



BEZMÎÂLEM science

**8th ANNUAL
MEDICAL STUDENTS'
RESEARCH DAY
14 MARCH 2024**

SHORT ORAL PRESENTATIONS

Guest Editor

Pınar Soysal

Bezmialem Vakif University, Faculty of Medicine,
Department of Internal Medicine

SOP-1

Evaluation of the Impact of Severe Endometriosis on Embryo Morphokinetics

Feyzan SEZER¹, Gülçin ÖZKARA², Hakan Kadir YELKE³, Gönül ÖZER³, Semra KAHRAMAN³

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Medical Biology, İstanbul, Turkey

³İstanbul Memorial Şişli Hospital, Assisted Reproductive Technologies and Reproductive Genetics Center, İstanbul, Turkey

Introduction: Endometriosis is one of the leading causes of infertility and affects approximately one-third of women who apply for *in vitro* fertilization treatment. Controversial results have been reported regarding the effect of endometriosis on both morphological and dynamic characteristics of embryos. Thus, we investigated the impact of severe endometriosis (SE) on embryo morphokinetics.

Method: This was a retrospective comparative analysis including a total of 1280 embryos [SE: 729, tubal factor (control): 551] that were incubated at the Time-Lapse Monitoring System in Memorial Şişli Hospital, ART and Genetics Center between October 2011 and July 2023. Patients with ≥ 38 years, body mass index (BMI) >30 and partners having severe male factors were excluded from the study. Morphokinetic parameters of embryos were compared using Student's t-test with SPSS 28.0.

Results: There was a homogenous distribution in terms of female age, BMI, basal follicle stimulating hormone, anti-Mullerian hormone levels, and total and mature oocyte count between the study groups. Although all morphokinetic parameters were significantly delayed in the SE group compared with the control group ($p < 0.05$), no statistical significance was obtained in terms of tSC and tEB ($p > 0.05$). The duration of the first, second, and third embryo cell cycles (ECC1, ECC2, and ECC3), synchronization of cell divisions (S2: t4-t3) and cleavage patterns (S3: t8-t5) were also found to be statistically significant between the SE and control groups ($p < 0.05$).

Conclusion: SE may have an effect on embryonic cell division and could change the morphokinetic parameters of *in vitro* developing embryos. Prospective studies with larger cohorts are needed to better understand the relationship between SE and embryo morphokinetics.

Key words: Severe endometriosis, morphokinetics, embryo, IVF, time-lapse monitoring

SOP-2

Evaluation of the Effect of Diabetes on the Kyphosis Angle in Postmenopausal Osteoporosis Patients

Ali Eren NURAY¹, Teoman AYDIN², Özlem TOLUK³

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Physical Therapy and Rehabilitation, İstanbul, Turkey

³Bezmialem Vakıf University, Faculty of Medicine, Department of Biostatistics, İstanbul, Turkey

Introduction: Kyphosis, impacting 0.4% to 8.3% of the population, involves abnormal development and posture, potentially arising from congenital factors or diseases. The literature suggests a link between osteoporosis, characterized by decreased bone density and increased fragility, and kyphosis. Research indicates that osteoporosis may contribute to kyphosis formation. Studies on diabetes mellitus (DM) reveal reduced bone density due to its multifactorial impact on osteoblasts, heightening fracture risk. However, no existing study has explored the influence of DM on kyphosis. Our research aims to address this gap.

Method: In this retrospective study, postmenopausal osteoporosis patients who applied between March 2017 and May 2023 were examined, and Cobb angles were compared based on lateral thoracic radiographs. Descriptive statistics, including the mean (standard deviation) for continuous variables and percentages for categorical variables, will be used for group descriptions.

Results: Examining 72 females aged 54+, 37 had no DM and 35 had DM. No significant difference in Cobb angle was found between DM and non-DM patients ($p>0.05$). DEXA measurement and BMI values showed no significant differences ($p>0.05$). A significant inverse relationship was found between DEXA value and Cobb angle ($p<0.001$, $r=-0.680$). Age correlated significantly with Cobb angle ($p<0.002$, $r=0.355$), but not with DEXA ($p>0.05$). A significant negative correlation existed between Cobb angle and patient height ($p<0.005$, $r=-0.326$).

Conclusion: The results showed that many parameters other than DM affect the kyphosis angle. Only the effect of DM disease on the kyphosis angle could not be observed. It is believed that increasing the sample size in future studies will be beneficial to this issue.

Key words: Kyphosis, postmenopausal osteoporosis, diabetes mellitus, Cobb angle, DEXA

SOP-3

Evaluation of the Moral Anger Scale in Bezmialem Vakıf University Faculty of Medicine Students

Neslihan YILDIRIM¹, Bedia ÖZYILDIRIM²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Public Health, İstanbul, Turkey

Introduction: Anger is a reaction to goal-related obstacles. Moral anger assigns blame to a third-party for improper behavior or neglecting duties. It can also involve actively participating in actions to reduce disadvantages and showing responsibility to help disadvantaged individuals. Based on these ideas, this research explores how privileged individuals emotionally respond to the problems of disadvantaged groups.

Method: In our study, an online survey form, created using Google forms and consisting of nine questions, was administered to Bezmialem Vakıf University Faculty of Medicine students. The questionnaire, scored from 9 to 45 points, gauges moral anger-lower scores (9) indicate less, while higher scores (45) indicate more. Results are presented in median (\pm) format.

Results: The students of Bezmialem Vakıf University Faculty of Medicine were classified as basic science (1st-2nd-3rd year) and clinical science (4th-5th-6th year) students. According to this classification, scale sub-dimensions (emotional sub-dimension, cognitive sub-dimension) and total scale score averages were compared, and no statistically significant differences were found among them ($p=0.473$, $p=0.823$, $p=0.554$, respectively).

Scale sub-dimensions (emotional sub-dimension, cognitive sub-dimension) and total scale score averages were compared by gender, and only a significant difference was found in the emotional sub-dimension ($p=0.006$). There was no significant difference in the cognitive sub-dimension ($p=0.053$) and total scale score ($p=0.431$) averages. The average emotional subscale score of females was found to be significantly higher than that of males.

A statistically significant moderately negative relationship was found between emotional and cognitive sub-dimension scores ($p<0.001$, $r=-0.416$).

Conclusion: No significant difference was found between the two categorical groups, but the emotional sub-dimension scale scores of females were significantly higher than those of males.

Key words: Moral anger, medical faculty students, responsibility

SOP-4

Evaluation of Thyroid Function Tests of Patients Before and After the COVID-19 Pandemic in the Development of Autoimmune Thyroiditis

Süleyman KÜLCÜ¹, Abdüsselam ŞEKERCİ², Özge PASİN³

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Internal Medicine, İstanbul, Turkey

³Bezmialem Vakıf University, Faculty of Medicine, Department of Biostatistics, İstanbul, Turkey

Introduction: Coronavirus disease-2019 (COVID-19) is a severe acute respiratory syndrome. While strong immune reactions play a role in the pathogenesis of COVID-19, autoantibodies, which are the distinguishing feature of autoimmune diseases, are also detected in COVID-19 patients. Many autoimmune diseases may develop after COVID-19 infection. We investigated the relationship between COVID-19 infection and thyroid autoimmunity markers and whether a significant change was observed after the virus infection.

