evolution

OP-10

Investigating the Role of Biomarkers Using Liquid Biopsy for Diagnosis and Surveillance in Meningioma Patients

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Introduction: Meningiomas are the most common primary brain tumors in adults. The diagnosis of meningioma can be made using magnetic resonance imaging of brain. However, there are difficulties differentiating the grades of the tumor, which is important for choosing the right treatment (follow, surgical resection, Gamma Knife) and extent of tumor resection if surgery is preferred. However, there is no established method for meningioma grading. Although the expression of c-MYC, FABP7, GATA4, and MAOB have been investigated in meningioma tissues, their expression in serum has not been described. Therefore, this study aimed to evaluate the role of liquid biopsy by investigating the expression of these genes in meningioma patients.

Method: Twenty patients who underwent surgical resection of intracranial meningiomas were enrolled. Tumor and serum samples were obtained during the surgery. Real time polymerase chain reaction was performed to assess the expression of FABP7, GATA-4, c-MYC, and MAOB in tumor tissue and in serum. Patients' clinical data including age, gender, radiological findings, simpson grade were retrospectively collected.

Results: The expression levels of FABP7 and MAOB in serum of meningioma patients were significantly higher than healthy controls ($p<0.05$). The expression levels of MAOB in serum of grade 2 meningioma were significantly higher than those with grade 1 ($p=0.032$). *MAOB, c-MYC* and *GATA4* genes were expressed significantly higher ($p=0.031$, $p=0.041$, $p=0.003$,respectively) in tumor tissues from grade 2 meningioma patients compared to grade 1. We did not observe any of these genes to be correlated with patients' clinical data and local tumor control.

Conclusion: Our results suggested that expressions of *FABP7* and *MAOB* genes in serum could be implemented as diagnostic marker for meningiomas. However, further studies are required.

Key words: Biomarker, liquid biopsy, meningioma

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SHORT ORAL PRESENTATIONS

Guest Editor
Meliha Meriç Koç
Bezmialem Vakif University Faculty of Medicine,
Department of Infectious Diseases and Clinical Microbiology

SOP-1

Disease Severity of COVID-19 in Patients with Severe or Moderate Obstructive Sleep Apnea Syndrome

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Introduction: Obstructive Sleep Apnea Syndrome (OSAS) is a disease characterized by recurrent obstructions of the upper airways during sleep. Metabolic disorders and cardiovascular comorbidities occur because of increased systemic inflammation. Coronavirus disease-19 (COVID-19) is more severe in people with comorbidities such as hypertension, diabetes, and cardiovascular disease. The aim of our study is investigation whether COVID-19 is severe in patients with severe or moderate OSAS.

Method: Between January 2016-December 2020, polysomnography results of patients who apply to the Bezmialem Vakıf University Hospital Pulmonology Outpatient Clinic were screened. In the case group, COVID-19 polymerase chain reaction (PCR)-positive patients diagnosed with severe or moderate OSAS according to the PSG results were included in the study. Patients who are positive for COVID-19 PCR but not diagnosed with OSAS with PSG were included in the control group. The final states of the patients in the two groups were compared:intensive care unit hospitalization; D-dimer, ferritin, lymphocyte, C-reactive protein (CRP) values in blood.

Results: The records of 310 patients were examined (control: 62, case: 248). Eight patients in the control group and 35 patients in the case group had hospitalization. There was no significant difference in terms of hospitalization ($p=0.902$). Median value of d-dimer was 509/337 for case/control. There was no significant difference for d-dimer ($p=0.077$). Median values of ferritin and CRP for case/control were 238.95/162.6 and 31.98/19.54 ($p=0.451$ and $p=0.132$). A significant difference wasn't found. Median value of the absolute lymphocyte count in the hemogram was 1.28/1.39 for the case/control. There was no significant difference ($p=0.753$). Additionally, this study showed that OSAS was more common in people over the age of 65 and was in men than women ($p<0.001$).

Conclusion: Our results showed that COVID-19 isn't more severe in patients with severe and moderate OSAS than patients not diagnosed with OSAS.

Key words: OSAS, polysomnography, COVID-19

SOP-2

Evaluation of Increase in Complications in Patients with Acute Appendicitis Due to Admission Difficulties During the COVID-19 Pandemic Process

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Introduction: During coronavirus disease-19 (COVID-19) pandemic, people did not take a risk by going to hospital to fear contagion. Some pandemic hospitals were referring patients to other hospitals because of the intensity. Therefore, hospital admissions for acute illnesses like acute appendicitis (AA) was delayed. We evaluate the increase in complications in AA cases due to admission difficulties during the pandemic.

Method: In this retrospective observational study, patients older than 18 years who had appendectomy with the diagnosis of AA at our hospital before (March-December 2019) versus during a pandemic (March-December 2020) were selected. Patients without imaging who had previous abdominal surgery were excluded. IBM SPSS Statistics® 22.0 was used. $p<0.05$ is considered statistically significant.

Results: A total of 446 patients (279 prepandemic, 167 during pandemic) were identified. Prepandemic group includes 113 female and 166 males whereas 58 females and 109 males during a pandemic. Mean age is 34±13 in prepandemic while 33±12 in postpandemic. Time from symptom onset to patient arrival at the hospital, the number of hospital-related late admission, C-reactive protein average, appendix diameter and percentage of postoperative ileus during a pandemic is statistically significantly high ($p<0.01$, $p<0.01$, $p=0.003$, $p=0.002$, $p=0.027$). The percentage of defense and rebound in prepandemic is statistically significantly high ($p=0.001$, $p=0.01$). The distribution of age and sex; the type of surgery; imagining, operation and pathological findings; the length of hospital stay and readmission have not meaningful difference. In prepandemic, the maximum length of hospital stay was 9 days whereas 19 days during a pandemic.

Conclusion: Although it is observed a significant delay on admission to hospital; postoperative complications and hospital stay seems not to be affected. However; it is suggested to do further studies multicentric and with more patients.

Key words: COVID-19 pandemic, acute appendicitis, delayed hospital admission

SOP-3

The Relationship Between Pregnancy and Anxiety in Patients Whos Pregnancy Process is Being Followed in Bezmialem Vakıf University Pregnancy Outpatient Clinic

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Introduction: Pregnancy is a period of emotional fluctuation for many women, where opposite emotions such as happiness and sadness, courage and anxiety are combined. My purpose in conducting this study; to prove that depression and anxiety are more common in pregnant women compared to the female patients in the control group, and to state that clinicians should be careful about this issue and refer these patients to the mental health and disease department.

Method: In our study, Bezmialem Vakıf University between April 2021 and December 2021 She applied to the obstetrics and gynecology outpatient clinic of the hospital; 15 to 49 years old with patients of childbearing age. Thirty-nine of them will go to the pregnancy outpatient clinic. The pregnant group consisting of women who were diagnosed with pregnancy, 39 of them were obstetrics as a control group consisting of patient women who applied to our outpatient clinic. determined. At 95% confidence level for 80% power, the minimum sample size is n1= n2=39, 78 calculated. Prepared by us for sociodemographic inquiry to the participants included in the study. questionnaire form, Beck anxiety Inventory and Beck depression inventory will be applied. Beck Anxiety Inventory in Turkish validity and reliability was established by Ulusoy.

Results: In conclusion, our findings show that the level of depression increases in all weeks of pregnancy. Considering the pregnant and control group data of Beck depression scale in the calculation of the p value made by the statistics department of our university, the value was found to be significant. $P<0.0001$ result was reached.

Conclusion: Depression and anxiety are higher in pregnant women compared to gynecology patients.

Key words: Depression, anxiety

SOP-4

Complete Blood Count in Patients with Generalized and Focal Epilepsy

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Introduction: Epilepsy is a disorder characterized by abnormal neuronal discharges and synchronized hyperactivity of the neurons. Epileptic seizures occur due to imbalance in excitation and inhibition mechanisms. Electroencephalogram is the most valuable test in the diagnosis and follow-up of epilepsy, but complete blood count (CBC) test is also very useful in the follow-up. There are some studies on hemogram evaluation that compares white blood cell (WBC) and red blood cell distribution width in patients with epilepsy during and after period of seizure. Even though, there are other studies comparing WBC count in patients with generalized and focal epilepsy, there has not been a study comparing the CBC in different types of epilepsy.

Methods: A total of 190 patients aging 18-65 who applied to the neurology outpatient clinic of Bezmialem Vakıf University Hospital between May 2019 and May 2020 and were diagnosed with epilepsy were included in the study. Patients with known malignancies, hematological diseases and rheumatological diseases were excluded. The patients were divided into two groups according to epilepsy types (generalized or focal), with similar characteristics to each other in terms of age and gender. Additionally, the antiepileptics used by the patients were also recorded.

Results: When the CBC parameters of patients with generalized and focal epilepsy were compared, no significant difference ($p>0.05$) was found. However, when the hematocrit values (HTC) of the old and new generation antiepileptic users were compared, it was found that there was a significant increase ($p<0.05$) in the HTC levels of the new generation antiepileptic users.

Conclusion: The results approved that both generalized and focal epilepsy did not cause a significant increase in any hemogram parameter, while new generation antiepileptics may increase some parameters.

Key words: Epilepsy, hemogram, antiepileptics

SOP-5

Histopathological and Clinical Findings that May Affect Recurrence in Meningiomas

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Introduction: Meningiomas are the most common primary tumors of the central nervous system. Most of these tumors show histologically benign features [World Health Organization (WHO) Grade 1]. However, there are also atypical meningiomas (WHO Grade 2) and anaplastic meningiomas (WHO Grade 3) which are related to increased recurrence. This study aims to determine the meningioma cases diagnosed in the Bezmialem Vakıf University Pathology Department and to evaluate their histopathological and immunohistochemical features in terms of recurrence.

Method: Cases diagnosed as meningioma from January 2012 to December 2020 were identified. Histopathological findings such as the presence of brain parenchymal invasion, necrosis, pattern loss, macronucleolus, small cell changes, pleomorphism, hypercellularity and mitosis number were evaluated and classified as typical, atypical, and anaplastic. Immunohistochemical markers such as Ki-67, progesterone receptor (PR), p53, EMA in the reports were also examined.

Results: 261 patients with meningiomas were included in this study. Thirty-nine patients were diagnosed with recurrence. When we classify the cases as WHO Grade 1, 2 and 3, there is a significant correlation between increased WHO Grade and recurrence risk ($p=0.022$). Besides as the tumor grade increases, the time for recurrence is statistically significantly shorter ($p=0.03$). Among the histopathological features, no significant correlation was found between brain parenchymal invasion, necrosis and increased cellularity with the presence of recurrence ($p>0.05$). There was a significant difference in pattern loss ($p=0.003$), macronucleolus ($p=0.002$), and small cell component ($p=0.017$) in cases with and without recurrence. Immunohistochemically recurrence was significantly associated with increased Ki-67 LI ($p=0.01$). PR positivity was found to be higher in relapsed cases ($p=0.03$).

Conclusion: As a result, this study showed that pattern loss, macronucleolus, presence of small cell component, mitosis, high Ki-67 and PR positivity was more predictive than other histopathological features in recurrence of meningiomas.

Key words: Meningioma, WHO Grade, recurrence

SOP-6

Evaluation of Pathologies Presenting as Suspicious for Follicular Neoplasia and Follicular Neoplasia (FNS/FN) in Thyroid Fine Needle Aspiration Biopsies

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Introduction: Bethesda system is the standard for interpretation of TFNAB specimens. For the nodules "Suspicious for follicular neoplasia and neoplasia (FNS/FN)" known as Bethesda Category IV, a 15%-30% risk of malignancy is stated in the guidelines leading to difficulties for treating patients. This study evaluates the final pathologies detected in Bethesda IV nodules to contribute to the literature with data that will enable easier decision-making in patients in this category.

Method: Between October 2010 and October 2020, 120 patients who were admitted to Bezmialem Vakıf University Medical Faculty Hospital General Surgery Department with thyroid nodule and got the result of Bethesda IV after TFNAB were included in the study. Demographic characteristics of the patients and radiologic and pathologic characteristics of the thyroid nodules were investigated.

Results: Among the120 patients, 98 were women (81.66%) and 22 were men (18.33%) with the mean ages of 48.18 and 51.32, respectively. In 25 (20.83%) patients whose final pathology results were malignant, the mean age was 47 and the mean nodule size was 2.5 cm. In 95 patients (79.16%) whose final pathology results were benign, the mean age was 49.2 and the mean nodule size was 2 cm. According to the USG features of the patients whose final pathology results were benign, 50% (48/120) were hypoechoic ($p<0.001$) and 98.9% (94/120) had a smooth border ($p<0.001$). There is no significant difference between size, age, hormonal status, nodule borders, thyroiditis, and the biopsy method used in patients whose final pathology results were benign or malignant.

Conclusion: because of the study, no distinctive correlation was found that could be helpful in the concretization of the treatment approach in this category of patients. Bethesda IV is a heterogeneous category and we believe that further larger studies are needed to determine a clear treatment approach.

Key words: Bethesda system, FN/FNS, thyroid fine-needle aspiration biopsies

SOP-7

Workplace Violence Against Healthcare Workers During COVID-19 Pandemic: A Qualitative Study

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Introduction: This study explores the evidence of workplace violence among healthcare workers (HCWs) when they served at the coronavirus disease-2019 (COVID-19) care facilities.

Method: A qualitative study was conducted between May and September 2021 at the Bezmialem Vakıf University Hospital. The data came from in-depth online-recorded interviews, which was time ranged from 30 to 60 min. All the first-line HCWs, both genders, willing to participate, had engaged and experienced some form of workplace violence in the last six months when dealing with COVID-19 patients were invited to participate in the study.

Results: Four medical doctors, one nurse and two axillary HCWs were interviewed. Primarily (the main source of violence): participants (1, 2, 3, 4, 5, 6) in the content analysis claimed that violence against HCWs could have sprung from the relatives of the patient. Insufficient information about the emergency procedure and the workplace definition; problems such as bias against healthcare staff; poor levels of education; and an inclination toward aggression were found as patient-related factors. Secondly: Five (1, 2, 4, 5, 7) of the participants stated that the "white code" ends up in the police station, where the perpetrator excuses in front of the officer or receives a fine. Four (1, 2, 6, 7) of the interviewed HCWs declared that the security personal is a help to intimidate the patients. All participants agreed that people have lost respect for HCWs, therefore most of them (2, 3, 6, 7) thought that the family physician system can be the solution. Right now there is a fee for the examination in the emergency and a triage.

Conclusion: Working in the field of health care is fraught with risks, especially in times of crisis. Therefore, attention to the safety of this segment is a priority.

Key words: Workplace, violence, healthcare workers

SOP-8

Critical Thinking Dispositions Measurement Among Medical Students

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Introduction: Critical thinking means separating thinking from prejudice and developing it. Studies demonstrated that critical thinking increases the permanence of basic science knowledge by increasing the link between basic and clinical sciences. This research aims to measure the critical thinking dispositions of Bezmialem Vakıf University (BVU) Medical Faculty students.

Method: The universe of the research consist Faculty of Medicine of BVU students. Marmara Critical Thinking Disposition Scale was used in the study. Marmara critical thinking disposition scale measures student's level of reasoning, reaching judgment, seeking evidence, seeking truth, open-mindedness, systematicity. It contains 28 items evaluated in a 5-point Likert style. The results were evaluated according to the preclinical-clinical education levels, age and gender.

Results: Two hundred thirty-two students, 123 preclinical and 109 clinical, participated in the study. A significant difference was observed between the preclinical and clinical groups in the scores of reasoning, reaching judgment, seeking evidence, seeking truth, and systematicity ($p=0.012$; $p=0.005$; $p=0.001$; $p=0.043$; $p=0.004$). The score of the preclinical group was found to be significantly higher than the score of the clinical group in theese questions. No significant difference was observed between the scores of open-mindedness questions ($p=0.286$). A significant difference was observed between the scores of the systematicity questions between the male and female groups ($p=0.013$). The score of the female group was found to be significantly higher than the score of the male group. A significant relationship was observed between age and reasoning, systematicity. As age increases, reasoning and systematicity scores decrease ($r= -0.124$; $p=0.050$; $r= -0.159$; $p=0.016$).

