



# BEZMİÂLEM science

**4<sup>rd</sup> ANNUAL MEDICAL STUDENTS  
RESEARCH PRESENTATION DAY  
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## **ORAL PRESENTATIONS**

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## OP-1

## An Investigation of The Relationship Between Mucosa Associated Invariant T Cells (MAIT) and Childhood Asthma

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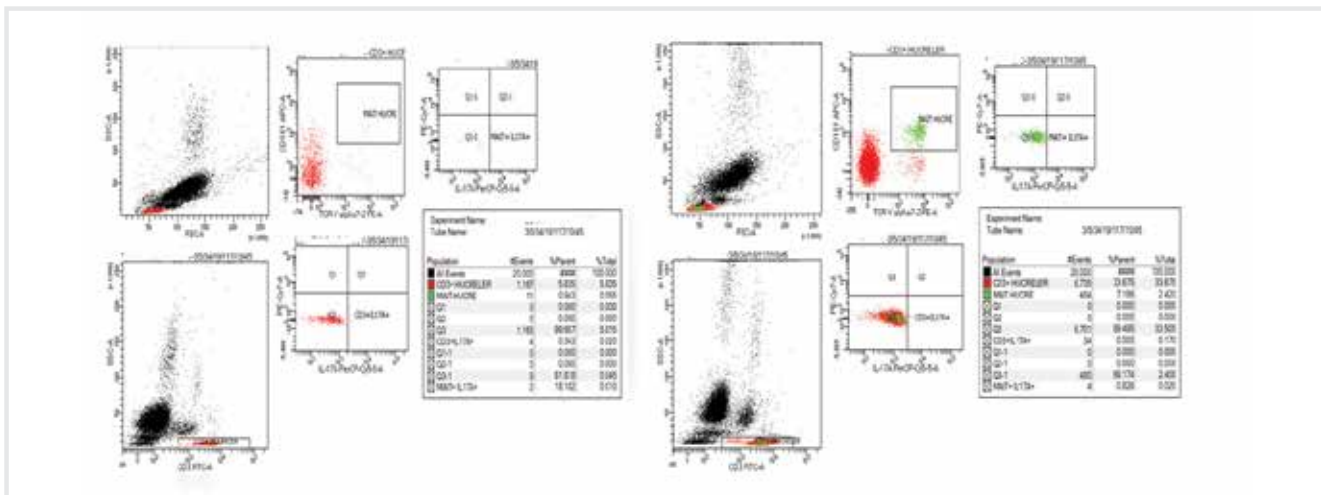
**Objective:** Innate-like T lymphocytes are a recently defined group of T cells containing mainly mucosa associated invariant T (MAIT) cells. The relationship between MAIT cells and childhood asthma is controversial. In this study, we aimed to determine the role of MAIT cells in patients with atopic asthma (AA) and non-atopic asthma (NAA). This study is the first study that compares the ratios of these cells in patients with AA and NAA.

**Method:** The study included 6-18 year-old children with AA (n=41) and NAA (n=30), and healthy volunteers (n=36). The control group consisted of children who came to the outpatient clinic without any chronic disease, malnutrition, and acute or chronic infection. Five cc blood was taken to the heparine tubes from the patients and the control group in addition to the routine blood. The proportions of MAIT, TH17, MAIT-17 and Th17-17 cells were investigated by flow cytometry and compared among AA, NAA and control group.

**Results:** When the AA and NAA patient groups were compared, the mean MAIT cell ratio was found to be significantly lower in NAA patients (median=0.45, p<0.05). Also, the mean of MAIT cell ratios was significantly lower in NAA patients than the control groups (mean=0.504, p<0.05). TH17, MAIT-17 and TH17-17 cells were not statistically significant among the groups.

**Conclusion:** In our study, it was found that MAIT cell ratios were lower in the NAA patient group compared to the control and AA patients. It has been predicted that MAIT cell depletion may have a role in the development of NAA. Our study is the first study on the subject in the literature, and further studies are needed.

**Key words:** Childhood asthma, MAIT, adaptive immunity, innate immunity, IL-17, Th-17, allergy



**Figure.** MAIT, MAIT-17, TH17 and TH17-17 cell ratios of 2 patients in the AA and NAA groups  
 MAIT: Mucosa associated invariant T, NAA: Non-atopic asthma, AA: Atopic asthma

## OP-2

# Can Cancer Stem Cells Help to Predict The Prognosis of Colorectal Cancers?

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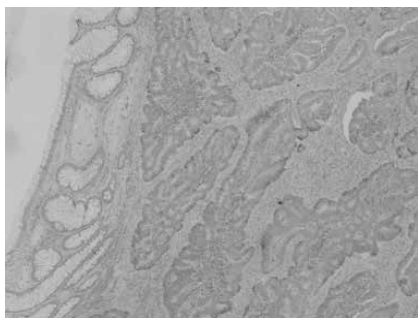
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**Objective:** Colorectal cancer (CRC) is the third most common cause of cancer-related death in the world. Cancer stem cells are a small population of cells in tumor tissue that are thought to induce tumor initiation and differentiation. Our first aim in this study is to investigate CD133 expression in colorectal cancer patients and to understand its role as a prognostic parameter.

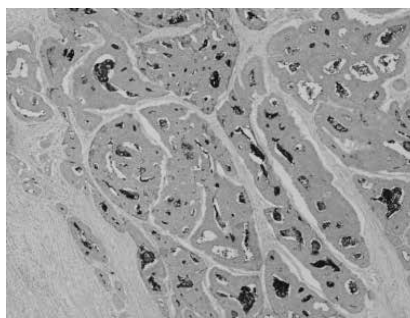
**Method:** Sixty-one patients (31 F, 30 M) with age between of 40 and 80 years and with a biopsy proven CRC between 2014 and 2018 years were analyzed retrospectively. Pathologic specimens which contained tumor and normal colon mucosa adjacent to tumor were retrieved for IHC. Expression of CD133 was defined as positive when CD133 staining was found in >10% of the whole tumor. The clinical data of these patients including gender, age, tumor location, invasion depth, distant metastases, lymphatic metastasis, blood vessel invasion were collected.

**Results:** We found CD133 positive in 39 of 61 patients with CRC diagnosis (Figure 1, 2). We showed a significant increase in CD133 staining in the transition from normal tissue to cancerous tissue. This result showed that

some stem cells are present in those cases. However, except blood vessel invasion ( $p=0.029$ ), there was not statistically significant difference between CD133 expression and prognostic parameters.



CD133 (-)



CD133 (+)

**Conclusion:** Studies showed different results about the expressions of CD133 in CRC carcinogens. Expression of CD133 has been thought as a bad prognostic parameter. Our study showed no relationship between CD133 expression and patients' survival. As usual, blood vessel invasion shows bad prognosis in cancers. Our study showed CD133 expression in patients without blood vessel invasion. Thus, CD133, if used as prognostic parameter, might not predict the bad prognosis of colon cancer. We need further studies with more colon cancer cases to prove this result. This study could be accepted as a preliminary study for future studies about CD133 and CRC.

**Key words:** Colorectal cancer, CD133, Prognosis

### OP-3

## Investigation of Antimicrobial Effect of Fluoxetine in Experimental Sepsis Modeled Rats

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**Objective:** Since most infectious diseases can develop into sepsis, it is still a major problem. Antipsychotics have been recognized as one of the drugs that can be used against infections, and selective serotonin reuptake inhibitors constitute the majority of them with their antimicrobial activities. Some *in-vivo* studies show that fluoxetine has some promising properties in specific infections, but this is the first study of antibiotic versus antidepressant in sepsis model. This study aimed to investigate the effect of fluoxetine on the inflammatory process compared to the antibiotics used in the treatment of sepsis model in rats and to investigate the efficacy of fluoxetine in modifying the antibiotic effect.

**Method:** Based on the previous studies, the sample size was determined according to 95% confidence level to reveal the difference of 2.1 units between the means,  $\alpha=0.05$  significance level, and  $n=40$  (8 rats/group) to obtain 80% power. Forty adult female wistar-albino rats were randomly divided into five groups and all groups were treated according to Table 1. After the treatment, blood and tissue samples were collected. Serum and tissue high sensitivity C-reactive protein (HsCRP), pro calcitonin (PCT), lactate, myeloperoxidase activity (MPO), interleukin-1 $\beta$  (IL-1 $\beta$ ), IL-6, tumor necrosis factor (TNF $\alpha$ ), and monocyte chemoattractant protein-1 (MCP-1) were measured using ELISA methods. Oxidative stress markers of total thiol (TT), native thiol (NT), total oxidant status (TOS), and total antioxidant status (TAS) were studied by photometric methods. Tissue protein levels were measured by Bradford method.

**Results:** After the treatment, fluoxetine, imipenem, and combined (fluoxetine+imipenem) groups' IL-1 $\beta$ , IL-6, TNF $\alpha$ , MPO, MCP-1, HsCRP, PCT, lactate, TOS, OSI and disulfide levels were reduced ( $p<0.05$ ). The levels of antioxidant indicators (TT, NT, and TAS) were significantly increased ( $p<0.05$ ). Fluoxetine and imipenem combined therapy showed positive synergistic effects.

**Conclusion:** Our study shows that fluoxetine has anti-inflammatory and antioxidant effects and its combined therapy with imipenem shows positive synergistic effects against experimental sepsis model. Therefore, fluoxetine can be used for the treatment of sepsis together with imipenem to ameliorate sepsis.

**Key words:** Sepsis, fluoxetine, rat

Table 1.	
Negative control group	This group had undergone a surgical incision called "sham operation" to mimic the same after-surgical effects. The rats did not have any treatment, only were given saline solution in every 12 hours through 72 hours.
Positive control group	This group had undergone a surgical procedure called the Cecal Ligation & Puncture (CL&P) to mimic sepsis syndrome. The rats did not have any treatment, only were given saline solution in every 12 hours through 72 hours.
Fluoxetine group	The CL&P method was applied, and rats received 5 mg/kg fluoxetine (FLU) intraperitoneally in every 12 hours through 72 hours (10 mg/kg/day).
Imipenem group	The CL&P method was applied and rats received 60 mg/kg imipenem (IMP) intraperitoneally in every 12 hours through 72 hours (120 mg/kg/day).
Combined group	The CL&P method was applied and rats received 5mg/kg fluoxetine (FLU) and 60 mg/kg imipenem (IMP) intraperitoneally in every 12 hours through 72 hours (10 mg/kg/day & 120 mg/kg/day).

## OP-4

## The Relationship Between Serum FGF23 Levels and Liver Steatosis in Individuals with Type 2 Diabetes Mellitus

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**Objective:** Non-alcoholic fatty liver disease (NAFLD) is one of the most common causes of liver failure today and usually accompanies Type 2 Diabetes Mellitus (T2DM). Fibroblast growth factor-23 (FGF23) is a hormone that is known for its role in phosphate regulation but recently a study has reported that FGF23 is the best predictor of mortality for liver transplantation list patients. The aim of this study was to compare the serum FGF23 levels of T2DM patients with and without NAFLD to provide a better understanding of the relationship between FGF23 and NAFLD.

**Method:** We included 54 volunteers with hepatosteatosi as the patient group and 33 volunteers without hepatosteatosi as the control group. Waist circumference, height and weight were measured, Body Mass index (BMI) and Fatty Liver index (FLI) were calculated. Routine test results were recorded. Calcium, phosphorus, gamma glutamyl transferase (GGT), alkaline phosphatase (ALP), 25-(OH)-vitamin D, parathyroid hormone (PTH) and FGF23 were measured in serum samples.

**Results:** There was no statistically significant difference in comorbidities and medications between the groups. In the measurements; the patient group had statistically significantly higher FLI's ( $p=0.042$ ), there was no statistically significant difference between the groups regarding BMI ( $p=0.092$ ), waist circumference ( $p=0.087$ ), and T2DM duration ( $p=0.569$ ). In the laboratory tests; the patient group had statistically significantly higher alanine transaminase levels than the control group ( $p=0.008$ ), there was no statistically significant difference between the groups regarding BUN ( $p=0.976$ ), creatinine ( $p=0.569$ ), eGFR ( $p=0.316$ ), AST ( $p=0.110$ ), GGT ( $p=0.431$ ), 25-(OH)-vitamin D ( $p=0.597$ ), phosphorous ( $p=0.326$ ), ALP ( $p=0.700$ ) and PTH ( $p=0.681$ ) levels. Finally, there was no statistically significant difference between the groups in serum FGF23 concentrations ( $p=0.786$ ). There was no correlation of FGF23 with FLI.

**Conclusion:** Although we could find no relationship between serum FGF23 levels and the presence of NAFLD in T2DM patients, this study had time and resource limitations; therefore, further experimental and long-term clinical studies with higher samples sizes are needed in this area.

**Key words:** FGF23, non-alcoholic liver disease

OP-5

## The Effect of Lavender Oil on Pain Control in Premature Infants: A Randomized Controlled Study

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**Objective:** The pain control is essential in premature babies. These babies stay in neonatal intensive care unit for a long time and many invasive procedures are applied during this period. The effects of stress and pain on newborns have recently been studied in details. Lavender oil has soothing effect on adults. However, it was not investigated on pain control in premature infants previously. The aim of our study was to determine the effect of lavender oil scent on pain management in preterm infants during heel-stick sampling.

**Method:** This was a prospective double-blind, randomized controlled trial that was conducted in Bezmialem Vakıf University Hospital from March 2019 to November 2019. The study was approved by the local ethical board (28.02.2019 no: 71306642-050.0104-). Babies were randomized into 2 groups. Lavender oil was used in the lavender oil group and distilled water was used in the control group. Premature infant pain profile-revised (PIPP-R) was used for scoring before, during and after the heel-stick sampling in both groups.

**Results:** A total of 61 premature infants were enrolled in the study, consisted of 29 girls (47.5%) and 32 boys (52.5%) aged 2-25 days (mean age  $5.31 \pm 4.85$  days). No significant difference was found in gestational age, birthweight or delivery mode between two groups ( $p > 0.05$ ). There was no statistically significant difference in PIPP-R scores before the sampling between two groups ( $p > 0.05$ ). There was a statistically significant difference in PIPP-R scores during and after the sampling between two groups ( $p < 0.008$  and  $p > 0.03$  respectively).

**Conclusion:** The study showed that lavender oil may be effective on pain control during heel-stick in premature infants. It can be an alternative non-pharmacological method to relief pain in invasive procedures.

**Key words:** Premature infant pain profile, pain, lavender oil, neonate



## OP-6

## A Rat Study: Cosmetic, Histologic and Mechanic Effect of Platelet Rich Fibrin on Wound Under Tension

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**Objective:** Wound tension is a perpendicular strain build-up at the wound edges, which can be caused by several surgical procedures that lead to a non-desirable outcome. There are some methods to reduce the tension; however, there is no agreed highly cost-effective intervention to aid healing tissue. Platelet rich fibrin (PRF) is a homologue blood centrifuge which is rich in facilitators of healing, proven to be successful in many difficult healing cases. Aim of this experiment is to see if PRF can overcome the negative impact of tension on wound healing.

**Method:** Six groups of tens, 250-300 gr Wistar Hannover rats were divided into 3 different wound models to achieve low, medium and high tension at edges. Every wound model has 2 subgroups: isotonic solution (4 ccs 0.9% saline) and PRF (4 cc in tube) emplacement. Diverse tension levels were achieved by altering the horizontal width of the wound. Vancouver Scar scale (VSS) was implemented for healing close up. Scar width was measured by 0.02 mm accuracy caliper on the 28<sup>th</sup> day *in vivo*. Dissected skin samples were tested in 10 mm/min traction. A pathology examination with H&E and type I collagen immunochemistry staining was utilized.

**Results:** On the 5<sup>th</sup> day, the PRF subgroup in high tension healed faster to its counterpart (5.20 to 3.44 VSS score,  $p=0.046$ ). On the 14<sup>th</sup> day, the PRF subgroups in low (3.80 to 1.00 VSS score,  $p<0.001$ ) and medium (3.10 to 1.78 VSS score,  $p<0.001$ ) tension were better healed compared to the same tension control. On the 24<sup>th</sup> day, there was no significant difference. Scar lines were finer at all PRF subgroups on the 28<sup>th</sup> day (low tension 1.17 mm to 0.47 mm,  $p=0.018$ ; medium tension 1.49 mm to 0.72 mm,  $p=0.007$ ; high tension 2.09 mm to 1.43 mm,  $p=0.029$ ). In terms of tension strength, PRF diminished the stiffness in medium (81 N to 59 N,  $p=0.023$ ) and high (81 N to 46 N,  $p<0.001$ ) groups.

**Conclusion:** To sum up, the use of PRF has reduced scar width, facilitated healing and reduced stiffness in rat model. Since it is autologous, there is no adverse effect to use it in humans. With sufficient human data, it can be a remedy to all surgeries with high tension closures.

**Key words:**Wound healing, Platelet Rich Fibrin, Wound under tension



OP-7

## Clinical and Genetic Research of the Relationship Between Irritable Bowel Syndrome and Biological Clock

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**Objective:** Biological rhythm is associated with gastrointestinal peripheral tissue clocks, mainly associated with the fluctuations of gastric motility. The polymorphisms of *CLOCK*, *PER2* and *PER3* genes, especially associated with increased gastric motility, have not previously been studied in Irritable Bowel syndrome (IBS). We aimed to evaluate the polymorphisms of the biological clock genes and their associations with clinical biological rhythm disturbances and the severity of IBS.

**Method:** A hundred patients with IBS who were evaluated with Rome-3 criteria and 100 healthy controls (HC) were recruited in our study. All participants were evaluated with Pittsburgh Sleep Quality index (PSQI), Biological Rhythms Interview Assessment in Neuropsychiatry (BRIAN) and Morningness-Eveningness Questionnaire (MEQ). The severity of IBS will be examined with Irritable Bowel syndrome Severity Score (IBSSS). Buccal smear samples were taken for DNA. The genotyping in candidate genes (*CLOCK*, *PER2*, *PER3*) will be performed with polymerase chain reaction.

**Results:** We have done clinical tests and collected their DNA samples. We stored our samples in a +4 degree refrigerator. Our study will be finished in March 2020. Regarding our preliminary findings, IBSSS total mean was  $270.75 \pm 67.71$  in patients with IBS; we found that PSQI ( $p=0.009$ ) and BRIAN total ( $p=0.01$ ) scores were higher; MEQ total score was lower ( $p=0.03$ ) in patients with IBS compared to HC. BRIAN-Total ( $p=0.379$ ,  $p=0.004$ ), BRIAN-sleep ( $p=0.293$ ,  $p=0.015$ ) and PSQI ( $p=0.315$ ,  $p=0.009$ ) were correlated positively with IBSSS. A regression analysis revealed IBSSS and it was found that BRIAN-sleep and PSQI scores were only predictors.

**Conclusion:** Our preliminary results suggested that the biological rhythm and subjective sleep disturbances, chronotypes were associated with the severity of IBS. Our further gene analysis might provide the opportunity to ascertain potential relationship between genetic variations in the *CLOCK*, *PER2*, *PER3* and clinical parameters of patients with IBS.

**Key words:** IBS, biological rhythm, sleep, clock genes

## OP-8

## The Cytotoxic, Genotoxic and Apoptotic Effects Against Colorectal Cancer Cells in Different Concentrations of *Prangos Platychloena*

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**Objective:** According to the World Health Organization, cancer is the second cause of unknown death. *Prangos platychloena* (*P. platychloena*) is an endemic plant in Turkey, which is used for wounds of cattle, to stop bleeding, as emollient, tonic, anti-fungal, and anti-helmentic treatment and to treat intestinal worms when taken orally. The aim of this study is to explore the potential of anticancer drugs by investigating the cytotoxic, genotoxic, apoptotic and reactive oxygen generating effects of *P. platychloena* extract in different concentrations on colorectal carcinoma cells.

**Method:** *P. platychloena* extracts were obtained using four different solvents, and the highest content of methanol extract was selected for the study. Cytotoxic, genotoxic and apoptotic effects of *P. platychloena* extract on colorectal carcinoma cells were analyzed at different concentrations ranging from 2.5 to 320 µg/mL after 24-hour incubation. After the incubation, cell viability was assessed based on luminometric adenosine triphosphate cell viability assay kit. Intracellular reactive oxygen species (ROS) generating level was detected using 2.7 dichlorodihydrofluorescein-diacetate fluorescent probes. Apoptosis was evaluated by acridine orange/ethidium bromide double staining method. Genotoxicity was assessed by alkaline single cell gel electrophoresis assay.

**Results:** *P. platychloena* has cytotoxic, genotoxic and apoptotic effects in colon cancer cells at higher doses. Cytotoxicity was decreased and ROS level was increased with dose. IC<sub>50</sub> of *P. platychloena* extract was 18.60 mg/mL.

**Conclusion:** *P. platychloena* extract can be used in the treatment of colorectal carcinoma at higher doses. In addition, it may be advantageous for other uses and this plant extract reaches oxidant levels only at high doses. However, *in vivo* studies are required for dose optimization.

**Key words:** Colorectal carcinoma, apoptosis, DNA damage

## OP-9

## Comparative Effects of Combustible Cigarette and IQOS on Experimental Rat Model

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**Objective:** A new genre of smoking, heat not burn cigarette (IQOS), has been developed for tobacco products that are increasingly used among the public. With this method, nicotine is evaporated by heating the tobacco at lower temperatures without burning. Firms producing IQOS method claim that the smoker is protected from oxidant molecules formed as a result of combustion. Although there are few *in vitro* studies on this subject, sufficient *in vivo* experimental studies have not been performed yet. In literature %70 of tobacco studies are conducted by cigarette firms and we aimed to compare the probable effects of IQOS and combustible cigarette use on rat models as an independent researchers.

**Method:** This study was designed as a randomized prospective rat trial. We used 21 Wistar albino male rats divided into 3 groups. The control group exposed to air only, while one group exposed to whole-body combustible cigarette mainstream smoke (10 mg nicotine/day) and the other group exposed to IQOS aerosol (combustible cigarettes equivalent nicotine-10 mg/day) for 3 weeks, 1.5 hours a day, 7 days a week with the smoke inhalation machine designed with the Department of Physics Engineering of İstanbul Technical University. Once a week, the levels of nicotine, inflammation parameters interleukin (IL) (IL-1 $\beta$ , IL-6, tumor necrosis factor (TNF)- $\alpha$ ), oxidative stress parameters (total antioxidant status (TAS), total oxidant status (TOS), oxidative stress index (OSI) and mononuclear leukocyte DNA damage analyzed in the blood. In addition, the lung tissues of the sacrificed rats' removed, and the levels of oxidative stress and inflammation parameters examined.

**Results:** The variations between the groups' TAS, TOS, OSI, IL-6, IL-1 $\beta$ , and TNF- $\alpha$  levels were examined through the posthoc tests and the Dunn test. The difference among the inflammatory marker levels of the combustible cigarette group and the control group was found statistically significant ( $p < 0.001$ ); however, IQOS group's values were insignificant with regard to others'. TOS, OSI, IL-6, IL-1 $\beta$  levels of the combustible cigarette group is statistically higher, yet; TAS level is lower compared to the control group.

**Conclusion:** Increased oxidative stress in the combustible cigarette group may be associated with the short duration of the study. Therefore it is needed to support the stated data with long term in vivo researches.

**Key words:** Heat not burn tobacco, oxidative stress, DNA damage, inflammation

OP-10

## Investigation of Inflammatory Cytokines and Response to Treatment in Patients with Obsessive Compulsive Disorder

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**Objective:** Obsessive compulsive disorder (OCD) is a chronic disorder characterized by obsessions and compulsions, with serious adverse effects on the individual's social and professional functioning. A growing body of evidence has suggested that inflammatory processes play a role in the development of OCD. However, the results in the literature are inconsistent, and there are no data to define the response of inflammatory cytokines after treatment in drug-naïve patients with OCD. The aim of our study was to compare the level of cytokines in patients with OCD than healthy controls and to investigate the changes in the level of cytokines after treatment and relationship with clinical severity in patients with OCD.

**Method:** Twenty-two drug-naïve outpatients diagnosed with OCD and 20 gender-age-BMI matched healthy controls (HC) were evaluated through the use of the Yale-brown obsessive-compulsion (Y-BOC), Beck Depression (BD) and beck anxiety (BA) scales. We collected serum samples for the 3-time point (baseline, after 4 weeks, after 8 weeks) in the OCD group to investigate the effect of the treatment. Levels of cytokines IL-9, IL-35 and TGF- $\beta$  were measured by using ELISA kit; IL1 $\beta$ , IL-6, IL-10, IL-17A, IL-33 were measured by using Luminex Human Magnetic Assay Kit.

**Results:** Compared with HC, the levels of IL-6 were higher ( $p= 0.016$ ) and the levels of TGF-  $\beta$  were lower ( $p= 0.05$ ) in drug-naïve patients with OCD. In the paired test analysis, YBOCS were decreased ( $p< 0.001$ ) and the level of IL-10 ( $p= 0.042$ ) and TGF- $\beta$  ( $p= 0.033$ ) were higher after 8-week treatment in the patients with OCD. IL-10 was also correlated with the last YBOC score ( $Rho= -494$ ,  $p= 0.19$ ) after 8 weeks of treatment and TGF-  $\beta$  was correlated with baseline BA score after 4-week treatment ( $Rho= 0.614$ ,  $p= 0.002$ ) and 8-week treatment ( $Rho= .484$ ,  $p= 0.022$ )

**Conclusion:** Our findings suggest that the treatment might cause a high level of anti-inflammatory immune response in patients with OCD.