Method: In our retrospectively planned study, patients who applied to Bezmialem Vakıf University between March 2017 and March 2023 and were tested for anti-thyroid peroxidase (anti-TPO), anti-thyroglobulin (anti-Tg), and thyroid-stimulating immunoglobulin (TSI) for the development of autoimmune thyroiditis were selected as the sample group. Sociodemographic characteristics of the patients, such as age group, gender, and T3, T4, thyroid stimulating hormone (TSH), anti-TPO, anti-Tg, and TSI laboratory findings were included in the study.

Results: Seven hundred eighty-eight people were examined. In 2023, the average age of patients was found to be significantly lower compared to 2018 ($p=0.010$). No significant difference was observed in terms of the gender distribution of patients between 2023 and 2018 ($p=0.936$). The average free T4 of patients in 2023 was significantly higher than that in 2018 ($p<0.001$). In terms of TSH averages, no significant difference was observed between 2023 and 2018 ($p=0.470$). During this period, the rate of autoimmune thyroiditis cases was found to be approximately 5 times higher based on the total number of hospital admissions.

Conclusion: The available data suggest that COVID-19 predisposes to autoimmune thyroid disease because of a decreasing age of disease onset. Further studies are needed to elucidate the pathways that may clarify the relationship between severe acute respiratory syndrome-coronavirus-2 and thyroid autoimmunity.

Key words: Autoimmune thyroiditis, COVID-19, anti-TPO, anti-Tg, TSH, T4

SOP-5

Effect of Percutaneous Coronary Intervention on Sleep Measures

Fatma Yaren GÖKTÜRK¹, Ahmet BACAŞIZ², Ali TOPRAK²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Cardiology, İstanbul, Turkey

³Bezmialem Vakıf University, Faculty of Medicine, Department of Biostatistics, İstanbul, Turkey

Introduction: This study aimed to investigate the impact of interventional treatment for coronary artery disease (CAD) on sleep by assessing sleep quality and duration before and after the procedure in patients undergoing elective coronary angiography and percutaneous coronary intervention (PCI).

Method: The study was conducted in our cardiology clinic between May 1 and September 30, 2023. The sample comprised 56 patients who underwent coronary angiography. The “Pittsburgh Sleep Quality Index (PSQI)” was used to assess sleep quality. Data were collected through face-to-face interviews at the beginning and by phone interviews at the 3-month follow-up.

Results: The mean PSQI score of the study participants was 5.80 ± 3.72 . Approximately half of the patients (26 patients, 47.3%) had poor sleep quality. For the 18 patients who underwent coronary angiography and were eligible for medical treatment follow-up, no significant differences were observed in any of the PSQI components during the 3-month follow-up. In the case of the 38 patients who underwent coronary angiography and received PCI, the analysis revealed a significant improvement in sleep disturbance (PSQI component 5) ($p < 0.01$), daytime dysfunction (PSQI component 7) ($p = 0.001$), and the total PSQI score ($p = 0.001$) during the follow-up. The overall analysis of 56 patients showed a significant improvement in sleep latency (PSQI component 2) ($p = 0.02$), sleep disturbance (PSQI component 5) ($p < 0.01$), daytime dysfunction (PSQI component 7) ($p = 0.005$), and the total PSQI score ($p = 0.001$) over a 3-month period. Only 2 out of 6 patients (33%) without CAD improved after angiography, whereas this rate in CAD patients was 68% (34/50 patients) ($p = 0.04$).

Conclusion: The results of this study indicate that sleep quality is low in individuals with CAD, and PCI has a positive impact on sleep.

Key words: Percutaneous coronary intervention, sleep, Pittsburgh Sleep Quality Index

SOP-6

Investigation of *Streptococcus* and EBV Infections in Children with Sore Throat who Apply to Bezmialem Vakıf University Faculty of Medicine Pediatric Polyclinics

Sueda BUZ¹, Özden TÜREL², Ayşegül DOĞAN DEMİR³

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Pediatrics, İstanbul, Turkey

Introduction: The most common bacterial cause is *Streptococcus pyogenes* (GAS). Epstein-Barr virus (EBV) is one of the most common causes of sore throat in adolescents between the ages of 15 and 24. Both of these agents cause similar clinical findings.

Method: Patients who applied to Bezmialem Vakıf University with a complaint of sore throat and who were tested for GAS and/or EBV and were found to be positive for any of them were included in our retrospective study. The age group, gender, throat cultures, application date, and age at diagnosis of the patients were recorded. Line graphs were used to evaluate the incidence of the relevant disease by months, and the distribution of infections by age was evaluated.

Results: Of the 426 patients included in the study, 226 (53.1%) were male and 200 (46.9%) were female. No statistically significant difference was observed in terms of gender distribution ($p=0.352$). When the groups were compared in terms of average age by month, no significant difference was observed ($p=0.773$). A statistically significant difference was observed in terms of EBV and GAS positivity rates between months ($p=0.034$). EBV was detected most frequently in November, September, and March, and least frequently in April. GAS was detected most frequently in December, January, and April, and least frequently in August. GAS (54.2%) and EBV (48.4%) were most common in patients aged 5-10 years. In total, 85.5% of all patients were GAS positive and 14.5% were EBV positive.

Conclusion: While GAS was frequently observed in December, January, and April, EBV was observed frequently in November, September, and March. Both infections were detected more frequently in the 5-10 age group. No significant difference was found according to gender.

Key words: Sore throat, children, EBV, *Streptococcus pyogenes*

SOP-7

Prevalence and Causes of Indirect Coombs Test Positivity in Multiparous Women

Nurseli GÜLAY¹, Pınar ÖZCAN², Melda KUYUCU², Mehmet Serdar KÜTÜK², Özlem TOLUK³

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Momart IVF Center, İstanbul, Turkey

²Bezmailem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Liv Hospital Vadistanbul, İstanbul, Turkey

³Bezmailem Vakıf University, Faculty of Medicine, Department of Biostatistics, İstanbul, Turkey

Introduction: RhD blood group incompatibility between the mother and fetus can sometimes lead to maternal alloimmunization. Maternal alloimmunization can occur in 2 ways: (1) following inappropriate blood transfusion and (2) following fetomaternal hemorrhage between the mother and the incompatible fetus. Fetomaternal bleeding can occur during labor, pregnancy, or delivery. Several predisposing factors cause fetomaternal hemorrhage. Spontaneous or induced abortion, amniocentesis, abdominal trauma, abruptio placenta, fetal death, multiple pregnancy, manual removal of the placenta, and cesarean section. Anti-D resulting from maternal alloimmunization can cross the placenta and attack fetal erythrocytes, which in worse scenarios can cause fetal anemia and ultimately death. The aim of this study was to determine the prevalence and causes of alloimmunization.