Conclusion: This study showed that critical thinking skills were significantly higher in the preclinical period among medical faculty students. Reasoning and systematicity abilities decreased as the age increased and the female was more systematic.

Key words: Critical thinking, medical students

SOP-9

Effect of Music Therapy on Anxiety During the Procedure in Patients with TRUS Biopsy

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Introduction: A transrectal ultrasound scan (TRUS) -guided biopsy is a common urologic clinical examination of men with high serum prostate-specific antigen to diagnose prostate cancer. Patients who decided to undergo biopsy may experience remarkable anxiety. Music has well-established psychological effects, including the induction and modification of moods and emotions. Our study investigates the effectiveness of music therapy in patients with anxiety during TRUS-guided prostate biopsy with non-pharmacological usage.

Method: The study was included a control group (group 1, n=44) and a music group (group 2, n=44). The case-music group was included patients who listened to the music of their choice while the control did not listen to any music. Both groups were injected with lidocaine gel into the rectum before the biopsy and waited for the drug to affect before the biopsy. Patient anxiety levels were quantified using the Hospital Anxiety and Depression Scale (HADS) and the pain scale visual analog scale (VAS) was used after biopsy. HADS and VAS scores of patients, prostate-specific antigen (PSA) volumes, ultrasonography prostate volume were checked after the procedure.

Results: Patients in both groups were of similar ages (mean ± SD, 65.4±7.75 and 64.0±7.45 years, respectively; p=0.517). The anxiety score of the control group was significantly higher than the music group (p=0.02, respectively). The depression score of the control group was significantly higher than the music group (p<.001). The pain score of the music group was significantly lower than the control group (p<.001).

Conclusion: Listening to music during TRUS-guided prostate biopsy remarkably reduced patients' feelings of anxiety and pain. The study showed that music can be an effective and inexpensive adjunct to sedation during TRUS-guided prostate biopsy.

Key words: Prostate, biopsy, music, pain, anxiety

SOP-10

The effect of screen exposure duration on M-CHAT parameters of children between 1 and 3 age diagnosed with atypical autism

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Introduction: Increased duration of use of screens may be a predisposition factor for autism. Autism spectrum disorders (ASD) is a neurodevelopment disorder characterized with problems with social relationship and communication and restricted and repetitive patterns of behavior, interest or activities. The current study compares the daily exposure to television and phone screen time between atypical autism children pre-diagnosed with The Modified Checklist for Autism in Toddlers (M-CHAT) and controls aged between 1 and 3 years.

Method: We used the M-CHAT and our daily screen exposure survey and applied to 90 children (n=90); M-CHAT is a series of questions about children's behavior for a pre-diagnose of ASD and separate the group into two small groups of 45 children (n1=n2=45). The survey about daily exposure to screens includes the evolution periods, the spending time on screens and for which circumstances (while eating, sleeping or with parents). Chi-square tests and Mann-Whitney U Test were used for statistical analysis.

Results: More than half of the Turkish children exceed the American Academy of Pediatrics screen time recommendation. Non-ASD group tend to have higher daily phone screen time (p=0.02). Non-ASD group has more play time (p=0.024). The first exposure mean time in the ASD group was 10.00 (0.00-30.00) and the second group mean time was 18 (0.00-30.00) (p=0.057). In both groups' parents are working and children are entrusted to a third reliable person (p=0.018). Data did not support the hypotheses.

Conclusion: Working parent's children are more tend to be exposed to screens because of the lack of control. Unfortunately, there was no significant evidence that children with ASD differ in their screen time from other normal growing children. So, the hypotheses of early exposure to screens prone to ASD is invalid.

Key words: Autism, screens, M-CHAT

SOP-11

The Effect of Maternal Body Mass Index on Neonatal Umbilical Vein Blood Gas Parameters

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Introduction: Children born from overweight mothers are at increased risk of, diabetes, cardiovascular problems, cognitive disorders and congenital defects. This study aimed to examine maternal obesity's effect on the baby's venous cord blood gas parametres, by comparing the venous cord blood gas parametres of the babies who were born from obese mothers with the ones born from normal weight mothers.

Methods: Among the 574 pregnants who were enrolled in the study, 248 pregnants were included. Pregnant were divided into 3 groups according to body mass index (BMI) measures: BMI <24.99 kg/m² were in group 1 (n=39), BMI levels = 25-29.99 kg/m² were in group 2 (n=127) and, BMI >30 kg/m² were in group 3 (n=82). Cord blood gas parameters (pH, PCO2, PO2, HCO3, BE (B), BE (ecf), SO2 and lactate levels) were measured. The software SPSS was used for statistical analyses, the non-parametric parameters were compared with Kruskal-Wallis, Spearman correlation test; the parametric values were compared with Man Whitney U, Chi-Square, and Fisher Freeman Halton test, and a p-value of less than 0.05 was considered statistically significant.

Results: There was no significant relationship between BMI and pH levels (p= 0.661) nor between BMI and lactate levels (p= 0.870). Also there were no significant relationships between BMI and PO_2, PCO_2, HCO_3, BE (B), BE (ecf), SO_2 levels (p>0.05). There were significant relationships between delivery type with lactate levels (p<0.001), and pH values (p<0.006). Also there were significant relationships between gestation weeks with HCO3 (p<0.001), BE (B) (p<0.004) and BE (ecf) (p<0.003) levels.

Conclusion: Maternal BMI levels do not affect the babies' blood gas parameters. However, delivery type and gestation week were related to blood gas parameters in our study. Further research is needed for understanding relationships between delivery type and gestation week with the babies' blood gas parameters.

Key words: Obesity, blood gas, BMI, lactate, neonatal

SOP-12

Assessment of Depression, Hopelessness and Health Anxiety Levels in Bezmialem Vakıf University Medical Faculty Students During the COVID-19 Pandemic Period

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Introduction: Psychiatric disorder can be defined as significant changes in thinking, emotion, and/or behavior and distress and/or problems functioning in social, work, or family activities. Health anxiety is worrying excessively about becoming seriously ill. Depression may be described as feelings of sadness or anger that interferes with a person's everyday activities. Hopelessness is defined as having negative expectations regarding oneself and one's future and a negative emotional state characterized by the lack of finding a solution for one's problems. This study aims to examine the effects of coronavirus disease-2019 (COVID-19) on health anxiety, depression and hopelessness in medical faculty students.

Method: The study was conducted using an online questionnaire. The research was completed by 180 Bezmialem Vakıf University medical students. For this study, Sociodemographic Data Scale, Beck Depression Scale, Health Anxiety Scale and Beck Hopelessness Scale were applied to volunteer medical students. The relationship between these psychiatric complaints and age, gender, academic year, taking courses at the hospital, where they lived during this period, the student's or their family's past COVID-19 infection was investigated.

Results: According to the results of the depression scale, 33% of the participants had mild symptoms, 20% had moderate and 5% had severe symptoms. When we compared according to gender, symptoms were found to be significantly higher in males. Depressive symptoms were found to be higher in those with chronic diseases. The level of hopelessness was found to be significantly higher in the participants who had an infection ($p=0.034$). Also, health anxiety was found to be high in patients chronic disease ($p=0.061$).

Conclusion: Participants showed that about 5% of them need urgent psychiatric support. Universities should help their students overcome such challenging situations.

Key words: Health anxiety, medical student, depression, COVID-19, hopelessness

SOP-13

Relationship of Migraine (with/without aura) with Endothelial Dysfunction

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Introduction: Migraine is a chronic disease that affects approximately 15% of the population worldwide. Migraine is characterized by recurrent severe headaches. Because of these symptoms social and economic functioning of a migraineur suffer greatly. Although it's fairly common illness people suffer from, there is no clear evidence as to what causes it. Our research is aimed at better understanding the etiology of migraine and contributing to future prophylaxis, treatment and etiology studies by obtaining information about the mechanisms by which migraine is effective.

Method: Migraineurs according to the International Headache Society ICHD-3 criteria (n=80) and healthy volunteers (n=40) who applied to our polyclinic participated in our study. The first group included migraneurs with (n=29) and without aura (n=41). The second group included volunteers. Blood samples were taken from both groups. Coagulation and inflammation markers were examined from the samples. To observe the coagulation, Prothrombin time (PT), Activated Partial Prothrombin time (aPTT) levels were measured. C-reactive protein (CRP) levels were used as a biomarker to measure inflammation in the endothelium. All collected results were recorded for comparison between groups.

Results: After evaluating the samples of CRP levels and PT a significant difference between migraineurs and control groups was found. Serum CRP levels were increased in migraineurs compared with controls (p=0.0207). The mean and standard deviation of CRP in migraineurs was found 1.63±1.42 in the control group it was 1.02±1.12. In contrast to CRP, prothrombin times were decreased in migraineurs compared with controls (p=0,004). PT mean and standard deviation for migraineurs and control groups are respectively 13.82±0.67 and 14.33±0.83. Another marker in our study aPTT value was statistically insignificant between both groups (p=0.57).

Conclusion: The results of this study suggest that migraine disease severely impairs endothelial function by damaging coagulation and inflammation mechanisms. This impairment may lead migraineurs to become more susceptible to cardiovascular problems.

Key words: Migraine, endothelium, dysfunction, migraineur

SOP-14

Perceived Stress Among Medical Students in Virtual Classrooms During the COVID-19 Outbreak in Bezmialem Vakıf University

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Introduction: The latest outbreak of the new severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), also called coronavirus disease-2019 (COVID-19) has major impacts on human health. Since the previous research has also shown that disease outbreaks affect individual well-being and mental health, the aim in this study is to measure the perceived stress level among medical students.

Methods: This is a web-based cross-sectional study that included a questionnaire including sociodemographic factors and perceived stress scale (PSS), in which 138 students studying in the 1st and 2nd year of Bezmialem Vakıf University Faculty of Medicine participated.

Results: Totally 138 Student participated in this study. 30 students have had COVID-19. Fourty-seven students answered yes to question if their relatives had COVID-19. Twenty-nine students lost a relative due to COVID-19. Participants answered PSS questionnaire that has 10 questions and scores between 0 and 4 whose sum is in the range of 0–40. The mean PSS score was 21.11. 14.5% of students were at low, 63% were at moderate and 22.5% were at high perceived stress level. There was no significant difference between the stress levels of students who had and did not have COVID ($p=0.054$). A statistically significant difference was found between high stress levels and losing a relative due to COVID-19 ($p=0.006$) or having a relative who has COVID-19 ($p=0.001$).

Conclusion: This study demonstrated moderate and high perceived stress levels, significantly among students who had a relative with COVID-19. It is also significant that students who lost a relative due to COVID-19 were at higher stress levels.

Key words: COVID-19, virtual class, pandemic, students, stress

SOP-15

Polycystic Ovary Syndrome and Its Psychological Effects in Young Women

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Introduction: Polycystic ovary syndrome (PCOS) is a set of symptoms due to elevated androgens in females. PCOS is associated with many diseases including depression and anxiety. In this study we investigate, the association between depression, anxiety, stress levels and polycystic ovary syndrome in young women.

Method: This prospective case-control study includes 120 female patients between the ages of 18-24 who applied to Bezmialem Vakıf University Gynecology. Our study group consists of 60 patients diagnosed with PCOS. The other half consists of the healthy control group from the same population. Anthropometric measurements including sociodemographic data, living habits, menstrual cycle data, hair growth levels (according to Ferriman-Gallway scale), abdominal circumference, acne level and body mass index (BMI) were performed. Depression, Anxiety, Stress Scale-21 (DASS-21) was administered to all participants. After all, higher scores are associated with higher depression/anxiety/stress levels.

Results: The mean ages of patients with PCOS and control groups are 21.32, 21.92, (p=0.067). There was no statistically significant difference between the groups in terms of BMIs (23.71±3.96, 22.62±3.59, p=0.157, respectively). The abdominal circumference was found to be higher in the study group (77.3, 72.5, p=0.003, respectively). There was no significant difference between the FG scores of the groups (9,12, 8,35, p=0,183, respectively). No significant difference was observed between the two groups in terms of hirsutism degree and acne score (p=0281, p=0.702, respectively). There was a significant difference in depression, anxiety and stress scores between the two groups (p=0.001, p=0.001, p=0.001, respectively).

Conclusion: As a result, the abdominal circumference was found to be significantly higher in the PCOS group. Additionally, an increase in depression, anxiety and stress levels was observed in patients with PCOS. A relationship observed between the increase in abdominal circumference and depression anxiety stress.

Key words: Polycystic ovary syndrome, depression, anxiety, stress

SOP-16

Computer-aided Drug Design on Glioblastoma Multiforme: Investigating Possible Inhibitors Against Factor H

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Introduction: Factor H acts as an inhibitory molecule in the complement activation pathways. Certain cancers express Factor H to escape the harmful features of the immune system. Here, we carried out high-throughput docking to determine a candidate inhibitor for Factor H-C3d binding. Hypothetically, the candidate inhibitor may serve as a possible additional therapeutic for certain cancers including glioblastoma multiforme (GBM).

Method: Two approaches to computer-aided drug discovery were used. "Heuristic method" employed Factor H's binding pocket to construct counterpart molecules. "Comprehensive strategy" screened existing libraries for a potential inhibitor. Possible inhibitor molecules (target leads) were obtained from the Zinc20 database for the in silico, virtual screening purpose. Molecules that pass the Kd threshold were further analyzed by Molecular Dynamics simulations.

Results: Three molecules were identified to be a suitable fit to inhibit Factor H in silico settings after a detailed investigation using both Heuristic and Comprehensive approaches. The molecule AQKQ had the smallest overall Root-mean-square deviation value. Molecule ARRE provided the best total energy (62,675 kJ/mol) for the system environment among the MD simulations performed. AQKQ-Factor H binding had the lowest energy with 24,852 kJ/mol. Wander will binding was shown to be higher for this molecule (23,724 kJ/mol). Following AQKQ, ARRE and THRS also displayed good binding energies (62,675 kJ/mol and 29,415 kJ/mol respectively).

Conclusion: The findings of this study point to the possibility of using three compounds as a cancer therapeutic. Although the compounds demonstrated excellent binding abilities, their effectivity on cell level is still unclear.

Key words: GBM, Factor H, drug discovery

SOP-17

Ethical Problems that CRISPR-CAS9 Biotechnology can Create Today and in the Future

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Introduction: The CRISPR-Cas9 system is an RNA and protein-based system discovered in prokaryotes. Inserting, extracting and even editing DNA sequences; it is attracting the attention of the scientific community in various variety biotechnology fields. Gene mutations that cause diseases can be repaired or defused with interventions to the genome, as well as changing any desired feature in the embryos of living organisms, including humans, and even designing babies with desired features. Our research aims to analyze the ethical problems that the promising CRISPR-Cas9 technology can bring with it. Our hypothesis is, after revealing the difference between whether this technology is for medicinal purposes or for development , try to determine by whom and by what criteria the concept of "pathological" will be determined even if it will be used for medicinal purposes. Besides, in case of the actualization of the "eugenics" and "enhancement" projects, while this genetic supremacy will continue in certain lineages, it will never be accessible for some social classes and consequently the possibility of a permanent problem of "slaves and masters" will be emphasized.

Method: While conducting this research, 6 books and articles obtained from the literature review made with the expert opinion and guidance were read and evaluated.

Results: because of the examinations and evaluations on the resources we have reached it has been understood that CRISPR-Cas9 biotechnology can be used for both treatment and development purposes. However, while treatment allows the existing pathology to disappear, development interferes with the genome, and it effects the next generations. It was concluded that the limits of use of CRISPR-Cas9, are unclear, and therefore, a superior human profile may exist in a particular group by lineage transmission.