**Key words:** Obsessive-compulsive disorder; cytokines; inflammation; biomarker; response to treatment



# BEZMÎÂLEM science

**4<sup>rd</sup> ANNUAL MEDICAL STUDENTS  
RESEARCH PRESENTATION DAY  
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**SHORT ORAL PRESENTATIONS**

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## SOP-1

# Investigation of Academic Procrastination Behaviors Among Bezmialem Vakıf University Students

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**Objective:** Academic procrastination is defined as avoiding from accomplishing of academic tasks (doing homework, studying for exams). Determining academic procrastination behaviors is very important for the university students before the professional life. Our aim was to investigate the academic procrastination tendency at the Bezmialem Vakıf University and to examine the differentiation status according to gender, department, and grade.

**Method:** The personal information form and the “Academic Procrastination scale” were sent to all students. The form questioned age, gender, faculty, department and grade. The scale had 12 negative and 7 positive statements about the responsibilities of academic life (studying, preparing for exams, preparing projects). The responses to these statements were graded in a five-point likert type scale (1: strongly disagree, 5: strongly agree). Higher scores showed higher academic procrastination behaviors.

**Results:** A total of 913 students aged between 18 and 34 ( $20.85 \pm 1.76$ ) years from faculty of medicine (30.2%), dentistry (16.6%), pharmacy (10.6%), faculty of health sciences (21.6%) and vocational school of health services (20.9%) participated in the study. The total score was higher in males ( $56.21 \pm 12$ ) than in females ( $52.32 \pm 12$ ). There was a positive correlation between age and total score ( $p < 0.001$ ). Medical students ( $55.79 \pm 13.21$ ) had higher scores than vocational school of health services ( $50 \pm 12.91$ ) ( $p < 0.001$ ). A significant difference was found between the 1<sup>st</sup> and 5<sup>th</sup> grades in the medical faculty ( $p = 0.006$ ). First grades had the lowest score (average=53) and the 5<sup>th</sup> grades had the highest (average=62). When the pharmacy classes were examined, 1<sup>st</sup> grade students had the lowest procrastination score ( $47.71 \pm 11.27$ ).

**Conclusion:** The academic procrastination behaviors were more common in males than in females. As the age increased, academic procrastination behaviors also increased. It is noteworthy that faculty of medicine students showed more procrastination behaviors than the vocational school of health services students. As we see, academic procrastination behavior is very common, the reasons underlying this should be investigated more and further studies should be done to prevent this.

**Key words:** Academic procrastination, university students

## SOP-2

# Hypochondria and Health Anxiety in Medical Students

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**Objective:** “Medical student disease” (MSD) should be considered as a phenomenon due to years of learning. Hypochondriasis or hypochondria is a condition in which a person is excessively and unduly worried about having a serious illness. An individual with hypochondriasis is known as a hypochondriac. Hypochondriacs become unduly alarmed about any physical or psychological symptoms they detect, no matter how minor the symptom may be, and are convinced that they or others have, or are about to be diagnosed with, a serious illness.

**Method:** In our study, health anxiety inventory (short version) (SHAI) and anonymous scales were applied to all students from the 1<sup>st</sup> to 6<sup>th</sup> grades in Bezmialem Vakıf University Medical School. SHAI consisted of 2 sub-dimensions. The first dimension was hypersensitivity and anxiety to the physical symptoms. The second subdimension was the negative consequences of the disease. Two more questionnaires were added. One was a MSD anxiety scale and the other was a MSD distress scale.

**Results:** According to the analyses, there was a negative correlation between the health anxiety inventory and the grades ( $r=-0.184$   $p=0.008$ ). Similarly, there was a negative correlation between the grades and MSD anxiety scale and MSD stress scale. As grade increased, anxiety and stress levels decreased ( $r=-0.230$   $p=0.001$ ) ( $r=-0.245$   $p<0.001$ ). As a result, a weak inverse and significant relationship was found between the grades and the scale scores. There was also a significant correlation between the scales themselves. As anxiety levels of students decreased, stress and anxiety levels also decreased ( $r=0.560$   $p<0.001$ ) ( $r=0.674$   $p<0.001$ ) ( $r=0.739$   $p<0.001$ ).

**Conclusion:** The result of the study showed that medical students experienced a decrease in health anxiety as their grade increased. This shows that as the level of knowledge and practice increases, medical students experience less stress and anxiety about their health.

**Key words:** Health anxiety, hypochondria, medical student



## SOP-3

# Investigation of Pathological Narcissism in Patients with Anxiety Disorders and Depression

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**Objective:** Evidence from clinical practice and discussions about narcissism suggest that pathological narcissism has higher prevalence rates than it is indicated by the Diagnostic and Statistical Manual of Mental Disorders (DSM). This is often thought to be caused by the narrow definitions of DSM, compared to the clinical experience and theoretical categorizations, which consists of grandiosity and vulnerability. The only construct about pathological narcissism in the DSM lies on the narcissistic personality disorder and this categorization only includes grandiosity while neglecting vulnerability. In this study, we aimed to investigate the pathological narcissism including both grandiose and vulnerable aspects in patients with anxiety disorders and depression.

**Method:** A sample of 105 patients diagnosed with depression and anxiety completed the Pathological Narcissism Inventory (PNI) and Borderline Personality Inventory (BPI) in the outpatient clinic. PNI consisted of 7 different subscales for pathological narcissism, which were contingent self-esteem, denial of dependency, exploitativeness, entitlement rage, self-sacrificing and self enhancement. BPI consisted of 4 different sub scales, which were identity diffusion, primitive defenses, intact reality testing, fear of fusion.

**Results:** The mean age was 33 years, 78.1% were female, 21.9% were male. 36.2% had college degree, 65 had depression (61.9%), 40 had anxiety (38.1%). Male patients had higher pathological narcissism score than female patients (0.004). Patients with a college degree were found to be associated with higher PNI total (0.035) and PNI-vulnerability (0.017) scores compared to the patients with lower school degrees. In the Spearman correlation analysis, we found PNI-total highly correlated with the BPI-total score in patients with depression ( $\rho=0.49$ ,  $p<0.001$ ) and anxiety disorders ( $\rho=0.62$ ,  $p<0.001$ ).

**Conclusion:** Our data suggests that there is no difference in pathological narcissism and borderline features between patients with depression and anxiety. Additionally, we found associations between PNI and BPI score in our sample. Hence, narcissistic personality variables might be presented with borderline features.

**Key words:** Narcissism, depression, anxiety, borderline

SOP-4

## Investigation of N-terminal Pro Brain Natriuretic Peptide, Oxidative Stress, and Thiol Disulfide Homeostasis in Vitiligo Patients

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**Objective:** Vitiligo is an acquired skin disease characterized by depigmented macules and melanocyte destruction. Melanocytes are neural crest in origin. As a critical component of the pigimentary system, these cells are responsible for the production and release of melanin. Melanocytes are found in the heart as well as in the skin. Melanocytes are found in the valves of the heart, septas, atriums and pulmonary veins. N-Terminal Pro Brain Natriuretic Peptide (NT-proBNP) is released from the ventricular myocardium in response to increased ventricular wall tension and it indicates chronic heart disease. We aimed to investigate cardiovascular risk using NT-proBNP and to investigate oxidative stress, thiol, and disulfide values in vitiligo patients.

**Method:** The study included 40 vitiligo patients and 40 gender-age-Body Mass index-matched healthy individuals. The serum NT-proBNP concentration, Total Oxidant Status, Total Antioxidant Status, Total Thiol, and Native Thiol concentration were assessed in the patient and control groups.

**Results:** Compared to the control group, NT-proBNP levels were higher ( $p<0.001$ ), total oxidant status was higher ( $p<0.01$ ), Oxidant Stress index was higher ( $p<0.001$ ), total thiol levels were lower ( $p<0.05$ ), native thiol levels were lower ( $p<0.05$ ), and total disulfide levels were higher ( $p<0.05$ ) in vitiligo patients.

**Conclusion:** The study findings confirmed higher NT-proBNP concentrations in vitiligo patients and increased risk for cardiovascular disease.

**Key words:** Vitiligo, melanocyte, NT-proBNP, oxidative stress, thiol-disulfide homeostasis

## SOP-5

# Evaluation of Attitudes and Knowledge of Physicians and Nurses Working at Bezmialem Vakıf University for Palliative Care

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**Objective:** Palliative care is a care system aimed at improving the quality of life in progressive, non-treated, deadly diseases. Palliative care services in our country have been neglected for years. The most important reason for this is the Turkish family structure. In addition, the importance and the general principles of palliative care is not emphasized in basic medical education and palliative care expertise is not available in our country.

**Method:** The research was carried out at Bezmialem Vakıf University. Physicians and nurses working in Bezmialem Vakıf University were included in the study. The questionnaire included 22 questions. The sample size was determined as 150 by the power analysis. The data were analyzed with IBM SPSS 22.0 package program. The distribution of categorical variables was examined by chi-square test. Frequency, percentage and median values were given as descriptive statistics.  $P < 0.05$  was considered statistically significant.

**Results:** There were two significant differences between the attitudes and knowledge of physicians and nurses. The average year of the working groups was found to be  $5.36 \pm 5.173$ . Physicians and nurses working in the questionnaire were selected from 24 different branches. When we asked the sixth question “Does palliative care involve any kind of material, spiritual, social, psychological support?”, it was found that at the level of  $p = 0.025$ , the ratio of correct answers given by nurses was greater. When we asked the eighth question “Is the goal of palliative care to prolong life?”, it was found that the rate of correct answers given by physicians at the level of  $p = 0.003$  was higher.

**Conclusion:** There were two significant differences between doctors and nurses in the results obtained. No high level of awareness was observed when correct response rates were evaluated.

**Key words:** Palliative care, knowledge level

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SOP-6

# Evaluation of Epidemiological Features and Dosage of The Medication for Permanent Hypoparathyroidism Patients As A Candidate of Parathyroid Transplantation

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**Objective:** Life quality of patients with permanent hypoparathyroidism shows a significant decrease. Data from the field studies indicate that palliative treatment is not sufficient for permanent hypoparathyroidism. National and international guidelines and literature have no defined criteria for patient's daily need for calcium and vitamin D.

**Method:** The waiting list of Bezmialem Vakıf University, Parathyroid Transplantation Unit was evaluated.

**Results:** Between January 2013 and April 2019, 267 patients who enrolled for parathyroid transplantation were eligible and 79 could be transplanted, with an average waiting time of 27 months. One hundred eighty eight patients still registered on the waiting list were evaluated in this study. One hundred and sixty-one (85%) of these patients were female and 27 (15%) were male. One hundred twenty eight (68%) patients were between 30 and 49 years old. The etiology of hypoparathyroidism was iatrogenic in 166 (92%), autoimmune in 11 (%6), and congenital in 3 patients, with the mean blood parathyroid hormone (PTH) levels of 7.8, 3.4 and 0.1 pg/mL, respectively. The mean calcium levels were 8 mg/dL in each etiological group. The average duration of permanent hypoparathyroidism was 118 months. The mean daily calcium intake was 2421.5 mg (highest 8000 mg lowest 1000 mg), daily calcitriol intake was 1.04 mg (highest 4 mg and lowest 0.5 mg) and daily cholecalciferol intake was 2011.5 mg (4000 mg maximum and 1000 mg lowest). Thirty-seven (24.5%) of the patients needed IV calcium treatment, which means hospitalization.

**Conclusion:** The etiology of hypoparathyroidism, age, oral dose per medicine, frequency and dosage of IV calcium intake became an important criterion. Permanent hypothyroidism has an elevated socioeconomic cost, affecting young people needing daily supplementations of calcium and vitamin D, with the necessity of hospitalizations in ¼ of the patients. Parathyroid transplantation is the most effective curative treatment. We think that a prioritizing score system for transplantation is needed in the light of these data.

**Key words:** Parathyroid, transplantation, waiting list, permanent hypoparathyroidism

## SOP-7

# Evaluation of Knowledge Level and Preferences of Pregnant Women About Prenatal Screening Tests

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**Objective:** A double screening test and a triple screening test are used to detect babies with Down's syndrome and trisomy 18 at early stages of pregnancy. There is no indication for screening test for pregnant women who do not want to have invasive tests. The aim of this study is to investigate the level of knowledge and use of double and triple screening tests in pregnant women, their attitudes, and factors affecting their decisions to undergo double and triple tests.

**Method:** Eighty nine pregnant women admitted to Bezmialem Vakıf University Obstetrics and Gynecology Outpatient Clinic were included in the study. Pregnant women who were at the gestational weeks of 20 and younger participated in the survey. Two questionnaires were prepared. These were the questionnaire in which sociodemographic information was asked to pregnant women and the questionnaire that asked questions about their knowledge level and preferences about prenatal screening tests.

**Results:** While 55 pregnant women (61.7%) did not want to have prenatal tests, 27 pregnant women (30.3%) wanted to have tests. The most common reason for those who did not want to have the tests was "Because of cultural or religious sensitivities, I will not have my child aborted, even if the tests are negative". 81.5% of those who wanted to have screening tests chose the option "If the baby has a disease, I will have the tests done to learn and prepare".

**Conclusion:** As we have seen in our study, the majority of pregnant women do not trust the tests and therefore do not have them. As healthcare professionals, we must clearly inform pregnant women about when the tests should be performed, why they should be performed, how they will be performed and their possible results.

**Key words:** Prenatal screening tests, attitude, knowledge level

SOP-8

# The Relationship of Endometrium pH Value with Embryo Implantation in Women

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**Objective:** There are many factors for successful pregnancy and optimal conditions in the endometrium should be established for implantation. Studies have shown that vaginal pH in humans and animals are also affected by physiological and pathological events in the body. In our literature review, there is no physiological endometrial pH monitoring in women. In our study, we measured endometrial pH in postpubertal and premenopausal women without previous implantation defects. We expect to contribute to the relationship between fertilization, implantation and endometrial pH and to know the physiological endometrial pH in women.

**Method:** Our study was planned to include 2 women who had previously given birth or who had a successful history of implantation without known defects and who were not pregnant during the measurement period. MMS Orion II pH meter was used for endometrial pH monitoring and the measurement lasted 24 hours by using different catheters in each individual. The catheter was successfully inserted into the endometrium without damaging by inserting the speculum. The pH meter catheter was patched to the abdomen and inguinal regions. The first volunteers had the measurement on the 14<sup>th</sup> day of menstruation and the second volunteer on the 27<sup>th</sup> day of menstruation. Endometrium pH value was obtained at 0 cm and vaginal pH value was obtained at 15 cm with pH meter.

**Results:** On the 14<sup>th</sup> day of menstruation, the measurement of endometrial pH was between 5.2 and 8.4 and vaginal pH was between 6.2 and 6.4. The endometrial pH of the volunteer on the 27<sup>th</sup> day of menstruation was between 3.8 and 6.1 and the vaginal pH was between 4.3 and 7.8. The endometrial pH of second volunteers increased gradually between 19.00 and 21.00 and between 05.00 and 06.00.

**Conclusion:** Consequently, endometrial pH changes in menstrual cycle. Our results should be confirmed with further experimental and clinical studies.

**Key words:** Endometrial pH, vaginal pH, infertility, implantation, acidity

## SOP-9

# Investigation of The Relationship Between Androgenetic Alopecia and Metabolic Syndrome and Evaluation of The Relationship Between Metabolic Syndrome and Early Onset Age of Androgenetic Alopecia

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**Objective:** Androgenetic alopecia (AGA) represents patterned hair loss primarily affecting the scalp and is the most common form of hair loss in men. Metabolic syndrome (MetS) is a set of cardiometabolic risk factors. The underlying pathophysiology linking AGA and MetS is not fully established. In this study, the relationship between AGA and MetS was investigated.

**Method:** The sample of study consisted of male patients aged between 12 and 60 years who were admitted to Bezmialem Vakıf University Dermatology Department and diagnosed as AGA. The control group consisted of men between 12 and 60 years of age with no diagnosis of AGA and previous MetS. The study included 60 patients with AGA and 60 patients without AGA. After a detailed systemic and skin examination, the diagnosis of AGA was made according to Hamilton Norwood classification. MetS was screened in these patients. The MetS was screened using 2005 Diagnostic Criteria of MetS.

**Results:** The mean age of the patients was 41.35 years and the patients were divided into two groups as group (1) with AGA and group (2) without AGA. MetS was detected in 61.7% of patients with AGA (1). MetS was detected in 38.3% of the non-AGA group (2). According to chi-square test, which evaluated AGA and MetS relationship,  $p=0.04$  result was obtained. The rate of MetS was 55.2% in the group that started before AGA age of 30 years (3). The rate of MetS was 44.8% in the group that started after AGA age of 30 years (4). According to chi-square test, which evaluated the relationship between AGA early onset age and MetS,  $p=0.821$  was obtained.

**Conclusion:** As a result of the research, a significant relationship was found between AGA and MetS. For this reason, it is recommended that patients diagnosed with AGA be screened for MetS and, if necessary, primary prevention methods are applied. There was no significant relationship between the age of onset of AGA and MetS.

**Key words:** Alopecia, androgenetic alopecia, metabolic syndrome



SOP-10

## Burnout, Depression in Obstetrics and Gynecology Residents

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**Objective:** Burnout is a syndrome characterized by emotional exhaustion, depersonalization and low personal accomplishment. Burnout occurs in professions such as healthcare. Job satisfaction is also important in obstetrics and gynecology (OB-GYN) which has had fewer applicants recently. More than one out of four residents are dissatisfied with their careers. The purpose of this study is to survey a group of OB-GYN residents to investigate the levels of burnout and depression.

**Method:** Residents involved in three OB-GYN residency programs in Bezmialem Vakıf University, Cerrahpaşa and Süleymaniye Hospitals were invited to take part in the survey which included Beck Depression, Maslach Burnout Survey and demographics. Maslach evaluates three areas that are characteristics of burnout: emotional exhaustion (EE), depersonalization (D) and personal accomplishment.

**Results:** Of the 92 residents who participated in study, 71.9% were female and 28.1% were male. In assistantship, 36% were in the first, 29.2% were in the second, 12.4% were in the third, and 16.9% were in the fourth year. 57.3% participants worked in training and research, 33.7% in public, and 9% in university hospitals. Residents who worked in training and research hospitals had more EE and D scores than those who worked in public hospitals ( $p<0.01$ ). Residents who previously assisted in a different branch had lower scores in EE, and D than residents who previously did not ( $p<0.01$ ). In paired comparison, the residents who worked in 10+ shifts had more burnout than those who worked in 8-10 shifts ( $p=0.02$ ) and 4-6 shifts ( $p=0.035$ ). The residents who worked in 10+ shifts had more EE than those who worked in 8-10 shifts ( $p=0.022$ ) and 4-6 shifts ( $p=0.005$ ). The residents who worked in 10 or more shifts had more psychological distress than those who worked in 8-10 shifts ( $p=0.0045$ ).

**Conclusion:** Many residents had high EE and high D. Although this study did not include all residents in residency programs, it contained residents from both community-and university-based programs. Further research is needed to study the prevention and management of burnout and depression among residents.

**Key words:** Burnout, depression, obstetrics and gynecology

## SOP-11

# A Comparison of The Attitudes of 1<sup>st</sup> and 6<sup>th</sup> Grade Students towards Euthanasia at Bezmialem Vakıf University Faculty of Medicine

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## If health is a human right, so is euthanasia?

**Objective:** Euthanasia is an act or practice of killing or permitting death of hopelessly sick or injured individuals in a relatively painless way for reasons of mercy. The aim of this study was to compare the attitudes of the 1<sup>st</sup> and 6<sup>th</sup> grade medical students towards euthanasia.

**Method:** This cross-sectional study was conducted at Bezmialem Vakıf University Faculty of Medicine during May 2019. The questionnaire was applied to 100 students from the 1<sup>st</sup> and 6<sup>th</sup> grades, who accepted to participate. Data were analyzed using SPSS 21.

**Results:** Participants of 60.0% (n=60) were in the 1<sup>st</sup> grade and 40.0% (n=40) were the 6<sup>th</sup> grade. 60.0% of the students were female and 40.0% were male. There was a significant difference between the 1<sup>st</sup> (45.0%) and 6<sup>th</sup> (65.0%) grade students requesting euthanasia for a patient with fatal disease (p=0.030). There was a significant difference between the answers given to the question “If the decision and implementation of euthanasia is undertaken by a committee, I would like to be a part of it” (p<0.001). This question had 3 choices “agree/partially agree/disagree”. However, there was no significant difference between those who agreed and those who disagreed. There was a significant difference between the answers given to the question “If euthanasia is practiced, there will be loss of confidence in medicine”. 89.1% of 1<sup>st</sup> grade students agreed and 75.0% of 6<sup>th</sup> grade students disagreed (p<0.001).

**Conclusion:** The students who were close to graduating thought more positively than the students who were new to medical school. Only one student of the 1<sup>st</sup> (1.7%) and seven (17.5%) students of the 6<sup>th</sup> grade agreed with being a part of euthanasia committee. It was found out that although most of the students were positive about the euthanasia practice, they did not want to be practitioners.

**Key words:** Euthanasia

SOP-12

## Relationship Between Oxidative Stress and Serum Mineral Values in Patients with Partial and Generalized Epilepsy

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**Objective:** Ions, antioxidant enzymes and trace elements play an important role in the pathogenesis of epilepsy. Therefore, this study was carried out to determine the relationship among electrolytes (Ca, Mg, Na, K, P, Cl), trace elements (Cu, Zn, Fe) and oxidative stress in patients with partial or generalized epilepsy.

**Method:** Twenty healthy individuals, and 20 partial epilepsy and 20 generalized epilepsy patients matching with the mean age (18-59 years old) and sex (10 males and 10 females) were included in the study. Serum Ca, Mg, Na, K, Cl, P, and Fe levels were analyzed in an autoanalyzer, and serum Cu and Zn levels were analyzed in a mass spectrophotometer. The total antioxidant status (TAS) and total oxidant status (TOS) were determined spectrophotometrically by using commercial kits according to the manufacturer's instructions. The Oxidative Stress index (OSI) was calculated by the  $(TOS/TAS) \times 10$  formula. After a normal distribution was evaluated, the statistical significances were established by one-way analysis of variance and Kruskal Wallis tests, post-hoc comparisons were made with Bonferroni and Dunn tests. A  $p < 0.05$  value was considered statistically significant.

**Results:** The OSI, which indicates oxidative stress, increased in partial epilepsy patients compared to the controls. Although Fe level increased in generalized epilepsy patients, Cl and Na levels decreased in partial epilepsy patients compared to the controls.

**Conclusion:** Partial epilepsy produces much more oxidative stress than generalized epilepsy. Some electrolytes and trace elements might be affected by partial or generalized epilepsy.

**Key words:** Partial epilepsy, generalized epilepsy, oxidative stress, trace elements, minerals

## SOP-13

# The Effect of Accelerated Recovery Program After Surgery in Urogynecologic Interventions

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**Objective:** The enhanced recovery after surgery (ERAS) protocol can be defined as a standard for optimizing care by preventing the psychological problems and organ dysfunctions caused by surgical trauma and discharging the individual as soon as possible by providing the best possible treatment and care.

**Method:** This is a prospective randomized study. Our study population consisted of patients undergoing urogynecologic operations. The patients with and without ERAS protocol were compared in terms of the length of hospital stay, early postoperative complications, late complications, number of admissions to hospital within 30 days, need for additional analgesics and need for transfusion. The overall satisfaction of the patient was measured with the visual analogue scale (VAS) and compared between the two groups. The control group consisted of those who did not undergo routine ERAS protocol.

**Results:** The ERAS group consisted of 21 patients and the control group consisted of 24 patients. The mean age of the ERAS group was  $59.3 \pm 10.7$  years, the mean age of the control group was  $61.3 \pm 11.9$  years, and both groups were similar ( $p=0.5$ ). The median duration of hospital stay was 2 days (1-3) in the ERAS group, and 3 days (2-8) in the control group, and significantly less hospital stay was seen in the ERAS group ( $p<0.0001$ ). While 2 (8.3%) patients in the control group were found to be dissatisfied with the operation and postoperative period measured by VAS, patients were reported to be satisfied with the process in the ERAS group.

**Conclusion:** The ERAS protocol may be superior to traditional perioperative care. This study demonstrates that the implementation of a structured ERAS protocol may further increase patient outcomes and that the protocol is beneficial for the patient, even if all criteria are not fully implemented.

**Key words:** Enhanced recovery after surgery, urogynecology, gynecology, operation, complication

SOP-14

## The Relationship Between Attention Deficit/Hyperactivity Disorder and Iron Parameters in Blood.

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**Objective:** Attention deficit and hyperactivity disorder (ADHD) is a common neuropsychiatric disorder. ADHD is known to have a complex etiology due to the interaction of genetic and environmental biological factors. Iron deficiency may play a role in the emergence of ADHD symptoms by affecting dopamine synthesis. Iron is the major cofactor of the tyrosine hydroxylase enzyme, a rate-limiting step in dopamine synthesis. Serum levels of ferritin decrease in cases of advanced iron deficiency. Our aim was to determine the relationship between iron deficiency anemia and ADHD.

**Method:** All children (62 children, 6-15 years) with ADHD were recruited from Bezmialem Vakıf University as the case group. Meanwhile, 75 children (6-15 years) were recruited as the control group from pediatric outpatient clinics, who applied for routine control, medical report, etc. In this retrospective study, complete blood count [red blood cell (RBC), mean cell volume (MCV), mean corpuscular hemoglobin (MCH), mean corpuscular hemoglobin concentration (MCHC), hemoglobin (HB)], serum ferritin and iron parameters were compared between children with ADHD and control group.