Method: Between September 2022 and May 2023, multiparous and/or nulliparous pregnant women admitted to Bezmialem Vakıf University Hospital Obstetrics and Gynecology Outpatient Clinic were asked for indirect Coombs test (ICT) at the first antenatal visit. Age, blood type, gravida, parity, previous deliveries (normal spontaneous delivery and cesarean section), gestational week, singleton-twin status, previous abortion status, and history of blood transfusion were noted.

Results: Between September 2022 and May 2023, 377 patients underwent ICT. Six patients were excluded because they were not pregnant. Seventeen of 371 patients tested positive (4.3%). The majority of the reasons were Rh incompatibility, but one patient was alloimmunized during blood transfusion (0.0026%). Fetal distress during transfusion resulted in cesarean section, and the fetus died.

Conclusion: Maternal alloimmunization was mostly due to previous maternal blood transfusion. Sensitization may also occur during invasive procedures such as abortion, ectopic pregnancy, maternal trauma, and chorionic villus sampling. In our hospital, one patient was sensitized by blood transfusion.

Key words: Multiparous, indirect Coombs test (ICT), blood transfusion, alloimmunization

SOP-8

Evaluation of Etiological Factors and Response to Treatment in Vertigo Patients

Sena Nur AKHARMAN¹, Kadriye ALPAY²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Neurology, İstanbul, Turkey

Introduction: Vertigo is a type of dizziness caused by an imbalance in the vestibular system. There are many factors that trigger vertigo, such as trauma, stress, and infection. In particular, confusing the ear with a foreign body is one of the most important triggers. The aim of this study was to evaluate the triggering factors in patients with vertigo and to compare the effectiveness of medical treatment and maneuver therapy.

Method: The study was applied to 52 vertigo patients who applied to the neurology clinic via Google forms in the form of a questionnaire consisting of 39 questions. Variation in the frequency and severity of attacks of the patients according to the triggers and treatment responses were questioned.

Results: Of the 52 patients who participated in the survey, 73.1% were female and 26.9% were male. The average number of patients was 37. Excessive caffeine consumption triggered attacks in 61.5% of patients. Attacks are triggered by positional changes in 86.5% of patients. Attacks of 88.5% of patients are triggered during stressful periods. Of the patients, 48.1% received medical treatment and 34.6% received maneuver therapy. The number and severity of attacks decreased in 77.7% of patients who received maneuver therapy.

Conclusion: In conclusion, when we look at the patients' responses, the leading factors that trigger vertigo are stress and position change. Excessive caffeine consumption also follows these factors. In order to compare the effectiveness of medical treatment and maneuver therapy and to obtain clear information about other triggers, especially the mechanical ones, studies with more participants are needed.

Key words: Vertigo, triggers, maneuver therapy

SOP-9

Analysing of Genotype-phenotype Correlation of Patients with Hereditary Cancer Syndrome with BRCA1 and BRCA2 Mutations

Fatma Zehra ACAR¹, Bülent UYANIK²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Medical Genetics, İstanbul, Turkey

Introduction: Approximately 10-15% of breast and ovarian cancers are caused by germline mutations in the *BRCA1* or *BRCA2* genes. The aim of this study was to establish a genotype-phenotype correlation for cancer patients with these mutations.

Method: Fifty-five patients with hereditary cancer syndrome who applied to the medical genetics polyclinic and those with *BRCA1* and *BRCA2* gene mutations were included in the study. Data such as the patient's gender, type of cancer, age at diagnosis, mutation detected in which gene, and cancer history in relatives will be obtained from the family history of patients.

Results: Fifty-five patients evaluated in the study, the average age at diagnosis was 46.8 years. Of the 39 breast cancer patients in the study, 13 carried the *BRCA1* mutation and 26 carried the *BRCA2* mutation; 10 of the 15 ovarian cancer patients carried the *BRCA1* mutation and 5 carried the *BRCA2* mutation. It was observed that whether the mutations seen in the patients were reported as pathogenic (27) or VUS (28) according to the literature record did not affect the age of diagnosis. When the exons were examined, most mutations were detected in exons 11 and 20. Both mutations resulted in a higher incidence of breast cancer. Three mutations were detected in different unrelated individuals. The cancer history of the patients' first, second and third-degree relatives was questioned, and a total of 117 relatives with cancer were found to have a history of 25.6% breast cancer, 12.8% lung cancer, and 11.1% ovarian cancer.

Conclusion: This study showed that the presence of a genetic mutation lowers the age of cancer diagnosis. Patients' close relatives should also be examined genetically and followed up clinically.

Key words: BRCA1, BRCA2, cancer, hereditary

SOP-10

Evaluation of Responses of Kidney Healthcare Providers to Decision-making Processes of End-stage Kidney Disease Patients

Edanur KURBAN¹, Rümeyza KAZANCIOĞLU², Meltem GÜRSU², Ömer Celal ELÇİOĞLU², Canan SAYAN², Ayşegül YABACI TAK³

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Nephrology, İstanbul, Turkey

³Bezmialem Vakıf University, Faculty of Medicine, Department of Biostatistics and Medical Informatics, İstanbul, Turkey

Introduction: In Turkey, one out of every 7 people has kidney disease, and the number of patients receiving kidney replacement therapy (KRT) is increasing. The thoughts of kidney healthcare providers (KHPs) play a significant role in the decision-making process in the patient's choice of dialysis modality. In this study, we evaluated the thoughts and attitudes of KHPs in Turkey regarding the dialysis modality.

Method: An online survey was conducted to investigate the demographic characteristics of KHPs and the variables influencing modality recommendations. The prepared survey was distributed to KHPs in every region of Turkey between March 15 and June 15, 2023. The distribution of the data was analyzed using the Shapiro-Wilk and Pearson chi-square tests.

Results: A total of 102 physicians and 42 nurses completed the survey (F: 82, M: 62, mean age 45+/- 8.6 years). The current patients of the respondents are predominantly treated with in-center hemodialysis (90.3%) and to a lower percentage (9.7%) with peritoneal dialysis. According to the participants, the major role in the decision of the dialysis modality belongs to the nephrologist (54.9%). The preference for referring patients to in-center hemodialysis was no caregiver (76.4%), low socio-economic status (69%), more than one chronic disease (57.6%), and low education level (56.3%). In the question "If you needed a dialysis modality, which method would you prefer?", the participants answered "Home hemodialysis" (45.8%), "Peritoneal dialysis" (43.8%) and "In-center hemodialysis" (10.4%). 66.8% of the respondents believed that they had insufficient knowledge about home hemodialysis.

Conclusion: The results indicate that KHPs prefer home hemodialysis, although most of their patients are treated with in-center hemodialysis. Most KHPs consider themselves incompetent in home hemodialysis. Education, training, and new regulations regarding dialysis modalities are needed.

Key words: Kidney healthcare providers, end-stage kidney disease, dialysis modalities

SOP-11

Measuring the Clinical Proficiency Level of Anatomy Education in Bezmialem Vakıf University Faculty of Medicine 4th-5th and 6th Grade Students in 2023-2024

Zeynep KARAYILDIZ¹, Mustafa BÜYÜKMUMCU²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Anatomy, İstanbul, Turkey

Introduction: The evolution of undergraduate medical education practices in anatomy, along with innovative approaches to training and evaluating the next generation of healthcare professionals, can enhance efficiency.