Key words: CrisprCas9, eugenics, enhancement

SOP-18

Clinical and Electrophysiological Evaluation of Male Carpal Tunnel Syndrome Patients

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Introduction: Carpal tunnel syndrome (CTS) is the most common peripheral nerve entrapment syndrome worldwide. Risk factors include obesity, female gender, genetic predisposition workplace factors and amyloidosis. Patients can experience CTS symptoms as an early manifestation of systemic amyloidosis, years before cardiac and multisystem involvement occurs. There are few researches on CTS in men in literature. Aim of this study is to conduct systematic data analysis in male CTS patients in Bezmialem Vakıf Hospital.

Method: In total, electromyography analysis was performed on 1563 patients (84% female, 16% male) for CTS between May 2017 and May 2021. 96 male patients were diagnosed with CTS, 71 of them answered our questionnaire that also includes Boston Carpal Tunnel Questionnaire. Patients were questioned about age, body mass index (BMI), job, comorbid diseases, smoking, alcohol, CTS side, duration of symptoms, functional status, symptom severity, family history of CTS and amyloidosis. Electromyography results were analyzed.

Results: Mean age was found 51, mean BMI was found 29.72. 49 patients (69%) have hand-used job. Reported comorbid diseases include diabetes (14.1%), hypertension (23.9%), heart disease (16.9%), amyloidosis (0%) and other diseases (26.8%). Twenty two patients (31%) have family history of CTS and none of them have family history of amyloidosis. Median nerve motor conduction velocity was found significantly low in older patients ($p<0.05$). Functional status was found worse in patients with longer duration of symptoms ($p=0.045$). Median nerve sensory amplitude was found significantly low in patients with high symptom severity score ($p<0.05$).

Conclusion: According to our study, symptom severity and functional status was not found related to age and BMI. There was no known personal and family history of amyloidosis in our patients. In further studies, amyloidosis mutation can be researched.

Key words: Carpal tunnel syndrome, amyloidosis, body mass index, workplace factors

SOP-19

The Effect of Respiratory Diseases in Preterm Infants on Sleep Problems, Habits and Characteristics

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Introduction: Respiratory diseases are common in preterm infants, especially those born under 32 week gestation because of inadequate surfactant production that keeps the alveoli in the lungs expanded. Although any specific study cannot be reached in the literature, many indirect studies report that young adults born with very low birth weight were more prone to sleep disordered breathing and several studies report sleep disturbances being common in ARDS survivors after discharge. Thus our objective was to compare sleep quality of discharged preterm babies and see if there was a correlation with respiratory causes faced in NICU along with the severity of their problems.

Method: The study included 128 preterm babies between 6 and 24 months who had respiratory diseases during their stay in the NICU, 167 preterm babies without any major diseases and 215 full-term babies. Data were collected online using Survey Monkey forms on the basis of voluntary response sampling. To assess sleep-related difficulties and habits guardians of the babies completed SDSC, BISQ-R and Researcher's Questionnaire. For multiple-group comparisons, the Kruskal-Wallis test was used. After that, Mann-Whitney U test was used for two group comparisons. The chi-square test was applied for categorical variables. $P<0.05$ was considered statistically significant.

Results: Length of stay in the NICU and lower gestational week were not found to have a statistically significant correlation with sleep disturbances ($p=0.13$) in healthy preterm. However, among infants who was affected by respiratory diseases it was observed that lower gestational week was correlated with higher rates of sleep disturbances ($p=0.029$). Infants who suffered from pleural effusion were more likely to have disturbed sleep ($p=0.028$). Sleep scores of all 3 groups were similar, but caregivers of preterm infants perceived sleep to be less of a problem compared to healthy term babies.

Conclusion: Results of our study shows that there is no significant correlation between sleep problems and respiratory diseases suffered in the NICU. There is a negative correlation between gestational week and sleep disturbances in preterm infants who had respiratory diseases.

Key words: Premature, sleep, respiratory disease, BISQ-R

SOP-20

Investigation of Neutrophile-to-Lymphocyte Ratio in Patients with Type 2 Diabetes Mellitus and in Subjects with Impaired Fasting Glucose

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Introduction: Diabetes is a group of metabolic diseases characterized by hyperglycemia resulting from defects in insulin secretion, insulin action, or both. The current study investigates the neutrophil to lymphocyte ratio (NLR) among diabetics and pre-diabetics.

Method: This cross-sectional study was conducted at the Bezmialem Vakıf University Hospital between March 2020 and March 2021. Our population is represented by 51 patients with (Type 2 Diabetes Mellitus) and age- and sex-matched 51 non-diabetic and 51 subjects with impaired fasting glycemia (IFG).

Results: The mean fasting blood glucose level in the population with diabetes was 202.68±63.06 mg/dL while that of the IFG group was 111.07±9.85 mg/dL and it was found as 90.07±6.30 mg/gL in the non-diabetic group (p=0.000). The mean hemoglobin A1c (HbA1c) level in the group with diabetes was 8.80±1.62% compared to 5.97±0.34% of the IFG group and as well as 5.39±0.44% in the non-diabetic group (p=0.000). In the patients with diabetes and subjects with IFG, NLR was significantly higher (1.97±0.56 and 1.33±0.56), respectively compared to the non-diabetic group (1.06±0.76) (p=0.000). Among the subjects with diabetes, a positive statistical Pearson correlation was seen between NLR and HbA1c levels (r=0.357; p=0.000) and FBG levels (r=0.306; p=0.000). We also divided the group with diabetes based on the HbA1c levels into group A (HbA1c<7.5%) and group B (HbA1c ≥7.5%). Out of 51 patients with DM, there were 12 (23.5%) patients in group A (mean HbA1c =6.97±0.34%) and 39 (76.5%) patients in group B (mean HbA1c =9.33±1.45%). The mean FBG level in group A was 146.53±16.69 mg/dL while that of group B was 218.88±62.23 mg/dL (p=0.000). The NLR in group A was 1.47±0.83 and significantly lower than that of group B (1.80±0.92) (p=0.001).

Conclusion: NLR is increased in patients with type 2 diabetes mellitus and impaired fasting glucose. NLR could be used as a simple and cost-effective tool to monitor the progression and control of T2DM and thereby in preventing vascular events.

Key words: Diabetes mellitus, HbA1c, impaired fasting glucose, neutrophile-to-lymphocyte ratio

SOP-21

Usage Rates of Vitamin and Mineral Supplements Among Patients That Visit Bezmialem Primary Health Care and Effect of COVID-19 Pandemic on Starting to Use this Supplements

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Introduction: Lack of vitamins and minerals can cause serious health issues and decrease immune-system effectiveness. Additionally, such supplements thought to be useful in the administration of coronavirus disease-2019 (COVID-19) infection. Our research assesss the supplement usage rates in patients with different age, gender, income, intellectual level. Also, we want to study the effect of doctor consultation and COVID-19 pandemic on starting using supplements.

Method: Surveys were given to 158 patients that visit Bezmialem Primary Health Care. In this survey; gender, age, income, education of patients, usage, frequency and types of supplements being used were analyzed. Also, questions about doctor supervision and effect of COVID-19 were asked.

Results: Seventy-six of 158 patients were using any kind of supplement; 65% of these started using by advice of a doctor while 21.1% began to use by researching. The prevalence of supplement usage among ages 19–70 years was 40.1% in Canada but in our research 47.3% of patients were using supplements. Most frequently used supplements were vitamin-D (61.8%), vitamin-C (38.2%), vitamin-B12 (61.8%) and iron (40.8%). Vitamin and mineral supplement usage rates did not show any significant difference among any group ($p>0.05$). COVID-19 pandemic was not a significant determining factor on starting to use supplements ($p>0.05$). However, there was significant evidence that women started using supplements by advice of a doctor ($p=0.034$). Also, rate of starting using supplements because of COVID-19 pandemic was significantly higher among women ($p=0.004$).

Conclusion: It has been determined that women tend to use supplements by advice of a doctor more and COVID-19 pandemic has an increased effect on women to start using supplements. Increasing the awareness of patients about essential supplement usage would have a positive effect on public health.

Key words: Supplement, COVID-19, vitamin, mineral

SOP-22

Comparison and Correlation of Current Radiological Measurement Methods in Clinical Practice: Reverse Shoulder Arthroplasty Angle versus Lateralization and Distalization Shoulder Angle

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Introduction: The reverse shoulder arthroplasty (RSA) angle is a new measurement method for use in plain radiography. There are other measurement methods defined as lateralization shoulder angle (LSA) and distalization shoulder angle (DSA). LSA and DSA are associated with the postoperative functional outcomes. There are few studies to present the assessment of these measurement methods in the current literature. The current study demonstrates the most reliable measurement method in RSA.

Method: Fifty-one patients who had RSA were retrospectively evaluated. RSAs performed between April 2014 and February 2020 were reviewed. Inclusion criteria were a primary RSA for rotator cuff tear arthropathy and minimum follow-up 1 year. Exclusion criteria were revision RSA, RSA for proximal humeral fracture, preoperative teres minor fatty infiltration with latissimus dorsi transfer, postinfection RSA, primary glenohumeral arthritis and preoperative deltoid impairment that was proven clinically. The mean age was 70.74 years (range, 57-92 years), with 40 female and 11 male patients. The study included 37 right and 14 left shoulders. RSA angle was compared with the LSA and DSA using plain radiographs by 3 independent observers. Functional outcomes of these radiological measurement methods were investigated.

Results: The interobserver and intraobserver agreement were substantial to almost perfect. There was no significant difference in interobserver or intraobserver reliability. RSA angle correlated positively with the DSA ($p=0.000$). RSA angle correlated positively with the internal rotation ($p=0.038$). Forward elevation correlated negative with the LSA ($p=0.034$).

Conclusion: RSA angle, DSA and LSA are effective measurements to use in clinical practice. These radiological measurement methods are correlated with the postoperative clinical outcomes.

Key words: Reverse shoulder arthroplasty, RSA angle, LSA, DSA, functional outcomes

SOP-23

Persistence of Symptoms in Subjects Who Recovered from COVID-19

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Introduction: Coronavirus disease 2019 (COVID-19) is a contagious disease caused by severe acute respiratory syndrome coronavirus 2. This disease presents with a wide variety of symptoms: ranging from fever, cough, sore throat to anosmia, ageusia, and shortness of breath. As COVID-19 keeps spreading throughout the world, the long-lasting effects of COVID-19 have become a relevant topic. The term "Post-COVID Syndrome" is used to describe ongoing symptoms seen after recovery from COVID-19. Currently, there aren't many studies in the literature evaluating the Post-COVID Syndrome. With this research, we investigate the persistent symptoms seen among individuals who recovered from COVID-19.

Method: We obtained the data from the participants through an online questionnaire distributed on social platforms. We assessed the participants for demographics, chronic illnesses, health status, date of symptoms onset, healthcare usage, previous symptoms, and current symptoms.

Results: We included 334 people (71.9% women, median age:35) in the study. Days from symptom onset was between 86 and 500 (median: 180). After a minimum of 3 months from an acute infection, some of the most commonly reported symptoms were loss/change of smell (9.3%), back pain (7.5%), loss/change of taste (6.6%), myalgia (6.3%) and shortness of breath (4.2%). 64.8% of the participants felt these symptoms decreased their quality of life.

Conclusion: Ongoing symptoms are common in individuals who recovered from COVID-19. It is crucial to recognize this condition and continue monitoring COVID-19 patients for the persisting symptoms if necessary.

Key words: Post-COVID, symptoms, persistence, post-covid

SOP-24

The Relationship Between Metabolic Syndrome and Coronary Artery Disease in Patients with Elective Coronary Angiography

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Introduction: Metabolic syndrome (MetS) is a collection of atherogenic metabolic disorders that constitute risk factors for cardiovascular diseases of unknown etiopathogenesis. The presence of MetS components in a large part of the adult population worldwide, increasing morbidity and mortality, has made MetS a growing public health problem. In this study, we evaluated which components of the MetS are more effective in the formation of coronary artery disease, on patients who underwent coronary angiography (CA).

Method: This prospective study was conducted at the Cardiology Clinic of Bezmialem Vakıf University in Istanbul. The study population included all patients who were administered a CA procedure with the complainant of chest pain. The Turkish MetS Guidelines were used as diagnostic criteria for MetS. A total of 221 people were included, 129 with MetS and 92 without MetS.

Results: Most patients were male (71.9%), the mean age was 62, 30.4% of them smoked, 68% were diagnosed with Diabetes Mellitus, 59.4% with hypertension, 58.3% of the patients met the MetS diagnosis criteria. Stent was administered to 40.8% of the patients who underwent CA. The mean Body Mass Index was found to be 29.3, glucose 135.37, total cholesterol 188.7, high-density lipoprotein 43.6, low-density lipoprotein 128.3, trigliserid 172.3 and HgA1c 6.36. The number of involved arteries were increased in patients with the MetS ($p=0.31$). As BMI increased, the rate of MetS also increased. Although male gender came first among the patients who underwent CA, the prevalence of MetS did not show a statistically significant correlation with gender, mean age or smoking.

Conclusion: Recent data indicate that the dyslipidemia, hyperglycemia and abdominal obesity are crucial predictors of MetS in patients with CAD.

Key words: Coronary artery disease, metabolic syndrome, coronary angiography

SOP-25

Incidence and Progression of Myopia in Medical Students During COVID-19 Pandemic

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Introduction: Refractive error is a common disorder. It can develop in every phase of life and occurs if the eye cannot focus light properly on the retina. Many studies have figured a solid connection between the level of intelligence with years of school participation and the seriousness of myopia. During near work eyeball is in accommodation. Accommodation raises intraocular pressure causing elongation of eyeball that leads to myopia. In this study, we examined how myopia progressed in medical students during the pandemic process.

Method: In this study, Bezmialem Vakıf University medical students (n=101) selected regardless of whether they used glasses and classified according to the myopia status in their families. Each participant's refraction status with auto refractometer, and visual acuity with Snellen chart were evaluated. Biomicroscopic anterior segment and fundus were examined. The same methods were repeated after 6 months and compared with the previous data.

Results: Because of the first and second measurements, the right eye myopia average was 1.75 and 1.78 ($p>0.05$), the left eye myopia average was 1.69 and 1.71 ($p>0.05$), the right eye astigmatism average was 0.50 and 0.53 ($p>0.05$), and the left was 0.57 and 0.60 ($p>0.05$). Of the participants, 71.3% were myopic, 40.6% were astigmatic, and 20.8% were healthy in both measurements. 26.7% of the participants have had eye disorders since high school, 22.8% since secondary school, 16.8% since primary school, and 12.9% since the university. Myopia average increased from 2.1 to 2.4 in those with a family history ($p>0.05$).

Conclusion: No new myopia cases were observed. Genetic factors play an important role in the development of myopia, but there was no significant difference in this 6-month period.

Key words: Incidence, myopia, medical students, COVID-19, pandemia

SOP-26

The Role of Serum Bile Acid Profile in the Pathogenesis of Lean Non-Alcoholic Fatty Liver Disease and Identification of Potential Biomarkers

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Introduction: Non-alcoholic fatty liver (NAFL) has become one of the leading causes of chronic liver disease worldwide without any approved treatment. Although obesity plays an important role in NAFL pathophysiology, lean patients can also develop fatty liver. Disrupted bile acid metabolism, alterations in tricarboxylic acid cycle and oxidative stress can contribute to the disease. In this research effort to understand the mechanism underlying lean NAFL, body composition measurements and several blood serum biomarkers were studied.

Method: Thirty-nine healthy asymptomatic subjects and 27 asymptomatic subjects with ultrasound confirmed NAFL without any other liver diseases who had a body mass index (BMI) of 25 and reported drinking <20 g/ week of alcohol were enrolled in the study. Body weight composition and blood serum biomarkers were analysed.

Results: Patients with NAFL had significantly higher BMI and abdominal fat mass (p=0.002 and 0.022, respectively). There was no significant difference in serum total bile acid levels and oxidative stress markers between two groups. In NAFL group alanine transferase, gamma-glutamyl transferase, fasting serum glucose, total serum bilirubin, isocitrate dehydrogenase (IDH) and zinc levels were significantly higher (p=0.029, 0.010, 0.010, 0.020, 0.022, and 0.007, respectively). Among serum lipid profile, high-density lipoprotein was substantially lower in the NAFL group (p=0.013).