**Results:** There was no significant difference between the group with ADHD and the control group in terms of iron, RBC, MCV, MCH, age, ferritin, and HB [(p values respectively: (0.175), (0.973), (0.752), (0.066), (0.079), (0.299), (0.118)]. The mean MCHC value was found to be statistically significant between the groups (p=0.006). The MCHC value of the control group was  $33.127 \pm 0.88$ , while that of the ADHD group was  $33.612 \pm 1.194$ .

**Conclusion:** In our study, a significant difference was detected in MCHC values between the ADHD and control groups. Increased MCHC is a parameter that can be seen in macrocytic anemia due to b12 and folic acid deficiency. In conclusion, it may be important to explain the relationship between MCHC elevation and ADHD in a larger sample of MCHC by adding b12 and folic acid parameters.

**Key words:** ADHD, ferritin, MCHC

## SOP-15

## A Cross-sectional Study on Patients with Primary Myelofibrosis: Two Centers' Experience

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**Objective:** Primary myelofibrosis (PMF) is a disease classified under the myeloproliferative neoplasms. Our aim was to utilize the patient data in two centers in İstanbul to analyze general features of PMF patients.

**Method:** This study was conducted retrospectively using the data of PMF patients in Bezmialem Vakıf University Hospital and Haseki Training and Research Hospital. The data studied included gender, age, laktat dehidrogenaz and complete blood count (CBC) values, the presence of organomegaly, janus kinase 2 (JAK-2) gene mutation, constitutional symptoms (fatigue, weight loss, sweating and itching), and history of thrombosis. The data were provided from the patient follow-up files.

**Results:** The study consisted of 35 patients (23 females; aged 30-78 years). When compared to the control group, CBC values of patients did not present any significant difference. Twenty-four patients (15 females) had splenomegaly (spleen size >13 cm). Eighteen patients (9 female) had constitutional symptoms, 13 (11 female) did not. Out of 17 JAK-2 gene mutation positive patients, 10 had anemia, 11 had splenomegaly, and 2 had portal hypertension. Out of 13 JAK-2 gene mutation negative patients, 9 had anemia and 10 had splenomegaly. Eleven patients (9 females) had massive splenomegaly (spleen size ≥20 cm). Two patients had splenectomy. Seventeen patients (11 female) had hepatomegaly. Concerning fibrosis scores in bone marrow samples, 1 female patient had a fibrosis score of 1, 7 patients (5 females) had a fibrosis score of 2, 9 patients (6 females) had a fibrosis score of 3, 10 patients (6 females) had a fibrosis score of 4. Nine patients had hypertension, 4 had diabetes mellitus, 2 had portal hypertension, 4 had coronary artery disease. Two female patients had thrombosis; both were positive for JAK-2 gene mutation.

**Conclusion:** There was not any significant difference concerning the parameters analyzed either between the patient and control group, or JAK-2 gene mutation positive versus negative patients.

**Key words:** Primary myelofibrosis, JAK-2

## SOP-16

## Comparative Evaluation of Orthostatic Hypotension in Patients with Diabetic Nephropathy

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**Objective:** Orthostatic Hypotension (OH) affects 5-20% of population. Our study investigates the presence of OH in diabetic nephropathy patients (DNP) and the factors affecting OH in comparison with other chronic kidney disease patients (CKDP).

**Method:** Patients who presented to the nephrology clinic and accepted to participate were included in the study. DNP was defined by renal biopsy and/or clinical criteria. CKDP of same sex, age and eGFR was matched to DNP. Demographic parameters and medications were obtained from the records. OH was determined by mayo clinic criteria. The same researcher used the electronic device to measure the blood pressures (BP). All samples were taken and analyzed on the same day for biochemical and hematologic parameters and albuminuria. Statistical analyses were performed with IBM SPSS22.0 program.

**Results:** One hundred twelve (51F, 61M, mean age: 62.56±9.35 years) DNP and 94 (40F, 54M, mean age: 62.23±10.08 years) CKDP were included. 70.5% DNP vs 61.7% CKDP had OH (p=0.181). The mean change in systolic BP in DNP was 21.50±16.10 mmHg and it was 7.63±9.03 mmHg in diastolic BP. In CKDP, the mean change in systolic BP was 22.1±13.09 mmHg and it was 5.96±6.80 mmHg in diastolic BP. There was no difference between the groups in systolic BP (p=0.797), but it was present for diastolic BP (p=0.025). 60.0% F and 74.7% M patients had OH (p=0.026). The mean albumin/protein of DNP with OH was 2.65, while it was 1.45 (p=0.024) for those without OH. Uric acid levels were 7.18 mg/dL in OH patients and 6.36 mg/dL in non-OH patients (p=0.017). Blood albumin level was not different in two groups (p=0.902). 73.7% of patients on calcium channel blockers developed OH (p=0.015) and OH developed in 80.6% of 36 patients on alpha blockers (p=0.049).

**Conclusion:** Our study demonstrated that OH was frequent among DNP and it was not more frequent than CKDP. It is important to check the OH in all CKDP as it is more common than thought.

**Key words:** Diabetic nephropathy, orthostatic hypotension, chronic kidney failure



## SOP-17

## Evaluation of a Novel Low-cost Laparoscopic Sacrocolpopexy Model for Core Laparoscopic Skills

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**Objective:** Apical pelvic organ prolapse happens when the muscles and ligaments supporting the pelvic organs become weak or loose. Apical pelvic organ prolapse is treatable. The gold standard treatment for pelvic organ prolapse is sacrocolpopexy surgery. Minimally invasive sacrocolpopexy operation is a difficult procedure that needs advanced laparoscopic suturing and dissection skills and knowledge of pelvic retroperitoneal anatomy. The aim of our study was to make a surgery model by using cheap materials and to provide training on gynecology and obstetrics residents.

**Method:** Pelvic sacrocolpopexy model developed with cheap material placed on pelvic bone model was obtained from anatomy lab. A comprehensive curriculum, encompassing didactic and technical skills components and a previously developed pelvic model was used for teaching laparoscopic sacrocolpopexy. We trained 9 gynecology and obstetrics assistant doctors from Bezmaiem Vakıf University Faculty of Medicine. Participants completed pre-curriculum and post-curriculum multiple-choice questionnaires to evaluate a didactic component. Then the technical skills curriculum was measured with objective structured assessment of technical skills tool.

**Results:** Baseline knowledge of vessel, ureter and nerve anatomy associated with sacrocolpopexy procedure significantly increased from 8 (mean) pre-curriculum to 14 (mean) post-curriculum ( $p < 0.05$ ). The median (interquartile range) technical objective structured assessment of technical skills score increased significantly from 22 pre-curriculum to 28 post-curriculum ( $p < 0.05$ ). Residents believed that sacrocolpopexy model would be useful to enhance skills acquisition prior to performing the skill in the operating room (100%).

**Conclusion:** A laparoscopic sacrocolpopexy curriculum showed improvement in cognitive knowledge and technical skills.

**Key words:** Sacrocolpopexy, training model, resident education, retroperitoneal dissection

## SOP-18

## Is Iron Deficiency Anemia a Risk Factor for Febrile Convulsion?

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**Objective:** A febrile seizure is a seizure that occurs between 6 months and 6 years at a temperature of 38 °C (100 °F). Many independent risk factors (genetic factors, age, sex, fever, family and developmental history) have been reported to cause recurrent febrile seizures. The risk factor is iron deficiency anemia. Iron deficiency anemia is common worldwide especially in developing countries. Because it is a preventable cause, the incidence of febrile convulsions can be reduced by treating nutritional anemia with diet and iron supplements.

**Method:** This study was a retrospective case control study. Permission for this study was obtained from the hospital ethics committee. At least 50 cases of febrile convulsions were chosen from the patients admitted to Bezmialem Vakıf University Hospital between December 2018 and December 2019. Cases with known epilepsy, complicated seizures, central nervous system infection, mental disabilities and metabolic disorders were excluded. Age, gender and weight were noted. Patients with the same age and sex but incompatible with febrile convulsion and 38 degrees fever were accepted as the control group. Hemoglobin, hematocrit, red blood cell (RBC), average corpuscle volume, average corpuscle hemoglobin, average corpuscle hemoglobin concentration and increased red cell distribution width (RDW) were compared.

**Results:** In this retrospective case-control study, it was aimed to investigate the relationship between iron deficiency anemia and febrile convulsions. The difference between the two groups was found to be statistically significant. Hemoglobin, hct, RBC, and RDW values supported iron deficiency anemia.

**Conclusion:** These results show that anemia predisposes to febrile convulsion. In some studies, iron deficiency anemia has also been shown to be a risk factor for febrile convulsion and the results are significant in our university as well. This suggests that iron deficiency anemia can cause febrile convulsion.

**Key words:** Anemia, febrile convulsion, iron deficiency

## SOP-19

# Evaluating Human Papilloma Virus Knowledge and Opinions About Human Papilloma Virus Vaccine Among Bezmialem Vakıf University Medicine Students

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**Objective:** Human papilloma virus (HPV) is one of the most common sexually transmitted infection. HPV can be seen as genital warts, but most importantly causes cervical cancer among women and penis cancer among men. HPV is detected in 95% of women with cervical cancer. We aimed to measure knowledge and evaluate opinions about vaccination among the medicine students in our university.

**Method:** An online survey was filled by 200 medical students from preparatory year to the 6<sup>th</sup> grade. This survey consisted of two parts measuring information and participants' opinions. First part was about to find out whether participants had enough information about HPV symptoms, transmission ways, prevention methods, subtypes, and HPV vaccine. Second part was about whether participants received adequate information from the medical school and whether they would get a vaccination.

**Results:** The study included 48 (24%) 5<sup>th</sup> year, 37 (18.5%) 1<sup>st</sup> year, 33 (16.5%) 2<sup>nd</sup> year, 30 (15%) 3<sup>rd</sup> year, 26 (13%) 4<sup>th</sup> year, 20 (10%) 6<sup>th</sup> year, and 6 (3%) preparatory year students and a total of 200 medical students participated in the study. The mean age was 21 years. 97.5% of participants correctly answered the item about the fact that HPV was an sexually transmitted infection. 62% of participants knew the convenient time for HPV vaccination, which was not sexually active years, and this item was answered as correct at the lowest rate. In total, the most correct answers were given by the 6<sup>th</sup> year students. 40% of participants agreed that they were educated enough in medicine faculty. 18% participants did not agree to be vaccinated and 6.5% of participants did not agree to advise HPV vaccine to their families, children for the future, even if HPV vaccine is mandatory.

**Conclusion:** As a result, when the knowledge about HPV increases, the number of vaccination supporters will be increased. We need to start HPV education from the beginning of medicine faculty to decrease HPV infections and complications.

**Key words:** HPV, HPV vaccination, medical students

SOP-20

## Is Erectile Dysfunction an Early Symptom of Diabetes?

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**Objective:** Although it is well known that high blood glucose levels induce neuropathy and vasculopathy, which are among the leading causes of erectile dysfunction, it is yet to be revealed if erectile dysfunction implies glucose intolerance.

The primary objective of this study was to determine the rate of glucose intolerance in erectile dysfunction patients and to compare it to the general population.

**Method:** This was a prospective study on patients who visited Bezmialem Vakıf University Hospital and Esenler Avicenna Hospital urology clinics. Forty erectile dysfunction patients and 40 control patients were included. International index of erectile function-5 scores were used to diagnose erectile dysfunction. Blood samples were drawn and tested for hemoglobin A1c (HbA1c) levels.

**Results:** The mean percentage of HbA1c levels of erectile dysfunction patients was  $5.94 \pm 1.12$  whereas that of the control group was  $5.23 \pm 0.56$ , showing a statistically significant difference ( $p < 0.001$ ). Moreover, 21 out of 40 erectile dysfunction patients (52.5%) had impaired glucose tolerance ( $HbA1c > 5.7\%$ ) while only 9 out of 40 control patients (22.5%) had HbA1c levels higher than 5.7%, revealing a 2.33 times higher rate of glucose intolerance among erectile dysfunction patients compared to the control group. The severity of the erectile dysfunction, however, was not associated with the HbA1c levels.

**Conclusion:** It is revealed that glucose intolerance is much more common in erectile dysfunction patients than the general population, suggesting that erectile dysfunction may in fact be an early symptom of diabetes. Therefore, it is beneficial to test these patients for impaired glucose tolerance for the early diagnosis of diabetes. The severity of erectile dysfunction, on the other hand, is not correlated to the percentage of HbA1c.

**Key words:** Erectile dysfunction, glucose, blood sugar, urology, diabetes

## SOP-21

## Relationship of Screen Exposure with Autism Symptoms

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**Objective:** Screen exposure has been shown to have negative effects on the psychological and physical development of children. The aim of this study was to investigate the screen exposure among the children with autism spectrum disorder (ASD) and to compare it with healthy children.

**Method:** The sample of our study consisted of 17 cases who were admitted to Bezmailem Vakıf University Hospital Pediatric and Adolescent Psychiatry Outpatient Clinic and diagnosed with ASD and 20 age and gender-matched healthy controls. Autism spectrum disorder was diagnosed via The Childhood Autism Rating scale. Screen exposure was investigated by a questionnaire developed by the researchers based on the relevant literature.

**Results:** ASD and control group (C) did not differ in age (ASD=38.7±10.8 months, F=40.1±17.5 months; t=0.28, p=0.77) and gender (ASD 6/17 female, F=13/20 girls;  $\chi^2 = 3.25$ ; p=0.07). The average daily TV watching time of the ASD group (3.2±2.2 hours) was significantly higher than that of the C group (1.5±0.7 hours) (z=2.35, p=0.019). In addition, the ASD group (11.1±5.7 months) started to watch TV at a younger age than the C group (16.5±7.4 months) (z=2.18, p=0.029). When the other electronic media gadgets were examined, the children in both groups were found to use the phone at a high rate than tablets and computers. The average daily telephone time of the ASD group (1.9±1.7 hours) was higher than the C group (0.8±0.8 hours) (z=1.87, p=0.061).

**Conclusion:** TV exposure of children with ASD was found to be earlier and higher; and studies with a larger sample are needed to clarify the role of this condition in the etiology.

**Key words:** Autism spectrum disorder, children, television, screen exposure

## SOP-22

## The Frequency of Childhood Trauma in Migraine Patients

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**Objective:** Migraine and maltreatment are both common conditions that are more prevalent in women. Epidemiological evidence supports an association between childhood abuse and headache, as well as pain in general, although some controversy exists based on methodological concerns of studying the influence of remote, traumatic, stigmatizing events in an often depressed population. There is a growing scientific body of knowledge regarding the neurobiological effects of abuse on brain function and structure that suggest a possible role of early life stress in the pathogenesis of migraine, and a differential impact based on sex. Advances in our understanding of the basic mechanisms, by which an adverse environment interacts with and changes the genome, may suggest new treatment strategies.

**Method:** Eighty migraine patients who came to Bezmialem. Foundation University Medical Faculty Hospital and 80 healthy controls with similar characteristics formed the sample of the study. They were applied Neurology Examination Form and Childhood Trauma scale. The averages of 14.2 and 12.1 standard deviations were taken as 4.3 and 3.9, respectively. Referring to previous studies, the sample size was determined to be at least 80 in order to obtain 80% confidence level at 95% confidence level and  $\alpha=0.05$  significance level.

The distribution of the data was examined by Shapiro Wilk test. When the means were compared, the t-test or Mann-Whitney U test were used. Descriptive statistics were given as mean  $\pm$  standard deviation, med (minimum-maximum), n (%). Fisher Exact or Pearson chi-square analysis were used to compare categorical variables. All statistical analyses were performed and reported at  $\alpha=0.05$  significance level and 95% confidence level.

**Results:** The mean age of the patients diagnosed with migraine was  $28.49 \pm 8.76$  years. 42.9% of the participants were single and 57.2% were married. When education levels were examined, 31% of the participants had primary education. Following this, 28.6% had high school education. The level of income was determined as minimum wage with a rate of 42.9%. 61.9% of the patients diagnosed with migraine had migraine type aura and 38.1% had no aura. There was a statistically significant difference between the groups in terms of scale scores when compared with the control group ( $p < 0.05$ ). Emotional abuse subscale was higher in migraine patients than in the non-migraine control group ( $p = 0.003$ ), the mean score of physical abuse was higher in migraine patients than in non-migraine patients ( $p = 0.004$ ), the mean score of physical neglect was higher in migraine patients than in non-migraine patients ( $p < 0.001$ ), emotional neglect was higher in migraine patients than in non-migraine patients ( $p = 0.001$ ), sexual abuse did not differ significantly between the groups ( $p = 0.057$ ). Total scale score and emotional neglect scale subdimension score were found to be higher in migraine patients ( $p < 0.001$ ).

**Conclusion:** It has been concluded that childhood traumas trigger migraine disease.

**Key words:** Migraine, childhood traumas, verbal abuse, physical abuse, sexual abuse

## SOP-23

# Lifestyle Changes in Post-mi Patients Treated with Primary Angioplasty

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**Objective:** Myocardial infarction (MI) is a leading cause of morbidity and mortality despite the medical and interventional treatments. It has been found that patients who improve their diets and life quality have a lower risk of coronary heart disease (CHD). Smoking after MI causes more angina and worsens life quality. The aim of this study was to compare the smoking, diet and exercise habits of patients with the period before cardiovascular event.

**Method:** This study was conducted in the cardiology outpatient clinic where the patients were known to have had previous CHD and come to follow-up. Our study was performed with 147 patients between March 2019 and September 2019. Patients' clinical and demographic data were collected by a face to face questionnaire.

**Results:** The mean age was 66.33 years. The majority of the patients was male (72.1%). Diabetes was present in 37.4% of the patients and 61.9% of the patients had hypertension. A history of coronary by-pass operation was present in 19% of participants. The majority of the patients were going to cardiology follow-up (90.5%). 52.4% of the patients were smoking before the cardiovascular event. 36.4% of the smokers still continued smoking. The majority of the patients did not change their sport habits after the cardiovascular event (78.2%). Also, the majority of the patients did not change their diet habits (63.3%).

**Conclusion:** The present study showed that the majority of the patients did not change the life and eating habits following MI. Most of the patients did not do sportive activities and they continued smoking following the MI. As it is well known that after MI, reducing smoking, exercising more regularly and having a balanced diet will lower risk of having the second cardiovascular event, we should pay more attention to the non-drug treatment of patients.

**Key words:** Myocardial infarction, stent implantation, secondary prevention, smoking, diet, sportive activity



SOP-24

## A Retrospective Evaluation of Adverse Maternal and Fetal Outcomes in Pregnant Women Aged 40 Years and Older

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**Objective:** Advanced reproductive age has long been known to lead to many complications during pregnancy, labor and also for the baby. The objective of this study was to investigate the impact of advanced maternal age on maternal and fetal outcomes of women age 40 years and over.

**Method:** The study group consisted of pregnant women who were 40 years old and over and delivered at Bezmialem Vakıf University between September 2016 and September 2019. The data including maternal age, obstetric history, anemia during pregnancy, gestational age at birth, fetal birthweight, type of labor, indication of cesarean delivery, Apgar scores, composite fetal outcome and composite maternal outcome were recorded.

**Results:** During the study period, 2617 deliveries occurred. Of these, 182 met the study criteria. The mean age of the study group was  $41.53 \pm 1.76$  years. Twenty six (14.3%) of women were nulliparous and 156 (85.7%) were multiparous. The mean gestational age at birth was  $265.68 \pm 14.79$  days. The mean birth weight was  $3156.22 \pm 645$  gr. In the present study, 23.6% of patients delivered vaginally and 76.5% of patients were performed cesarean delivery. Anemia was detected in 29.7% of patients during pregnancy. The mean 1. min and 5. min Apgar scores were  $8.30 \pm 1.07$  and  $9.51 \pm 0.87$ , respectively. Adverse fetal/neonatal outcome rates were 44 (24.1%) for preterm birth, 18 (9.9%) for intrauterine growth restriction, 7 (3.8%) for fetal anomaly, 7 (3.8%) for neonatal intensive care unit admission and 1 (0.5%) for fetal death. Adverse maternal outcome rates were 33 (18.1%) for gestational diabetes mellitus, 31 (17%) for preeclampsia, and 3 (1.6%) for placenta previa. Receiver operating characteristic (ROC) curve analysis show that age  $>42$  years predicted primary cesarean rate with a sensitivity of 50%, a specificity of 80.43%. Also, according to ROC curve analysis, age  $>41$  years predicted adverse maternal outcome rate with a sensitivity of 62.99%, a specificity of 52.73%.

**Conclusion:** In this study, most of the prenatal complications were found to increase in the advanced maternal age. Pregnancies in women over 40 years should be considered at risk and carefully monitored with individualized care protocols.

**Key words:** Advance maternal age, pregnancy outcomes, neonatal morbidity

## SOP-25

## Comparison of Angina Scales in Patients Planned to Undergo Diagnostic Coronary Angiography

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**Objective:** Coronary artery disease is the most important cause of mortality and morbidity in the adult population. It is vital to differentiate angina pectoris from chest pain caused by other diseases. The Rose and Seattle Angina Surveys are two commonly used scales to characterize angina pectoris. The aim of this study was to investigate the relationship between angina pectoris and coronary angiography results and demographic characteristics in patients planning to undergo diagnostic coronary angiography using these two angina scales. In this study, we aimed to find out which scale would be more useful in detecting angina pectoris.

**Method:** Initially, patients with chest pain who were scheduled for angiography completed the Rose and Seattle scales. Patients were evaluated according to coronary angiography results. When the previous studies were taken as a reference, in order to determine the difference between the groups, our sample size was determined to be at least 100 to obtain 80% power at  $p < 0.05$  significance level and 95% confidence level.

**Results:** Bezmialem Vakıf University Hospital was evaluated by 2 questionnaires from the department of Coronary Angiography at Bezmialem Vakıf University Hospital. According to the results of coronary angiography for chest pain, the questions we thought as important in our evaluation were the 3<sup>rd</sup> ( $p=0.012$ ) and 5<sup>th</sup> ( $p=0.012$ ) questions in the Rose angina questionnaire, but no significant question was determined in the Seattle angina questionnaire.

**Conclusion:** Angina pectoris is the most important symptom of coronary artery disease. When the patients with chest pain resolved the Rose angina questionnaire, we found that it was important to differentiate whether the chest pain was associated with coronary artery disease or another cause. Therefore, we can achieve meaningful results when we use the Rose angina questionnaire to confirm the diagnosis in patients with coronary artery disease.

**Key words:** Coronary artery disease, rose angina questionnaire, seattle angina questionnaire, chest pain, coronary angiography

SOP-26

## Comparison of Peak Troponin Values and Evaluation of Infarct Rate in Myocardial Tissue in Hypertensive and Normotensive Myocardial Infarction (MI)

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**Objective:** Some biomarkers are increased in myocardial infarction (MI). CK-MB and troponin are the rising enzymes. CK-MB levels peak in 18-24 hours and return to normal within 72 hours. If peak troponin within 24-72 hours. Between the hours of the plateau draws, around the 96<sup>th</sup> hour for a slight rise is seen again. Due to the high specificity, troponin levels are used in MI.

**Method:** After separating hypertensive and normotensive patients from MI by going to intensive care every day, peak troponin values and CK-MB values of the patients between 24 and 36 hours were evaluated.

**Results:** The study was conducted with 119 patients and 180 patients. The mean age of the patients was 58.7 years. One hundred thirteen patients were hypertensive and 67 patients were normotensive. The mean age of hypertensive patients was 61.93 years and that of normotensive patients was 54.66 years ( $p < 0.001$ ). In other words, hypertensive patients were older than normotensive ones. The highest troponin value in hypertensive patients was 454198.00; the lowest troponin value was 42.5 and the mean troponin value was 10298.4 ( $p = 0.004$ ). In normotensive patients, the highest troponin value was 118612.3; the lowest troponin value was 25.2 and the mean troponin value was 4311.3 ( $p = 0.004$ ). The highest CK-MB value in hypertensive patients was 1304; the lowest CK-MB value was 1.3 and the mean CK-MB value was 19.9 ( $p = 0.021$ ). In normotensive patients, the highest CK-MB value was 364.9; the lowest CK-MB value was 0.6 and the mean CK-MB value was 12.4 ( $p = 0.021$ ). As a result, peak Troponin and CK-MB values of hypertensive patients were higher than those of normotensive patients and it was thought that hypertensive patients had a higher infarct rate as a result of CK-MB.

**Conclusion:** The results of this study show that cardiac enzymes in hypertensive patients are increasing more than in normotensive patients. It also shows that hypertensive patients are older. Our results should be confirmed with further experimental and clinical studies.

**Key words:** Hypertensive, normotensive, peak troponin, CK-MB, myocardial infarction

SOP-27

## Investigation of Oxidative Stress and Inflammation in Restless Legs Syndrome

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**Objective:** Restless Leg syndrome (RLS) is one of the most common diseases in the community, but the cause is not yet known. Cytokines play a role in immune response and most inflammatory diseases and they are involved in intercellular communication. In this study, we aimed to investigate the role of proinflammatory cytokines and oxidative stress in the pathophysiology of RLS.