Method: The study evaluates the correlation between anatomy education and clinical practice among 4th, 5th, and 6th-year students at Bezmialem Vakıf University Medical Faculty in the 2023-2024 academic year. It comprises three demographic questions and 23 queries regarding the retention of anatomy knowledge during the transition from theory to clinical rotations, aimed at identifying areas for improvement. Administered online via Google Forms to the study group.

Results: A total of 194 students participated in the survey. Of the students, 10% believed they had sufficient attendance in anatomy classes and trusted their knowledge levels. Of the students, 84% demanded an increase in the number of theoretical, laboratory, and cadaver classes, indicating that the current numbers were insufficient. While 95% of the students stated that they were satisfied with the faculty members of the anatomy department, 16% of the participants found the equipment for practical classes insufficient. It is noted that the highest rate, 23.5%, indicates issues regarding the memorability of the nervous system, and for all other systems, a 9.3% rate is recorded. 91.3% of the students stated that anatomy education is sufficiently integrated with clinical correlation. 95% of the participating students want radiological anatomy classes added, 94% believe topographical anatomy classes would be more beneficial in addition to systematic anatomy, and 88% want additional dissection courses to be added to cadaver classes.

Conclusion: As a result, students have demonstrated that theoretical education correlates well with clinical practice but can be further improved.

Key words: Clinical proficiency, anatomy education, faculty of medicine students

SOP-12

Awareness and Knowledge Levels of Bezmialem Vakıf University Students about Human Papilloma Virus and Vaccination

Anıl Mert AKKAYA¹, Semra ÖZÇELİK²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Medical Education, İstanbul, Turkey

Introduction: Human papilloma virus (HPV) is a non-enveloped DNA virus that causes genital warts in men and women. There are many risk factors for HPV, which is one of the most common sexually transmitted infections in the world. These include polygamous sexual life at an early age (before the age of 18), the presence of other sexually transmitted diseases, smoking, malnutrition, and multiple births. The aim of this study was to investigate the level of knowledge and awareness of Bezmialem Vakıf University students about the human papilloma virus.

Method: Data were collected using a scale designed to measure students' level of knowledge about human papillomavirus and its vaccine. The scale, consisting of 33 items to measure the level of knowledge, was distributed to participants via the digital platform. Statistical analyses involved the use of the Spearman correlation coefficient, Mann-Whitney U test, and reliability testing with the Kruskal-Wallis test. A significance level of 0.05 was set, and SPSS (version 26) was used for calculations.

Results: A total of 130 people participated in the study. According to the results of the study, there was no significant difference between HPV knowledge level and gender ($p=0.976$). When we compared the students' levels of knowledge about HPV with the department they studied, a significant result was obtained ($p<0.001$). The department with the highest level of knowledge about HPV was the school of health professions (median: 112), followed by the faculty of dentistry (median: 111), faculty of medicine (median: 108) and faculty of pharmacy (median: 101), respectively.

Conclusion: Levels of knowledge about HPV vary among departments. It has been determined that more emphasis should be placed on issues related to the HPV and its vaccine in the education program of Bezmialem Vakıf University Faculty of Medicine.

Key words: HPV, vaccine, education

SOP-13

Evaluation of the Effect of SGLT2 Inhibitors on Serum Uric Acid Levels in Patients with Diabetic Nephropathy

Ayça KÜÇÜKÖZ¹, Ömer Celal ELÇİOĞLU²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Nephrology, İstanbul, Turkey

Introduction: Diabetic nephropathy is one of the leading causes of end-stage renal failure and a primary contributor to morbidity and mortality in patients with diabetes mellitus. Hyperuricemia is commonly observed in diabetic patients and is a risk factor for renal diseases. Various clinical studies have demonstrated that SGLT-2 inhibitors reduce SUA levels. Therefore, reducing SUA levels in patients with type 2 diabetes may prevent morbidity and mortality.

Method: All data were analyzed using SPSS 25.0 software. Normality tests were performed for continuous variables. The mean/median values of the baseline and final values in the control and treatment groups were compared using the paired samples t-test and Wilcoxon test. The t-test and Mann-Whitney U tests were utilized to examine the mean/median change of parameters among the groups. Chi-square was used to evaluate the association between the categorical variables in groups. Statistical significance was defined as a p-value of 0.05.

Results: In patients receiving SGLT treatment, there was a significant difference in the average values of weight, BMI, Ca, Mg, Cl, P, urea, creatinine, and GFR before and after treatment. In the control group, there was no significant difference between the mean values of parameters before and after treatment. When comparing the changes in parameters between the treatment and control groups, there was a statistically significant difference in weight, Ca, Mg, P, creatinine, and GFR changes between the two groups.

Conclusion: There was a significant relationship between weight, Mg, P, and GFR changes in both the treatment and control groups. However, our study did not reveal statistically significant reductions in serum uric acid, proteinuria, albuminuria, HbA1c, and serum albumin levels. Conducting advanced studies with larger sample sizes and longer follow-up intervals may yield significant results.

Key words: Diabetic nephropathy, uric acid, SGLT2 inhibitors

SOP-14

Evaluate HPV Vaccine Attitudes Among Nurses at Bezmialem Vakıf University School of Medicine Hospital

Aylin KAPLAN¹, Gürkan KIRAN²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Obstetrics and Gynecology, İstanbul, Turkey

Introduction: Human papilloma virus (HPV) is a sexually transmitted virus that usually causes genital warts. HPV types are responsible for various lesions, from anogenital warts to cancer. HPV types 6 and 11 are responsible for more than 90% of anogenital warts. HPV types 16 and 18 cause cancer in humans. Immunization with the HPV vaccine is very effective in protecting.

Method: Our study was conducted with nurses working at Bezmialem Medical Faculty Hospital in September-October 2023. In the research, 21 survey questions were created, including 5 questions containing socio-demographic information and 16 questions evaluating attitudes about the HPV vaccine. The Carolina HPV vaccination attitudes and beliefs scale was used in this survey. This scale was administered to the participants online via Google.

Results: No significant difference was detected between age, gender, length of employment in the profession, and educational status in terms of subgroup mean scores on the Carolina scale. We examined whether there was a significant difference between previous participation in vaccination-related training. A statistically significant difference was observed between the groups in terms of the average barriers score. The average score of those who did not participate in the training was found to be significantly higher than that of those who participated ($p < 0.001$).

Conclusion: Age, gender, education level, and length of employment in the profession have no effect on attitudes about vaccination. Training received or individual research is effective in creating vaccine awareness.

Key words: Vaccine, immunization, cancer

SOP-15

Evaluation of Opinions of Bezmialem Vakıf University Faculty of Medicine Graduates Regarding Scholarly Concentration

Ömer Faruk ERGÜL¹, Semra ÖZÇELİK²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Medical Education and Informatics, İstanbul, Turkey

Introduction: The scholarly concentration (SC) is a research program that begins with the fourth semester of the Bezmialem Vakıf University Faculty of Medicine program. The aim of the SC is to help Bezmialem Faculty of Medicine students gain research experience throughout their education and take their first steps academically. The purpose of this study was to evaluate the effects of SC on the academic lives of students who graduated from Bezmialem Vakıf University Faculty of Medicine.