Conclusion: In this study it was found that abdominal obesity is strongly linked with lean NAFL similar to obesity-associated fatty liver. The current study showed that bile acids did not differ between groups. Higher IDH and zinc levels can be associated with lean NAFL and can be used for treatment follow-up. Nevertheless, further research is needed for understanding the relationship between lean NAFL and new potential biomarkers.

Key words: Non-alcoholic fatty liver disease, biomarkers, bile acids

SOP-27

The Association Between Attention Deficit Hyperactivity Disorder and Pathological Internet Use Among Adolescents

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Objective: Internet usage among adolescents has increased considerably over the last two decades. The unpredictable diffusion of the Internet has led to pathological internet use (or termed as internet addiction). Internet addiction is characterized by impulsive behaviors without establishing a cause-effect relationship. Additionally, attention deficit hyperactivity disorder (ADHD) is one of the most common childhood neurodevelopment diseases with increasing prevalence rates. The principal characteristics of ADHD are inattention, hyperactivity and impulsivity. Starting from the fact that both disorders characterize by impulsivity, we investigated the relationship between Internet addiction and ADHD symptoms.

Method: The study was conducted with adolescents between the ages of 11-18; the patient group consisted of 40 adolescents first-time diagnosed with ADHD and the control group consisted of 40 adolescents without a psychiatric diagnosis. A total of 80 adolescents completed the Young Internet Addiction Scale (YIAS) for assessing the presence or severity of Internet addiction and their parents completed the Conners' Parents Rating Scale-Short Form (Conners3-P[S]) for assessing ADHD symptoms of the children. A sociodemographic form was used to obtain personal information.

Results: There was no statistically significant difference between the groups in terms of YIAS scores ($p=0.279$). However, Conners3-P(S) scores of the patient group was significantly higher than the control group ($p<0.001$) and significant associations have been found between the level of ADHD symptoms and the severity of pathological Internet use in adolescents ($p=0.002$).

Conclusion: There is a positive correlation between the severity of ADHD symptoms and predisposition to Internet overuse, however there is no significant change between the patient group and the control group in terms of internet usage despite the remarkable differences in ADHD levels of the groups.

Key words: Attention deficit hyperactivity disorder, pathological internet use, internet addiction, adolescents

SOP-28

Retrospective Analysis of Vitamin D Status in Pediatric Patients with Celiac Disease

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Introduction: Celiac disease is associated with fat-soluble vitamins (A, D, E, and K) and micronutrient deficiency. Vitamin D levels can be significantly affected by enteropathies such as celiac disease. This study compares the vitamin D levels of children with a new diagnosis of celiac disease with the control group.

Method: This retrospective study had newly diagnosed children with celiac disease as the study group and children without celiac disease as the control group. Age, gender, season of birth and the diagnosis date of celiac disease, weight-height measurements, clinical symptoms and 25-OHD values were recorded. 25-OHD levels were classified as severely deficiency <10 ng/mL, deficiency <20 ng/mL, insufficiency 20 to <30 ng/mL and sufficiency ≥30 ng/mL.

Results: Ninety-three newly diagnosed celiac disease patients (58% females; mean age of 9.54±4.50) and 93 controls (58% females; mean age of 9.54±4.50) were included. 36 patients (44% females) had typical clinic presentation and 57 patients (65% females) had an atypical clinical presentation in patients with celiac disease. Study group had 59 (63%) children with vitamin D deficiency, 27 (29%) children with vitamin D insufficiency. The control group had 9 (9%) children with vitamin D deficiency and 51 (54%) children with vitamin D insufficiency. The percentage of children with vitamin D deficiency was significantly higher in the celiac disease group compared with controls (86.8% vs 13.2%, $p<0.001$), but the percentage of children with vitamin D insufficiency was significantly higher in the control group (65.4% vs 34.6%, $p<0.001$).

Conclusion: According to this study celiac disease can be assessed as a risk factor for vitamin D deficiency in children. Vitamin D levels should be checked at the diagnosis of celiac disease and nutritional support should be given in appropriate patients.

Key words: Celiac disease, vitamin D, children

SOP-29

Investigation of Cytotoxic, Genotoxic, Apoptotic and Reactive Oxygen Species Generating Effects of Plantago Anatolica Extract on Colon Cancer Cells (HT-29)

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Introduction: The aim of the study the is to investigate cytotoxic, genotoxic, apoptotic and reactive oxygen species (ROS) generating effect of Plantago anatolica extract in colon cancer cells (HT-29) and normal cell lines (CCD18Co)

Method: HT-29 and CCD-18Co were cultured in suitable mediums. The leaves of Plantago were extracted. Then, the total antioxidant capacity (TAC), phenolic content and flavonoid values were determined. The cytotoxic effect of Plantago was determined by MTT assay. Also, H2DCFDA was used as an indicator of ROS in cells. Additionally, apoptosis were determined by comet assay.

Results: To determine the TAC, flavonoid and enol concentration increased in Plantago anatolica. According to the cytotoxicity assay the IC50 value of the extract is approximately 1.89 mg/mL for cancer cells, while it is approximately 2.8 mg/mL for normal cells. Because of comet assay, it was determined that apoptosis increased as the concentration increased at two different doses and the augmentation was higher in cancer than normal cells. Lastly, the qRT-PCR analysis, showed that the expression of the *Bcl-2* gene decreased while the expression of the *Cas-3* gene increased in the cells which received the extract.

Conclusion: According to our research results Plantago anatolica extract dose-dependently showed significant cytotoxic, genotoxic, apoptotic effect. The study's results suggest that Plantago anatolica extract has therapeutic power when developed from natural components of the diet for the treatment of colon cancer.

Key words: Plantago anatolica, ROS, colon cancer

SOP-30

Effect of the Most and the Least Favorite Music Genre of Youngs on Their ECGs

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Introduction: Nowadays, music plays a significant role in our lives. Does music really touch our heart? To answer this question, this study was designed to investigate the effect of the most and least favorite music genre of youngs on their electrocardiograms (ECG).

Method: A total of 54 participants (33 men and 21 women) were asked to listen to their favorite and least favorite music while we recorded an ECG -lead II-. Firstly, the subjects had to lay down for 4 min (Resting 1 period, R1) to slow down their heart rate. Afterwards, they got to listen to their favorite song for 4 min (Favorite song period, FavS), before resting for another 4 min (Resting 2 period, R2). Lastly, their least favorite song was played (Least favorite song period, LFavS). The heart rate (HR), amplitudes and durations of the waves P, QRS, and T in the ECG, and the durations of the intervals [P-R (s) and Q-T (s)] were calculated.

Results: Women's HRs decreased ($p<0.05$) during the R1 period. Although listening to their favorite song increased ($p<0.05$) their HRs, listening to their least favorite song did not change ($p>0.05$) their HRs. The study periods in men showed no significant difference ($p>0.05$) regarding HR. Additionally, the amplitudes and durations of the waves in the ECG, and the durations of the intervals did not change ($p>0.05$) by listening of either music genre in women or men.

Conclusion: Women react more to their favorite genre than men, and thus, although men's HRs did not change, their HRs increase. This may be because women have a more emotional nature.

Key words: Music, ECG, most and the least favorite music, heart rate

SOP-31

Cognitive and Behavioral Changes in Patients with Cervical Dystonia

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Introduction: Dystonia is a movement disorder caused by muscle contractions that cause abnormal postures and repetitive involuntary movements. Cervical dystonia gives clinical findings most commonly in the form of torticollis and dystonic tremor. It is characterized by an abnormal involuntary head posture. The etiology and pathophysiology of primary dystonia is still not fully elucidated. It is thought to occur because of basal ganglia dysfunction, which is associated with the control of motor and cognitive functions. In this study, it is evaluated patients with cervical dystonia in detail in terms of cognitive, mood, behavioral and social aspects.

Method: Fifteen cervical dystonia patients and 15 healthy individuals aged 18–60 years were included in our study. Our exclusion criteria have not a diagnosed cognitive disorder and not having a diagnosis of secondary dystonia. We used Montreal Cognitive Assessment (MoCA), Standardized Mini-Mental Examination (SMME), Verbal Fluency Test, Frontal Assessment Battery (FAB), Beck Anxiety Inventory (BAI), and Beck Depression Inventory (BDI) in our study.

Results: A significant difference was found between the two groups in the MoCA, SMME, Verbal Fluency Test, FAB ($p<0.001$), BAI ($p=0.007$) and BDI ($p=0.001$). We analyzed the Verbal Fluency test in two different ways: animal and KAS. While in the animal test the mean value of the healthy group was 25.13 ± 3.02, it was 17.66 ± 6.89 in the patients ($p=0.001$). In the KAS test, the mean value of the healthy group was 51.40 ± 13.51, while it was 27.53 ± 12.51 in the patients ($p<0.001$).

Conclusion: In cervical dystonia patients, when compared to healthy individuals; there is regression in attention, concentration, memory and abstract thinking abilities. Also, depression and anxiety rates are extremely high.

Key words: Cervical dystonia, neuropyshciatric, social cognition

SOP-32

Investigation of the Correlation Between Preoperative Diffusion Tensor Imaging Parameters and Histopathological Findings in Patients with Meningioma

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Introduction: our study aimed to investigate whether the tumor differs in terms of apparent diffusion coefficient (ADC) and fractional anisotropy (FA) values, mitotic index and Ki-67 proliferation index in cases with transitional and atypical meningioma.

Method: This study was approved by the Institutional Ethics Committee. Patients diagnosed with meningiomas were retrospectively reviewed. Forty-five patients (14 male and 31 female; 57±13.98 years old) were assessed using magnetic resonance imaging (MRI) and diffusion tensor imaging (DTI) before surgery. ADC and FA values of tumour were determined. The presence of brain invasion with four or more mitoses was accepted to be sufficient for the diagnosis of atypical meningioma. Patients with atypical meningioma were classified as group 1 and those with transitional meningioma were considered group 2. The relationship between FA, ADC and Ki-67 proliferation index, mitotic index was evaluated. FA and ADC values of atypical and transitional meningiomas were compared. Mann–Whitney U test was used to compare the groups. The relationship between ADC and FA values, mitotic index and Ki-67 was investigated by Pearson correlation test.

Results: Significant differences were found between group 1 and group 2 in terms of mitotic index and Ki-67 proliferation index (respectively, p=0.001 and p=0.000). There was no statistically significant difference between group 1 and group 2 in terms of FA and ADC values. In Group 1, there was a positive correlation between FA values and mitotic index (p=0.02, r=0.421). Also, a negative correlation was found between ADC values and mitotic index (p=0.04, r=-0.374). A negative correlation was found between ADC values and Ki-67 proliferation index in group 2 (p=0.009, r=-0.614).

Conclusion: This study shows that DTI parameters cannot differentiate transitional and atypical meningioma despite significant differences in terms of mitotic index and Ki-67 proliferation index.

Key words: Meningioma, MRI, DTI

SOP-33

Attention Deficit and Sleep Disturbances in Pediatric Patients after Diagnosing with Herpes Simplex Virus Encephalitis

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Introduction: Encephalitis is a condition in which the brain parenchyma becomes inflamed due to an infection or an autoimmune response and causes neurological dysfunction. There are many causative agents leading to encephalitis, and the most common one is herpes simplex encephalitis (HSE). Survivors of encephalitis may be left with emotional, behavioral, and cognitive consequences such as inappropriate behavior, and difficulty learning and sleep disturbances.

Method: In this study, parents of children patients aged between 6 and 17 were questioned about their quality of sleep and attention deficit through 33-question Children's Sleep Habits Questionnaire (CSHQ) and 48-question Conners' Parent Rating Scale (CPRS). This study is conducted in one group only. This group included 23 children who were previously diagnosed with Herpes Simplex Virus Encephalitis between years 2012–2021. Our only exclusion criteria have not any other known disease before the diagnosis of HSE .

Results: Total of 23 pediatric patients diagnosed with HSE were included in this study. The mean CPRS score was 55.9±25. The mean CSHQ score was 69.13±12. The higher the scores get the possibility of having attention deficit and sleep problems increases. Our data strongly suggest that children previously diagnosed with HSE would later develop either attention deficit or sleep disturbances or both. There is no correlation found between CSHQ and CPRS whatsoever.

Conclusion: For both CPRS and CSHQ, the higher the scores get the possibility of having attention deficit and sleep problems increases. Therefore, our study proves that there is a connection between HSE and attention and sleep.

Key words: Encephalitis, sleep, attention, CPRS, CSHQ

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Department of Infectious Diseases and Clinical Microbiology

PP-1

Evaluation of Perspective of Patients with Kidney Disease About COVID-19 Vaccines During the Pandemic Period

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Introduction: Coronavirus disease-2019 (COVID-19) vaccination is of great importance for patients with kidney diseases who have high mortality rate associated with this infection. Here, we investigated the attitudes of patients with kidney disease toward vaccines.

Method: In this survey study, patients followed up in the nephrology outpatient clinic were applied a questionnaire. Attitude towards vaccination and factors associated with vaccination rate were analyzed. SPSS Statistics 21.0 program was used for statistical analysis.

Results: 249 patients were included. The mean age was 58.08±16.29 years and the mean duration of kidney disease was 6.30±8.16 years. Eighty-eight patients (38.9%) were ≥65 years of age. 208 patients (90.4%) were vaccinated. 138 patients (63%) decided to get vaccinated with their own choice, 61 patients (27.9%) followed the advice of health staff. Social media is the most common source for COVID-19 vaccine information (n=95, 45%), healthcare workers were in the second order (n=82, 38.9%). Most patients (n=196, 86.3%) think that pandemic will slow down with vaccination and 163 patients (69.7%) think that vaccine should be mandatory. Twenty-seven patients (11.6%) canceled/delayed their own or relatives' vaccination with fear of side effects. Gender, educational level, occupation, presence of comorbidities did not affect the vaccination rate. Vaccination was more frequent among non-smokers (p=0.002), older patients (p=0.045), and those who received information from physicians (p=0.014). The vaccination rate was lower among patients thinking that vaccine side effects might be serious (n=23, 63.8%), those who think social distancing as the most effective method of protection from COVID-19 (p=0.001), patients who omitted/delayed vaccination of themselves/relatives due to worries about side effects (p=0.003) and in those thinking that supplementary products were more effective for protection (p<0.001).

Conclusion: Sufficient information from a proper source about the effectiveness, potential side effects and the benefits of widespread vaccination would increase the vaccination rate.

Key words: Kidney disease, COVID-19, vaccine

PP-2

The Prevalance of COVID -19 Positivity in Asymptomatic Patients Who Investigated Routinely Before the Endoscopic Procedures and Surgical Operation During the Pandemic

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Introduction: The coronavirus disease-2019 (COVID-19) outbreak, caused the decision of routinely screening patients for COVID-19 before endoscopic procedures and surgical operations, due to the presence of asymptomatic carriers. Our study found a positivity rate in routine pre-procedural COVID-19 nasopharyngeal swap tests (RPNST) before endoscopic procedures and surgical operation and COVID-19 positivity rate in the healthcare workers (HCW) in endoscopy unit. Additionally we have interrogated the risk factors in these confirmed cases.

Method: Patients who received RPNST in the Bezmialem Vakıf Hospital between June 2020-April 2021 were included in our study. Positive patients and infected HCWs are questioned in terms of COVID-19 risk factors.

Results: There were 20,694 patients who received RPNST in the Bezmialem Vakıf University Hospital between June 2020-April 2021. Gender distribution was (0.47F/0.53M). Mean age was 50 and SD was 18. Only 52 of patients have positive results 11 of patient's results were unknown. 52 Positive patient's gender distribution was equal. Mean age was 43 and SD was 27. Most patients with positive test results (51.9%) claimed that they had no symptoms. The symptomatic ones mostly reported fatigue. Travel history was positive 9.6%of patients. Close contact was positive 11.5% of participants. There were 25 HCWs in endoscopy unit. The gender distribution was almost equal. Mean age was 40.5 and SD was 10. Five of HCWs infected with COVID-19. One personel was asymptomatic. Others reported cough, fever, myalgia, headache, fatigue, and sore throat.