**Method:** Sixty-five idiopathic RLS patients and 65 healthy volunteers, which were equal in terms of age and sex with no known disease and medication, were studied. The diagnosis of RLS was made according to the criteria recommended by the International RLS studying group. Patients without treatment for RLS, not smoking, without diabetes or cancer, not using any of antioxidant supplement, oral contraceptives, desferrioxamine or Nonsteroidal anti-inflammatory agents were included in the study. Serum interleukin (IL) 6, IL 17, IL-1beta, TNF-alpha, total antioxidant (TAS) and total oxidant levels (TOS) of all patients and healthy controls were compared.

**Results:** The mean age of 65 patients was 34.9 years. Serum levels of IL-17, IL-6, IL-1beta, TNF-alpha, TOS and OSI were significantly higher and TAS levels were lower in the patient group ( $p < 0.001$  for each).

**Conclusion:** Proinflammators and oxidants play a significant role in the pathogenesis of RLS. Sleep is linked especially with IL-6 and IL-17 concentration. However, findings regarding interleukins are limited. Although the association with sleep disorders is frequently reported, its association with RLS is controversial. Oxidative stress findings found in a small number of studies were supported in our study. The fact that TAS is low and that TOS is high may be both a cause and a result. In order to understand the importance of the findings of both pro-inflammatory and oxidative stress, we should evaluate the number of patients before and after the treatment.

**Key words:** Restless Legs syndrome, oxidative stress, inflammation

## SOP-28

# Evaluation of Upper Respiratory Tract Microbiota Changing with Chronic Cough in Children

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**Objective:** The role of the upper respiratory tract microbiota in the development of diseases is frequently investigated. The aim of this study was to determine the rates of the presence of *Streptococcus pneumoniae*, *Haemophilus influenzae*, *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Moraxella catarrhalis*, *Klebsiella pneumoniae*, and *Prevotella* bacteria in the upper respiratory tract microbiota in patients with chronic cough. It was also aimed to investigate the bacteria mentioned above.

**Method:** It is a daily cough that lasts more than 4 weeks in children with chronic cough. These criteria shall be sought for the individuals to be sampled. A total of 120 upper respiratory tract samples from 60 patients with chronic cough and 60 healthy controls were collected and stored at -80° C. DNA was isolated from the stored samples using DNA isolation kits. Following DNA isolation, realtime-polymerase chain reaction (PCR) was performed on the DNA fragment encoding the 16S RNA using primers that were universal for all bacteria to determine the total number of bacteria in the sample. The main bacterial strains of the upper respiratory tract flora which were planned to be investigated later were *Streptococcus pneumoniae*, *Haemophilus influenzae*, *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Moraxella catarrhalis*, *Klebsiella pneumoniae*, *Prevotella* spp. genus. As a result, the quantity of bacteria selected was quantitatively obtained. In order to find the percentage of the selected bacteria in the upper respiratory tract flora, the percentage of the selected bacterial amount was determined according to the total bacterial amount. These procedures were repeated for each different bacteria identified. By comparing the percentage slices of bacteria detected in the sample of patients and control group individuals, data were obtained about the effects of chronic cough on microbiotic change.

**Results:** Benza(a)pyrene application was finalized and the sample collection process was completed and DNA isolation and PCR process are continuing. Sample collection was started on October 15<sup>th</sup>, 2019. Throat swab samples were taken from patients who were admitted to pediatric emergency, pediatric outpatient clinic and pediatric allergy outpatient clinics with chronic cough. Throat swab specimens were taken from the patients who applied to pediatric nephrology without control cough. Sample collection was completed from 120 patients, 60 from the control group and 60 from the patient group. DNA isolation and PCR procedures are in progress.

**Key words:** Microbiota, chronic cough, upper way

SOP-29

## Detection of Retrograde Sleep Patterns in Patients with ST Elevation Myocardial Infarction and Its Relationship with In-hospital Events

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**Objective:** Sleep is a complex set of brain processes that support many of the physiological needs (1). Studies have shown that too short or too long sleep time is significantly associated with cardiovascular disease (CVD) (11,12). The increase in sleep duration leads to a 12% increase in the risk of CVD and 5% increase in the risk of coronary heart disease (1). Based on the lower limit of 7 hours of sleep per day, a 1-hour decrease in sleep has been shown to increase the risk of CVD by 6% and coronary heart disease by 7% (1). In this study, we aimed to determine the sleep habits of patients presenting with acute ST elevation myocardial infarction (STEMI) and percutaneous coronary intervention before admission to hospital and to determine the relationship with in-hospital events.

**Method:** One hundred sixty patients were divided into two equal groups. The first group included patients with acute STEMI and percutaneous coronary intervention. The second group consisted of patients without acute STEMI. Sleep quality of the patients was scored according to Pittsburgh Sleep Quality index.

**Results:** The median value of PSI scores of 80 patients with acute STEMI was 2. The median value of 80 patients without STEMI was 3. The mean  $\pm$  standard deviation of PSI scores of 80 patients with acute STEMI was calculated as  $2.762 \pm 1.911$ . The mean  $\pm$  standard deviation of PSI scores of 80 patients without STEMI was calculated as  $3.13 \pm 1.581$ . The median value of PSI scores of all patients was calculated as 2. The mean PSI scores of all patients was 2.95. The p value indicating the statistical significance of the study was calculated as  $p=0.044$  and showed that the study was significant.

**Conclusion:** As a result of our study, we have found that sleep quality has an impact on cardiovascular health of people. Deteriorated sleep quality increases the risk for CVD.

**Key words:** STEMI, sleep quality, pittsburgh sleep quality index

SOP-30

# The Prevalence of Metabolic Syndrome in Patients with Acute ST-elevation Myocardial Infarction and The Relationship Between Metabolic Syndrome and in Hospital Events

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**Objective:** The rates of coronary artery disease and stroke have been reported to be three times higher in patients with metabolic syndrome (MetS). MetS has been suggested as a new target for cardiovascular risk reduction treatment beyond lowering low-density lipoprotein cholesterol. In this study, we planned to detect MetS prevalence in patients presenting with acute ST-elevation myocardial infarction (STEMI) and to determine the effect of MetS on in-hospital patient clinical follow-up.

**Method:** This prospective study was performed in patients with STEMI treated with primary angioplasty between March 2019 and December 2019. The patients' laboratory parameters were taken from the hospital records and baseline medical history and follow up events were taken by daily visits of the patients. Patients were divided in two groups depending on the presence of MetS .

**Results:** The study was performed on 75 patients. The majority of patients had MetS (73.3%). The groups were comparable in terms of age (59.4 vs 59.1). Both groups were similarly smokers ( $p=0.84$ ). More patients in the MetS group consumed alcohol ( $p=0.22$ ). The stent diameter and length were similar in both groups ( $p=0.492$ ). The total coronary artery affected were comparable between the groups. There was no significant difference in hospital events of death and stent thrombosis ( $p=1$  and  $p=1$ , respectively). Also, the development of contrast induced nephropathy was similar ( $p=1$ ). The incidence of atrial fibrillation and ventricular arrhythmias was not different in the groups ( $p=0.517$  and  $p=0.678$ ).

**Conclusion:** The present study shows that the presence of MetS is not associated with adverse in-hospital events. Although the parameters present in the MetS are known to be associated with adverse results in acute coronary syndromes, the combination of them did not result in adverse events in the present study. The results of this study should be repeated in studies with much bigger sample size.

**Key words:** Metabolic syndrome, ST-elevation myocardial infarction, mortality, coronary artery disease



## SOP-31

# Evaluation of The Relationship Between Sleep Quality and Coronary Artery Disease in Patients Planned to Undergo Elective Coronary Angiography

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**Objective:** In coronary artery disease (CAD), coronary arteries are usually narrowed and occluded due to atherosclerosis. Studies have shown that sleep-disordered breathing is associated with cardiovascular diseases. In this study, it was aimed to investigate the relationship between CAD and sleep quality in patients that were planned to undergo elective coronary angiography and to evaluate the possible effect of CAD on sleep quality.

**Method:** The study included patients at the ages from 18 to 90 years, who were planned to undergo elective coronary angiography between May 2019 and September 2019 at Bezmialem Vakıf University Hospital. Pittsburgh Sleep Quality (PSQI) index, which was analyzed through chi-square test and Anova test, was used as a scale in our study.

**Results:** When the angiographic results of the female patients were examined, it was seen that 35.3% of the angiographic results were normal, 35.3% were non-critical and 29.4% were critical. In the results of male patients, the rate of normal angiogram was 14.3%, 44.6% were non-critical and 41.1% were critical. When compared with regard to gender, CAD was found to be more common in male patients ( $p=0.066$ ). There was no type II Diabetes Mellitus (DM) and hypertension in 50% of the patients with normal angiography results, whereas the rate of additional disease was 64.9% in patients with non-critical angiography and 84.8% in patients with critical angiography. So, there was a relationship between type II DM-HT and CAD. In conclusion, sleep quality evaluated with PSQI on patients of the study group was found as 15% in the patients with normal angiography results, 54.1% in the patients evaluated as non-critical and 66.7% in critical patients. This result was found to be poor and statistically significant ( $p=0.001$ ).

**Conclusion:** There was a significant difference in sleep quality in patients with CAD due to the severity of the disease.

**Key words:** Coronary artery disease, sleep-disordered breathing, Pittsburgh Sleep Quality, elective coronary angiography

SOP-32

# The Relationship Between Urinary Incontinence and Disease-related Parameters and Quality of Life in Patients with Multiple Sclerosis

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**Objective:** Multiple sclerosis (MS) affects brain structures and spinal pathways like other neurological diseases and causes lower urinary tract symptoms including sphincter control. Some studies have shown that urinary incontinence is considered to be the worst effect of the disease. The aim of our study was to examine the patients' urinary incontinence and its relationship with disease-related parameters such as MS lesions localization and Expanded Disability Status scale (EDSS).

**Method:** The sample of our study consisted of 45 patients aged 18-80 years, who were admitted to Bezmialem Vakıf University Hospital Neurology outpatient clinic and diagnosed with MS. In the study, Incontinence Determination Questionnaire (IDQ) and EDSS and localizations of MS plaques detected by magnetic resonance imaging were used as data collection tools.

**Results:** In the present study, 45 MS patients (28 females and 17 males, the mean age  $41.44 \pm 11.192$  years, the duration of disease  $86.88 \pm 90.61$ , EDSS  $1.98 \pm 2.5$ ) were studied. According to the results of incontinence questionnaire, 30.8% of patients did not show any incontinence symptoms, 15.3% of patients showed urge incontinence symptoms, 17.6% patients showed overflow incontinence symptoms, 4.7% patients showed stress incontinence symptoms, 31.6% of patients showed mixed type incontinence symptoms. Positive correlation was detected between infratentorial lesions and the overflow incontinence ( $p < 0.05$ ). Another datum that we examined by Fischer's Exact test was EDSS and positive correlation was detected between EDSS and overflow incontinence ( $p < 0.05$ ).

**Conclusion:** As a result, positive correlation was showed between overflow incontinence and infratentorial MS lesions and also, it was showed that by the increasing value of EDSS, overflow incontinence was seen more frequently among MS patients. Focusing on these correlations may be beneficial to the detection of urinary incontinence and reduction of the bad aspects on patients.

**Key words:** Multiple sclerosis, urinary incontinence, lesion localization

## SOP-33

## Does Vitamin D Deficiency Affect Hypertension Induced Cardiac Remodeling and Create a Tendency to Develop Stroke in Atrial Fibrillation and Hypertension Patients?

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**Objective:** Ischemic stroke is an important cause of mortality and permanent disability in our country and worldwide. The progression of hypertension, atrial fibrillation (AF) and ischemic stroke is well studied in many aspects but there is no literature on the effects of 25-hydroxyvitamin D3 on this progression. The aim of this study was to investigate the relationship of vitamin D levels in hypertension, AF left ventricular hypertrophy (LVH) patients and between stroke subtypes in our endemically vitamin D deficient country.

**Method:** A total of 156 hypertension, AF, stroke patients were included. The relationship between vitamin D levels and these diseases was investigated. The vitamin D levels were grouped as; normal (>30 ng/mL), insufficient (20-30 ng/mL) and deficient (<20 ng/mL). From included patients, age, gender, chronic diseases, blood pressure, electrocardiography and echocardiography data were collected. Stroke patients were divided into cardioembolic and ischemic, major artery disease and cryptogenic stroke subgroups.

**Results:** Vitamin D insufficiency and deficiency were found significantly ( $p=0.034$ ) higher in hypertensive patients than in normotensive patients. In patients with Diabetes Mellitus type 2 and who were women, low vitamin D levels were strongly related (respectively;  $p=0.035$  and  $p=0.023$ ) to hypertension. LVH was found to be strongly correlated with vitamin D deficiency and insufficiency ( $p<0.01$ ). Women with AF were found to have lower vitamin D levels than patients who had sinus rhythm ( $p=0.043$ ). Cardioembolic-ischemic stroke patients were found to have significantly lower vitamin D levels than other types of stroke ( $p=0.013$ ).

**Conclusion:** Vitamin D3 deficiency and insufficiency were found to be higher in patients with cardioembolic-ischemic stroke in this study. Similarly, vitamin D levels were lower in patients with hypertension and LVH. According to these results, Vitamin D3 can be protective against hypertension, LVH and stroke due to AF.

**Key words:** Atrial fibrillation, essential hypertension, left ventricular hypertrophy, stroke, vitamin D3

# Clinical Features and Factors Affecting Prognosis of Patients with Chronic Viral Hepatitis (B, C) Developing Hepatocellular Carcinoma

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**Objective:** Chronic Hepatitis B and C are the most common causes of hepatocellular carcinoma (HCC). The aim of this study was to investigate the clinical features and prognostic factors of patients with chronic viral hepatitis (B, C) developing HCC.

**Method:** Patients who were followed up with the diagnosis of chronic hepatitis B or C in the Bezmialem Vakıf University Faculty of Medicine, Department of Gastroenterology Polyclinic between January 2013 and 2019 were included in the study.

**Results:** A total of 55 patients were included in the study. Forty-two of the patients (76.4%) were male. Thirty-seven patients (67%) had the diagnosis of hepatitis B. The mean HCC development time in patients with hepatitis B and C was 194.5 months and 111.7 months, respectively. The duration of HCC development was 194.9 months for patients receiving antiviral therapy and 122.9 months for patients not receiving treatment. There was no significant difference between the two groups in terms of duration ( $p=0.1$ ). Other clinical features investigated did not have any significant effect on HCC development time ( $p>0.05$ ). The mean alpha-fetoprotein values were 2522.7 for hepatitis B and 2941.9 for hepatitis C ( $p=0.4$ ). It was observed that clinical characteristics changed the rate of metastasis, but this change was not statistically significant ( $p>0.05$ ). The recurrence effect of clinical features was observed within one year, but this effect was not statistically significant ( $p>0.05$ ). Of the 55 patients, 41 died (74.6%).

**Conclusion:** Clinical features have no effect on HCC development time and mortality in chronic viral hepatitis B and C.

**Key words:** Hepatocelullar carcinoma, viral hepatitis, clinical features

## SOP-35

# Comparison of Two Method for Accurate Measurement of Blood Pressure: Measurement with Manual Measurement and Automatic Device

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**Objective:** Blood pressure (BP) is an important indicator of human health and crucial sign of cardiovascular, nephrologic, and organ failure prognosis in long term. Today, hypertension which affects approximately 1 billion people is one of major health concern. However, researchs about BP measurement do not exhibit an exact systematic and objectivity. Researchs made regarding to BP measurement method steer us to different hypertension diagnosis criteria and these checkpoints change frequently with a later guidelines. Today, we use the guideline has been published by American Heart Association in 2017 however as practitioners we might meet cases that do not fit with guidelines and get confused on the treatment path. Recent studies on the field demonstrate that BP measurements are higher in routine “office based” measurements than automated BP, therefore a necessity for different criteria both automated and manual BP measurement techniques has been shown and acknowledged by researchers. With this research, we tried to reveal the benefits of automated BP measurements in hospital circumstances and to show the correlation between these results and manual sphygmomanometer’s. We also wanted to draw conclusions about ideal systematic BP measurement and comparing our results with guidelines and other studies.

**Method:** Thus, we recruited 85 adult volunteers (54.1% male, 45.9% female) who fit with the ANSI/AAMI/ISO Protocol. We acquired 12 values with two-minutes interval measurements priorly with manual sphygmomanometer (MBP) followed by oscillometric automated BP monitor (OMRON HEM 7134-E) based upon to ANSI/AAMI/ISO Protocol and American Heart Association’s Hypertension Scientific Statement by attendance of medical professionals. These measurements were repeated in right-left sequence.

**Results:** The difference between the device and our observer was insignificant, measured mean systolic blood pressure (SBP) differences  $0.1 \text{ mmHg} \pm 1.157$  for left arm,  $0.2 \text{ mmHg} \pm 0.118$  for right arm; respectively. The mean diastolic blood pressure (DBP) difference was  $1.3 \text{ mmHg} \pm 0.479$  for left arm,  $0.58 \text{ mmHg} \pm 0.15$  for right arm, respectively. Difference between right and left arms reference values were  $0.52 \text{ mmHg} \pm 0.334$  for SBP;  $0.12 \text{ mmHg} \pm 0.096$  for DBP in favor of right arm, respectively.

**Conclusion:** On the same line with the purpose of the study results prove that automated blood pressure device OMRON HEM 7134-E fits with MBP. Widely usage of automated devices in other countries, also can be performed in our country. In subsequent studies, we should try to learn that can we trust patients measurements at home

fits with routine clinical measurements. For hospital setting, validity of out of office hospital measurements should be compared with office measurements randomizedly.

**Key words:** Automated blood pressure device, blood pressure, manual sphyngomanometer

SOP-36

## An Examination of The Relationship Between Depression Symptoms and HbA1c in Patients with Type 2 Diabetes Mellitus

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**Objective:** Diabetes Mellitus is a disease which is increasing worldwide and affects human quality of life. Glycemic controls should be monitored with HbA1c measurement during the course of the disease. High HbA1c increases the risk of developing diabetes-related complications and concomitant diseases. Depression, which is a disease that may accompany diabetes, has a significant effect on the daily life and well-being of patients. In studies, the relationship between poor glycemic control and depression symptoms has been examined, but the results are controversial due to depression multifactorial structure. The aim of our study was to eliminate other triggering factors that can cause depression and to understand the relationship between glycemic control and depressive symptoms.

**Method:** Eighty five patients who came to Bezmialem Vakıf University Hospital were included. Socio-demographic information form was applied for eliminating patients who had other functional anomalies, cancer, no a history or approved psychiatric illness. Beck depression scale was administered to patients. Patients' latest HbA1c levels were recorded.

**Results:** According to the results of sociodemographic questionnaire, 85 of 50 women (58.8%) and 35 men (41.2%) participated our research. The average age among patients was 52.26 ( $\pm 8.228$ ) years. The last measured HbA1c of female patients was 7.03 ( $\pm 1.129$ ) and depression score was 17.880 ( $\pm 8.047$ ). The last measured HbA1c of male patients was 6.83 ( $\pm 1.073$ ) and depression score was 15.08 ( $\pm 8.286$ ). According to the cut-off score (16), 37 patients (43.5%) had severe depressive symptoms. The relationship between HbA1c values and Beck depression score was found to be highly significant ( $p < 0.001$ ,  $r = 0.675$ ) significantly. Our study should be supported with further clinical studies although our study supports that the treatment planning of diabetes can be extended according to patients' well-being.

**Key words:** Diabetes mellitus, HbA1c, depression

SOP-37

## Patients Diagnosed with Epilepsy Sleep Habits Research

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**Objective:** Epilepsy is a chronic neurological disease characterized by recurrent epileptic seizures. Epilepsy changes the organization and microstructure of sleep. Sleep disorders are common in patients with epilepsy. The aim of this study was to investigate the sleep patterns of epilepsy patients and to determine their relationship with epilepsy.

**Method:** In this study, a questionnaire was conducted with patients diagnosed with epilepsy and with healthy controls. Sleep quality of the patients was scored according to Pittsburgh Sleep Quality index (PSQI), Epworth Sleepiness scale (ESS), Beck Depression Scale (BDS), Beck Anxiety Scale (BAS), Stanford Sleepiness Scale (SSS), and Berlin Sleep Questionnaire. Questionnaires were analyzed by Statistics 22.0 package analysis. The mean  $\pm$  standard deviation value was the identifier alongside the median [minimum-maximum (min-max)] values. The study was conducted with 70 epilepsy patients and 70 healthy control groups.

**Results:** The median value (min-max) of PSQI scores of the patients diagnosed with epilepsy was 7 (2-11);  $p=2.56896E-11$ . The median value (min-max) of ESS scores of the patients diagnosed with epilepsy was 6 (0-22);  $p=0.000$ . The median value (min-max) of BDS scores of the patients diagnosed with epilepsy was 12 (0-34);  $p=0.000$ . The median value (min-max) of BAS scores of the patients diagnosed with epilepsy was 16 (1-40);  $p=4.10398E-11$ . The median value (min-max) of SSS scores of the patients diagnosed with epilepsy was 1 (1-1);  $p=0.043$ .

**Conclusion:** According to the data obtained to date, a significant relationship between epilepsy and sleep was found in our study. Epilepsy was found to reduce sleep quality and improve daytime sleepiness. In epilepsy, risks of sleep apnea and anxiety disorder are common. It was concluded that poor sleep quality and depression had a negative effect on quality of life.

**Key words:** Epilepsy, sleep disturbance, quality of life, depression

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SOP-38

## Distribution of Adenovirus Gastroenteritis Patients at The Pediatric Emergency Department of Our Hospital According to Age Groups

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**Objective:** Adenoviruses are one of the most common causes of severe gastroenteritis in neonates and young children. The most common gastroenteritis serotypes of adenoviruses are serotypes 40 and 41. Serotypes 40 and 41 cause significant sporadic outbreaks in nurseries, summer camps and public pools. Adenoviruses are defined in 2-6% of acute gastroenteritis (AGE) in newborns and children, and in 4-15% of hospitalized children. Enteric adenoviruses are seen most commonly under the age of two years and occur all year round. In our study, we evaluated patients who applied to Bezmialem Vakıf Hospital Pediatric Emergency Department with the complaints such as diarrhea, abdominal pain, vomiting and fever and were diagnosed as AGE; and whose enteric adenoviruses in stool samples were sent to our laboratory for virological analysis.

We aimed to investigate the frequency and distribution of antigens by age.

**Method:** Between January 2015 and August 2019, 15,859 stool samples sent to Bezmialem Vakıf Hospital Pediatric Emergency Department with microbiology laboratory pre-diagnosis of AGE were examined for adenovirus. Stool samples collected were studied with antigen kit. Patients were divided into 4 different age groups as 0-3, 3-7, 7-14 and 14-18 age groups and the distribution of the findings according to gender and age groups was examined.

**Results:** Eight hundred and eighty three (5.6%) of 15,859 samples were found to be positive. 361 (40.9%) of the patients with antigens were female and 522 (59.1%) were male. Ninety seven positive results in the 0-3 age group (11.0%), 461 positive results in the 3-7 age group (52.2%), 257 positive results in the 7-14 age group (29.1%), and 68 positive results in the 14-18 age group (7.7%) were achieved. There was a statistically significant difference between viral antigen positivity and age groups ( $p < 0.05$ ).

**Conclusion:** Enteric adenoviruses are an important cause of gastroenteritis especially in nursery and kindergarten childhood. Therefore, adenovirus antigens should be investigated in AGEs especially in this age group. Microbiological confirmation is important both in early diagnosis and symptomatic treatment and in preventing unnecessary antibiotic use.

**Key words:** Abla adenovirus, gastroenteritis, age

# The Relationship Between Interatrial Block and PASI in Patients with Psoriasis

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**Objective:** Psoriasis is a chronic immune dependent inflammatory dermatologic disease that increases the risk of cardiovascular diseases. Studies have shown that systemic inflammation, as occurs in psoriasis, increases the risks of cardiovascular diseases, depending on its severity. Since Psoriasis Area Severity index (PASI) shows us the severity of psoriasis, we expect that when PASI is greater, there would be more inflammation and more risk for cardiac outcomes like interatrial block (IAB) and therefore, atrial fibrillation. We also expect that the p-wave duration, which shows us the atrial depolarization, will be longer if PASI is high.

**Method:** This retrospective study included 212 psoriasis patients (51.42% male, 48.58% female; the mean age:  $34.14 \pm 6.73$  years). These patients were categorized by the severity of their disease by at least one dermatologist (PASI, PSI, Nail Psoriasis Severity index) and were examined by at least one cardiologist, who checked their electrocardiography for IAB (p-wave duration  $\geq 120$  ms). Patients who could not be categorized by the severity of their disease or seen by a cardiologist were excluded from the study.

**Results:** Of 212 patients, 51.42% were male and 48.58% were female, and at the mean age of  $34.14 \pm 6.73$  years. Out of their PASI scores, 90.57% were categorized as “mild”, 6.6% as “moderate” and 2.83% as “severe” psoriatic patients. 8.02% of all patients had IAB, none of them were categorized as severe. There was no significant correlation between IAB and PASI ( $p=0.53$ ), between gender and PASI ( $p=0.38$ ), and between PASI and p-wave duration ( $p=0.45$ ).