Method: A survey was used as a data collection tool. The survey consists of 23 questions, 8 of which are about demographic characteristics, and the remaining questions are about SC. The survey was shared online via Google Forms.

Results: The survey was sent online to 513 people, of whom 173 filled out the survey. According to the current results, 73.4% of the participants were women and 26.6% were men. 5.2% were specialists, 69.4% were assistants, 12.7% were practitioners, and 4% worked abroad. During the research period, 67.6% evaluated their communication with their mentors as good. 76.3% thought that SC created interest in scientific research. 70.5% thought that SC contributed to their working life. 41.6% stated that they did research after graduation. 67.6% recommended that SC continue. 63.6% thought that SC made no contribution in choosing a department. Because of SC, 19.1% were awarded a Johns Hopkins scholarship and 95.7% were satisfied with their Johns Hopkins internship.

Conclusion: This study shows that SC creates interest in scientific studies and contributes to working life. Most of those who went to the Johns Hopkins internship liked it. Most participants suggest that SC must continue.

Key words: Scientificness, research, scholarly concentration

SOP-16

Impact of Smartphone Use on Cognitive Functioning: Role of Attachment

Sümeyra DAĞ¹, Gonca DOKUZ²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Psychiatry, İstanbul, Turkey

Introduction: Attachment styles were developed by psychologist John Bowlby and Mary Ainsworth and are shaped by the way children interact with their parents. According to John Bowlby, attachment has a great influence on a child's later development and helps them develop without fear. Bartholomew and Horowitz divided attachment into secure and insecure sub-styles. Our hypothesis was that the duration of smartphone use is higher in individuals with insecure attachment (IA) and that this relationship is mediated by an attention deficit.

Method: The intended target group for this study was university students. This study was assessed using a questionnaire that subjects could complete online. With a correlation coefficient of 0.20 between the scales, a minimum of 82 subjects were required for the study with 80% power at 95% confidence level.

Results: This questionnaire made it possible to ask about daily smartphone use, the secure attachment (SA) and IA of the individuals. The individuals were divided into two groups, and the self-assessment of the frequency of everyday mistakes encountered in the areas of perception, memory, and action regulation was evaluated. As smartphone addiction scale scores increase, cognitive failures scale (CFS) score also increase. Resistant attachment and CFS averages of smokers were significantly higher than those of non-smokers ($p=0.008$; $p=0.028$). No significant difference was observed between smokers and non-smokers in terms of SA, avoidant attachment, and smartphone averages ($p<0.05$). No statistically significant relationship was observed between CFS and SA ($p=0.157$). The mean CFS of alcohol users was significantly higher than that of non-users ($p=0.026$).

Conclusion: An individual's excessive smartphone use is not related to an individual's SA or IA.

Key words: Attachment, smartphone, cognitive function

SOP-17

Comparison of Clinical Features of Diabetic Patients with Significant Coronary Artery Disease and Those with Non-critical Coronary Arteries

Melike Efnan BİNİCİ¹, Mahmut ULUGANYAN²

¹Bezmi Alem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmi Alem Vakıf University, Faculty of Medicine, Department of Cardiology, İstanbul, Turkey

Introduction: Diabetes mellitus (DM) is a general term that covers several metabolic disorders, the main feature of which is chronic hyperglycemia. Cardiovascular complications are the leading cause of morbidity and mortality in type 2 DM (T2DM) patients. On the other hand, in clinical practice, diabetic patients with non-critical arteries also present. In this study, we aimed to investigate the relationship between T2DM and coronary artery disease (CAD) by examining two groups of patients diagnosed with T2DM, those with and without critical CAD detected by coronary angiography (CAG), in terms of their demographic and clinical characteristics.

Method: Our retrospective study included 487 patients with T2DM who underwent CAG between 2022 and 2023. Demographic data and clinical characteristics of the patients were obtained from the hospital database.

Results: The sample consisted of 290 men (59.5%) and 197 women (40.5%), and the average age was 62.38 ± 9.67 years. One hundred fifty-seven (32.2%) of the patients were included in group 1 (without CAD), and 330 (67.8%) were included in group 2 (with CAD). According to the statistical analysis of the data, a statistically significant ($p=0.001$) correlation was detected between the HbA1c level, which we chose as the primary parameter, and the development of CAD. In addition, other parameters we examined, such as CVA history, HDL, creatinine, glucose, CK-MB, EF, gender, BMI, and height, were also correlated with the development of CAD.

Conclusion: In this retrospective study, we found a significant relationship between “HbA1c level, CVA history, low EF, and low HDL levels and the development of CAD” in patients with T2DM. We believe that existing data should be supported by prospective and larger-scale studies.

Key words: Diabetes mellitus, cardiovascular disease, HbA1c

SOP-18

Sleep Quality in Patients with Idiopathic Intracranial Hypertension

Duhan KANMAZ¹, Aslı Yaman KULA²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Neurology, İstanbul, Turkey

Introduction: Idiopathic intracranial hypertension (IIH), also referred to as pseudotumor cerebri or benign intracranial hypertension, is a syndrome of increased intracranial pressure without hydrocephalus, mass lesion, or cerebrospinal fluid composition abnormality. It is a diagnosis of exclusion. The common symptoms related to increased intracranial pressure are headache, transient visual obscurations, tinnitus, and back pain. IIH can be accompanied by sleep apnea and other sleep disorders. The aims of this study were to evaluate the sleep quality of IIH patients and to determine whether there is any relationship between the signs and symptoms of the syndrome and the self-questionnaire scores and whether there is any difference in self-questionnaire scores between the patients and controls.

Method: Data were collected using self-questionnaires and medical records. Three self-questionnaires [Pittsburgh Sleep Quality Index (PSQI), Epworth Sleepiness Scale (ESS), and Beck Depression Inventory (BDI)] were applied to 31 IIH patients and the same number of controls. PSQI, ESS, and BDI scores were calculated for each person, and the scores of the patients and controls were compared. Whether there is a relationship between the scores and signs and symptoms of IIH was investigated.

Results: In the patient group, a strong positive correlation was found between PSQI scores and BDI scores ($p < 0.001$). Also, a statistically significant relationship was found between papilledema and PSQI scores ($p = 0.016$). A statistically significant difference was found in PSQI scores of the two groups ($p = 0.009$).

Conclusion: Sleep quality is impaired in patients with IIH.

Key words: Idiopathic intracranial hypertension, PSQI, ESS, BDI

SOP-19

Knowledge Levels of Bezmialem Vakıf University Faculty of Medicine Students Regarding Medical Ethics

Sibel Selay URLU¹, Nuran YILDIRIM²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Medical History and Ethics, İstanbul, Turkey

Introduction: Medical ethics shapes individuals' behaviors, actions, and thought processes on a societal level. With technological advancements, medicine faces numerous ethical and legal challenges, including genetic studies, euthanasia, *in vitro* fertilization, gender selection, organ transplantation, and abortion. These changes have elevated the importance of ethical education, leading to increased integration into educational curricula. This study aimed to assess the perceptions of Bezmialem Vakıf University Faculty of Medicine students regarding medical ethics and their approaches to ethical issues.