Conclusion: Consequently positivity rate in RPNST found as 0.25%. Most patients were asymptomatic. Positivity rate in HCWs found as 0.2. Most HCWs were symptomatic.

Key words: COVID-19, healthcare worker, surgical operation, endoscopic procedure

PP-3

Investigation of Metabolic Syndrome Awareness Levels of Medical Faculty Students

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Introduction: Metabolic syndrome (MS) is serious health problem at least three of symptoms are increased waist circumference, high triglyceride level, low High-density lipoprotein level, high blood pressure, impaired fasting blood sugar. MS usually occurs due to irregular lifestyle, can be prevented if early precautions are taken. This can be achieved by creating social awareness, particularly by healthcare professionals. Our aim is to quantitatively determine MS awareness levels of medical school students.

Method: Study was conducted with sociodemographic data and questionnaire inquiries asked with JAMRISC scale. One hundred and sixty-four students were divided into two groups, preclinical (1st, 2nd, 3rd grades) and postclinical (4th, 5th, 6th grades). Groups are analyzed in several subsections, female/male, smokers/alcohol consumers, with/without family history, sport/nonsport.

Results: MS awareness level of students included in the study didn't show statistically significant according to demographic characteristics, gender, age, height, weight, waist circumference, smoking, alcohol consumption ($p>0.05$). MS awareness levels were found statistically significant between pre-clinical/post-clinical status of students ($p=0.022$). MS, is public health problem, can be prevented by raising awareness in early period and regulating lifestyle. Biggest task in this regard is healthcare professionals, on the fields that they are role models. In the study, in which awareness of physicians, who constitute the core of this group, was examined, it was shown that awareness of students about MS increased as a result of increase clinical courses and direct contact with patients.

Conclusion: Awareness of MS, which can be prevented by taking early precautions, increases direct proportion to clinical experience of medical school students. This has shown that increased empathy level of population that is in directly contact with patients. Conducting similar studies with different diseases and large volunteers will strengthen our results.

Key words: Awareness level, medical faculty students, metabolic syndrome, survey study

PP-4

The Adaptation of COVID-19 Patients on Treatments

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Introduction: Coronavirus disease-2019 (COVID-19), which causes serious respiratory illness such as pneumonia and lung failure, was first reported in Wuhan, China. The etiological agent of COVID-19 has been confirmed as a novel coronavirus, now known as severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). Within a few months of the first report, SARS-CoV-2 had spread across China and worldwide, reaching a pandemic level. Currently, there is not any specific approved antiviral treatment for COVID-19. Some pharmacological agents were used worldwide including chloroquine, hydroxychloroquine, favipiravir and remdesivir. These drugs have some side effects like all chemicals. That makes people anxious about treatments. Nowadays, some patients with COVID-19 are refusing their treatment. In this study, our aim is to evaluate people's knowledge levels and hesitation about both COVID-19 treatments and vaccination.

Method: A survey was conducted for people who had home isolation during their COVID-19 infection between March 2020-May 2021. The survey was conducted online via google form platform. Percentage calculations and Fisher Freeman Halton test were used in data analysis.

Results: One hundred fourty-seven COVID-19 patients participated in the study. 43% of the patients did not use the medications given for COVID-19. There was no significant difference in treatment hesitation during COVID-19 periods ($p>0.05$). The patients who have severe weakness ($p=0.02$) and severe muscle pain ($p=0.01$) symptoms were more likely to use their medications regularly. Weakness (84%), headache (70%) and muscle pain (67%) were the most common symptoms in these patients. A close relation was found between vaccination and medication hesitancy ($p<0.001$). 18% of the patients still refuse the vaccination.

Conclusion: After 18 months of a pandemic, there are still reliance problems about both medication and vaccinations that we must get over to end it.

Key words: COVID-19 treatments, vaccination, medication hesitancy

PP-5

Effects of Ketogenic Diet on Rat Model of Sporadic Alzheimer's Disease

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Introduction: In this study, we investigated the time-dependent effect of ketogenic diet on cognitive functions in STZ-induced Alzheimer's Disease (AD) model of rats considering the epigenetic effects of feeding on AD.

Method: *Sprague-Dawley* male rats were randomly divided into 6 experimental groups: prophylactic (fed with ketogenic diet for 4 months), therapeutic (fed with ketogenic diet for 2 months after icv-STZ injection), positive drug (donepezil), STZ-group (3 mg/kg), Sham control and control groups weekly weights were monitored throughout the experiment and at the end of the 4th month the animals were subjected to the behavioral tests (open field, passive avoidance, rotarod and Morris water maze) and euthanized for blood collection and molecular analysis.

Results: According to the repeated measure ANOVA, ketone diet did not make any difference among groups in terms of body weight ($p=0.281$). The ketone levels of the prophylactic group were significantly higher than other groups before STZ-injection and at the end of the experiment ($p=0.03$). Parallel to ketone levels, glucose levels of the prophylactic group was significantly lower than other groups ($p\leq0.05$) before the STZ-injection. In the passive avoidance, as we expected, the STZ group showed worse performance than others ($p<0.05$) and a significant improvement in the memory were noted in the prophylactic and therapeutic groups compared to the STZ group ($p\leq0.007$ and $p\leq0.009$, respectively). In the Morris water maze, the STZ group performed lower performance than the control group ($p\leq0.022$), while the ketogenic diet in the prophylactic group had a positive effect on memory. No improvement was noted in the therapeutic group.

Conclusion: In this study, we observed that there was a prophylactic effect of ketogenic diet consumption on the memory performance of rats with STZ-induced neurodegeneration.

Key words: Alzheimer's disease, ketone diet, rat, prophylactic, therapeutic

PP-6

Cause of Meningitis in Neonates and Young Infants and the Evaluation of Laboratory Results

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Introduction: Meningitis is the acute inflammation of meninges, which results from infection. Different pathogens are responsible. Due to high mortality and serious disabilities the most common pathogens and laboratory results should be known for quick diagnosis. The purpose of our study is collect information about common microbial agent and evaluate laboratory results among infants under three months of age with bacterial meningitis in Turkey.

Method: In this study infants <90 days of age who undergo diagnostic lumbar puncture were divided two groups: suspected cases and proven cases of meningitis. Proven meningitis was defined as the detection of bacteria from cerebrospinal fluid (CSF) by culture. Suspected meningitis was defined by meeting the laboratory criteria. Data collected via the nucleus system, which is the electronic database contains patient's information in Bezmialem Vakıf University Medicine Faculty Hospital included demographics, laboratory and microbiologic results.

Results: There were 52 patients in the suspected meningitis group, and 20 patients in the proven meningitis group. The median neutrophil value and CSF protein value in the hemogram of cases with proven meningitis were found to be statistically significantly higher than that of cases of proven meningitis (in order of p=0.049 and p=0.040). Meanwhile, the median lymphocyte value and median CSF glucose value in the hemogram of cases with evident meningitis were found to be statistically significantly lower than that of cases of proven meningitis (in order of p=0.029 and p=0.048). The most common agents in CSF cultures of proven meningitis cases were staphylococcus hominis (30%) and staphylococcus epidermidis (15%).

Conclusion: The most common agents in CSF cultures were staphylococcus species. While blood neutrophil and CSF protein levels were found to be higher in microbiologically proven cases, blood lymphocyte and CSF glucose levels were higher in suspected meningitis cases.

Key words: Suspected meningitis, proven meningitis, neutrophil, lymphocyte, CSF protein, CSF glucose

PP-7

Anatomic Variations in Coeliac Trunk and Distribution in the Turkish Population

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Introduction: Coeliac trunk arises at the Th12-L1 vertebrae and trifurcates into the left gastric, common hepatic and splenic artery. According to the recent studies, this trifurcation has numerous variations. The aim of this study is the determination of variations frequency in our population Turkey.

Method: Abdominal computed tomographic angiography (CTA) was used to collect data. All CTA was performed on a 128-row multidetector CT scanner. Michels and Uflaker's classifications were used to determine patients' variations. We analysed splenic, left gastric and common hepatic arteries' origins for Uflaker's classification and classified them into 8 groups. We also analysed right hepatic, left hepatic, accessory left hepatic and accessory right hepatic arteries' origins for Michels classification and classified them into 10 groups. These two classifications gave us all structures of celiac trunk's anatomy. The CTA images of 384 patients were accessed, and 77 patients who met the inclusion criteria were included in the study.

Results: Seventy-seven patients who were between 18 and 80 years old were analysed with CTA scan. 43 of 77 patients were male and mean age was 55.3117. Michels classification's results: type-1 64.9%, type-2 3.9%, type-3 9.1%, type-5 5.2%, type-6 6.5, type-7 3.9, type-9 6.5. Uflaker's classification results: type-1 89.6%, type-2 1.3%, type-5.7.8%, type-8 1.3%. In both classifications, type-4 variations were not observed. There were no statistically significant differences between gender and Uflaker or Michels' classification. Additionally, there was no correlation between age and anatomic variations in both Uflaker and Michels' classifications.

Conclusion: The result of this study show that there is no correlation between age and anatomic variations. Additionally, there is no significant differences between gender and anatomic variations.

Key words: Coeliac trunk, anatomic variations, Uflaker classification, Michels classification

PP-8

Evaluating the Quality of Life of Diabetes Mellitus Patients of Bezmialem Vakıf University

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Introduction: Diabetes mellitus is one of the most common chronic diseases that causes considerable morbidity and mortality worldwide. Diabetes has acute and chronic complications. These are hypoglycemia, ketoacidosis, lactic acidosis, nephropathy, neuropathy, retinopathy, and cardiovascular diseases. These complications significantly affect the lives of patients. The research measures the quality of life of diabetes patients. Moreover, it is to identify modifiable factors to improve the quality of life of patients.

Method: A total of 100 patients (50 female and 50 male) between the ages of 40-80 applied to Bezmialem Vakıf University Hospital Family Medicine and Diabetes Polyclinic between January 2021 and January 2022. We used the 36-Item Short-Form Health Survey questionnaire in our study. The scale is more than 100 points and high scores on the scale indicate a high quality of life. Questionnaires were asked of the patients after their admission to the outpatient clinic.

Results: It was found that it is statistically significant that the quality of life decreases with increasing age in diabetes patients ($p<0.05$). It was statistically significant that the increase in body mass index and the presence of additional diseases had a negative effect on the quality of life ($p<0.05$). It was found that the quality of life of female patients was statistically significantly lower than that of men ($p<0.05$). A statistically significant negative correlation was found between the duration of diabetes and the quality of life of patients ($p<0.05$).

Conclusion: Diabetes mellitus affects the quality of life of patients. The quality of life can be improved by reducing the body mass index and ensuring the control with existing diseases.

Key words: Diabetes mellitus, quality of life, SF-36

PP-9

Determination of SUDEP Score of Patients Followed in Epilepsy Outpatient Clinic

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Introduction: Epilepsy is a central nervous system disorder that affects nerve activity in the brain and causes seizures. Sudden Unexpected Death in Epilepsy (SUDEP) is defined as the sudden and unexpected epilepsy patient death, unexplained for another reason. SUDEP is an underrated subject in Turkey. This study determines the SUDEP scores of epilepsy patients at the neurology outpatient clinic.

Method: This study analyzes the data for epilepsy patients who applied to the Neurology Outpatient Clinic between May 2019 and May 2020. This study uses the following data: demographic data, seizure type-frequency, onset age, used antiepileptic drugs, EEG-Cranial MRI findings. We categorize the patients as focal generalized and unclassifiable epilepsy and fill the SUDEP-7 inventory form. Those with a SUDEP-7 score of four or higher were considered high risk. The patients were divided into those with high and low SUDEP-7 scores, and the evaluated parameters were statistically studied in this respect.

Results: We analyze data for 224 patients, 114 (50.9%) were female. Fifty-nine patients were generalized, 122 focal, 43 unclassifiable. Forty-five patients were IGE, 78 were symptomatic focal, 97 were cryptogenic focal, 4 were acute symptomatic seizures. The mean SUDEP score was 0.93±1.77. The SUDEP score was 0 in 151(70%). SUDEP-7 score was high in 24 patients (%10.7). The SUDEP-7 score was significantly higher in patients whose neurological examination was pathological ($p<0.01$), seizures started before the age of 18 ($p<0.03$), had drug-resistant epilepsy ($p<0.01$), used multiple anti-seizure drugs ($p<0.01$). There was no significant difference in age ($p=0.6$), gender ($p=0.7$), the presence of additional disease ($p=0.053$).

Conclusion: In previous studies, no patient died from SUDEP during the study period. However, the probability of SUDEP was higher in patients whose neurological examination was pathological, seizures started before the age of 18, and seizures could not be controlled with two or more Automated external defibrillators, and this group comprised 10.7% of our epilepsy outpatient clinic.

Key words: Epilepsy, SUDEP, SUDEP-7 inventory

PP-10

Perspectives of Bezmialem Foundation University Faculty of Medicine Students on Distance Education in the Pandemic Process

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Introduction: Coronavirus disease (COVID) emerged in Wuhan in December 2019 and was declared a pandemic disease by World Health Organization on March 11, 2020. Due to pandemic restrictions, distance education has been implemented. In this study, we investigated the perspective of Bezmialem Vakıf University Faculty of Medicine on distance education in the COVID-19 pandemic.

Method: Our research was carried out among the students of Bezmialem Vakıf University. A total of 200 (106 female and 94 male) students from all levels of the medical faculty were included. Dundee Current Educational Environment Rating Scale (DREEM-TR), consisting of 43 questions, was used as a scale. In the scale, there are questions in the dimension of students' perceptions of teaching, of their perceptions of educators, of their perceptions of their academic skills, of perceptions of learning climate, and of perceptions of the social environment. High scores indicate that individuals have a positive perception of their educational environment, while low scores indicate that this perception is negative.

Results: In the dimension of students' perceptions about teaching, in terms of gender and personal equipment, perceptions of the instructor and their academic skills in terms of personal equipment and their working environment, and in the dimension of perceptions regarding learning climate, it was found statistically significant in terms of personal equipment and gender ($p<0.05$). No statistically significant comparison was found in terms of social environment perceptions and students' periods ($p>0.05$).

Conclusion: The DREEM-TR scale is a suitable tool for evaluating the learning environment and important findings of the education program were obtained in the study. It will be very effective in creating new programs in faculties with intensive education programs such as medical faculties.

Key words: COVID-19, DREEM-TR, education, e-learning

PP-11

The Association between Tobacco Smoking and Education/ Stress Levels: Causation or Correlation?

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Introduction: This study was designed to survey the effects of education and stress levels on tobacco smoking. Our aim was to evaluate the association between tobacco usage and education/stress levels; to determine whether they affect each other and if so, how. This information could be used for future studies and direct authorities to the right track for helping others cease smoking.

Method: A total of 216 participants (71 Male, 145 Female) were included in this study. There were 94 smokers (43.5%) and 122 non-smokers (56.5%). The mean of age was 34.4±0.7. They were chosen randomly amongst Bezmialem Vakıf University students, faculty members and their acquaintances. A modified version of Fagerström Nicotine Addiction test and Perceived Stress Scale was used to measure the nicotine addiction of smokers, and stress levels of the participants. Statistical analysis was done on collected data using SPSS 25. The level of significance in the study was taken as $p<0.05$.

Results: Smoking is found to be decreasing with increasing education levels to a certain degree (25.6% of the Graduates were smoker), then increasing afterward (63.6% of the Doctorates were smoker). Smoking is found to be less in healthcare workers (31.1%) than others (55.5%). A statistically significant difference was found when smoking and education levels, smoking and being a healthcare worker, being a healthcare worker and stress were compared (Respectively, $p<0.001$, $p<0.001$, $p=0.017$).

Conclusion: In previous studies smoking was associated with stress and poor education levels. In our study it's determined that smoking in fact decreases with education but increases again afterwards with higher levels of education. This result could be related to the stress that comes with higher education. Further research is needed.