**Conclusion:** There was no significant correlation between the severity of psoriasis measured with PASI and IAB.

**Key words:** Psoriasis, interatrial block, PASI, p-wave

## SOP-40

## Social Medias Effect on Depression and Self-esteem

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**Objective:** Depression is a common illness worldwide. Depression is different from usual mood fluctuations and short-lived emotional responses to challenges in everyday life. It can cause the affected person to suffer greatly and function poorly at work, at school and in the family. At its worst, depression can lead to suicide. On the other hand self-esteem is persons opinion of themselves. People with healthy self-esteem like themselves and value their achievements. While everyone lacks confidence occasionally, people with low self-esteem feel unhappy or unsatisfied with themselves most of the time. Social media host virtual communities where users can create individual public and/or private profiles. Social media is a huge force in the lives of young people with wide ranging effects on their development; given the importance of adolescence in the genesis of mental illness, social media is a factor in the mental health of young people. Overall, lack of research has been conducted in this area. Our purpose in this study is to search the link between adolescences social media use and its effect on depression and self-esteem.

**Method:** The sample of the study were 10-17 years old children who were admitted to Bezmialem Vakıf University Child and Adolescent Psychiatry Outpatient Clinic and diagnosed with depression. Healty children age and sex matched as control group were taken. The main data collection tools to be used in this research were surveys. Surveys used in this study were Socio-demographic questions regarding age, gender. Kovacs children depression inventory (CDI) measures the depression in children and consists of 27 items, each evaluating a symptom of depression or related affect. Items are presented as three statements of varying symptom severity, highest score being 54, and score higher than 19 counts pathological. The Rosenberg Self-Esteem scale (RSES), assess global self-esteem (i.e., feeling of self-worth and self-acceptance) with 10 items on a 4-point scale higher score being 6, score 0-1 counts as high, 2-4 counts as moderate, and score 5-6 counts as lower self-esteem. Weekly Social Media Use, used to assess the adolescents weekly time spent on social media, two variables going to be combined 'The last 7 days how many days did you use the internet for social networking?' (Categories are "never", "1 day", "2 days", ... "7 days"). "In the last 30 days on an average day how many hours did you use the internet for social networking?" (Categories are "I don't use", "less than half an hour", "1 hour", "2-3 hours", "4-5 hours" and "more than 6 hours"). The CDI, RSES scores and Weekly Social Media Use values were compared to those control group. The data was analyzed statistically by using SPSS 22.0.

**Results:** The study consisted of 40 depression diagnosed children which include 22 girls and 18 boys, patients ages ranges from 10 to 17 and 40 children in control group which include 22 girls and 18 boys, patients ages ranges from 10 to 17. The mean and standard deviation of the CDI scores in patients and control group are  $26.00 \pm 9.74548$  and  $13.25 \pm 4.99615$  and  $p=0.001$ . The mean and standard deviation of the RSES scores in patients and control group are  $2.1 \pm 1.79458$  and  $0.8 \pm 1.04268$  and  $p=0.01$ . The mean and standard deviation of 'How many days used in a week?' question scores in patients and control group are  $6.65 \pm 1.54505$  and

6.55±1.55167 and p=0.773. The mean and standard deviation of “How many hours a day?” question scores in patients and control group are 4.2±1.52248 and 2.3±1.05125 also p=0.001. According to RSES score for patient group, 22 (55%) patients had higher self-esteem, 11 (27.5%) patient had moderate and 7 (17.5%) had low self-esteem and according to RSES score for control group, 33 (82.5%) patients had high, 7 (17.5%) had moderate self-esteem.

**Conclusion:** The results of the present study show that amount of time spend on the social media is higher in depression diagnosed patients than control group and depression diagnosed patients had higher scores at the RSES which indicate that they had lower self-esteem.

**Key words:** Depression, self esteem, social media

SOP-41

## Evaluation of Testosterone Levels in Patients Undergoing Micro Testicular Sperm Extraction

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**Objective:** Testicular sperm extraction (TESE) is an operation performed in men with azoospermia to obtain biological parenting. With this operation, spermatozoa can be taken directly from the testicular tissue. The aim of this study was to determine whether there was a change in testosterone levels in patients who underwent micro TESE.

**Method:** The study was conducted on patients who had undergone micro TESE operation at the of Bezmialem Vakıf University Faculty of Medicine Hospital, Clinic of Urology. The testosterone levels of these patients were examined retrospectively. Whether there was a difference between the levels of testosterone before the operation and 6 and 12 months after the operation was evaluated.

**Results:** In our study, 25 patients' testosterone levels were obtained. Patients' pre-op, post-op 6<sup>th</sup> and 12<sup>th</sup> month total testosterone data were obtained. When pre-op testosterone values (mean=3.73 ng/mL) were compared with post-op 6. month testosterone values (mean=2.2 ng/mL), a significant difference was found between them, there was a significant decrease in testosterone values compared to pre-op testosterone values at the postoperative 6<sup>th</sup> month. When pre-op testosterone values (mean=3.73 ng/mL) were compared with postop 12<sup>th</sup> month testosterone values (mean=3.8 ng/mL), no significant difference was found. Four patients already had a testosterone deficiency before testicular biopsy (range=1.75 to 7.8 ng/mL); these four patients' testosterone values were still found to be under the normal range after testicular biopsy.

**Conclusion:** According to our study result, we found transient but significantly decreased total testosterone levels after TESE that recovered to baseline levels after 12 months. Our results should be confirmed with further experimental and clinical studies.

**Key words:** Micro TESE, total testosterone

SOP-42

## The Evaluation of The Relationship Between Breast Milking and Types of Delivery in Infants

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**Objective:** The World Health Organization recommends exclusive breastfeeding without any food or liquid for the first 6 months of life and continued breastfeeding up to 2 years of age. This study mainly focuses on the type of birth and aims to evaluate the socio-demographic, pregnancy and breastfeeding characteristics in infants fed with breast milk.

**Method:** The study was conducted on 210 mothers who applied to the Pediatric Health and Diseases Polyclinics in Bezmialem Vakıf Hospital and who had a baby under two years of age. The volunteers filled out the survey with 30 questions, which was prepared beforehand.

**Results:** According to the biostatistical results, there was a significant difference between the time of first breastfeeding and the type of birth ( $p < 0.001$ ). Other significant findings according to the type of birth were as follows; the time of first breastfeeding ( $p < 0.001$ ), first intake of breastmilk ( $p < 0.001$ ), the periods of only breastfeeding ( $p < 0.001$ ) and total breastfeeding periods ( $p < 0.003$ ). There was also a significant relationship between the time of the first intake of breastmilk and the duration of only breastfeeding ( $p < 0.001$ ), the time of starting additional food and total duration of breastfeeding ( $p < 0.001$ ), the mother's sense of self-efficacy in breastfeeding and the total duration of breastfeeding ( $p < 0.001$ ), and the working status of the mother and only breastfeeding time ( $p < 0.007$ ).

**Conclusion:** The results of the study show that the types of delivery has a significant effect on the breastfeeding as a first nutrient, the time of first breastfeeding, the duration of only breastfeeding and the total duration of breastfeeding.

**Key words:** Breastfeeding, delivery



# BEZMİÂLEM science

**4<sup>rd</sup> ANNUAL MEDICAL STUDENTS  
RESEARCH PRESENTATION DAY  
17 MARCH 2020**

## **POSTER PRESENTATIONS**

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## PP-1

# Evaluation of The Attitudes and Knowledge Levels of Faculty of Medicine and Faculty of Dentistry Students in Bezmialem Vakıf University Against People Living with HIV/AIDS

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**Objective:** Due to the clinical, social and psychological issues of people living with HIV/AIDS, doctors and dentists should be well educated about these issues. Also, doctors and dentists should be more empathetic and understanding of these patients because they are already being excluded and being judged by society. However, recent studies have demonstrated that some healthcare professionals remain unwilling to provide care for HIV/AIDS patients. In this study, we aimed to search the knowledge levels, attitudes, and behaviors of medical faculty and dentistry faculty students about HIV/AIDS.

**Method:** In this study, a 26-item questionnaire was prepared. Demographic information was used in the first part, knowledge questions in the second part, and AIDS Attitude scale (AAS) in the third part. A total of 189 students, including 113 students from medical faculty and 76 students from dental faculty, participated in the study. The collected data were analyzed with IBM SPSS Statistics 22.0 package program. Non-parametric Mann-Whitney test was used for differences between the groups.  $P < 0.05$  was considered statistically significant.

**Results:** According to the questionnaire results, medical students' attitudes towards people living with HIV/AIDS is more positive than those of dentistry students ( $p=0.04$ ). Fear of transmission was significantly higher in dental students ( $p=0.04$ ). However, there was no significant difference between these two faculties in professional resistance and negative emotion subscales ( $p=0.07$ ,  $p=0.22$ ). Female students had more positive attitudes towards people living with HIV/AIDS than male students ( $p=0.001$ ). When the two groups were compared according to knowledge questions, the knowledge level of medical students was found to be significantly higher than that of dental students ( $p=0.001$ ).

**Conclusion:** In this study, it was found that attitudes and behaviors towards people living with HIV/AIDS were related to knowledge level. If students are educated more effectively about HIV/AIDS, discriminatory attitudes can be eradicated, and fear of contagion can be decreased.

**Key words:** HIV/AIDS, knowledge, attitude, behavior, AAS, medical education



PP-2

## Clinical Importance of Sedimentation, Leukocyte, Fibrinogen, C Reactive Protein, and Pentraxin3 Levels in Thyroiditis and Nodular Goiter

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**Objective:** Thyroid diseases are common in the community. The important point in diagnostic evaluation is to exclude malignancy. Thyroid function tests, autoantibodies, ultrasonography and, if necessary, biopsies are used for diagnosis. In this study, the clinical and prognostic significance of sedimentation, leukocyte, fibrinogen, C-reactive protein (CRP) and pentracin-3 levels in thyroiditis and nodular goiter was investigated.

**Method:** Fifty-five patients with nodular goiter and 58 patients in the control group were included in the study. Gender, age, thyroid function tests, sedimentation, leukocyte, fibrinogen, CRP and pentraxin-3 serum levels of the participants were analyzed. The number, diameter, and structure of the nodules on the sonography of the patients in the study group were evaluated. The relationships between each other were evaluated statistically.

**Results:** The female/male ratio of the patients included in the study was 3:5 and the age range was 21-78 years (mean 49.4 years). 47.2% of the patients had nodules on both sides and their number ranged from 1 to 4 (two nodules in 47.2%). The nodule diameter range was 3-62 (mean 21) mm. Most of the patients (58.18%) had solid nodules. Thyroid biopsy revealed papillary thyroid cancer in 25.5% of the patients. In the control group, the F/M ratio was 1:3 and the age range was 18-84 years (mean 46.5 years). In statistical analysis, as the number of nodules increased in the patient group, CRP values increased significantly. However, as fibrinogen values increased, the number of nodules decreased. There was no difference between the groups in terms of other parameters.

**Conclusion:** As a result of our study, there was a positive correlation between nodular formation and CRP, and inverse correlation between nodule formation and fibrinogen levels. This may be important in clinical follow-up. Conducting the study with large series of patients may provide different results.

**Key words:** Thyroiditis, thyroid nodules, fibrinogen, CRP

PP-3

## Behavioral Changes of The First, Second, Third and Fourth Year Medical Students in Bezmialem Vakıf University During Examination Periods to Improve Their Productivity

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**Objective:** Medical students are expected to work for a long period of time and to be successful, which leads them to use different methods to improve their productivity. In this study, it was aimed to search for behavioral changes of the first, second, third and fourth year medical students in Bezmialem Vakıf University during examination periods to improve their productivity.

**Method:** This was a cross sectional study in which a total of 171 medical students of Bezmialem Vakıf University participated. A questionnaire of 46 questions which included demographic information, living conditions, emotions during the examination period, methods used to increase the academic performance and behavioral changes during the examination periods. Data were analyzed using pearson chi-square tests and Spearman's rho.

**Results:** Of the 171 students who participated in this study, 118 (69.006%) used methods to improve their productivity during examination period. The gender, nationality, residential area, and mood of the students had no relationship with the usage of methods to improve their concentration while studying for exams. 9.36% (16) of the students used drugs to improve their concentration and 5.85% (10) students used vitamin supplements. 45.62% (78) of the medical students did research on how to study more effectively. There was no correlation between the sleeping time during the normal time and the examination period. Furthermore, there was no correlation between drinking tea, coffee, coke, energy drinks, alcohol, smoking, and sleeping time and their grades or exam failure.

**Conclusion:** The first, second, third and fourth year medical students of Bezmialem Vakıf University do research on how to improve their productivity during examination period. However, there is no correlation between the usage of different methods and the academic performance.

**Key words:** Medical students, supplements, productivity

## PP-4

# Occupational Health and Safety Perceptions in Bezmialem Medical Faculty Students

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**Objective:** Students in the health sector, who require more advanced level of education and more technical jobs, as well as those who have the same kind of risks as their employees, are also exposed to occupational injury and occupational risk factors, particularly in contact with infected blood and body fluids. For this reason, it is very important to know the occupational health and safety perception of medical students. Our aim was to investigate and compare occupational health and safety perceptions of the 1<sup>st</sup> and 4<sup>th</sup> grade students in medical faculty, to determine the level of competency level of occupational health and safety related to public health and to determine what to do if they are to complete the deficiencies.

**Method:** When the ratios were taken as 0.56 and 0.78 respectively, the sample size was determined as at least 170 persons to obtain 80% power at 95% confidence level. Eighty five of these 170 people were in the 1<sup>st</sup> class and 85 were in the 4<sup>th</sup> grade. A questionnaire was applied to the students via face-to-face interviews.

**Results:** According to the chi-square test, in the occupational health and safety class, there was no significant difference in the level of knowledge ( $p=0.553$ ).

**Conclusion:** Occupational health and safety education is particularly important for a population such as medical students, who are exposed to occupational risks in education. In a study conducted in military medical students, occupational health and safety education levels of students were not found to be sufficient. As a result of the research, it can be said that the education given about occupational health and safety in medical faculty is not sufficient to raise awareness among students.

**Key words:** Occupational health, safety, public health, perceptions

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PP-5

## Outpatient Clinic Satisfaction at Bezmialem Vakıf University Hospital

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**Objective:** The fundamental goal of a hospital is to provide healthcare to patients along with ensuring their continuity to survive in this ever-growing competitive healthcare sector in our daily world. One of the most efficient ways of doing so is by effectively analyzing patients' satisfaction. This study aims to evaluate the outpatients' satisfaction and the related factors among the patients attending Bezmialem Vakıf University Hospital in İstanbul.

**Method:** A cross-sectional study was conducted between September and November 2019 at the outpatient clinic at Bezmialem Vakıf University Hospital. The data were collected by interviewing patients using the Patient Satisfaction Questionnaire-Short Format (PSQ-18). Data were analyzed using SPSS version 16. The inclusion criteria were being conscious adults, having willing to participate, and visiting the outpatient clinic. Children under 18 years, Bezmialem University students and service patients were excluded.

**Results:** Of the total 250 patients included in the study, 173 were female (69.2%), and 77 were male (30.8%). The majority of the studied group were married (76.0%) and included in the age range of 30-49 years (46%). About 39.6% of patients were employed, and half of them reported their monthly income to be in the range of 2000-4000 Turkish liras. Patients had more satisfaction with the technical quality (15.2±2.4) and accessibility and convenience (11.8±5.6), respectively. However, patients appeared dissatisfied when they assessed the general satisfaction (5.7±1.5) and financial aspects (6.1±4.8), respectively. In multiple linear regression, marital status ( $p=0.012$ ), education level ( $p=0.007$ ), and overall health perception ( $p<0.001$ ) were significantly related to patient satisfaction.

**Conclusion:** Although patients were satisfied with most of the healthcare services, the general satisfaction was affected and the impact of the financial aspect was prominent. The findings of the study enable hospital administration to benefit from patient feedback and adjust service accordingly.

**Key words:** Satisfaction, outpatient, technical quality, access to healthcare, BVU, İstanbul, Turkey

## PP-6

# The Effect of Bezmialem Vakıf University 4<sup>th</sup> and 5<sup>th</sup> Class Medicals Students' Attendance to Theoretical Classes on Internship Final Grade

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**Objective:** In general, researchers have demonstrated that students with low absenteeism achieve higher academic performance in both coursework and examinations than students with high absenteeism. Today's technologies and new learning methods (easy access to course content in the form of online slides, videos and sounds) have the potential to reduce attendance. Nowadays, applications such as quick response QR codes are made for the definitive determination of students' attendance in the courses. With these applications, students' attendance in classes can be determined more accurately. The aim of this study was to investigate the effect of Bezmialem Vakıf University 4<sup>th</sup> and 5<sup>th</sup> class medicals students' attendance to theoretical courses on internship final grade.

**Method:** After the application saved the attendance data, it obtained from faculty's electronic student information system. This study was retrospectively conducted on 246 students, including 4 internships of 4<sup>th</sup> semester and 4 internships of 5<sup>th</sup> semester. Students whose absence was below 70% did not participate in the study. Student achievement data were identified and categorized from the same system. Each student's attendance status was matched with success status. Percentage of attendance and end of internship points obtained from the education information system were examined by using the pearson correlation coefficient formula.

**Results:** At the end of the study, r value was found as 0.347. Considering the p value as  $\alpha=0.05$ , it was found as  $<0.00001$ , and our results showed high significance value. Calculation of r value as 0.347 showed poor correlation between attendance and success rates. Calculation of p value as  $<0.00001$  showed high significance value.

**Conclusion:** As a result, it was determined that the difference in success between the students attending and not attending the classes was statistically significant. However, despite the success difference between the students attending and not attending the course, the weak correlation between their achievements and their attendance showed that other factors also affected the success.

**Key words:** Attendance, achievement, medical student

PP-7

## Patient Satisfaction Survey After Rhinoplasty Operation

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**Objective:** Rhinoplasty is one of aesthetic surgeries with reconstructive features. Results are directly related to facial appearance and respiratory functions are well evaluated by the patients themselves. Patient satisfaction surveys measure the satisfaction and quality of life of patients with rhinoplasty surgery, a detailed self-assessment questionnaire including features such as impact on physical, psychological and social life is needed. The ultimate goal of the self-assessment research is to understand and evaluate the effects of aesthetic and functional interventions from the patient's point of view and to improve the results of rhinoplasty surgeries and increase the satisfaction of patients with this information.

**Method:** The patients who were between the ages of 18 and 65 years and had undergone rhinoplasty surgery at least 6 months ago were sent visual satisfaction surveys. The scores of questionnaires were divided into three groups as physical, psychological and social life, and were evaluated using the Rhinoplasty Outcomes Evaluation (ROE) questionnaire (translated into Turkish version as ROE-T in previous studies). Satisfaction of patients was at least 60 points and above, and dissatisfaction was below 60 points.

**Results:** The average score of 120 patients who participated in the study was found to be 70.37. The most satisfied age group participating in the study was the young group between the ages of 20 and 30 years with 79.49 points. The lowest score was in the 30-40 years age group with 62.16 points. Our survey achieved a high participation rate of 120 out of 215 patients. Considering low revision rates and high functional (respiratory) satisfaction, our findings are remarkable.

**Conclusion:** Our study addressed an important issue in terms of theme and at the same time, high participation and objective feedback was obtained as a tool and method confirming that the Bezmialem Scientific Committee is in compliance with the vision, mission objectives.

**Key words:** Rhinoplasty, patients satisfaction, surgical outcomes, life quality

PP-8

## The Relation Between Anxiety and Depression Symptoms in Children with ADHD and Their Mothers' Anxiety and Depression Symptoms

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**Objective:** Attention Deficit Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder characterized by problems in attention, concentration, mobility and impulse control. Systematic investigations show that the incidence is 5-12% on average. Behavioral, cognitive, social and emotional domains are multifaceted. Although the etiology of ADHD is not known, biopsychosocial causes are blamed as in other psychiatric diseases.

In the literature, there were not enough studies showing the relationship between anxiety and depression in children with ADHD and possible anxiety and depression in their parents. The aim of this study was to show the effect of comorbid anxiety and depression on maternal anxiety and depression symptoms in children with ADHD.

**Method:** For this purpose, children and adolescents aged 8-18 years, who were followed up with the diagnosis of ADHD in Bezmialem Vakıf University child and adolescent psychiatry outpatient clinic, were screened using the childhood depression and anxiety scale. Sixty healthy children and their mothers and 60 children with ADHD and their mothers were included in the study.

**Results:** While 62.7% of the mothers of the children with ADHD had anxiety, this rate was found to be 28.3% in the mothers of the control group. There was a significant difference between the two groups in terms of anxiety according to beck anxiety scale ( $p < 0.0001$ ). 46.6% of the mothers of children with ADHD and 25% of the mothers in the control group had depression. There was a significant difference between the two groups in terms of depression according to the beck depression scale ( $p < 0.001$ ).

**Conclusion:** In this study, it was shown that the frequency of anxiety and depression increased in mothers of children with ADHD. It was also observed that the development of comorbid depression in children with ADHD increased the frequency of anxiety and depression in their mothers.

**Key words:** ADHD, depression, anxiety



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PP-9

## Lesions Accompanying Fibrocystic Changes in The Breast: A Retrospective Study

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**Objective:** Fibrocystic breast disease (FBD) is the most common benign condition of the breast. Although it is not usually associated with breast cancer, some studies suggest that fibrocystic changes (FCs) increase the risk. The diagnosis is made by clinical examination in 50% and by histopathological studies in 90% of women. The pathogenesis of FCs is still unclear, but exaggerated response to hormones is thought to be responsible. The aim of our study was the investigation of lesions accompanying FCs and conditions that might be important on the course.

**Method:** Radiology and pathology results of the patients who applied to general surgery breast polyclinic in 2019 were scanned retrospectively from Bezmialem Vakıf University Hospital data (Bizmed). Patients who were radiologically diagnosed with heterogeneously and extremely dense breasts, which might obscure small masses or lower the sensitivity of mammography, based on ACR BI-RADS Atlas were included. We investigated the additional lesions, lesion characteristics, histopathological evaluations and connection with etiologic factors.

**Results:** In this study, 393 female patients were included (227 premenopausal, 166 postmenopausal). Forty five were  $\leq 40$  years old and 348 were  $> 40$  years old. Among the premenopausal patients; 46 had dense fibrocystic changes, 103 had benign mass, 54 had suspicious microcalcifications and 24 had malignant mass in mammography. Biopsy results were found to be significantly malignant (23 pts, 95.8%) in the patient group whose mammography also showed lesions suspicious for malignancy ( $p < 0.001$ ). Among the postmenopausal patients; 26 had dense fibrocystic changes, 69 had benign mass, 49 had suspicious microcalcifications and 22 had malignant mass in mammography. In the patient group with malignant mass on mammography, biopsy results were found to be significantly malignant (21 pts, 95.5%) ( $p < 0.001$ ).

**Conclusion:** In women with FBD, the evaluation of mammography requires experience because the dense structure of the breasts decreasing the sensitivity and additional lesions should be evaluated carefully.

**Key words:** Fibrocystic breast disease, fibrocystic changes, breast cancer

PP-10

## The Relationship Between Advanced Maternal Age and Complications That It Causes During Pregnancy

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**Objective:** Due to female body's physiology and anatomy, the most ideal age for a woman to get pregnant is between 21 and 30 years. Pregnancies that occur after the age of 35 years are defined as advanced maternal age and especially after the age of 40 are considered as risky pregnancies.

**Method:** All the childbirths which have been delivered at gynecology and obstetrics department at Bezmialem Vakıf University Hospital from 2010 to 2015 were analyzed retrospectively. All the cases were subdivided into two subgroups by the maternal age. Hundred and two women between 20 and 40 years of age were in the control group (group 1) while the experimental group (group 2) covered 91 women who were older than 40 years old.

**Result:** The rate of c section in the patients with advanced age was (70.3%) found to be higher than in the control group (54.9%) (Statistically significant at  $p=0.0027$ ). The rate of requirement of episiotomy during normal delivery in Group 1 and Group 2 were 21.6 % and 11%, respectively.

In terms of obstetric complications, the patients with advanced maternal age were reviewed and findings were 26.4% preterm labor (14.7% in the control group ), 6.6% preeclampsia (4.9% in the control group ), 2.2% gestational diabetes (1% in the control group ) and 6.6% fetal macrosomia (7.8% in the control group).

**Conclusion:** As it is proven by many studies, the risk of having obstetric complications (preeclampsia, gestational diabetes, preterm labor,) was found to be higher in women with advanced maternal age. In order to prevent the complications that can affect mother and fetus, we highly recommend more often follow-ups during pregnancy in advanced maternal age.

**Key words:** Pregnancy, complications, maternal age

PP-11

## Prognostic Value of Leukocyte, CRP and Neutrophil/Lymphocyte Ratio in Patients with Acute Mesenteric Ischemia

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**Objective:** Acute mesenteric ischemia (AMI) is a group of diseases with high mortality. In this retrospective study, we investigated the predictive significance of leukocyte, CRP and NLR preoperatively in patients operated for AMI.

**Method:** In this study, 44 patients operated for AMI between 2015 and 2019 were evaluated. L-lactate, D-dimer, CRP, leukocyte, and NLR were determined in these patients. Statistical analysis was performed according to AMI groups.