Method: Data were collected through a survey designed to measure students' knowledge of medical ethics. The questionnaire included questions that assessed participants' current knowledge levels and understanding of relevant concepts. The survey was administered online to 153 students enrolled in Bezmialem Vakıf University Faculty of Medicine. Statistical analyses involved the use of Spearman's correlation coefficient, Mann-Whitney U test, and reliability testing with Cronbach's alpha. A significance level of 0.05 was set, and Statistical Package for the Social Sciences (version 26) was used for calculations.

Results: According to the research findings, gender did not significantly impact students' knowledge of medical ethics ($p=0.073$). When analyzed by class level, an increase in knowledge levels was observed from the 1st to the 6th semester specifically for subscale 1 ($r=0.211$, $p=0.009$). However, no significant changes in knowledge levels were detected for other subscales across different class levels ($p>0.05$). The results underscore the effectiveness of medical ethics education in enhancing students' knowledge, with gender playing a minimal role in shaping perceptions.

Conclusion: Knowledge levels have no relationship with class or gender. A study should be conducted so that Bezmialem Faculty of Medicine students can better learn about medical ethics.

Key words: Ethical issues, medical ethics, medical students

SOP-20

Exploring the Impact of Clinical Factors on Methotrexate Treatment Efficacy in Ectopic Pregnancy: A 5-year Analysis of Patients at Our Clinic

Hasan AYDIN¹, Rabia Zehra BAKAR², Ali TOPRAK³

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Obstetrics and Gynecology, İstanbul, Turkey

³Bezmialem Vakıf University, Faculty of Medicine, Department of Biostatistics, İstanbul, Turkey

Introduction: Ectopic pregnancy is the implantation of a fertilized ovum in any tissue other than the endometrial cavity and occurs in 1% of all pregnancies. The approach to ectopic pregnancies may be follow-up, medical, or surgical. Age, last menstrual period, human chorionic gonadotropin (β -hCG) level, size and presence of ectopic pregnancy masses, fetal cardiac activity, and presence of hemoperitoneum are effective in determining the treatment method. In our study, we aimed to retrospectively analyze the treatment methods of ectopic pregnancy cases treated in our clinic in the last 5 years, to determine the success rate of medical methotrexate treatment, and to evaluate the clinical factors affecting this rate.

Method: To achieve our goal, the treatment responses of ectopic pregnancy cases who applied to the Department of Obstetrics and Gynecology of Bezmialem Vakıf University Faculty of Medicine between 2018 and 2023 will be retrospectively evaluated according to complaints, age, β -hCG value, risk factors, and gestational age.

Results: A total of 87 patients were included in this study. In the treatment approach, follow-up was performed in 10.3% of patients, methotrexate was used in 69%, and surgery was performed in 20.7%. The success rate of methotrexate is 96.7% ($p < 0.01$). The most common risk factor among patients, encountered in 12.6%, was a history of previous ectopic pregnancy. There was no statistical significance between the success rate of methotrexate and risk factors ($p = 0.582$).

Conclusion: Our study results indicate that methotrexate treatment is a significant and successful option for ectopic pregnancy. Further studies are needed to confirm and support the success rate of methotrexate treatment and the risk factors influencing this rate.

Key words: Ectopic pregnancy, methorexate, salpingectomy

SOP-21

Bone Mineral Density Evaluation of Gynecological Cancer Patients who Received Pelvic Brachytherapy

Emrecañ ÇAKIR¹, Gürkan KIRAN^{2,3}, Teoman AYDIN³

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Obstetrics and Gynecology, İstanbul, Turkey

³Bezmialem Vakıf University, Faculty of Medicine, Department of Physical Medicine and Rehabilitation, İstanbul, Turkey

Introduction: Brachytherapy is a form of radiotherapy also called internal radiotherapy. One of the most common uses of brachytherapy is cavitory malignancies. There are no studies investigating the relationship between brachytherapy and its effects on bone mineral density, which is important for women of age as its decline is related to osteoporosis.

Method: In this study, L1-L4 bone mineral density of 42 female endometrial and cervical cancer patients (n=42), who received pelvic brachytherapy, was evaluated by T score. The time gap between the treatment and bone densitometry scan was at least one year for all patients.

Results: The mean age of the patients was 60.4. The mean value of the T score was -1.098. Evaluation of the body mass index (BMI) values showed no significant decrease (p=0.221). The mean value of the T score of patients younger than 56 years old (n=15) was -0.907.

Conclusion: Pelvic brachytherapy is not a major cause of decreased BMD. Further trials are needed to study larger sample groups and include different malignancy types.

Key words: Bone mineral density, pelvic brachytherapy, gynecological malignancies

SOP-22

Exploring the Link Between Maternal Childhood Trauma, Adult Attachment Styles, and Autism Spectrum Disorders in Early Childhood

Nihan Elif YAPICI¹, Songül DERİN²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Child and Adolescent Psychiatry, İstanbul, Turkey

Introduction: Research has suggested a link between early maternal influences and a higher likelihood of autism spectrum disorder (ASD) in children. It has been observed that women who have faced childhood abuse may have poor attachment styles compared with those who have not experienced such trauma. However, the potential association between a mother's history of abuse and her attachment style and the occurrence of ASD in her children remains unclear.

Method: The study included 62 children aged between 0 and 5 years, divided into two groups: a case group of 32 children diagnosed with ASD and a control group of 30 children without ASD. Mothers in both groups completed the Childhood Trauma Questionnaire and the Relationship Scales Questionnaire.

Results: Binary logistic regression revealed that mothers with preoccupied attachment were more likely to have a child with ASD ($B=1.87$, $p=0.023$) after controlling for maternal childhood trauma and socioeconomic status. Other attachment styles and maternal childhood trauma did not show significant associations with the occurrence of ASD.

Conclusion: This suggests that maternal preoccupied attachment styles are more likely to be observed in children with ASD. Therefore, clinicians treating children with ASD should be cognizant of the potential for preoccupied attachment in mothers, as this may impact treatment approaches and outcomes.

Key words: Maternal childhood trauma, attachment styles, autism spectrum disorders

SOP-23

Evaluation of the Relationship Between the Stage of Dementia and Quality of Sleep in Patients

Beril AKAR¹, Yüksel ERDAL², Merve BİRTEK²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Neurology, İstanbul, Turkey

Introduction: Dementia is a group of diseases that affect memory, thinking, and social skills. Chronic sleep disorders are important risk factors that lead to a decline in cognitive function. Dementia and sleep disorders are two risky conditions that can be either the cause or the result of each other.

During our research, we aimed to categorize dementia patients according to their dementia stages and compare them with their Pittsburgh Sleep Quality Scores (PSQI). We would like to demonstrate with this study that low or high sleep quality affects the dementia stage of patients. If meaningful results are obtained, a risk factor that affects the progression of dementia can be better controlled by providing better and more comprehensive information to patients on this subject.

Method: The PSQI was applied to patients with dementia. The patients' dementia stages, age, gender, and PSQI scores were evaluated. $P < 0.05$ is considered statistically significant. One-way analysis of variance (ANOVA) was used to evaluate the results.