Key words: Tobacco smoking, education, perceived stress

PP-12

Bezmialem Vakıf University Faculty of Medicine Students' Knowledge About Blood and Blood Products Transfusion's Evaluation

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Introduction: Blood transfusion is the process of delivering blood and blood products directly into a patient's circulatory system. There have been many studies on blood and blood product transfusions until today; Generally, the results of surveys conducted to measure the knowledge of transfusion medicine among physicians, residents, and undergraduate medical students have demonstrated the need for additional training in this field. With this study, we evaluated the achievement level of the targets in the transfusion medicine field and the factors affecting the achievement of the Medical Doctors who are about to graduate from Bezmialem Vakıf University Faculty of Medicine.

Method: The study was planned as a survey study with the participation of Bezmialem Vakıf University Faculty of Medicine students. 3 groups were selected as 4-5-6th grades. Our sample size is to be 25 students for each group (n1=n2=n3=25) making in 75 students. The sample has a 95% confidence level. IBM SPSS v.25 Was used for statistical analyses. Chi-square, Mann-Whitney U, and Kruskal-Wallis tests were used for parametric and nonparametric data, respectively. $P<0.05$ was accepted as statistically significant.

Results: A statistically significant difference was found between 4th and 5th grades ($p=0.001$), 5th and 6th grades ($p=0.001$), and 4th and 6th grades ($p<0.001$) in the 5th and 8th questions, which have a special importance for us in transfusion. According to the analysis results of our questionnaire, a significant difference was found between the 4th, 5th and 6th grades ($p<0.001$).

Conclusion: The result of our survey shows that from the 4th grade to the 6th grade, the knowledge of transfusion medicine increases significantly. This information supports that Bezmialem University is a competent and exemplary institution in this field.

Key words: Blood, blood products, transfusion, knowledge, medicine students

PP-13

Evaluation of OSCE Applied in Internship Exams at Bezmialem Vakıf University with the Feedback Received from Students nd Faculty Members

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Introduction: Feedback surveys from students and faculty members provide positive results for the evaluation of clinical education and program development. In the study, it is evaluated the "Objective Structured Clinical Examination" (OSCE) implemented in our faculty with the feedbacks and questionnaires received from the students and faculty members.

Method: Although the study was conducted in the 2020-2021 academic year, the experiences of the faculty members in the past years were also included. A total of 47 faculty members and 287 students participated in the survey. The questionnaire consists of ten questions questioning OSCE practices. Scoring was made according to the 5-point Likert system. The prepared questionnaires were applied digitally to all 4th, 5th and 6th grade students and medical faculty members.

Results: When the survey results were evaluated, it was determined that the OSCE created more stress on students than other exams (p=0.001). It was also claimed that some of the simulated patients in all classes had problems (p=0.000). While most faculty members think the OSCE is fair, every class thinks otherwise (p=0.000). Additionally, faculty members find the time limit in OSCE sufficient, unlike students (p=0.000). Likewise, faculty members think that students are given sufficient explanation before the OSCE exam, while students disagree. However, both parties are against only written/oral exams (p=0.000). Instead, both sides think that OSCE supports learning by experience (p=0.015).

Conclusion: Learning by doing and experiencing is the most important part of medical education. Although students may find the OSCE exams stressful, it is a preparation for their professional life. It has been stated by both students and faculty members that only oral and written exams are not sufficient in the evaluation stages in medical education.

Key words: Medical education, OSCE, medical students

PP-14

Relation Between Severity of Acute Pancreatitis and Steatohepatitis

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Introduction: Acute pancreatitis is a reversible inflammation of the pancreas and can occur due to many etiologies such as alcohol and trauma. Many factors are responsible for the progression to severe acute pancreatitis and one of them is fatty liver, which is an often finding in severe acute pancreatitis (AP) patients. Many scoring methods can be used to predict the progression of acute pancreatitis to severe acute pancreatitis. The severity of AP was defined as the following three degrees: mild AP, moderately severe AP, and severe the mild acute pancreatitis means that there is no local and systemic complications nor organ failure and most cases are in this category. In moderately severe pancreatitis, local complications or reversible organ failure and the last one is severe acute pancreatitis has permanent organ failure.

Method: One of the most common methods used to diagnose fatty liver is non-contrast computed tomographic (CT). Some research has shown that difference between liver and portal vein and Aorta HU ratio in contrast-enhanced CT can be useful to show fatty liver. Among 170 patients with acute pancreatitis, 92 patients were included in the study. Contrast-enhanced CT images taken in the first 24 h of these patients were examined.

Results: Stage C and D patients were evaluated as the first group, and stage E patients as the second group. According to the formula When the first and second group HU values were compared and no significant correlation was found between HU values (p=0.208).

Conclusion: because of this study fatty liver can be demonstrated using contrast-enhanced CT, but the use of HU value as an indicator of necrosis was not significant.

Key words: Steatohepatitis, acute pancreatitis, fatty, liver, contrast-enhanced CT

PP-15

Evaluation of Anxiety Caused by COVID-19 Among Medicine Students in Bezmialem University

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Introduction: The New Coronavirus Disease (COVID) is a virus that was first identified on January 13, 2020, because of research conducted in a group of patients who developed respiratory symptoms in Wuhan Province in late December. At the current stage, the epidemic brought not only the risk of death due to infection but also unbearable psychological pressure. This study investigates the effect of the COVID-19 pandemics on anxiety of the students of Bezmialem Vakıf University Medical School.

Method: Our research was carried out among the students of Bezmialem Vakıf University. A total of 110 (71 female and 39 male) students from all grades of the medical faculty were included. STAI I II (State-Trait Anxiety Inventory I II), consisting of 40 questions, was used as a scale. This inventory includes two self-report scales with 20 questions. The trait anxiety scale is used to describe how subjects generally feel (STAI-T), and the state anxiety scale reflects a response at a specific moment in time (STAI-S). The total score obtained from both scales varies between 20 and 80. High scores indicate high anxiety levels, low scores indicate low anxiety levels.

Results: State and trait anxiety scale of preclinical and clinical students were found to be statistically significant when the scores were compared ($p<0.05$). Kruskal-Wallis test and Dunn-Bonferroni post hoc test was used for pairwise comparisons. Most of the questions related to gender, getting infected with COVID and anxiety did not show statistical significance ($p>0.05$).

Conclusion: According to the results, anxiety increased more in those who received practical training compared to the group that received theoretical training. The findings from this study can be used in universities and other institutions to plan interventions that improve students' mental health.

Key words: COVID-19, medical students, anxiety, STAI

PP-16

The Prevalence and Possible Risk Factors of Cardiovascular Diseases in Patients with COPD

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Introduction: Chronic obstructive pulmonary disease (COPD) is one of the respiratory disorders. COPD is characterized by chronic airflow limitation and pathological changes in lungs. It is a common cause of deaths in the world with its comorbidities. The major comorbidity of COPD is cardiovascular diseases (CVD). This study aims to reveal the rates of CVD in individuals with COPD and to determine possible risk factors for CVD in patients with COPD.

Method: There was a questionnaire titled "Determination of CVD Rates and Possible Risk Factors for CVD in individuals with COPD" prepared by researchers. It consisted of a few questions prepared with a 3-point and a 5-point Likert Scale, and 20 questions with yes-no answers and demographic information. Questions were asked to 120 patients with COPD who applied to Çanakkale Çan Hürriyet Family Health Center (FHC). The resulting data analyzed with Ibm SPSS Statistics 22.0.

Results: There was a significant difference between being elderly and having COPD for years (p=0.001). 46.7% of patients with COPD were between the ages of 61 and 70. Only 44 (36.7%) patients with COPD out of 120 people had normal weight and 106 (88.3%) of 120 patients were men. 77 (64.2%) patients were exposed to smoke in their lives. However, there was no significant difference between smoking and time to be diagnosed with COPD (p=0.141). Seventy-six (63.3%) patients out of 120 worked in dusty environment. Big proportions of 120 patients with COPD had hypertension and diabetes as CVD. It was found that people who had previous lung infections were diagnosed with COPD at an earlier age (p=0.024).

Conclusion: Being elderly, male gender, smoking, previous lung infections, dust in workplace are possible risk factors of CVD in patients with COPD who applied to FHC.

Key words: COPD, CVD, family health center

PP-17

Comparison of the Effect of COVID-19 Pandemic on Psychological Adjustment, Vaccination Attitude and Sleep Quality of Medicine and Dentistry Students

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Introduction: The first coronavirus case in Turkey was seen on March 11, 2020. Since that day many people have been infected and some have died because of it. The epidemic brought not only the risk of death from infection but also psychological pressure. We investigate the psychological and sleep attitude of medical and dentistry students during the pandemic.

Method: This cross-sectional survey of college students was conducted in Bezmialem Vakıf University from 7 July to September 2, 2021. The survey was completed by 202 college students, 117 of whom were medicine students and 85 were dentistry students. Participants completed a self-administered anonymous web-based survey. We used Beck's Depression Inventory, Beck Anxiety Inventory, Pittsburgh Sleep Quality Index, Coronavirus Anxiety Scale and coronavirus disease (COVID-19) Vaccination Attitude Scale.

Results: Depression and anxiety symptom prevalence was 59.40% and 47.02%; 57.92% had poor sleep quality. According to the Pittsburg Index, a significant difference was found in sleep quality between medicine and dentistry students ($p=0.002$). When compared according to gender, significant differences were found between women and men in anxiety and depression. $P<0.001$ for Beck Anxiety Scale, the median of Beck Anxiety Scale found 13,48 for women and 7.62 for men; $p=0.001$ for Beck Depression Scale, the median found 13 for women and 10 for men. The results of the COVID-19 anxiety scale were found to be higher in those diagnosed with COVID-19 infection ($p<0.001$).

Conclusion: Our study revealed a high prevalence of sleep disorders, depression and anxiety levels in university students during the COVID-19 pandemic. Females, medical school students, those who were diagnosed with COVID-19 infection, those who did not get vaccinated were at high risk of mental illness and poor sleep quality.

Key words: COVID-19, coronavirus, anxiety, depression, sleep quality, vaccination attitude

PP-18

Retrospective Analysis: How Many Patients who Visit Urology Clinic with Flank Pain Have Actually Urologic Problems?

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Introduction: Flank pain is a feeling of agony located below the ribs and above the ilium. Acute flank pain is a common clinical problem that occurs due to many urinary or extra-urinary causes. In this study, we compare the frequency of causes of flank pain in patients who applied to urology clinic with flank pain and to show whether it can be used to make the distinction by examining parameters that often accompany flank pain.

Method: A retrospective study was undertaken of 947 patients who applied to Bezmialem Vakıf University Hospital Urology Outpatient Clinic with flank pain. The patients were divided into 2 main groups as urologic and non-urologic patients according to final diagnoses made by the hospital. Past medical history, laboratory findings, symptoms and signs were analyzed and compared between these groups.

Results: Frequency of the urologic causes of flank pain was 74%. Rates of kidney stone was 48%, ureter stone was 11%, urinary track infection was 7%, kidney, and ureter stone was 1% and other urologic causes was 7%. In the non-urologic group rates were listed as follows; orthopedic causes 7%, gynecologic causes 3%, gastrointestinal causes 2%, other unidentified causes 11%. Rates of urinary stone ($p<0.001$), extracorporeal shock wave lithotripsy ($p<0.001$), urological surgery ($p=0.035$), abdominal surgery ($p<0.001$) in past medical history were significantly higher in the urologic patient group. rates of dysuria ($p<0.001$), macroscopic hematuria ($p<0.001$), costovertebral angle tenderness ($p<0.001$), microscopic hematuria ($p<0.001$), pyuria ($p<0.001$) and creatinine levels ($p<0.001$) were significantly higher in urologic patients than in non-urologic patients.

Conclusion: It's been shown that notable number of patients who applied to urology clinic with flank pain was referred to wrong department, also some symptoms and findings can be used as guidance for managing these patients.

Key words: Flank pain, renal colic

PP-19

Investigation of the Effect of COVID-19 Epidemic on Obsessive Compulsive Disorder Patients and Its Relationship with Cognitive Level

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Introduction: Obsessive-compulsive disorder (OCD) is a chronic illness diagnosed by the presence of repetitive, unwanted thoughts, impulses or images (obsessions) and repetitive behaviors (compulsions). OCD has different subtypes. Contamination obsessions and excessive cleaning compulsion are the most common . Coronavirus disease 2019 (COVID-19) pandemic first started in China in December 2019 and is still spreading worldwide. Social distancing, quarantine, avoiding contamination can trigger obsessive symptoms. Therefore, patients with OCD may be more susceptible to COVID-19 fears than others and may be at risk of relapse of OCD symptoms. Our study investigates the impact of the pandemic on OCD symptoms.

Method: In our study, an 18-question sociodemographic form, a 12-question Cognitive flexibility scale and 7-question Fear of COVID-19 Scale were filled in by 32 patients with a diagnosis of OCD. The 19-item Yale-Brown Obsession Compulsion scale was used to diagnose and assess the severity of the OCD symptoms. Additionally, 14-item Hamilton anxiety scale and 17-item Hamilton depression scale were evaluated while interviewing the patient for exclusion criteria.

Results: The study reveals a moderately positive significant relationship among the Fear of COVID-19 Scale and q18 (r=0.34) (p=0.05). Also, the result of the examination demonstrates moderately negative significant relationship among obsession and cognitive flexibility scale (r=-0.38) (p=0.031). However, this research shows no significant relation between YBOS and flow cytometry standard.

Conclusion: Our study was validated because patients who reported an increase in OCD symptoms had higher fear of COVID-19 than others. If the patients had been followed up with the YBOS scale before the pandemic, the change could have been seen more clearly. We will continue to collect data to get better results.

Key words: COVID-19, Obsessive-compulsive disorder (OCD), cognitive flexibility

PP-20

Investigaton of Sleep Quality and Sleep Characteristics in Patients with Celiac Disease

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Introduction: Celiac disease (CD) is a chronic immune-mediated enteropathy caused by exposure to dietary gluten and related proteins in genetically predisposed individuals. CD is one of the most common autoimmune diseases. The clinical presentation of CD varies, and patients can present with a spectrum of intestinal and extraintestinal symptoms. Individuals with autoimmune disorders often experience disrupted sleep. Sleep deprivation causes several pro-inflammatory cytokines to increase. In people with autoimmune disorders, this dysregulated homeostatic cytokine production leads to sleep disturbances. However, sleep deprivation may involve a breakdown of immunological self-tolerance, which allows autoimmune disorders to develop. Chronotype and sleep disturbance are both considered risk factors for chronic autoimmune diseases. Although there have been studies that widely investigated the relationship between sleep disorders with both gastrointestinal and autoimmune diseases; we haven't found any study on the same relationship with celiac disease. Therefore, we investigated the chronotype and sleep quality in patients with CD.

Method: Sixty-five patients with CD and 65 healthy people were prospectively enrolled in the study. Chronotype and sleep quality were assessed using the Horne-Östberg Morningness Eveningness Questionnaire and Pittsburg Sleep Quality Index. Scores and the results were compared to healthy controls.

Results: A total of 130 people were included in the study. Of these people, 65 were patients with CD and 65 were healthy controls. Morningness were more common in patients with CD compared to controls. (35.4%, 21.5%, p=0.027). However, there was no difference in terms of sleep quality.

Conclusion: Morningness was more common in patients with CD compared to controls. Nonetheless, we haven't determined any difference in sleep quality.

Key words: Celiac disease, sleep quality, sleep characteristics

PP-21

Retrospective Analysis: The Effect of the Seasonal Changes on the Frequency of Urinary System Stone Operations

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Introduction: Urinary stone is a common disease in the population, global prevalence is between 5% and 13%. In the pathogenesis of the urinary stone formation, numerous factors, including race, sex, obesity, fluid intake, diet and temperature are responsible. In the literature, there are many studies for climate-based changes of the urinary stones' frequency, but it is still not enough for the seasonal effect. The main goal of this study is to compare the numbers of the urinary stone operation cases in different seasons.