**Results:** The age range of 44 patients included in the study was 24-96 years (mean=67.7 years) and the ratio of male to female was 0.76. According to tomography findings, 31.8% (n=14) of the patients had mesenteric artery embolism, 29.5% (n=13) had mesenteric artery thrombus, 25% (n=11) of the patients had mesenteric vein thrombus, 13.6% (n=6) of the patients had non-occlusive mesenteric ischemia. 90.9% of the patients had leukocytosis and the mean was 18.13 LL. The mean CRP was 39.1 mg L in all patients. The mean NLR of the patients was 17.5 10<sup>3</sup> uL. The mean L-lactate level was 2.8 mmol l and in 65.9% of the patients (n=29), the pathological value was 2 mmol l. The mean D-dimer was 2.6 FEU/mL and was above the ischemic threshold of 0.9 FEU mL in 72.7% (n=32) of the patients. D-dimer (p=0.040) and CRP (p=0.032) levels were significantly higher in patients with mesenteric artery embolism than other subtypes. Leukocyte and NLR were found to be statistically insignificant. CRP values were significantly blunted between L-lactate (p=0.0001) and D-dimer (p=0.0001).

**Conclusion:** It can be used effectively in the diagnosis of AMI, subtype, and clinical course of preoperative CRP levels. However, leukocyte and NLR do not have clinical efficacy in AMI.

**Key words:** Acute mesenteric ischemia, c-reactive protein, leukocyte, neutrophil/lymphocyte ratio

PP-12

## Intermittent vs. Continuous Use of Isotretinoin in Acne Vulgaris and Its Side Effects

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**Objective:** Acne vulgaris is the formation of comedones, papules, pustules, nodules, or cysts as a result of obstruction and inflammation of pilosebaceous units. It starts around puberty, and follows a prognosis which differs from patient to patient and usually patients recover spontaneously. Research shows acne rates increase around ages 14-17 for women and 16-19 for men, it is also known acne follows a more frequent and severe trajectory for men. The etiology behind this condition is debated often.

**Method:** 100 patients selected from Bezmialem Vakıf University Hospital's Dermatology Clinic (ages over 16) were taken into the study and divided into 2 group of 50: those who use Isotretinoin continuous vs. intermittent. Each patient was evaluated based on their acne score (mild-moderate and severe), acne scar score and the side effects. Data has been analyzed statistically using SPSS 20.0 software.

**Results:** Both intermittent and continuous isotretinoin regimens are very well tolerated and effective as classical regimens in the treatment of acne vulgaris. However, a continuous regimen seems to be slightly superior in terms of patients' compliance to the treatment and lower risk of relapse. Thus, this review of 100 acne patients for both groups, followed up after treatment with isotretinoin, has shown that a small number experience a variety of persistent symptoms. Some of these, such as xeroderma, dry eye syndrome, arthralgia, persistent Achilles tendonitis and possible exacerbation of eczema, were considered to be infrequent, but probable long-term side-effects. None of the symptoms attributed to isotretinoin was serious, or the cause of any disability.

**Conclusion:**

**Key words:** Acne vulgaris, isotretinoin treatment, acne scar, acne score, pathogenesis

PP-13

## The Relationship Between Biological Rhythm Disturbances and Metabolic Syndrome Parameters in Patients with Bipolar Disorder

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**Objective:** Biological rhythm modulates physiological processes by orchestrating daily activities of metabolism. Considering this relationship, it is predictable that disruption of biological rhythm is associated with the development of metabolic syndrome, which may lead to mortality. Bipolar disorder (BD) is a chronic episodic psychiatric condition that has a complex pathogenesis. BD patients suffer from a burden of comorbidities, which can be gathered under the metabolic syndrome umbrella, compared to the general population. But there are still underexplored issues concerning the vulnerability of these patients, in particularly the links that might exist with biological rhythm disruptions. The aim of this study was to investigate the associations between biological rhythm and metabolic syndrome in BD and to explore the factors affecting patients' survival and quality of life.

**Method:** This is a prospective paired case-control study that consists of two groups: 35 BD patients and 35 healthy individuals. The following tools were used to evaluate: The Hamilton Depression Rating scale, The Young Mania Rating scale, Biological Rhythms Interview of Assessment in Neuropsychiatry (BRIAN), triglycerides, High-density lipoprotein (HDL) cholesterol, fasting blood sugar, Homeostatic Model Assessment for Insulin Resistance (HOMA-IR), body mass index (BMI).

**Results:** The groups were not significantly different in terms of age ( $p=0.43$ ) and gender ( $p=0.50$ ). BRIAN total scores were significantly higher ( $p<0.001$ ) in the patients with BD. Patients also had significantly higher alterations in subscales: BRIAN-sleep ( $p<0.001$ ), BRIAN-activity ( $p<0.002$ ), BRIAN-social rhythm ( $p<0.001$ ) and BRIAN-eating ( $p<0.05$ ). BD patients showed a significant increase in BMI in comparison to the control group ( $p<0.05$ ) and there was no difference between study groups in terms of triglycerides, HDL cholesterol, fasting blood sugar, and HOMA-IR.

**Conclusion:** The findings suggested that the disruption of biological rhythm and an increase in BMI might be associated with BD. The optimization of biological rhythm might have a role in improving quality of life and can be a non-pharmacological treatment option in BD.

**Key words:** Bipolar disorder, biological rhythm, metabolic syndrome

PP-14

# Knowledge and Attitude of Healthcare Personnel Towards Occupational Hazards at Bezmialem Vakıf University Hospital

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**Objective:** Health care workers are often exposed to occupational hazards and the risk of exposure has doubled in busiest centers. This study assessed the workplace hazards and safety practices by selected doctors and nurses working in BVU Hospital in Turkey.

**Method:** A descriptive cross-sectional design and randomly sampling technique were used to identify 125 respondents. Data were collected by self-administered and validated questionnaires. SPSS version 16 was recruited to analyze the data.

**Results:** The mean age of respondents was 31.06 ( $\pm 9.73$ ) years. The results showed that more than half of the respondents were registered nurses (68, 54.4%), female (92, 73.6%), and unmarried (72, 57.6%). The respondents' average work experience was 8.74 ( $\pm 8.18$ ) years; however, the average work experience was 3.70 ( $\pm 3.21$ ) years in BVU. Most respondents (68.8%) were knowledgeable about hazards in BVU hospital, identified recapping used needles as a risky practice (54.4%) and recognized effective hand washing before and after every clinical procedure in preventing cross infection (98.4%). Also, most respondents (82.4%) believed they were at risk of occupational hazards. In addition, most of them, 81.6% and 71.2 %, had completed Hepatitis B and Tetanus immunizations, respectively. Only 44.8% "always" complied with standard procedures. Among the 1099 accidents reported in the last three months, there were 180 (16.3%) body fluid contact, 100 (9.0%) radiation exposure, 94 (8.5%) sliding-falling-tumbling, 65 (5.9%) needle injuries, and 42 (3.8%) assault from patients. Out of 84 accident victims, %54.76 (46) reported incidents to authorities and 13.1% had treatment after incidents.

**Conclusion:** The level of knowledge about the occupational hazards was high among the respondents. Most of them realized that they were at risk of work hazards; however, less than half always complied with standard procedures. Focusing on educational programs can help to raise awareness and avoid accidental injuries at work.

**Key words:** Workplace hazards, hazards in busiest healthcare center, doctors, nurses, BVU, İstanbul, Turkey

PP-15

## Investigation of Antithrombotic Effect of *Rosmarinus officinalis* and *Lavandula angustifolia*

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**Objective:** In general, antithrombotic agents include anticoagulants that inhibit the clotting system and inhibit clot expansion. Medicinal herbs could be one of the most important pharmaceutical agents that ameliorate thrombotic disorders, such as unstable angina, myocardial infarction, stroke, and Peripheral Vascular diseases. The aim of this study was to investigate the antithrombotic effects of *Rosmarinus officinalis* and *Lavandula angustifolia* separately and together.

**Method:** *Lavandula angustifolia* and *Rosmarinus officinalis* were extracted. Total of 40 healthy volunteers were selected and 5 tubes of citrated blood were collected, each of which was 2 mL. Control, *Lavandula angustifolia*, *Rosmarinus officinalis*, *Lavandula angustifolia*, and *Rosmarinus officinalis* were formed in a total of 4 groups and coumadin was used for comparison. Two different concentrations of agents were added into the tubes and incubated at different times at 37°C. After incubation, blood was taken to the Eppendorf and centrifuged and the plasmas were collected. Protrombine time (PT) and activated partial trombolastine time (APTT) from the separated plasmas were measured by automated coagulometer.

**Results:** *Lavandula angustifolia*, *Rosmarinus officinalis* and their combination increased PT values. Combine therapy increased PT more than individual herbal therapy. PT increased with the increased doses of the extracts. APTT values did not change, so results for APTT were not found significant.

**Conclusion:** According to the results of the study, *Lavandula angustifolia* and *Rosmarinus officinalis* increased PT significantly and showed antithrombotic effect but did not increase APTT so it was found that they affect the extrinsic pathway. *Lavandula angustifolia* + *Rosmarinus officinalis* combination increased PT levels more than singles. The antithrombotic effect of this synergistic activity is almost as much as coumadin. Animal experiments can support our study.

**Key words:** *Lavandula angustifolia*, *rosmarinus officinalis*, antithrombotic effect, PT



PP-16

## Stress and Eating Habits Analysis During The Exam Period of Bezmialem Vakıf University Students

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**Objective:** The exam period is stressful for many people. There is a different level of stress according to the age, sex and lifestyle of the examinee. Researches around the world have shown that stress causes serious changes in nutritional habits and physical activity in university students during the exam period. Especially in our country, there are no sufficient data about the stress and eating habits analysis during the exam period among university students. In this study, it was aimed to investigate eating habits changes in the first, second, third and fourth year medical students in Bezmialem Vakıf University during the exam periods.

**Method:** This was a cross sectional study in which 90 first, second, third and fourth year medical students of Bezmialem Vakıf University participated. A questionnaire of 30 questions was collected in May and June 2019. Data were analyzed using Pearson chi-square test and Spearman's rho.

**Results:** Of the 90 students who participated in study, 66.09% (59) were female and 33.91% (31) were male. When the sexes were analyzed in one-week period during the exam period, it was seen that 16.7% of the women and 25.4% of the men had an increase in fast food consumption ( $p=0.003$ ). In the statistical analysis, it was shown that there was no significant difference in the behavior of students for not eating some meals during the exam period ( $p=0.097$ ). The results were analyzed statistically according to gender ( $p=0.175$ ).

**Conclusion:** The stressed mood during the examination periods of Bezmialem Vakıf University students was affected. The medical students of the first, second, third and fourth grade do research on how to change their eating behaviors during exam periods. However, there is no correlation between the exam period and eating behavior.

**Key words:** Stress, eating, student

PP-17

# Knowledge on and Attitudes Toward HIV/AIDS Among Medical Students of The Bezmialem University Medical Faculty

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**Objective:** For medical doctors, first steps of HIV/AIDS education are medical faculties where professional attitude is first formed. It is important that medical students have sufficient knowledge and awareness about HIV/AIDS in order to educate higher quality doctors. In this study, we aim to determine the level of knowledge and attitude about HIV/AIDS among students of medical faculties who are future physician candidates.

**Method:** The study tool was a self-administered questionnaire consisting of questions derived from several previously verified questionnaires implemented as part of previous previous studies. Sample size was calculated to be at 120 in order to obtain 80% power at 95% confidence level at  $\alpha=0.05$  significance level. Distribution of data was examined by Shapiro-Wilk test. Fisher exact chi-square and Pearson tests were used in order to examine the relationships between categorical variables.

**Results:** One hundred twenty students participated in the study and the gender distribution was similar. Average correct response rate for routes of transmission was 83.6%. Significant differences were observed in 7 of the 15 questions. In these questions, 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> grade students gave less correct answers than 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> grade students ( $p<0.05$ ). General correct answer rate for treatment questions was 77.6%. There was a significant difference in 2 of the 6 questions. In questions that measured students' attitudes towards HIV/AIDS cases, significant difference was calculated in 5 out of 22 questions ( $p<0.05$ ) and it was observed that there was a balanced distribution among the classes.

**Conclusion:** The knowledge of medicine students in Turkey is generally adequate, but attitudes of medical students are unaffected by their progress in medical school, despite their HIV/AIDS education and clinical experience. Therefore, medical schools in Turkey should improve their curriculum to include HIV-related attitudes and teaching methods aimed at complying with medical professionalism.

**Key words:** HIV, attitude, medical students

PP-18

## Evaluation of the 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> Year Medical Students and 4<sup>th</sup> and 5<sup>th</sup> Year Dental Students' Attitudes Towards The Classical Influenza Vaccine

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**Objective:** Influenza originated from hospitals has huge mortality among high risk individuals like children, and immunocompromised. Healthcare workers are the primary source for these infections. The centers for disease control and prevention recommends vaccination against influenza in these groups. Despite of this open data, in a study conducted in Turkey among 115 health professionals, the vaccination rate was 4.3%.

Our study aimed to evaluate the level of knowledge, awareness in the subject of seasonal flu shots among both medical and dentistry students.

**Method:** The study included students from Bezmialem University Dentistry (grade 4-5) and Medical Schools (grade 4-5-6). Survey included 23 questions and was administered. The final sample size was 104 students who answered the questions. Questions covered various subjects about application and attitudes towards vaccination. Data were analyzed using IBM SPSS version 22.0. Category variables distribution was checked with chi-square test. Definitive statistic parameters were frequency, percentage and median.  $P < 0.05$  was considered statistically significant.

**Results:** Out of 104 students, there were 70 (67.3%) medical students and 34 (32.7%) dentistry students. There were 38 (36.5%) grade 4, 39 (37.5%) grade 5 and 24 (23.1%) grade 6 students. Seventy (67.3%) were female and 34 (32.7%) were male. 5.8% (n=6) of the participants indicated that they had never heard of the influenza vaccination, while 94.2% (n=98) of them were aware of its existence. Despite this, 56.7% (n=59) were never vaccinated in their lifetime. 43.3% (n=45) were vaccinated at least once. Of these students, 81.1% (n=36) were vaccinated before they started their college education while 18.9% (n=9) did so after they started. The level of knowledge about risk groups was acceptable in 80% of medical students (n=56) and 55.9% (n=19) of dentistry students. The difference between these groups was statistically significant ( $p < 0.05$ ).

**Conclusion:** Although most of students know the importance of vaccination, most have failed to apply this knowledge to their lifestyle.

**Key words:** Influenza vaccine, students, knowledge level

PP-19

## Mean Platelet Volume in Febrile Convulsion Patients

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**Objective:** A febrile seizure is a seizure that occurs between 6 months and 6 years at a temperature of 38°C (100°F) or higher without a central nervous system (CNS) infection or any metabolic imbalance. Feverish seizures occur with upper respiratory tract infection, acute gastroenteritis and shigella.

**Method:** Our study is a retrospective case control study. Permission for the study was obtained from the hospital ethics committee. Fifty cases of febrile convulsions were chosen from the patients admitted to Bezmi Alem University Hospital between December 2018 and December 2019. Cases with known epilepsy, complicated seizures, CNS infections, mental disabilities and metabolic disorders were excluded. Age, gender and weight were noted. Patients with the same age and sex but incompatible with febrile convulsion and 38.2 degrees fever were accepted as the control group. In our study, we reached the patient data by retrospective file scanning, selecting patients who met our exclusion criteria, and obtained results from three different values of mean platelet volume (MPV), platelet count (PLT), platelet distribution width (PDW) patient complete blood count tests.

**Results:** In this retrospective case-control study, it was aimed to investigate the relationship between mean platelet volume and febrile convulsions, and there were 34 male and 13 female in the patient group and 15 male and 13 female in the control group, the mean age was  $2.83 \pm 1$  years in the patient group. The difference between the two groups was found to be statistically significant ( $p < 0.05$ ). We found these results from our study as MPV ( $p = 0.597$ ), PLT ( $p = 0.947$ ), PDW ( $p = 0.147$ ), respectively.

**Conclusion:** When we compared the patient and control groups, these results showed that there was no significant difference in platelet counts in patients with febrile convulsions. Further studies with more patients are needed for more efficient results.

**Key words:** Febrile convulsion, platelet volume, mean platelet volume

PP-20

## Evaluation of Occupational Anxiety Status in Bezmialem Vakıf University 6<sup>th</sup> Grade Students

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**Objective:** The aim of this study was to evaluate the frequency of occupational anxiety among the last year students of Bezmialem Vakıf University Medical School.

**Method:** We applied the questionnaire which was prepared by using literature in order to evaluate occupational anxiety status of Bezmialem Vakıf University Medical Faculty intern students in July 2019-2020 academic year. The questionnaire consisted of demographic characteristics, effective factors in choice, plan after graduation, and causes of professional future anxiety. It consisted of 25 questions.

**Results:** One hundred twenty-one students participated in the study and 67 (55.4%) of 121 students were female and 54 (44.6%) were male. The mean age of the students participating in our study was  $23.97 \pm 0.95$  years. The percentages of the answers to the questionnaire are given below. Anxiety levels were quite high (totally 76.03%). The results of the responses given to the anxiety-related part of the questionnaire are as follows. "Do you have concerns about TUS?" To the question 79.6% of males said yes, 82.1% of females said yes but no significant difference was found ( $p=0.732$ ). "Do you have any concerns about where you will be assigned?" To the question 81.5% of males said yes, 77.6 of females said yes but no significant difference was found ( $p=0.601$ ). "Do you have any concern about violence against doctors?" to the question 75.9% of males said yes, 88.1% of females said yes but no significant difference was found ( $p=0.080$ ). "Do you have concerns about the insufficiency of the fee?" To the question 77.8% of males said yes, 71.6% of females said yes but no significant difference was found ( $p=0.442$ ). "Do you have concerns about achieving sufficient dignity in the society?" to the question 70.4% of males said yes, 56.7% of females said yes but no significant difference was found ( $p=0.112$ ).

**Conclusion:** As a result of our study, it was found that the majority of interns at Bezmialem Vakıf University had high levels of concern about TUS, violence against doctors, the city where they would work as doctors, the salary they would earn, and sufficient honor in society.

**Key words:** Anxiety, concern, Intern

PP-21

## In Idiopathic Granulomatous Mastitis; Predictive Value of Neutrophil/Lymphocyte Ratio and C-reactive Protein in The Diagnosis of Disease

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**Objective:** Idiopathic granulomatous mastitis (IGM) is a rare benign chronic inflammatory disease of the breast with unknown etiology. Its incidence varies by region. It is common among women of Asian, Spanish origin. It can be confused by breast cancer. The treatment is long-term, and the recurrence rate can reach 50%. There is no ideal biomarker that can show the diagnosis of IGM. In our study, we investigated the predictive significance of neutrophil/lymphocyte ratio (NLR) and C-reactive protein (CRP) in patients treated with IGM.

**Method:** In this study, 71 patients treated with IGM between 2015 and 2019 were evaluated. Demographic, clinical, radiological, laboratory data and treatment methods of the patients were examined in the study. A control group was formed from randomly selected healthy individuals. The relationship between NLR, CRP results and demographic and clinical characteristics of IGM patients was evaluated. NLR and CRP levels were compared between the patient and control groups.

**Results:** The mean age of 71 patients was 37 years. The most common symptom group (n=36, 50.7%) was breast swelling, pain and redness. Right breast attitude was the most common (n=30, 42.3%). 84.5% (n=60) of the patients were in the premenopausal period. The mean duration of lactation was 21 months. Only five patients (7%) had not given birth. 26.8% of the patients (n=19) had hormonal drug intake. The right breast was mostly involved (42.3%, n=30). The lesion diameter was 7-84 (mean 27.5) mm on sonography. Statistical significance was found between NLR and CRP values with increasing lesion diameter and treatment types (p<0.05). However, there was no statistically significance with relapse.

**Conclusion:** Although IGM is a benign disease, it is a chronic disease that can be complicated by abscesses and fistulas and has a high risk of relapse. Before treatment, especially CRP and NLR levels can be used effectively to determine the diameter and treatment choice of IGM. However, leukocyte, NLR and CRP values were not effective in determining the recurrence status. Therefore, it is necessary to continue working with larger patient groups.

**Key words:** Idiopathic granulomatous mastitis, C-reactive protein, neutrophil/lymphocyte ratio

PP-22

## Evaluation of Preterm Labor Risk Factors and Preterm Delivery Risk in Pregnant Women Complaining Pain

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**Objective:** The onset of labor before the completion of the 36<sup>th</sup> gestational week is called the threat of premature birth. The aim of our study was to retrospectively evaluate the data of patients presenting with preterm labor, and to determine and to correlate the risk factors identified with preterm labor.

**Method:** All pregnant women who presented with pain and bleeding to Bezmialem Vakıf University obstetrics and gynecology clinic between 01.01.2014 and 01.01.2020 were included in the study. Smoking, history of preterm birth, cervix length, hemoglobin (10 g/dL significant), and urine culture information of these patients were investigated and patients were divided into two groups according to cervical length of 15 mm and above.

**Results:** This research involved 180 people, 21 of which had cervix length shorter than 15 mm. According to the results, anemia was seen in 28.2% (n=54), urinary tract infection was seen in 21% (n=38). 5.5% of pregnant women smoked (n=10). The rate of miscarriage was 12% (n=57). The ratio of cervix length above 15 mm was 28.3% (n=43) and 57.1% were below 15 mm (n=12). The rate of preterm delivery was 23.8% (n=43). According to these results, anemia, smoking, preterm labor and infection do not constitute a significant risk (significant if  $p < 0.05$ , anemia  $p = 0.323$ , smoking  $p = 1.0$ , urinary tract infection  $p = 0.157$ , preterm labor  $p = 0.993$ ). A history of miscarriage poses a significant risk ( $p = 0.008$ ).

**Conclusion:** Only abortion is a risk factor for preterm labor. Risk factors are higher in pregnant women with cervical length less than 15 cm.

**Key words:** Preterm action, pain, bleeding, preterm labor

PP-23

## Investigation of Obsessive Compulsive Symptoms in Patients with Psoriasis

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**Objective:** Psoriasis is a chronic skin disease that affects about 1.5-3% of the population and is a combination of genetic, environmental and immunological factors. The aim of our study was to determine the prevalence of obsessive-compulsive symptoms in patients with psoriasis and to investigate its relationship with socio-demographic factors.

**Method:** Sixty five psoriasis patients and 65 healthy adults who were not diagnosed with obsessive-compulsive disorder were included in this study. All of the patients included in the study were selected from the patients who applied to Bezmialem Vakıf University Hospital Dermatology outpatient clinic. Both groups were given a form containing socio-demographic information and revision of the padua inventory of 41 questions.

**Results:** A total of 130 adults, 65 psoriasis patients (27 women, 38 men) and 65 control group patients (39 women, 26 men), were included in the study. The mean age of the patient group was 43.63 years; the mean age of the control group was 38.55 years. There were no significant differences between the two groups in terms of impulse, thought and control obsession scores but the certainty and cleanliness obsession scores were significantly higher in the patient group compared to the control group ( $p<0.05$ ). Although the level of education was considered as  $p=0.044$  in terms of thought obsession, there was no statistically significant difference between the two comparisons.

**Conclusion:** Consequently, it was thought that certainty and cleanliness obsessions were seen in psoriasis patients by looking for a higher score compared to healthy subjects; this suggests that properties of skin lesions in psoriasis such as crusting, thickening, and itching may have a serious association, especially with cleaning obsession and that psychological support could be positively reacted to treatment.

**Key words:** Psoriasis, obsessive compulsive symptoms

PP-24

## The Evaluation of Medical Students' Interest in Social Arts and Hobbies

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**Objective:** In recent years, the research conducted as a result of the increase in violence against health workers has revealed the deficiencies of physicians both professionally and socially. Medical education has been discussed all over the world and different applications have been started to be tried. Some universities have made non-medical elective courses compulsory for medical students. In a study, the effect of music on success was examined. As a result of the studies, certain music increased the success in the tests. For this reason, I decided to investigate how many of the medical students in our faculty have hobbies.

**Method:** The research was conducted in a single center and the students of our faculty participated in the study. Volunteers completed the student questionnaire. In this survey, there were 21 questions asking how much time the participants devoted to which social activity. The results of the power analysis for the survey were based on previous studies as 0.38 and 0.14, respectively,  $\alpha=0.05$  significance level and 95% confidence level at 95% confidence level. The sample size was determined to be at least 200.

**Results:** A total of 226 students participated in the survey. Answers given: 52% of the students stated that they had habit of reading books regularly. 30% of the students stated that they played music instruments. 58% of students gave up their hobbies due to medical education 85% of students believed that regular exercise affected day-to-day success. 92% of students were interested in continuing their hobbies in their professional life.

**Conclusion:** Contrary to what I thought, the majority of students stated that they could spend time with their medical activities and social activities. I wish my study to be a positive example of the attitudes of medical students towards social arts and sports.

**Key words:** Medical students, hobbies, success

PP-25

## The Rate of Inappropriate Antibiotic Prescription to Patients Infected by Influenza Virus or Respiratory Syncytial Virus

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**Objective:** Respiratory syncytial virus (RSV) and influenza virus are frequent viral infections for pediatric patients. Antibiotic resistance is accelerated by the misuse of antibiotics in addition to inadequate infection prevention and control. In this study, we aimed to determine the rate of unnecessary prescription of antibiotics to pediatric patients who were infected by Influenza virus or RSV and who were admitted to Bezmialem Vakıf University Hospital Pediatric Clinic with respiratory tract infection.

**Method:** The Study covers the period between December 2017 and January 2019. The Number of influenza virus positive patients were 157 and RSV positives were 346 and all of the patients who had positive laboratory findings were evaluated for the study. In this study, laboratory findings and prescriptions of patients were compared and comorbidities of patients were taken into consideration. The data were analyzed with IBM, SPSS statistics 22.0 package program. The distribution of categorical variables was measured by the chi-square test.