Results: Of the 74 patients evaluated, 30.4% were male, 26.2% were diagnosed with advanced dementia, and only 27.9% of them did not have bad sleep quality (PSQI score < 5). The results were evaluated with one-way ANOVA (Kruskal-Wallis), which did not yield a statistically significant result because it is used as a non-parametric test to assess the relationship between the dementia stage as an independent variable and PSQI as a dependent variable ($p = 0.827$). The same test was used for age and dementia stage, which was statistically significant ($p = 0.028$).

Conclusion: We observed that the dementia stage did not affect the sleep quality of the patients. The study did not reach a meaningful result.

Key words: Dementia, SMMT, PSQI, sleep disorders

SOP-24

Evaluation of Family Physicians' Awareness and Knowledge Levels of the Ministry of Health Care Screening Programs

Muammer Ömer BEŞİROĞLU¹, Rabia Zehra BAKAR²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Obstetrics and Gynecology, İstanbul, Turkey

Introduction: The incidence of cancer is increasing day by day worldwide. Many methods are used for early diagnosis. In our country, screening tests are performed for three cancers as determined by the Ministry of Health. Family physicians also have a great responsibility in directing patients to screening tests and informing them about this subject. Our aim in this study was to measure the knowledge level of family physicians about the screening tests performed and, if deficiencies were observed, to raise awareness to produce solutions such as providing training to correct them.

Method: To achieve our aims, we used questionnaire titled "Evaluation of Family Physicians Awareness and Knowledge Levels of the Ministry of Health Care Screening Programs" prepared by researchers. It consisted of 20 questions about cancer screening programs and 7 questions about demographic information. The questionnaire will be distributed to family psychiatrists via Google Forms. The resulting data will be analyzed using Ibm SPSS Statics 15.0.

Results: The 162 family physicians who participated in our study gave more correct than incorrect answers to the questions about cancer screening programs, but only 89 physicians (54.9%) answered the question of the age of starting colorectal cancer screening, which has changed in recent years, and only 85 physicians (52.5%) answered the question of HPV vaccines available in our country correctly. In addition, there was a significant difference between the knowledge levels of physicians who received training on cancer screening programs after graduation and those who did not receive training ($p<0.006$).

Conclusion: Based on the results of our study, it was observed that providing training to family physicians on cancer screening programs had positive effects on their level of knowledge.

Key words: Cancer, screening, family physicians

SOP-25

Evaluation of Geriatric Patients Presenting to the Emergency Department and Experiencing in-Hospital Adverse Events

Beyza ARABUL¹, Bahadır TAŞLIDERE²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Emergency Medicine, İstanbul, Turkey

Introduction: Over the past 25 years, geriatric emergency medicine has evolved into a distinct sub-branch. In our country, geriatric patients are evaluated alongside other patients, leading to insufficient consideration of their specific needs and potentially lower quality of emergency care. Our aim is to identify the most appropriate approaches in geriatric patient care by analyzing the adverse events experienced by these patients within the hospital.

Method: The retrospective study was conducted between 01.09.2022 and 30.11.2022, focusing on patients over 65 years of age who visited the emergency department. Data were obtained from the hospital automation system. In-hospital adverse events were defined as mortality, surgical interventions, intensive care needs, angiography, and endoscopy. Demographic information, vital signs, comorbidities, laboratory values, and outcomes were recorded. Patients were divided into two groups: 75 years and over and 65-74 years.

Results: A total of 167 patients were retrospectively examined, revealing an average age of 78.11 ± 3.55 . Adverse events occurred in 32% of the patients, with 2.3% mortality. Notably, 55.6% of the patients were discharged from the emergency department. Four patients (2.3%) succumbed in the emergency department. Among the patients, 28.1% were admitted to regular wards, 12.5% to intensive care units, and 3.8% declined treatment. Surgical intervention was required in 18.5% of cases, and interventional procedures such as angiography and endoscopy were performed in 13.7% of cases. The average duration of stay in the emergency department was 177.8 ± 122 minutes for those aged 65-74 and 286 ± 127 minutes for those aged 75 years and older ($p=0.003$).

Conclusion: Geriatric patients often seek emergency care because of age-related physiological changes and comorbidities. A comprehensive and multidisciplinary approach is essential when facing in-hospital medical events to ensure optimal outcomes for these vulnerable individuals.

Key words: Geriatric patients, emergency, adverse events

Evaluation of Anaphylaxis Patients Applying to the Emergency Department

Sevdenur AZCAN¹, Bahadır TAŞLIDERE²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Emergency Medicine, İstanbul, Turkey

Introduction: Anaphylaxis is a potentially life-threatening systemic hypersensitivity reaction requiring prompt treatment. Our study evaluated anaphylaxis cases in the emergency department to raise awareness and guide management.

Method: Our study was conducted at Bezmialem Vakıf University, Faculty of Medicine Hospital from January 01, 2018, to December 31, 2022. The study focused on patients aged 18 years and above. Anaphylaxis diagnosis followed the National Institute of Allergy and Infectious Disease 2021 guidelines. The initial treatment involved intramuscular adrenaline, with infusion therapy for unresponsive cases. Patient data were recorded for demographics, comorbidities, consciousness, and examination findings.

Results: In a total of 77 evaluated patients, 54.4% were female and 45.6% were male. Reasons for adrenaline administration included unknown causes (51.5% intramuscular, 44.4% infusion). Overall, 49.4% had unknown triggers and 15.6% attributed reactions to medication. Food and insect stings were followed in sequence ($p=0.03$). Dermatological complaints were noted in 13% ($p<0.001$). Comorbidities were present in 36.8% (intramuscular) and 88.9% (infusion), totaling 42.9% ($p=0.004$). Epinephrine was administered within the first hour in 76.5% (intramuscular) and 55.6% (infusion), totaling 74% ($p=0.01$). Bifasic reactions occurred in 8.8% (intramuscular, $p=0.004$). Eight patients (10.4%) required intensive care, with 66.7% in the infusion group ($p<0.01$). One patient died, resulting in a 1.3% mortality rate.

Conclusion: If initial intramuscular injections are insufficient, initiating infusion therapy is recommended for a more stable response, particularly in patients with neurological symptoms. Monitoring comorbidities is crucial because of their increased anaphylaxis risk. The absence of biphasic reactions in patients receiving infusion therapy is important for disease monitoring.

Key words: Anaphylaxis, adrenaline, emergency

SOP-27

Investigation of Risk Factors for Acute Coronary Syndrome in Geriatric Patients

Nida YILMAZ¹, Bahadır TAŞLIDERE²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Emergency Medicine, İstanbul, Turkey

Introduction: Acute coronary syndrome may present with symptoms such as chest pain, shortness of breath, and sweating. In this study, we investigated the effects of risk factors on mortality in geriatric patients diagnosed with acute coronary syndrome.

Method: This study was conducted retrospectively in accordance with the Helsinki criteria with approval from the ethics committee dated 03.05.2023 and numbered 09. The study was conducted in the emergency department of Bezmialem Vakıf University, Faculty of Medicine Hospital between 01.01.2022 and 31.12.2022 by examining patients aged 65 years and over. GRACE scores of the patients were calculated, and comorbidities and the outcome of the patients were compared.