Method: According to seasons, 841 urinary stone operations and as a control group 509 transurethral resection of the prostate (TUR-P) operations between January 1, 2018 and December 31, 2020 were categorized into seasonal groups (spring, summer, autumn and winter). Statistical analysis was performed using IBM SPSS Statistics Version 22.0. Categorical variables were analyzed using chi-square test. The value of $p<0.05$ was considered statistically significant.

Results: A total of 841 urinary stone operations were analyzed. The seasonal distribution of urinary stone operations was 19.3% (n=162) in spring, 27.8% (n=234) in summer, 26.3% (n=221) in autumn, 26.6% (n=224) in winter and in the control group TUR-P, there were 509 patients: 15.9% (n=81) in spring, 22.2% (n=113) in summer, 29.7% (n=151) in autumn and 32.2% (n=164) in winter (chi-square:10.64, p=0.014). The urinary stone operation rate was significantly higher in summer compared to spring (27.8% vs. 19.3%, $p<0.05$) and in summer compared to TUR-P operations in summer (27.8% vs. 22.2% $p<0.05$).

Conclusion: There is a positive correlation between the temperature and the number of urinary stone operations, which is significantly higher in summer. Healthcare services should be prepared for the increase in the number of operations in the summer.

Key words: Urinary stone, season, temperature

PP-22

Attitudes Toward Vaccination: A Cross-Sectional Survey of Medical Students at Bezmialem Vakıf University

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Introduction: Coronavirus disease-2019 (COVID-19) is caused by severe acute respiratory syndrome COVID. In addition to providing direct immunity and preventing disease among vaccinated individuals, vaccines reduce infections, even among unvaccinated individuals, if a sufficient portion of the population is immunized. We evaluated the intention to vaccinate against COVID-19 among national medical student representatives in Turkey. To target future efforts to encourage vaccine uptake, we wanted to identify the determinants of intention to accept or refuse the vaccine

Method: A web based cross-sectional study designed to the attidutes toward COVID-19 vaccination among medical students in 5th and 6th grade at Bezmialem Vakıf University. Study tool will be a questionnaire including the socio-demographic factors, and questions related to vaccine such as attitudes and intentions toward COVID-19 vaccine, underlying the knowledge of vaccine immunity, history of vaccination. The sample size will be 138 participants, using a margin error ±7%, a confidence level of 90%.

Results: One hundred thirty-nine medical students participated in our study. Our data strongly suggest that acception of COVID-19 vaccine among medical students is significantly high in the students who lost a relative due to COVID-19 ($p<0.05$). 10% of the participants have been infected with COVID. 77.9% of the participants answered yes that at least one of their relatives have been infected with COVID. 20.7% of the participants answered "yes" that they have lost a relative of their's.

Conclusion: Acception of COVID-19 vaccine among medical students were significantly high among the students who lost their relatives due to COVID-19. However, four students refused to get vaccinated due to their worries about possible sideeffects.

Key words: COVID-19, coronavirus, COVID vaccine, SARS-CoV-2

PP-23

Acute Poisoning in Children Admitted to the Pediatric Emergency Department

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Introduction: Poisoning is explained as the exposure of a person to a substance that could cause symptoms and signs of organ dysfunction leading to injury or demise. Acute childhood poisoning is critical because it is a cause of morbidity and mortality which can be undoubtly and adequately controlled by preventive and educational measures. Epidemiological data of acute childhood poisoning are very crucial not only for effective preventive planning but also for therapeutic approaches in emergency department. We want to contribute to epidemiological data of our own region.

Method: This retrospective descriptive study was conducted during the period from April 2020 to March 2021. SPSS was used for analyses, and a p-value of less than 0.05 was considered statistically significant.

Results: In our study 176 children were admitted to our emergency department. Among those children 86 of them (48.9%) were girls and 90 of them (51.1%) were boys. In nearly all cases (90.3%) the route of exposure was oral route. The two substances that partake a role in poisoning the most were drugs and cleaning products with the percantages of 47.2 and 42.6 respectively. By looking at gender and route of exposure we see a significant relation in Pearson chi-square test (p=0.032). In the relation between gender and intent of poisoning we found a significant relation in Pearson chi-square test (p=0.07). When we analyzed age from Mann-Whitney U test we saw that there were three significant relation that were with gender (p=0.045), substance (p=0.00) and passed time (p=0.040) that was also a positive correlation.

Conclusion: Even though we have obtained useful data with our study, a prospective study should be organized for the epidemiological data of acute poisoning in children in our region.

Key words: Poisoning, emergency, epidemiological data

PP-24

Evaluation of Knowledge and Attitudes Regarding Vaccinations Among Medical Students

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Introduction: Vaccination is an important health strategy in childhood diseases. Despite this, public health authorities are facing a growing reluctance from parents to vaccinate their children. Previous studies show that knowledge and attitude of physicians, correlate with the vaccination rates. This study aimed to evaluate the knowledge and attitudes towards vaccinations among medical students from different grades. There are several studies in literature on this case.

Method: The online questionnaire, which consists of 44 questions, is applied to 122 medical students at Bezmialem Vakıf University and categorized into two groups by their grades: group 1 (1st grade students who didn't receive a lecture about vaccinations, n=60) and group 2 (4th and 5th grade students who received the lecture, n=62). The relation of knowledge level and attitudes toward vaccines with the grade, was evaluated using the Pearson chi-square test and Fisher-Freeman test.

Results: It is revealed that group 2 has significantly higher mean knowledge scores than group 1 ($p<0.05$). Group 2 is more confident about their vaccination knowledge and has more correct answers than group 1 on questions about vaccines for babies and health-care workers ($p<0.001$), contraindications for the second dose of vaccines ($p<0.05$). Group 2 trusts the safety of vaccines more than group 1 ($p<0.001$). Most both groups think that they would inform parents about vaccines better if they had their training in earlier years of medical school (73,3%, 59,7%).

Conclusion: 4th and 5th grade medical students who received several lectures about vaccinations, have a higher level of knowledge and positive attitude than 1st grade medical students. Training for vaccination in the earlier years of medical school affects students' attitude, so their positive approaches to the parents may reduce the vaccine hesitancy.

Key words: Vaccination, medical students, vaccine hesitancy

PP-25

Awareness and Knowledge of Diabetes Among Medical Students

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Introduction: Diabetes is one of the most leading causes for increased mortality and morbidity in worldwide. It is estimated that 425 million adults struggle with disease. Diabetes can be defined as a metabolic disorder with deficit in insulin secretion or lack of the specific receptors for responding insulin causing hyperglycemia. As diabetes is extremely common and has an important impact on our country, this study aims to survey the awareness and knowledge of diabetes among medical students.

Method: In this study, a questionnaire consists of 20 multiple-choise questions about recognising significant features, etiology, complications, causes, treatments of diabetes was performed by medical students from Bezmialem Medical University. The participants were divided into two groups according to their grades as preclinic (1-3) and clinic (4-6). P value was set valuable for being <0.05. The sample was determined as n1=n2=65 n=130 for 80% power and 0.05 significance in 95% confidence level. The relation of knowledge level was evaluated using the Pearson chi-square test.

Results: According to study clinical students were considered more successful due to their knowledge of identifying diabetes (clinic 84.6%, preclinic 38.5% p<0.001), recognizing its etiology (preclinic 36.9% clinic 93.8% p<0.001) and the treatment (mean 44% preclinic, clinic 90% p<0.001). Also, having a family member with diabetes had no contribution to knowledge (p=0.219). Additionally, the study showed each group failed to recognize lipodystrophy as an acute complication (preclinic 9.2%, clinic 15.4% p=0.286).

Conclusion: The study showed clinic group is more successful than preclinic predominantly based on their knowledge about diabetes, which proves the glory of our education system at faculty over the years. On the other hand, improvements in education especially complications of diabetes can be suggested.

Key words: Diabetes, preclinic, clinic

PP-26

Evaluation of the Relationship Between Inflammatory Markers and Post-Treatment Period in Stroke Patients

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Introduction: Stroke is a life-threatening medical condition. Intravenous thrombolytics (IVTi) and thrombectomy (IVTe) are the treatment options for stroke. The purpose of this study is to analyze the relationship between inflammatory markers and outcome of patients with ischemic stroke after treatment.

Method: This study is a retrospective, cross-sectional study. Approximately 2018-2020, patients admitted to Bezmialem Vakıf University Hospital with acute ischemic stroke were determined. Patients' demographic and neurologic datas are recorded. Patients' first biochemical tests, National institutes of health stroke scale (NIHSS) scores, C-reactive protein (CRP), vitamin D-B12, uricacid levels, neutrophil/lymphocyte (N/L), monocyte/high-density lipoprotein (M/HDL) and platelet/lymphocyte (P/L) ratios evaluated.

Results: Fifty-five patients who had acute treatment were included in study. There were 22 female (40%) and average age was 66.18±13.74. The distribution of infarcts was as follows: 39 anterior, 5 posterior and 4 both circulations. Although there was a neurological deficit, there was no acute imaging finding in 7 patients. Average onset-to-door time was 139.9±141.42 min. 37 patients had IVTi, 12 patients went under IVTe and 6 had both treatments. Average NIHSS score in admission was 7.7±7.3 and was 4.35±7 .6 after treatment. 13 patients were completely recovered after treatment. In acute treatments, th before was significant difference in admission NIHSS scores (p=0.02) and rate o f full recovery (p=0.01). However, there was no significant difference in NIHSS scores after treatment, prognosis, N/L, M/HDL, P/L, uricacid and vitamin B12-D. There was no significant difference in patients who had both treatments compared to others. There was no significant difference in fully recovered patients but the NIHSS score in admission was significantly low in this group.

Conclusion: We hypothesized that there is a relationship between the acute treatment of stroke and inflammatory findings, based on the literature. However, we did not obtain meaningful data to support this hypothesis in our study. Studies based on prospective data with a larger number of patients are needed.

Key words: Stroke, intravenous thrombolytic, thrombectomy, inflammatory markers

PP-27

The Impact of COVID-19 Pandemic on Medical Students' Choice of Future Specialty

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Introduction: At the beginning of the coronavirus disease 2019 (COVID-19) pandemic, many medical schools initiated a temporary online education until the students are allowed to go back to the school. Thus, the students' education and their plans for the future have been greatly affected. This study finds out if the ongoing COVID-19 pandemic has caused a difference in specialties medical students plan to choose in the future.

Method: A web based cross-sectional study designed to assess the impact of COVID-19 on the choice of future specialty among 5th and 6th year medical students at Bezmialem Vakıf University. The data were collected using a semi-structured and self-administered questionnaire.

Results: Out of 134 students completed the questionnaire, more than half (56.0%) were females, unmarried (97.0%), had scholarship (64.9%) with mean age of 23.6 (±1.14 years) and ranged 22–28 years. About one-fifth (21.9%) of students have been infected with COVID-19. However, most of them (86.6%) reported that the pandemic had no effect on their choices. Before and during COVID-19 pandemic, many students wanted dermatology (77.8%), psychiatry (55.0%), ophthalmology (60.0%), physical therapy and rehabilitation (60.0%) as their specialty. Only 36.8% want special directions like emergency medicine and general surgery. About two-third (65.0%) of the students spent time studying while they were away from the hospital.

Conclusion: According to the results, it can be concluded that most students' choices have not been impacted by the pandemic, and that they plan to continue with their choice of specialty.

Key words: COVID-19, lockdown, student, future specialty, BVU, Turkey

PP-28

Antibiotic Resistance Awareness in Medical Students

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Introduction: Antibiotics are medicines used to treat and prevent bacterial infections in humans and other animals. The age of antibiotics began in 1928 with the discovery of penicillin by Alexander Fleming. Alexander Fleming, speech while receiving the Nobel Prize in 1945 for his discovery of penicillin and its curative effect in infectious diseases, said that if microorganisms are exposed to penicillin at doses that are not enough to kill them, after a certain period they acquire penicillin resistance. The lack of adequate training on antibiotic prescribing and unnecessary use during medical education should also be addressed as it has a major impact on the development of resistance. This research aims to question how much this knowledge, consciousness and behavior has developed in medical students. For the reasons stated above, we believe that our study will contribute to the literature.

Method: This research is a cross-sectional, questionnaire-based study conducted at Bezmialem University. The participating students were divided into two groups according to their grades. The first group has no prior training on antibiotics and the second group consists of trained students. The link for the questions was distributed to all participants through social media. Responses were collected on Google Sheets.

Results: Results of the survey shows that there was significant difference ($p<0.05$) between preclinic and postclinic groups regarding general antibiotic knowledge. However, preclinic students were more confident in their ability to prescribe antibiotics accordingly.

Conclusion: The results reveal that even though post clinic students had a more general knowledge about proper antibiotic usage, they weren't confident about prescribing them to patients correctly. This shows that vertical integration in the curriculum could be improved.

Key words: Antibiotic resistance, medical students, preclinic, clinic, antibiotics, prescription

PP-29

Blood Glucose-Pain Correlation in Diabetic Foot Patients

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Introduction: Diabetes is a chronic blood glucose disorder that affects about 415 million people worldwide and has a prevelance of 9.3%. This chronic metabolic disorder modifies the characteristics of low-density lipoprotein molecules, raises the level of reactive oxygen species and impairs tissue perfusion eventually. Diabetic foot ulcers are one of these complications and may need foot amputations. This study aims to determine the correlation between blood glucose levels and pain.

Method: The study is a questionnaire-based study conducted at Bezmialem Vakıf University Faculty of Medicine, Department of Plastic and Reconstructive Surgery. The participating patients were asked about their pain preoperatively and postoperatively and their blood glucose levels were noted, respectively. The postoperative phase consisted of early (1-3-7 days) and late (10 or more days) phases. Patients were asked to state their pain from 0 (minimum) to 10 (maximum). 60 patients participated in this study and Spearman nonparametric correlation test was used to determine the relationship between the variables.

Results: All three variables including preoperative, early and late postoperative pain had a positive correlation between higher blood glucose levels. The preoperative pain levels had the most correlation ($r=0.46$, $p<0.001$), followed by late ($r=0.316$, $p=0.014$) and early postoperative ($r=0.316$, $p=0.041$) pain.

Conclusion: The results of this study suggest that higher blood glucose levels will likely lead to a higher degree of pain preoperatively and postoperatively. As the correlations are not strong enough, our results need to be confirmed with further clinical studies.

Key words: Diabetes, pain, blood glucose

PP-30

Depression in Bodybuilders

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Introduction: Depression is a mood disorder that causes a persistent feeling of sadness and loss of interest. It affects how person feel, think and behave. It may lead to a variety of emotional and physical problems. We study the frequency of people who have been bodybuilding regularly for at least 3 years with our surveys.

Method: Survey has contact with the people who have been in bodybuilding for at least 3 years. In this experimental study there is a lot of health and depression scales. 5Q-5D3L Quality of Life Scale (Cronbach's alpha 0.73) - SF36 Quality of Life Scale (Cronbach's alpha between 0.73 and 0.76) - Beck Depression Criteria (Cronbach's alpha between 0.74 and 0.84). Eighty-two volunteers were asked to fill out these criteria.

Results: Our data strongly shows that 9 percent of the volunteers who participated in our survey was severely depressed and 20 percent moderately depressed. The mean age of the participants were 25. Twenty of them were male.

Conclusion: Although it is seen in minority, it concluded that sports done without a break may cause depression.

Key words: Depression, bodybuilders, prevalence

PP-31

A New Evaluation for the 2020 TUBITAK Field-Based Competency Analysis of Universities

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Introduction: Since 2016, TUBITAK is publishing "Field-Based Competency Analysis of Universities" in order to make research comparative evaluation of universities performances, on the basis of their fields to provide. In the plotted graphics, the x-axis shows the score obtained from the quality indicators at values between 0 and 60; the y-axis shows the score obtained from the volume indicators at values between 0 and 40. This part of the study is the part where we can understand the competence of universities in the relevant field, but we found it necessary to make this part clearer. In this study, a coefficient is presented and universities in the field of internal medicine are ranked objectively.

Method: Within the scope of the current competency analysis study, for data related to publications and citations, 2014-2018; For the data on the projects, based on the period of 2014-2019; 160 universities were evaluated. Universities ranked in selected fields by using area calculations in the graphs.