**Results:** In total, 89 (58.6%) of all influenza diagnosed patients left the hospital without taking any medical treatment ( $p<0.001$ ), 6 (3.9%) patients received antibiotic therapy because of their comorbidities ( $p<0.001$ ) and 13 (8.6%) patients received antibiotic therapy without any additional bacterial infection diagnosis ( $p<0.001$ ). A total of 346 patients were evaluated for RSV, while 284 (82.1%) of these patients were not treated with any medication ( $p<0.001$ ), and 60 (17.3%) of them were treated with antibiotics ( $p<0.001$ ) despite no additional diagnosis.

**Conclusion:** Our study demonstrated significant rates of unnecessary antibiotic prescriptions for RSV (17.3%) and influenza virus (8.6%) at Bezmialem Vakıf University Hospital Pediatric Department, which is consistent with literature. These results indicate that a confirmatory determination of RSV and influenza virus infections in these patients as well as a prudent dispensing of antibiotics could have prevented the unnecessary use of antibiotics.

**Key words:** Respiratory syncytial virus, influenza virus, antibiotic prescription

PP-26

## The Effects of Secondary School Students' Sports Activities on Their Exams

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**Objective:** Today, due to the increase in technological developments, a still lifestyle prevails. Unfortunately, children are also affected by this lifestyle. Movement affects the child's physical development as well as psychology, social and health conditions. Other concrete effects of exercise are on neurons, which are our brain cells. Although our brain is only 3% of our body weight, it is a very complex organ that uses 20% of the blood and 25% of the oxygen we take. Although the amount of blood taken by the brain decreases due to the need to go to the working muscles during exercise, it decreases as the amount of blood flow in the brain increases. In this way, the growth factor, an antiapoptotic molecule that reaches a greater amount of brain cells, reduces neuronal death (apoptosis, programmed cell death) leading to the formation of neurodegenerative diseases and even increases the number and size of neurons. Regular exercise also changes the brain structure. In the light of this information, the aim of this study was to investigate the effects of regular sports activities on brain maturation and the effects of science course success on childhood.

**Method:** A questionnaire of 20 questions on the nutrition habits of 110 students at Hatemoğlu Secondary School at Çamlıtepe Mahallesi Ulu Cadde Sarıyer İstanbul was completed. It also evaluated the age, gender, weight, height, body mass index (BMI) and annual grade averages of the questionnaire.

**Results:** One hundred ten students, including 57 girls (51.8%) and 53 boys (48.2%), participated in the study. The average age was 12 years, the average weight was 48 kg, the average height was 153 cm, and the average BMI was 20.4 (ideal weight). There was a significant relationship between BMI and grade point average ( $p < 0.006$ ).

**Conclusion:** As a conclusion of this study, there was an inverse relationship between BMI and science course achievement.

**Key words:** Sport activities of children, body mass index

PP-27

## Evaluation of Pregnancy Awareness on Women with Multiple Sclerosis in Reproductive Age

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**Objective:** Multiple sclerosis (MS) is a chronic inflammatory and demyelinating disease in the central nervous system. The starting point of MS is between the age of 20 and 40 years, and MS affects women 2-3 times more. The family planning of MS patients in daily clinical setting that measures the relationship between the disease, MS and pregnancy and the definition of characteristics and awareness about it are important.

**Method:** One hundred fifty female patients aged 18-45 years, who were admitted to the neurology polyclinics of Bezmailem Vakıf University Medical Faculty Hospital, were asked to fill in a 28-question questionnaire. Firstly, demographic information was obtained. In the next section, questions were asked about pregnancy-related medications and the role of neurologists in family planning. Descriptive statistics of the data were given as  $\pm$  standard deviation, med (minimum-maximum) or n (%). All statistical analyses were performed and reported in IBM SPSS statistics 22.0 program.

**Results:** There were 150 female participants in this study. One hundred forty (93.3%) thought that a woman with MS could become pregnant. While 113 participants (75.3%) thought that MS would not affect fertility, 17 people (11.3%) responded that MS reduced the chance of conception. Seventy-two people (48%) thought that the effects of disease modifying drugs on the fetus differed according to the type of MS-specific drugs. Seventy-eight people (52%) found given information about MS treatment and family planning as sufficient and satisfying. They were asked about from whom they received information about MS. One hundred thirty-five patients (90%) selected neurologists and 66 patients (44%) selected social media.

**Conclusion:** Although MS is a disease that affects women in reproductive period, some of the patients do not have enough information about pregnancy planning. In particular, the effect of used drugs on the fetus is not

known and can lead to important consequences. All female MS patients should receive sufficient information from neurologists about the disease and prognosis.

**Key words:** Multiple sclerosis, family planning, pregnancy, level of knowledge

PP-28

## Investigation of Parents' Behavior and Knowledge About Circumcision

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**Objective:** In our study, we primarily measured the behavior and knowledge of the parents about circumcision. We evaluated whether the knowledge and behavior of the parents about circumcision changed according to the characteristics such as gender, economic status and education level. We also obtained data on the age at which the children were circumcised, the reason for the circumcision, and whether they experienced any organic or psychological problems after circumcision.

**Method:** Data were obtained from 200 parents who had 0-12 year-old male children. The data were obtained by face-to-face interview technique. The questionnaire that we used to collect the data included questions about the socioeconomic status, education level, knowledge and behavior level of circumcision.

**Results:** In 154 parents who circumcised their children, the reasons for circumcision were as follows: 78 (50%) for religious reasons, 25 (16%) for traditions, 32 (20%) to protect them from future health problems, and 19 (12%) people medically circumcised indication. 48 (31%) of 154 people who circumcised their children had circumcision between 2 and 5 years of age, which is not found suitable for circumcision. We also compared whether the circumcised children between the ages of 2 and 5 years and the circumcised children in other age groups experienced psychological problems after circumcision in line with the information we learned from their parents. There was no statistically significant difference ( $p=0.709$ ).

**Conclusion:** We reached the conclusion that the level of knowledge and behavior of the parents about circumcision mostly changed according to their economic status. We also compared children who had circumcision between 2 and 5 years of age and children who had circumcision in other age groups according to the rates of psychological change after circumcision. There was no significant difference, but we think that the result is not very reliable as we obtained information from the parents rather than medical observation for whether the children are experiencing psychological change.

**Key words:** Circumcision, parents' knowledge, parents' behavior

PP-29

## The Effects of Secondary School Students' Nutritional Habits on Their Success in Exams

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**Objective:** Today, with industrialization, eating habits have changed significantly. In the past, while the daily nutrients were rich in protein, the nutrients received by the introduction of packaged foods became rich in carbohydrates. This type of carbohydrate-rich diet was not suitable for human physiology, which led to an increase in serious health problems such as obesity. Prepared foods with high carbohydrate content also adversely affect the endocrinological development of children. The aim of this study was to evaluate whether high carbohydrate eating habits would lead to negative results for science grade students' grade point averages.

**Method:** A questionnaire of 20 questions on the nutrition habits of 110 students at Hatemoğlu Secondary School at Çamlıtepe Mahallesi Ulu Caddesi Sarıyer İstanbul was completed. It also evaluated the age, gender, weight, height, body mass index (BMI) and annual grade averages on the questionnaire.

**Results:** Hundred and ten students, 57 girls (51.8%) and 53 boys (48.2%) participated in the study, the average age was 12 years, the average weight was 48 kg, the average height was 153 cm, and the average BMI was 20.4 (ideal weight). There was a significant relationship between BMI and annual average grade ( $p < 0.006$ ).

**Conclusion:** As a conclusion of this study, there was an inverse relationship between BMI and science course achievement.

**Key words:** Nutritional habits of children, body mass index

PP-30

## Toxicity of Sodium Fluoride in Adult Retinal Pigment Epithelial Cells Related to Transepithelial Resistance Mechanism

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**Objective:** Nowadays, the pet bottles and toothpastes include several amounts of metals. Fluoride is one of these metals that affects the dental health. We planned to define the possible toxicity of Fluoride on Adult Retinal Pigment Epithelial Cells, which are also called ARPE-19 cells, in order to detect harmful effects of Fluoride on the eye health of people in the long run because we think that Sodium Fluoride can cause Macular Degeneration by fagocytosing ARPE-19 cells related to cytogenetic mechanism. We aimed to analyze the cytotoxic damage of Fluoride because we mind that it is important to inform people by detecting the damage or analyzing.

**Method:** ARPE-19 cell line was augmented as 37 degrees 5% CO<sub>2</sub> and 95% air incubator in special complete medium for the cell culture. All the cell preparing processes were done in laminary flow as sterile area. The cells were centrifuged in sterile falcon tube as 800 rpm for 5 minutes after they were mixed with complete medium. ARPE-19 cells were planted to the 6 -well plates for Sodium Fluoride injections as different concentrations because of the cell viability, ATP, genotoxicity, reactive oxygen synthesis and apoptosis tests.

**Results:** In this process, the retinal cells' viability was decreased linearly until 20 mM related to injection of Sodium Fluoride and concentration increasement as adverse ratio; besides that apoptosis and DNA damage was increased linearly, mitochondrial membrane potential was decreased; also intracellular glutathione reductase was diminished and intracellular reactive oxygen synthesis activity was increased.

**Conclusion:** According to the research processes, Sodium Fluoride might have a cytotoxic effect on ARPE-19 cells; however, this conclusion is also related to future research on cytotoxic effect of Fluoride. That's why, there has to be more searching for correcting the results.

**Key words:** Sodium fluoride, ARPE-19, toxicity, apoptosis

PP-31

## Complications Associated with Hemodialysis Catheters Inserted in Hemodialysis Unit of Bezmialem Vakıf University Health Application and Research Center Nephrology Clinic

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**Objective:** Dialysis is performed in two ways: hemodialysis and peritoneal dialysis. The most common method used to provide transient vascular access is the placement of a double lumen catheter into the femoral, subclavian or internal jugular vein. The aim of this study was to observe early or late complications of different types of catheters in hemodialysis patients admitted to the nephrology department.



**Method:** Patients who were referred to Bezmialem Vakif University Hospital since 2015 were included in the study. In addition, demographic characteristics such as age, gender, indication for catheter insertion, complications, catheter type, length and location were evaluated. Data were obtained from hemodialysis unit records.

**Results:** The total number of catheters was 274. One hundred sixty-four patients were male and 110 were female. The mean age was  $60.5 \pm 14.8$  years. One hundred thirty-five patients had a tunneled catheter and 135 patients had a tunnelless catheter. The infection rate was 5/110 in women and 7/164 in men ( $p=0.568$ ) and no relationship was observed between catheter length and infection development ( $p=0.252$ ). In the elderly group, there were 118 patients aged 65 years and over and 144 patients under 65 years. No difference was detected between the age groups in terms of complications ( $p=0.134$ ). Complications developed in 132 patients in 18 young patients in the elderly group and no correlation was seen between catheter length and complication ( $p=0.764$ ).

**Conclusion:** Catheter insertion procedures are carried out in accordance. The use of the right jugular vein is an example of this in the vast majority of patients. This is also done in our unit and may be an explanation for the rarity of early complications.

**Key words:** Hemodialysis, vascular access routes, catheters, complications

PP-32

## Evaluation of Eosinophil-lymphocyte Rate Before and After Immunotherapy in Pediatric Allergic Rhinitis Patients

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**Objective:** In our previous research, for the first time, we have shown that eosinophil-to-lymphocyte ratio (ELR) is significantly higher in children with positive skin prick test than control group. The aim of this study is to calculate ELR before and after the treatment with SCIT and to see if ELR decreases after the treatment. The results will support our hypothesis of using ELR as a parameter in allergic rhinitis patients.

**Method:** In this retrospective study we have collected data from Bezialem University hospital data system (Bizmed). Sixty-eight pediatric patients (aged between 9-20) who have been treated with 4 year SCIT and whose skin prick test was negative after treatment were examined. ELR are compared based on the hemogram results before and 4-year after SCIT. Significant importance was given to blood biochemistry tests to eliminate patients with inflammatory disease resulted in increased lymphocyte.

**Results:** When before and after the immunotherapy compared the eosinophil count is decreased from  $7.14 \pm 4.63$  to  $4.55 \pm 2.98$ ; ( $p=0.000$ ). After SCIT treatment, ELR were significantly lower ( $p<0.001$ ).

**Conclusion:** We have shown that ELR increases in positive prick test group compared to control group. In this study we have shown that when the patient is treated with subcutaneous immunotherapy (thus having negative prick test) the ELR decreases. The results demonstrate that eosinophil/lymphocyte ratio can be used to show atopy alternatively to skin prick test in the clinical practice.

**Key words:** Allergic rhinitis, eosinophil/lymphocyte ratio, immunotherapy

PP-33

## The Correlation Between The Amount of Bleeding and Postpartum Depression

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**Objective:** Postpartum depression is a mood disorder that can start at any time in the first year after birth and cause permanent damage to mother's baby if left untreated. Therefore, her symptoms should be recognized as early as possible. This study was performed to evaluate the relationship between postpartum depression and the amount of blood lost during cesarean section measured by hemoglobin and hematocrit in order to reduce postpartum depression of women.

**Method:** The study was conducted on women who had delivered by cesarean section in Bezmialem Vakıf University Medical Faculty Hospital. Among these women, patients with previous major episodes of depression and pregnancy complications were not included in the study in order not to affect the results. Nighty volunteers completed the Edinburgh Postnatal Depression Scale, which was prepared previously. The difference between the blood values of women before and after their operation measured by hemoglobin and hematocrit was correlated with the score of EPDS.

**Results:** According to the biostatic results, the difference between preoperative and postoperative values of hemoglobin increased as the values of hematocrit ( $p<0.001$ ). Also, there was a correlation between hemoglobin difference and depression scale score ( $r=0.301$ ,  $p=0.004$ ). Therefore, there was no correlation between the difference between hematocrit and scale score ( $p=0.116$ ).

**Conclusion:** The results of this study show that mothers with excessive blood loss during cesarean section should be screened for postpartum depression. This blood loss can be measured by hemoglobin. However, further research is required for risky hemoglobin values and their effects on vaginal delivery.

**Key words:** Postpartum depression, postpartum hemorrhage

PP-34

## Infarct Size and in-Hospital Morbidity and Mortality After Myocardial Infarction in Patients with and without Usage of Acetylsalicylic Acid as Primary Prevention

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**Objective:** Myocardial infarction occurs when a part of the heart muscle dies due to insufficient blood flow to that area. Acetylsalicylic acid has antithrombotic effect. We think we can reduce the risk and incidence with prophylactic use of aspirin for people at risk. The aim of our study was to compare infarct size and evaluate by cardiac markers ck-mb and peak troponin.

**Method:** Our study consisted of patients with myocardial infarction hospitalized in the intensive care unit. This group of patients were then divided into two groups as those with and without acetylsalicylic acid users. Patients who did not use acetylsalicylic acid and had myocardial infarction were considered as the control group. We accepted the use of acetylsalicylic acid in the last one month. Peak troponin and ck-mb markers were used to evaluate between 24 and 36 hours in the diagnosis of patients.

**Results:** The study lasted 121 days and 180 patients participated. 122 of these patients were male and 58 were female. The mean age of the patients was 58.7 years. 75 of the patients were using Acetylsalicylic acid and 105 were not using. There was a significant difference between primary Acetylsalicylic acid use and ck-mb values ( $p=0.049$ ) but peak troponin values ( $p=0.885$ ) were not significant. The maximum ck-mb value in the use of primary Acetylsalicylic acid was evaluated as 418.3, minimum as 0.9 and the average value as 12.40. In those who did not use primary Acetylsalicylic acid, the highest value for ck-mb was 1304, the lowest value was 0.6 and the average was 19.30. The relationship between primary Acetylsalicylic acid use and mortality was evaluated but no significant results were found.

**Conclusion:** In this study, we correlate ck-mb values with infarct size, but not with peak troponin values between Acetylsalicylic acid users and non-users. We also saw higher cardiac peak troponin and ck-mb levels in patients than in non-Acetylsalicylic acid users. Our results should be confirmed with further experimental and clinical studies.

**Key words:** Acetylsalicylic acid, peak troponin, ck-mb, myocardial infarction

PP-35

## Evaluation of Irritable Bowel Syndrome Symptoms in Patients with Overactive Bladder

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**Objective:** The bladder and colon are from the same embryological origin and anatomically neighbors, and share a motor nerve. Since they are parts of the pelvic floor structure, the striated closing and supporting muscles are also the same. The bladder and colon have a similar function for storing and emptying urine and stool, respectively. Based on many similar features of these two diseases and their high prevalence in general population, it was aimed to investigate the frequency of gastroenterological complaints in patients with overactive bladder within this study.

**Method:** This study was carried out with patients who applied Bezmialem Vakıf University Urology Clinic at February-December 2019. The 151 patients, who were diagnosed as overactive bladder according to OAB-V8, were informed about the subject and included in the study regarding their consent. Birmingham irritable bowel syndrome (IBS) symptom questionnaire was used to investigate the existence of IBS and it was aimed to interrogate the frequency of gastroenterological symptoms through this investigation.

**Results:** The mean age of the 151 patients that participated to this study was  $48.17 \pm 14.97$  years. It was also reported that 109 (72.2%) of these participants were women and 42 (27.8%) of them were men. Participants' average age was evaluated with the average scores of related questions investigating diarrhea, constipation and fecal urgency, respectively; it was seen that there was no relationship between age and related questions that interrogated these three symptoms ( $p > 0.05$ ). Nevertheless, participants' mean age and the questions interrogating abdominal pain were considered as statistically significant ( $p < 0.05$ ). A statistically significant correlation was found between the participants' OAB-V8 scores and Birmingham IBS symptom questionnaire scores ( $p < 0.05$ ).

**Conclusion:** Previous studies have implied that patients with OAB have some other complaints besides urinary system complaints. Hereby, it is important to evaluate patients diagnosed with OAB with a multidisciplinary approach. To represent the population better, larger scale and multicenter studies are needed.

**Key words:** Bladder, bowel, gastroenterology, irritable, overactive, urology

PP-36

## A Review of Obesity Treatments: Diets and Medications

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**Objective:** In this review the effectiveness of different diet types will be explained and effect of the rate of protein, fat, carbohydrate in diet will be examined. The aim was to examine the effect of reducing fat in a diet.

**Method:** We reviewed the English literature for relationship diet and obesity. In their study Foster et al., examined the effects of a low rate of carbohydrate diet in weight loss and side effects. In their study Howard et al. examined the effects of low fat diet compared to a conventional diet. 19.541 of participants were randomized for the intervention diet -low-fat diet- while 29294 of participants were randomized for the conventional diet.

**Results:** Results showed that in the third month of diet, the weight loss percentage was greater in patients who went on low-carbohydrate diet (6.8%) than patients who went on the conventional diet (2.7%)<sup>2</sup>. However at the end of 1 year the total weight loss percentage was approximately 3.2% in both diet groups. Patients who went on the low-carbohydrate diet regained weight after 4-5 months.

**Conclusion:** This overall randomized study shows us the diets which contain the reduction of fat intake are efficient for weight loss. Furthermore in the 7 years follow-up the risk of comorbidities in intervention group didn't show an increase compared with conventional group. By synthesizing these three studies we can say diets which are based on low fat, low carbohydrate and high protein content are better for weight loss.

**Key words:** Obesity, weight loss, diet

PP-37

## The Relationship Between Endometrium Thickness and BMI in Postmenopausal Women

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**Objective:** The endometrial wall thickness is less than 5 mm and consists of a thin basal layer. The measurement of endometrial thickness in postmenopausal women is important for the detection of endometrial pathologies. Estrogen causes the proliferation of endometrial tissue. Increased adipose tissue increases the effect of aromatase enzyme on androstenedione and catalyzes the conversion of androstenedione and testosterone to estrogens. The aim of this study is to determine whether endometrial thickness in postmenopausal women is correlated with body mass index (BMI) or not.

**Method:** In this study, the data of postmenopausal women who applied to Bezmialem Vakıf University between January 1, 2019 and November 1, 2019 and who had pelvic magnetic resonance imaging (MRI) for various reasons were used. Endometrial thickness was measured by Siemens Avanto MRI device and the data were divided into 4 groups according to their BMI as: weak, normal, overweight and obese.

**Results:** Two hundred and fifty one people participated in the study and 34 people were excluded from the study due to gynecological diseases. The data of 217 people, 53 from the 1<sup>st</sup> group, 55 from the 2<sup>nd</sup> group, 50 from the 3<sup>rd</sup> group, and 59 from the 4 groups, were used in this study. There was a difference between the groups in the analysis and it was not statistically significant ( $p=0.477$ ).

**Conclusion:** It was found that endometrial thickness should be taken into consideration when evaluating BMI in postmenopausal women. However, it was seen that endometrial thickness should not be attributed to BMI in patients with high BMI due to lack of statistically significant difference between the groups.

**Key words:** Endometrium thickness, BMI, postmenopausal women

PP-38

## Accuracy of Ultrasonography for Urinary Track Stone Detection and Dimension Determination

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**Objective:** The aim of the study was to evaluate the efficacy of non-enhanced computed tomography (NECT) with ultrasound (US) imaging in the assessment of ureteral stone in patients admitted to the emergency department with flank pain.

**Method:** Between January 2015 and June 2017, the data of 129 patients admitted to the urology outpatient clinic or emergency department with uni or bilateral flank and/or groin pain were evaluated in the study. Patients who used indinavir drug were excluded due to the fact that indinavir stones are radiolucent. The data of US and NECT were retrospectively reviewed. Existence and dimension of the stones were checked with non-contrast low dose CT.

**Results:** One hundred two of 129 patients with urinary track stones were detected by US. The mean age and stone size of the 129 patients included in the study were  $35.3 \pm 10.8$  years and  $9.39 \pm 3.59$  mm, respectively. Overall the sensitivity and specificity of US were 79.4 and 64.0 ( $p < 0.001$ ).

**Conclusion:** NECT is more efficient than US in the detection of urinary stones in patients admitted to the emergency department. However, the non-invasive US on bedside examination in the emergency department can be useful in the detection of urinary stones. CT can be useful in cases with negative stone findings in US.

**Key words:** Urinary stones, ultrasonography, tomography

PP-39

## The Evolution of Relationship Between The White Matter Lesions and Psychiatric Comorbidity in Epilepsy Patients

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**Objective:** White matter hyper (WMH) intensities are age related but also appear to be prevalent in psychiatric disorders and epilepsy. There are many articles on the subject of relationship between white matter lesions and disorders, but studies on the psychiatric comorbidity of WMH seen in epilepsy are limited. In this study, we aimed to investigate the comorbidity of psychiatric disorders in epilepsy population and its correlation with WMH.

**Method:** In the present study, evaluations were made on the prevalence of WMH with fluid-attenuated inversion recovery FLAIR cranial magnetic resonance imaging. We conducted a double-blind randomized scale study with retrospective investigation of patients with focal epilepsy ( $n=20$ ) and generalized epilepsy ( $n=60$ ). Depression, anxiety, insomnia, dissociative, and hopelessness scales were used for the selected sample group.

**Results:** According to radiological investigation, the percentage of WMH was found to be 28.7% in this epilepsy population ( $n=80$ ). Radiological examinations showed that white matter lesions were correlated with advanced age ( $p=0.04$ ) and mostly involved in the frontal region ( $n=16$ ). The patients who had late onset seizure had higher prevalence for the WMH ( $p=0.003$ ), also lesions and seizure types were not related to each other ( $p=0.027$ ). The scale score's rate reported 53% depression, 42% hopelessness, 30% dissociation, 68% anxiety and 55% insomnia. There was no significant difference in scale scores in the presence of lesion compared to patients without lesion ( $p>0.05$ ). The scales that we used had correlation between themselves and this correlation was found to be increased with WMH existence.

**Conclusion:** The scores of psychiatric scales and rate of WMH have prominently higher prevalence than normal population. The current study reported that WMH in epilepsy population was not related to the increased scale



scores but affected psychiatric disorder's number. Also the WMH's frontal condensation shows us the need for new researches about the mental statement of epilepsy.

**Key words:** Epilepsy, white matter hyper intensities, psychiatric disorders

PP-40

## Evaluation of Neutrophil-to-lymphocyte Ratio in Autoimmune Neurological Diseases: A Retrospective Study

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**Objective:** The differential count of white blood cells is a widely-used biomarker of systemic inflammation. Recently, the neutrophil-to-lymphocyte ratio (NLR) has been identified as a new potential indicator of subclinical systemic inflammation in various diseases, including sepsis, vestibular neuritis, psoriasis and the like. The aim of this study was to evaluate the role of NLR in multiple sclerosis (MS), myasthenia gravis (MG) and Guillain-barré syndrome (GBS) patients and its relationship with inflammatory response and the disease activity.

**Method:** This hospital-based retrospective study consisted of 219 inpatients who were admitted to Bezmialem University Hospital, department of neurology from 2014 to 2019. Sixty-five of these patients were MS patients, 65 were MG patients, 39 were GBS patients and 50 were tension-type headache patients who were our control group. All patients were absolutely diagnosed patients and all NLR levels were calculated from the first blood counts at the time of diagnosis. All statistical analyses were performed using the SPSS for Windows version 20.0 (SPSS Inc., Chicago, IL).

**Results:** Two hundred nineteen patients were enrolled in this study. The mean age of the patients were  $47.05 \pm 17.26$  years. Out of 219 patients, 131 (59.8 %) were women, 88 (40.2%) were men and the distribution between groups was balanced. We analyzed the NLR levels and all three groups of patients had significantly higher NLRs ( $p < 0.001$ ) than those of the control group. In the MS group, NLR levels were 2.89 (1.43-42.02); in the MG group, NLR levels were 3.08 (1.62-25.80); in the GBS group, NLR levels were 4.27(1.68-175.7); in the control group, NLR values were 1.44(0.85-2.73). No significant difference was found between NLR levels of MS, GBS, and MG patients.