Results: Universities were ranked in 10 sub-branches of internal medicine, with the help of the areas under the triangles formed, based on the competency data included in this study. While making the measurements, each score on the x (indicating quality) axis was taken as 1 cm as a scale. The mean values in the graphs are called X as a unit.

Internal Medicine (sample):

Lowest value: Kocatepe =0.22197X (13.05 point)

Mean value: X (58.79 point)

Highest value: Hacettepe =11.54226X (678.57 point)

Conclusion: Universities were listed comparatively in the department of internal medicine, forming a common unit.

Key words: Academic ranking, ranking of universities, university competency analysis

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The Effect of Exam Stress on Eating Attitude in Medical and Dentistry Students at Bezmialem Vakıf University

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Introduction: Stress is a feeling of emotional or physical tension. Stress can be divided into acute and chronic. Acute stress is a person who feels stress in a short period. Chronic stress is a person who feels stress for a longer period. This stress is more challenging. Because it has damaging effects on your physical, mental, and emotional health. Eating attitudes are critical illnesses that can be difficult to treat. These attitudes can be characterized by disturbance in body image and eating behavior. This study investigated the effect of exam stress on eating attitudes in medical and dentistry students.

Method: The study included 98 medical students and 90 dentistry students from Bezmialem Vakıf University. Eating Attitudes Test-26 (EAT-26), Bulimic Investigatory Test Edinburgh (BITE), and Stress Coping Styles Scale (SCSS) are the scales used. The tests are given to the students as a questionnaire.

Results: 188 students were included in this study. Median of EAT-26 found 11,00 for medicine students and 22.00 for dentistry students. The median of BITE found 8.00 for medicine students and 11.00 for dentistry students. According to these results, dentistry students have more eating attitudes than medical students. But there is no statically significant difference was found in the rates of SCSS ($p=0.240$) between medicine and dentistry students. A statistically significant difference was found in the rates of YTT-26 score ($p<0.001$) and BITE score ($p=0.018$).

Conclusion: The results of the study show dentistry students have more eating attitudes than medical students. But there is no difference found in stress levels in both groups.

Key words: Stress, eating attitude, students

PP-33

Awareness and Knowledge of Palliative Care Among Bezmialem Vakıf University Students

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Introduction: Palliative care is a field of study that concentrates on improving the quality of life of patients and their families. Palliative care is teamwork. Although medical and nursing students must have palliative care courses during their college years, the inability to implement them in practice makes it forgettable. We expect that our study will help add information on this subject and determine the knowledge and awareness level of Bezmialem Vakıf University students.

Method: Our research was carried out among Bezmialem Vakıf University students. Four groups were chosen. Students from faculties of Medicine, Dentistry, Pharmacy, and Nursing were included. They were given a questionnaire consisting of 23 questions. We concluded the sample size to be in a total of 300 students, taking 75 students from each faculty. All statistical analyses were analyzed in the IBM SPSS statistics 21.0 program.

Results: The outcome showed that 86% of the students are aware of the concept of palliative care. The analysis of the knowledge questionnaire showed that students of the Dentistry faculty had less knowledge compared to their fellows in the faculties of Medicine ($p<0.001$), Pharmacy ($p=0.019$), and Nursing ($p=0.001$). In terms of classes, year 2 students had less knowledge compared to year 3 ($p=0.012$), 4 ($p=0.001$), 5 ($p<0.001$) and 6 ($p<0.001$) students. No significant difference was found between genders ($p=0.85$). The mean age of the students was 22+/-3. A correlation was found between the age and the total score of the participants ($rs=0.238$, $p<0.001$).

Conclusion: Students of the university have an adequate level of knowledge and awareness about this topic. This level increases as years pass. Dentistry students lag behind their fellows in other faculties. Theoretical and practical sessions can be added to fill this gap.

Key words: Palliative care, awareness, knowledge, students

PP-34

The Impact of Lockdown and Physical Inactivity on the Eating Habits of Medical Students During the COVID-19 Pandemic

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Introduction: The quarantine process that applied against coronavirus disease 2019 (COVID-19) is an extremely important action prevent the widespread of the virus. However, this situation affects the eating habits and physical activity of our lives. This study aims to identify the change in eating habits and physical activity during pandemic among medical students.

Method: A web-based cross-sectional study was conducted among 3rd, 4th, and 5th year medical students at Bezmialem Vakıf University. A universal sampling technique was recruited to collect the date from June to July 2021. The study tool was a self-administered questionnaire including the sociodemographic factors, questions related to eating habits, and physical activity.

Results: Out of 189 students completed the survey, 54.0% were females, and 41.3% in 4th academic year. The mean age of students was 22.58 (±1.74 years) and ranged between 20 and 30 years. Mean height (cm) of the females was 1.66±0.05 and 1.78±0.06 in males, mean body weight (kg) was determined as 61.62±8.43 in females and 78.28±9.48 in males. In this study, mean body mass index values (kg/m^2) was found as 22.26±2.74 for females and 24.66±2.38 for males. The score of eating habits was stated poor (0.5%), medium (47.9%) and high (51.6%) healthy diet choices, respectively. Most of student experience low (34.9%) and moderate (56.1%) physical activity, respectively. Gender compared to physical activity was statistically significant ($p<0.032$), but Gender compared to eating habits was not statistically significant ($p<0.937$). As for the educational year compared to physical activity ($p<0.167$) and educational year compared to eating habit ($p<0.752$) were not statistically significant.

Conclusions: The COVID-19 related lockdown affect the eating habits of the students. Students' interests in healthy food increased with a significant decrease in physical activity.

Key words: COVID-19, students, medical, eating habits

PP-35

The Relationship Between Swallowing Dysfunction and Oropharyngeal Muscle Function in Patients with Alzheimer's Disease

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Introduction: Alzheimer's disease (AD) causes swallowing dysfunction. Dysphagia in AD is due to neurodegeneration and swallowing apraxia and the sarcopenia. Our study aims to investigate the relationship between swallowing dysfunction and oropharyngeal muscle function in patients with AD classified according to their stages and to investigate the link between dysphagia and oropharyngeal muscle function in the patient group and control group.

Method: The complaints of dysphagia were evaluated with the eating assessment tool (EAT10) questionnaire. The oropharyngeal muscle function were evaluated using the orofacial myofunctional evaluation scale (OMES). The presence of dysphagia was determined by penetration-aspiration scale (PAS). The clinical dementia score (CDR) scale was used to evaluate the severity of dementia. The patient group consisted of Alzheimer's patients without swallowing difficulties due to another disease, and the control group consisted of patients who had dysphagia. Both groups consisted of people over the age of 65.

Results: A total of 65 people, including 32 in the patient group and 33 in the control group, were included in the study. Mean OMES in the patient group was 51.09 and 50.63 in the control group (p=0.909). PAS mean of the patient group was 3.46 and the control group was 3.15 (p=0.32). The mean EAT10 of the patient group was 5.78 and the control group was 12.81 (p=0.00). No correlation could be established between the patients' CDR scores and OMES (p=472), PAS (p=0.125) and EAT10 (p=0.113).

Conclusion: Dysphagia and orofacial muscle dysfunction in Alzheimer's patients were not significantly different from the control group. Even 97% of alzheimer patient had dysphagia as severe as control group, alzheimer patients didn't complaint of dysphagia. The severity of the dementia was not associated severity of dysphagia.

Key words: Alzheimer, dysphagia, OMES, EAT10

PP-36

Evaluation of the Vitamin B12 Deficiency and Anemia in 5–7 Months Infants

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Introduction: Vitamin B12 deficiency is a common health problem can lead to significant complications. In infants the most important cause is maternal vitamin-B12 deficiency. In infancy, vitamin B12 deficiency often occurs between 4 and 8 months and can lead to neurological symptoms. The current study determines the rate of vitamin-B12 deficiency and the factors affecting B12 levels in healthy infants aged 5-7 months.

Method: In this study, 77 infants aged 5-7 months were included. Epidemiological datas and laboratory results of the study group were analyzed retrospectively. Vitamin B12 threshold value was taken as 300 pg/mL, vitamin B12 levels were classified as severe, moderate deficiency and gray zone according to the ranges of 200-300 pg/mL, 160-200 pg/mL and below 160 pg/mL respectively. The relationships between vitamin B12 levels and the epidemiological and laboratory data of the cases were examined. SPSS statistical program was used to evaluate the data.

Results: The median level of vitamin B12 levels of 76 patients was found to be 272. In total, 60.5% of infant's vitamin B12 levels were found below the threshold. In exclusively breastfed infants; vitamin B12 levels were found lower; severe and moderate deficiency was detected in 10 and 11 infants and 16 infants in gray-zone (p=0.002). The vitamin B12 values of 3 babies of vegetarian mothers were found severely low. No significant correlation was found between vitamin B12 values and blood parameters and epidemiological features.

Conclusion: In more than half of the asymptomatic infants, the level of vitamin B12 screened is below the threshold level. Our results suggested that it's essential to conduct studies and conduct a routine screening program in mothers and infants, on the evaluation of vitamin-B12 levels, which's important for neuromotor development and supply earlier.

Key words: Vitamin B12 level, infants

PP-37

The Effects of COVID-19 Pandemic on Mental Health of Bezmialem Vakıf University Medical Students: A Cross-Sectional Study Using GAD-7 and PHQ-9 Questionnaires

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Introduction: Mental health problems are the main obstacle to academic life. Mental disease can affect social activities, motivation, and concentration, which are important factors for students who try achieving higher education. The Coronavirus disease 2019 (COVID-19) pandemic highlighted troubles that may change people's mental health. This proposal looks at how COVID-19 affect medical students' mental health in Turkey.

Method: A web based cross-sectional study designed to assess the impact of COVID-19 and the related mental health disorders on the medical students of 3rd and 4th grade at Bezmialem Vakıf University. The study tool will be a questionnaire including the socio-demographic factors and questions related to mental health of students (GAD-7 and PHQ-9) such as depression levels, sleep disorders and reduced interest to social activities.

Results: One hundred thirty-eight Bezmialem Vakıf University medical students have participated the questionnaire. The average PHQ-9 score was 11.64 (SD=6.22). Results indicate a positive significant relationship between PHQ-9 and people who had COVID-19 situations at home or loss of relatives and students who had psychological disorders before ($p<0.05$). The average GAD-7 score was 9.09 (SD=6.4). Results indicate a positive relationship between GAD-7 and people who had COVID-19 situations at home or loss of relatives and class 3 students ($p<0.05$).

Conclusion: Analysis demonstrated a higher prevelance of moderated and severe anxiety and depression symptoms among medical students during COVID-19 pandemic, significantly among medical students who had severe COVID-19 situations at home or loss of relatives because of it. Also, students had psychological disorders before have more health problems according to PHQ-9.

Key words: COVID-19, medical, student, mental health, GAD-7, PHQ-9

PP-38

The Accuracy of Breast Ultrasound with Subsequent Ultrasound-guided Breast Biopsy and to Evaluate Factors that Affect-Negative Predictive Value

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Introduction: Ultrasound (US) has played a critical role in breast cancer detection. BI-RADS is a widely used standard system for reporting breast pathology in radiology. BI-RADS categorization shows the radiological prediction of the selected lesion. While BI-RADS category 3 implies potential benign, BI-RADS 4 and 5 mean potential malignant or malignant, respectively. The aim of this study is the determine accuracy of breast ultrasound with subsequent ultrasound-guided breast biopsy and to evaluate factors that affect negative predictive value.

Method: Breast ultrasonography was used to collect the imaging data. BI-RADS category was used to classify lesions. BI-RADS category 4, 5 and some selected 3 lesions were included in the study. An ultrasound-guided tru-cut needle biopsy was performed on these lesions by applying local anesthesia to the breast. Biopsied lesions were sent to the pathology department. Pathological data were recorded by classifying them as benign or malignant. Breast ultrasound accuracy and factors that lead to affect negative predictive value were evaluated.

Results: Breast ultrasound imaging and histopathological results of 479 patients with BIRADS category 4, 5 and some selected 3 lesions that underwent ultrasound-guided tru-cut biopsy were compared. The difference between BI-RADS 3 and vs BI-RADS 4 and 5 was statistically significant ($p<0.01$). While 214 (98.2%) of 218 lesions with BIRADS category 3 were found to be benign, 4 (2.3%) of them were found to be malignant. Of those 123 lesions with BIRADS category 4, 88 (71.5%) were benign and 35 (28.5%) had malignant histopathological features. Of those 138 lesions with BIRADS category 5, 136 (98.5%) were malignant and 2 (1.5%) had benign histopathological features.

Conclusion: Our study results were found to be compatible with the literature.

Key words: BI-RADS® classification, breast cancer, ultrasound-guided tru-cut needle biopsy

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Plasmacytomas in patients with Multiple Myeloma: Incidence, Localizations and Prognosis

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Introduction: Mulitple myeloma (MM) is a malignancy characterized by uncontrolled proliferation of clonal plasma cells infiltrating the bone marrow. Plasmacytoma is local accumulation of monoclonal plasma cells. More than 50% of the patients who are diagnosed with plasmacytoma develops MM within 2 years. With this study, we will evaluate parameters such as incidence of developing plasmacytomas, localizations, demographic factors and some lab values. Our aim is to understand this topic further and hope to find meaningful relationships with these parameters.

Method: All patients diagnosed with MM who is followed up in the Hematology Department of Bezmialem Vakıf University Hospital will be included in the study. The demographic data of the patients, the stages, myeloma subtype, plasma cell numbers, whether they were diagnosed with plasmacytoma and if deemed necessary, other parameters will be examined. These data will be analyzed and the frequency of plasmacytoma with myeloma diagnosis will be determined.

Result: 91 patients were included in this study. There were 52 female (57.7%) and 38 male (42.3%) patients. 28 of the patients (32.2%) developed plasmacytoma during the disease. In comparison between patients who developed plasmacytoma and patients who did not, there were statistically significant diffrenece in the values of serum lambda, beta-2 microglobulin, serum creatinine, hemoglobulin ($p=0.005$; $p=0.042$; $p=0.050$, $p=0.002$). There was no statistical significant difference in other parameters

Conclusion: In conclusion 32.2% of the patients developed plasmacytoma which can be considered high. This effect prognosis and survival of the disease. Some of the lab values were found statistically significant in this research. These might be used for predicting the probability of having plasmacytoma early on stage. More studies are needed on the relationship between myeloma and plasmacytoma because the incidence of plasmacytoma has been increased with new treatments and improved survival rates.

Key words: Multiple myeloma, plasmacytoma

PP-40

Development of Addiction and Neurotoxicity Due to Long-Term Aspartame Consumption

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Introduction: This research clarifies the side effects of long-term aspartame consumption on central nervous system especially on cognitive functions and dopamine levels to determine it's addiction potential.

Method: In this study, *Wistar* rats were divided into three groups: low dose aspartame group (approximately 50 mg of aspartame/day in drinking water), high dose aspartame group (aproximately 250 mg of aspartame/day in drinking water) and a control group. After ten weeks aspartame consumption, various molecular analysis will be carried out to examine the changes occurring at the molecular level behavioral tests (Plus maze, Forced swim test and Morris water maze) were applied and cerebrospinal fluid and blood serum obtained for molecular analysis.

Results: According to repeated measure of ANOVA, there was a significant day effect in the bodyweight of rats during experiments ($p=0.001$), with insignificant treatment effect ($p=0.734$). Compared to the control group, the aspartame-consuming groups had lower blood glucose levels. Furthermore, in the Morris water maze, the memory performance of rats in the aspartame group was worse than thats of rats in control groups. According to the results of the plus maze and forced swim test, the groups taking aspartame had higher levels of anxiety and depressive-like behavior. Low dose, aspartame-consuming rats exhibited substantially decreased dopamine levels in their cerebrospinal fluid, as well as significantly lower antioxidant levels in their serum.

Conclusion: This experiment showed that chronic aspartame consumption had some negative effects on several behavioral parameters and dopamine levels as well as antioxidant status.

Key words: Aspartame, neurotoxicity, addiction, dopamine, rat