**Conclusion:** Our findings of a significantly higher NLR levels in MS, GBS and MG patients indicated that NLR might serve as a possible biomarker in autoimmune neurological diseases. More studies should be published to assure the validity of this conclusion.

**Key words:** Neutrophil-to-lymphocyte ratio, autoimmune neurological diseases, multiple sclerosis, myasthenia gravis, Guillain-barre syndrome

PP-41

## Negative Automatic Thoughts and Metacognition in Children with Anxiety Disorders

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**Objective:** Studies have revealed that automatic thoughts and metacognitions may have a role in the development of anxiety disorders (AD). However, the relationship between them is not well known. The aim of our study was to examine the role of automatic thoughts and metacognitions in children with AD.

**Method:** The sample of our study consisted of 40 children aged 8-18 years, who were admitted to Bezmialem University Hospital Child and Adolescent Psychiatry outpatient clinic and diagnosed with an AD and 40 age and gender-matched healthy controls. In the study, self-report forms of Children's Automatic Thoughts scale (CAI), Metacognition scale (MCQ), and Revised Children's Anxiety and Depression scale (RCADS) were used.

**Results:** AD and control group did not differ in terms of age (AB: 13.4±2.8 years, F: 13.3±2.6 years;  $t=0.081$ ,  $p=0.94$ ) and gender (AB 25 girls, F 21 girls;  $\chi^2(0.82)$ ;  $p=0.37$ ). Total scores, all subscale scores of RCADS, CAI and MCQ were significantly higher in the AD group. In the logistic regression analysis, personal failure [ $p=0.022$ , odds ratio (OR)=1.24 (1.03-1.50)] and physical threat [ $p=0.028$ , OR=1.18 (1.02-1.36)] subscales of the CAI were significantly related with anxiety disorders.

**Conclusion:** The study showed that anxiety disorders in children were associated with negative automatic thoughts about personal failure and physical threat; however, it was not significantly related to metacognitions. Focusing on these dimensions of negative automatic thoughts may be beneficial in the treatment of children with anxiety disorders.

**Key words:** Children, anxiety, metacognitions, automatic thoughts

PP-42

## Investigation of the Role of Peripheral Smear as First Step Test in The Evaluation of Anemic Pregnants

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**Objective:** Anemia is the most common hematological disorder in pregnancy. Therefore, early diagnosis and effective management have great importance to reduce and prevent complications. According to the current literature, no studies evaluate the performance of peripheral smear as an initial test in anemic pregnant women.

**Method:** Peripheral smear was performed for pregnant women with hematocrit levels of 32% or less and without previously defined hematological disease. The pathological findings observed in the shaped elements of the blood were noted. Also, personal and obstetric histories of the volunteer were recorded on data set.

**Results:** Twenty-three pregnant voluntarily participated in our study. The ages were between 17 and 49 years and the mean age was  $30.65 \pm 7.96$  years, gravida values were 2 (1-5); parity values were 0 (0-3); abortion values were 0 (0-2); the mean hematocrit value was  $29.05\% \pm 2.07$ , the mean hemoglobin value was  $9.46 \pm 1.06$  g/dL. Peripheral smear revealed findings consistent with iron deficiency anemia in 17 pregnant, whereas in 6 patients, there were no findings. In the peripheral smears, we detected echinocytes (8/23, 34,7%), increased myeloid sequence cells (6/23, 26%), band increase and toxic granulation (1/23, 4.34%), neutrophil hypersegmentation (2/23, 8.69%) and macroovalocytes (1/23, 4.34%). In the samples, there were different erythrocyte (9/23), leukocyte (6/23) and thrombocyte anomalies (2/23). We divided the results into 4 groups; with anemia signs (17/23, 73.9%), without anemia signs (6/23, 26%), changing the main pathology (0/23, 0%), and indicating additional internal pathology (7/23, 30.4%). It was observed that 2 of the patients with echinocytes progressed to preeclampsia and they were hospitalized. Another patient who had echinocyte was hospitalized with the diagnosis of pyelonephritis. Two patients who had signs of B12 deficiency in peripheral smear were referred to the clinic for further examination.

**Conclusion:** A peripheral smear is likely to provide extra information in the assessment of maternal anemia. Although we cannot provide definitive results with the available data due to small sample size, the study is promising.

**Key words:** Pregnant, anemia, peripheral smear, diagnose

PP-43

## The Role of Peripheral Blood Smear Information in Predicting Obstetric Results in Hypertensive Pregnants

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**Objective:** Arterial blood pressure  $\geq 140/90$  mmHg in pregnant women is defined as hypertension and hypertensive disorders affect approximately 12-22% of all pregnancies. Hypertension is one of the most important causes of maternal fetal morbidity. The main purpose of this study was to investigate the role of peripheral smear findings in predicting prognosis in hypertensive pregnant women.

**Method:** Peripheral smear blood samples of hypertensive pregnant women were taken together with routine hypertensive evaluation tests after 20 weeks of gestation. Peripheral smear was made by spreading the blood sample from the fingertip onto the slide. Following the treatment with romanowski dye, it was evaluated under the microscope. In this prospective study, the relationship between erythrocyte dysmorphias and pregnancy outcomes and complications were investigated.

**Results:** Fifteen pregnant women voluntarily participated in our study. In this study, the mean age of hypertensive pregnant women ( $n=15$ ) was  $32 \pm 5.077$  years, the mean systolic blood pressure was  $144.93 \pm 5.982$ , and the mean diastolic blood pressure was  $92.33 \pm 5.3$ . Cesarean rate was 80% (12/15) for the whole group. Nine of 15 patients had gestational hypertension, 3 patients had chronic hypertension, and 3 patients had preeclampsia. Eight of 10 patients without complications (8/10, 80%) had no peripheral smear findings. Schistocytes were seen in 3 patients (3/5, 60%) and echinocytes were seen in 2 patients (2/5, 40%) of 5 patients who developed complications. There was a significant difference between patients in terms of complications and erythrocyte dysmorphology in peripheral smear ( $p < 0.05$ ).

**Conclusion:** Peripheral smear is an easy to learn, applicable, inexpensive method. It is possible for physicians to gain sufficient experience in this subject within a short period. This study shows peripheral smear can help us to predict the prognosis of hypertensive disorders and to manage antenatal complications. Although we cannot provide definitive results with the available data, the study is promising.

**Key words:** Hypertension, peripheral smear, erythrocyte morphology

PP-44

## Research of Ferritin and Neutrophil / Lymphocyte Ratio in Diabetic Patients

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**Objective:** Diabetes mellitus (DM) is a chronic metabolic disease arising from defect in insulin secretion, insulin effect or both. In recent years, it has been thought that inflammation plays a role in the development of insulin resistance (T2DM). Neutrophil/lymphocyte ratio (NLR) is generally accepted as an indicator of sub-clinical inflammation. The aim of this study was to evaluate the relationship between diabetes and iron stores +NLR.

**Method:** In this retrospective study, we included 50 patients with T2DM registered in Bezmialem, and they constituted the study group (HbA1C is above 6.5), and we included 50 patients without T2DM who constituted the control group (HbA1C is under 5.7). In the study, age and gender were unequal (At least 18 years old). The amount of leukocyte in both groups was under 10000. Data were analyzed with IBM SPSS statistics 22.0 program to determine whether there was a significant relationship between them.

**Results:** Kolmogorov-Smirnov test was used to determine whether the data were normally distributed or not, which showed that data were not normally distributed. Mann-Whitney test was used to determine the difference between the two groups. The relationship between continuous variables was evaluated with Spearman correlation coefficient.  $P < 0.05$  was statistically significant. The HbA1c values of T2DM patients were 6.60-12.30 (mean= $8.30 \pm 1.63$ ), while those of the control group were 4.60-5.60 (mean= $5.14 \pm 0.26$ ) ( $p < 0.001$ ). The NLR of patients were from 0.54 to 20.30 (mean= $3.26 \pm 3.31$ ) in the study group and from 0.99 to 15.50 (mean= $2.64 \pm 2.85$ ) in control group. Ferritin levels were 7.40-1650.00 (mean= $219 \pm 298.60$ ) in the patient group and 4.00-722.40 (mean= $76.75 \pm 132.23$ ) in the control group ( $p < 0.001$ ).

**Conclusion:** In our study, ferritin value was found to be statistically significant in T2DM patients compared to the control group. T2DM patients are more likely to be diagnosed with iron deficiency anemia during the routine check-ups in the regular visits, and the possible reason for high ferritin levels in T2DM patients is due to oral or intravenous iron treatment.

**Key words:** Diabetic-neutrophil/Lymphocyte ratio, ferritin

PP-45

## Attitudes and Awareness of Pediatrics Doctors Towards Invasive Meningococcal Disease and Its Vaccination in a Tertiary Referral Hospital in Istanbul

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**Objective:** Invasive meningococcal disease (IMD) is a life-threatening illness caused by the bacterium *Neisseria meningitidis*.

**Method:** A cross-sectional survey of 18 questions was conducted among pediatrics doctors in a tertiary referral hospital in İstanbul. Used to evaluate the awareness, knowledge and attitude of doctors towards IMD, the survey was planned to be conducted among all doctors in the pediatrics department; however, some doctors declined to complete the survey. The survey was conducted on paper for completion. The results were analyzed using International business machines Statistical package for the social sciences statistics package 22.0. The distribution of categorical data was examined by the chi-square test. Median values were given as descriptive statistics. The value of  $p < 0.05$  was considered to be statistically significant.

**Results:** A total of 45 responses, among which 24 were pediatrics residents and 21 were pediatrics specialists, were received. 22% of doctors underestimated the incidence of IMD. 62% of doctors had not vaccinated their children and/or patients with *N. meningitidis*. 82% of doctors believed that the meningococcal vaccine should be included in the national vaccination program. In a question addressing the asymptomatic meningococemia carrier risk, 90% of specialists agreed that there was a risk of infection with carriers; however, only 62% of residents agreed with this question and this was statistically significant ( $p = 0.029$ ). 70% of residents believed that IMD was most commonly seen between the ages of 1 and 5 years, 47% of specialists believed that IMD was most commonly seen below the age of 1 year and this was statistically significant ( $p = 0.061$ ).

**Conclusion:** According to the results of our study, the awareness of doctors about meningococcal diseases is insufficient among residents in the pediatrics department. It is necessary to take strides to educate doctors about the importance of IMD. These changes can occur through educational seminars and brochures. We also recommend the meningococcal vaccine to be included in the national immunization program.

**Key words:** Invasive meningococcal disease, meningococemia, survey, doctors

PP-46

## Nutritional Habits in Multiple Sclerosis Patients

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**Objective:** Multiple Sclerosis (MS) is a degenerative, autoimmune CNS disease. MS is triggered by a combination of immunologic, genetic, infectious, and environmental factors (such as vitamin D, smoking, and obesity). However, there are no studies specifically about the correlation between nutritional habit and MS pathogenesis and progression in the literature. The aim of this study is to reveal this correlation in MS patients.

**Method:** The sample of the study consisted of 40 people in the control group and 41 MS patients, among females and males at the age range of 18-65 years. We determined 5 different nutrition type (traditional, western style, eastern style, mediterranean type, and protein-rich) according to the nutritional habits survey that we prepared and reached EDSS scores and dates of first diagnosis of MS patients by examining patients' files.

**Results:** There were 28 female (68.3%) and 13 male (31.7%) MS patients (group 1), and 22 female (55%) and 18 male (45%) patients in the control group (group 2). There was no significant difference between nutrition type of group 1 and group 2 ( $p=0.750$ ). Most common nutrition type was traditional type for patients who had EDSS score above 7 (100%) and EDSS score 3-7 (36.4). Also 40.7% of patients who had EDSS score 0-3 preferred western style nutrition. Furthermore, the most frequent nutrition type in patients diagnosed with MS for less than 5 years was western style (37.5%) and in patients diagnosed with MS for more than 5 years was traditional type (41.2%). Except these, there was a significant correlation between the duration of diagnosis and EDSS score ( $p=0.029$ ).

**Conclusion:** This study showed that there was no significant difference between nutrition type of MS patients and healthy people. Also based on EDSS score, we found no association between disease progression and nutrition type. Besides these, we determined a significant correlation between the duration of diagnosis and EDSS score.

**Key words:** Multiple sclerosis, nutrition habits, EDSS score

PP-47

## Comparison of Urine Culture, Toxoplasma Seroprevalence/ Seroconversion and Anovaginal Group B Streptococcus Colonization Rates in Pregnant Women

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**Objective:** Toxoplasmosis is a pathogen that is generally asymptomatic in a healthy person but can cause serious congenital infections in the fetus. According to the current literature, cleaning the cat sand, establishing a close relationship with the cat, kissing, loving the cat, licking the cat, cat bite, breathing cat feathers are the indirect transmission routes for toxoplasmosis. Streptococcus agalactiae is the main cause of neonatal sepsis. Maternal colonization is the most important risk factor for neonatal group B streptococcal infection. The aim of this study was to shed light on the possible effects of direct toxoplasma transmission via toxoplasma seroconversion as a result of direct and indirect contacts in cat-feeding and non-feeding pregnant women, and the possible effects on flora or microbiomata via group B streptococci and urine culture.

**Method:** In this retrospective study, 100 pregnant women with Toxoplasma parameter, Guillain-Barre syndrome (GBS) colonization and urine culture results were included. Pregnants were divided into 2 groups as those feeding cat and those not feeding cat.



**Results:** One hundred pregnant women voluntarily participated in our study. Thirteen of them fed cats. The ages were between 20 and 49 years and the mean age was  $31.05 \pm 5.084$  years, gravida values were 2 (1-8), parity values were 1 (0-4), the mean number of the cats in the house was 1 (1-15). In 87 pregnant who did not feed cats, GBS colonization was observed in 4 pregnant (4/87, 4.6%  $p=1$ ), urine culture positivity was seen in 22 pregnant (22/87, 25.3%  $p=0.666$ ), toxoplasma IgG positivity was seen in 16 pregnant (16/87, 18.4%  $p=0.183$ ), toxoplasma IgM seroconversion was observed in only 1 pregnant (1/87, 1.1%  $p=1$ ). In 13 pregnant who fed cats, there was no positivity observed in these parameters.

**Conclusion:** There was no relationship among GBS colonization, urine culture growth, IgG positivity and IgM seroconversion in pregnant who fed cats. According to our research, cat feeding did not have any effect on GBS colonization, urine culture growth, toxoplasma IgG positivity and toxoplasma IgM seroconversion.

**Key words:** Pregnancy, cat, toxoplasma, GBS

PP-48

## The Study of The Relationship Between Burnout Syndrome and Depression Among Physicians Working in Bezmialem Vakıf University

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**Objective:** Freudenberger defined the concept of burnout as mental energy depletion after long-term work-related stress in healthcare workers. It is experienced in almost all occupational groups especially in physicians. Without loss of work force, depression and burnout signs and symptoms should be known by the health worker and the administrator and early precautions should be taken.

**Method:** The population of the research consisted of specialists, PhD lecturers and faculty members. Personal data form, beck depression and maslach burnout scale were used as data collection tools. MBI evaluated burnout in 3 dimensions: emotional exhaustion (EE), depersonalization(D), and personal accomplishment (PA).

**Results:** One hundred two physicians who participated in the study were between 28 and 71 years old. 63.7% of the participants were male, 36.3% were female. Profession years ranged from 4 to 49 years while working years at this institution were between 1 and 25 years. 29.4% were professors, 19.6% were assistant professors, 20.6% were PhD lecturers and 30.4% were specialists. 38.6% worked in surgical unit, 52.5% worked in internal unit and 8.9% worked in basic medicine unit. As the age of the participants increased, depression, EE and depersonalization decreased, and personal success increased. There was a statistically significant relationship between depression and personal achievement according to age ( $p<0.01$ ). Statistically significant relationship

was found between total working time, depression and personal success ( $p < 0.01$ ). Depression score and EE decreased whereas personal success increased as professional year increased. No statistical difference was found in the comparison in terms of gender, working time, titles, and units of participants and the average of EE, D, and PA were found to be moderate ( $p > 0.05$ ).

**Conclusion:** The burnout and depression levels were minimal in both gender. Burnout and depression levels decreased and personal success increased with age. Burnout levels decreased as the working year increased. No difference was observed in burnout and depression levels according to working time, units, titles and gender.

**Key words:** Burnout, depression, syndrome, physicians

PP-49

## The Effect of Mindfulness Based Exercise Training on Motor and Non-motor Disfunctions in Patient with Parkinson Disease

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**Objective:** Recent studies have shown that conscious awareness method provides positive improvements in motor functions in patients with Parkinson disease, such as decreased pain and improved coping mechanisms. The aim of this study is to investigate the effects of conscious awareness based exercise training on motor and non-motor dysfunction in Parkinson's patients.

**Method:** Patients will be divided into study and control groups. Both groups will receive 8 week training. The control group will receive only general physiotherapy training for 8 weeks. In addition to general physiotherapy, breathing and awareness based physical exercise training will be given to the study group once a week. Evaluations will be made 3 times; before the treatment, 8 weeks after the treatment and 12 weeks after the treatment.

**Results:** We do not have enough patient data yet, so unfortunately we do not have any results to present to you today.

**Conclusion:** We hope to finish by March.

**Key words:** Parkinson's disease, mindfulness, physiotherapy

PP-50

## The Assessment of Anxiety and Depression Symptoms of Patients with Irritable Bowel Syndrome

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**Objective:** Irritable bowel syndrome (IBS) is a common disease characterized by chronic abdominal pain and changes in bowel habits. It is thought to be caused by a combination of genetic and environmental factors. The onset and course of IBS is strongly influenced by psychosocial factors and it is important to investigate the psychological process leading to IBS symptoms. The aim of the study is to determine anxiety and depression levels and quality of life in IBS patients and to compare the data with healthy controls.

**Method:** The participants of the study were 50 patients aged between 20 and 40 years, who were admitted to Bezmialem Vakıf University Hospital and diagnosed as IBS. They were compared to age and gender-matched 50 people without any health problems. All participants were asked to complete self-administered questionnaires: A Hospital Anxiety and Depression scale and a quality of life questionnaire.

**Results:** Anxiety and depression were observed in 94% and 100% of IBS patients, respectively and in 4% and 4% of healthy subjects, respectively. The difference between both groups in terms of both anxiety and depression was significant ( $p < 0.05$  for both). It was found that the mean of quality of life scale in patients with IBS was  $80.84 \pm 9.91$  and  $146.7 \pm 6.12$  in healthy subjects.

**Conclusion:** In the present study, anxiety and depression levels were higher in the IBS group than in the control group. IBS is also associated with impaired quality of life. Therefore, anxiety, depression and quality of life levels should be evaluated during clinical visits.

**Key words:** Irritable bowel syndrome, depression, anxiety, quality of life

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## Evaluation of Undescended Testis Knowledge and Experience in Bezmialem Vakıf University Trainee and Intern Doctors

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**Objective:** Undescended testis is a common treatable pathology that not only affects fertility, but also poses a high risk for testicular malignancies alongside with testicular torsion. Although the importance of undescended testis is often emphasized both in urology and in pediatric education during the medical school lectures, the prominence of the topic seems to fade in further daily medical practice. The aim of this study is to identify the knowledge and experience about undescended testis among trainee and intern doctors of Bezmialem Vakıf University.

**Method:** An online survey measuring education and knowledge level of undescended testis was applied on fourth, fifth and sixth year medical school students at Bezmialem Vakıf University. Students were asked to fill a questionnaire by a link sent to their official student group, 121 students attended anonymously.

**Results:** When compared by year, there was no significant knowledge difference between fourth, fifth and sixth year medical students. Among 121 students, 19 (15.7%) of them had never come across an undescended testis patient and 86% of the students agreed that the importance of examination for undescended testis was clearly emphasized during their rotations. Almost all were able to tell that undescended testis caused fertility problems, whereas 15% did not think undescended testis was associated with higher risk of testicular malignancies. For the timing of referral and operation, half of them agreed 6 to 12 months was the ideal range for orchidopexy, while 35% thought it should be done after 12 months. 60% would perform scrotal examination until puberty. None of the students chose computed tomography or magnetic resonance imaging to look for undescended testis, 46% of them found imaging unnecessary before referral to a qualified doctor.

**Conclusion:** Many of the students are confident and meticulous about examination and diagnosing tools for undescended testis, yet results still indicate that early referral to a qualified physician should be prioritized in order to provide successful treatment.

**Key words:** Undescended testis, cryptorchidism

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## Knowledge of Diabetic Complications in Patients with Diabetes

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**Objective:** People with diabetes have an increased risk of developing a number of serious health problems. These complications can be avoided by increasing knowledge about complications and well-controlled blood sugar level. In this study, it was aimed to search for knowledge on complications in patients who were diagnosed with diabetes in Bezmialem Vakıf University Hospitals family medicine department and to raise awareness.

**Method:** This was a cross sectional study which was conducted on a total of 200 patients with diabetes in Bezmialem Vakıf University family medicine department. A questionnaire of 13 questions was collected in September and October 2019. The questionnaire contained yes/no questions, which included diseases that could be caused by diabetes. Data were analyzed using Pearson chi-square tests and Spearman's rho.

**Results:** Of the 200 patients who participated in this study, 64% (128) patients were female and 36% (72) were male. The age distribution ranged from 18 to 70 years. In response to the question whether diabetes could affect eyes, 100 (50%) of our patients replied as yes while 88 (44%) told no and 12 (6%) did not reply. In response to the question whether diabetes could affect the cardiovascular system, 48 (24%) of our patients replied as yes while 116 (58%) told no and 36 (18%) did not reply. In the end of our research, eye complications were found to be well-known among all complications we questioned. Meanwhile cardiovascular system complications were less known of all.

**Conclusion:** Our study showed that there was lack of awareness regarding knowledge on risk factors, complications, available treatment options and control of blood sugar. We should have awareness programs in our country on a large scale.

**Key words:** Diabetes, complications

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## A New Method of Physical Examination of Subscapularis Rupture; EMG-guided Comparative Correlational Study

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**Objective:** Physical examination tests for subscapularis tendon tears include the Lift Off Test, Belly Press Test, and Bear Hug Test. There is one more physical examination test for the diagnosis of the subscapularis tendon rupture, which is called "hand to hand". The validity of hand to hand tests has not been proven by anybody yet. Our purpose in our research is to prove the validity of the "hand to hand" test and to show sensitivity and specificity of other three tests.

**Method:** The study was carried out at BVU and healthy people were included in the study. In our study, by performing USG-assisted probes on the upper and lower half of the subscapularis muscle in the electromyography test, 4 different tests were performed on the subjects and the action potentials were examined and compared. The sensitivity and specificity of 4 tests were demonstrated. With the confidence level of 95% and the 80% power, the sample size was determined as at least 20 people. The data were analyzed with IBM SPSS 22.0 package program. The distribution of categorical variables was examined by chi-square test. Frequency, percentage and median values were given as descriptive statistics.  $P < 0.05$  was considered to be statistically significant.

**Result:** There were no significant differences between the hand to hand test and other tests. It was found that at the level of  $p = 0.030$ , hand to hand test was useful for subscapularis ruptures and it was found that at the level of  $p = 0.025$ , bear hug test was the most sensitive test.

**Conclusion:** We have not finished our research yet but based on results so far, there were no significant differences between the hand to hand and other tests. We provide the validity of the hand to hand test. We found that bear hug test was the most sensitive test for subscapularis ruptures.

**Key words:** Subscapularis muscle, physical examination, hand to hand

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# The Effect of Internet Use on Body Dysmorphic Disorder of Different Age Groups

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**Objective:** The internet, whose usage rate is constantly increasing and widespread, adversely affects people's functionality and unhealthy use. The concept of body perception defines people's feelings and thoughts about their own bodies. The purpose of this research is to determine the frequency of internet use and problematic

internet usage behaviors, in addition to sociodemographic variables; to determine whether it is related to body perceptions and eating attitudes over 12-18 years of age and 19-30 years of age.

**Method:** In the study, young people between the ages of 12 and 18 years living in İstanbul (50 people) and adults between 19 and 30 years (50) were in the group. In the study, it is planned to collect volunteers from free areas. Forms used in research were:

1. Sociodemographic information and data form
2. Problematic Internet Usage scale
3. Body Perception scale
4. Eating Attitude test
5. Rosenberg Self-esteem scale

For the analysis of the data obtained, SPSS for Windows 24.0 was available. In order to determine the distribution of the variables contained in the sociodemographic information and data form, the descriptive statistical method was derived from the Frequency analysis; to determine the relationship between the variables contained in the sociodemographic information and data form, Independent t-test Analysis and Analysis of Variance (ANOVA) was used.

**Results:** According to the data obtained, Body Perception scale and Rosenberg Self-Esteem scale showed no significant difference between two age groups; higher scores were obtained in the 12-18 years of age group for the Problematic Internet Usage scale and Eating Attitude test. While higher scores were obtained in women for the Eating Attitude test, there was no significant statistical difference between males and females for the remaining scales. ( $p < 0.05$ )

**Conclusion:** According to the limited data group obtained, a positive and statistically significant relationship was found between problematic internet use and Eating Attitude and Body Perception scale.

**Key words:** Body dysmorphic disorder, problematic internet use, body perception, adulthood, adolescence