Results: Data of 326 patients (71.9 ± 5.40 years), 230 males (70.5%), and 96 females (29.5%) were included in the study. Troponin values (169 ± 280), hospital admission complaints, GRACE score (159 ± 13.7), gender, comorbid diseases, and smoking were analyzed to investigate the effects of these factors on mortality. Patients were divided into two groups: those with a GRACE score below 140 (277, 85%) and those with a GRACE score of 140 and above (49, 15%). The GRACE score was found to be a statistically significant variable on mortality ($p=0.005$). Patients' typical/atypical complaints were also found to be statistically significant on mortality ($p=0.01$). The effect of smoking on mortality was found to be very close to statistical significance ($p=0.07$).

Conclusion: According to the results of the study, statistically significant factors in mortality prognosis are: GRACE score and patient's presentation with typical/atypical symptoms. The effect of patient smoking on mortality was statistically more effective than the presence of comorbid diseases.

Key words: Geriatric patients, acute coronary syndrome, risk factors

Exploring the Mediating Role of Sleep Disturbances in Association Between ADHD and Self-harm

İdil ALTINTAŞ¹, Songül DERİN²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Child and Adolescent Psychiatry, İstanbul, Turkey

Introduction: While previous research has established a link between attention deficit hyperactivity disorder (ADHD) and self-harm, the underlying mechanisms remain insufficiently understood. This study explored the mediating role of sleep disturbances in the association between ADHD diagnosis and self-harm behaviors.

Method: The study included 90 youth aged between 12 and 19 years, divided into two groups: a case group of 45 youth diagnosed with ADHD and a control group of 45 youth without ADHD. Both groups completed the inventory of statements about self-injury and the sleep disturbance scale.

Results: Findings revealed a significant positive association between ADHD and sleep disturbances ($B=0.39$, $p<0.001$) and between sleep disturbances and self-harm ($B=0.53$, $p=0.002$). ADHD directly predicted self-harm ($B=0.41$, $p=0.007$). The indirect effect of ADHD on self-harm through sleep disturbances was significant ($B=0.22$, $p=0.002$), similar to the total effect ($B=0.62$, $p=0.002$). The analysis included gender, youth education, family income, maternal education, and overall anxiety and depression scores of the youth.

Conclusion: There is a significant gap in the literature regarding the combined role of ADHD, sleep difficulties, and self-harm. While prior research has delved into the intricate causes of self-injurious behaviors in ADHD populations, none have specifically addressed how sleep difficulties might mediate the ADHD-self-harm association. The current study aims to fill this gap by illuminating the significant role of sleep difficulties in this relationship. Our findings suggest a direct link between ADHD and self-harm and reveal a notable indirect effect through sleep disturbances. Prioritizing the effective management of ADHD and sleep disturbances is crucial for minimizing self-harm risk in this population. This insight has significant clinical implications for managing self-harm risk in adolescents with ADHD.

Key words: ADHD, sleep, self-harm

SOP-29

Prevalence of Overactive Bladder Symptoms in Bezmialem Vakıf University Medical Students

Burcu NIKBAY¹, Abdullah İLKTAÇ²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Urology, İstanbul, Turkey

Introduction: Overactive bladder (OAB) involves a sudden urge to urinate, possibly with incontinence. OAB is difficult to diagnose and often confused with other conditions, and lacks a definitive cure. This study aimed to assess OAB prevalence among Bezmialem Vakıf University medical students and increase their awareness.

Method: This study, designed for Bezmialem Vakıf University, Faculty of Medicine students, utilizes a survey as a cross-sectional research tool. The survey will be distributed online, with participation based on voluntariness. It will first gather demographic information such as age, gender, chronic illnesses, regular medication, and tobacco and alcohol use. Then, the Overactive Bladder Assessment Form (OAB-V8), a validated, easy-to-understand questionnaire, will be used, containing 8 questions scoring symptoms severity from 0 to 5.

Results: Eighty eight students participated in this research. If the score is 8 or above, the participants are accepted as OAB positive. Of the 88 participants, 30 were OAB positive (34%); 13 were female (14.7%), and 17 were male (19.3%). While the mean age of all participants is 21.7 ± 1.8 , the mean age of those who tested positive for OAB is 21.5 ± 1.8 . Of the 29 individuals who smoke, 11 were OAB positive (37.9%). Forty two individuals reported alcohol use. Among them, 15 were OAB positive (35.7%). While 8 individuals had chronic illnesses, 4 of them were OAB-positive (50%). In this study, no significant relationship was found between OAB and gender ($p=0.173$), chronic illness ($p=0.319$), tobacco ($p=0.594$) and alcohol use ($p=0.759$).

Conclusion: Of the 88 participants, 30 were OAB positive (34%). In this study, no significant relationship was found between OAB and gender, chronic illness, tobacco, and alcohol use.

Key words: Overactive bladder, OAB, medical students, OAB-V8

SOP-30

Evaluation of Attitudes toward Scientific Research Among Medical Faculty Residents: A Cross-Sectional Study

Melike Duran¹, Semra Özçelik², Özge Pasin³

¹Bezmialem Vakıf University Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University Faculty of Medicine, Department of Medical Education, İstanbul, Turkey

³Bezmialem Vakıf University Faculty of Medicine, Department of Biostatistics, İstanbul, Turkey

Introduction: In recent years, medical practice has shifted from an “experience-based” to an “evidence-based” approach, defined as systematically using contemporary research findings for clinical decisions. All well-designed studies contribute to evidence-based medicine. This study aimed to assess scientific research awareness among resident doctors, predicting that those who publish during residency will develop valuable skills for their future careers.

Method: To achieve our aims, we used a questionnaire titled “The Evaluation of the Attitude Towards Scientific Research Among the Medical Faculty Residents” prepared by the researchers. It consisted of 15 questions with a mix of yes-no answers and multiple choice answers, and 5 questions about demographic information. The questionnaire was distributed to the residents via Google Forms. The resulting data were analyzed using Ibm SPSS Statistics 22.0.

Results: Of 110 participating resident doctors, 51.8% were in non-surgical, 44.5% in surgical, and 3.6% in basic medical science specialties. 70% had prior involvement in scientific research, with 48% participating in only one study. The main research types were retrospective clinical studies (64.6%) and surveys (43%). Significant barriers to research included a lack of knowledge of research methodology (68.3%), absence of mentorship (61%), and insufficient time (56.1%). Residents with heavy clinical workloads had significantly lower research participation ($p=0.017$). Those with inadequate English proficiency showed lower rates of past research involvement and a decreased desire for an academic career in the future ($p=0.041$ and $p=0.034$, respectively).

Conclusion: The fact that 70% of the residents participating in our study had previously been involved in at least one research project is promising. However, our study highlights the need for more education and guidance on research methodology and dedicated time for research among residents.

Key words: Attitude, research, residency

SOP-31

Evaluation of Hepatitis B Serology After Primary Immunization in Babies of Hepatitis B Carrier Mothers

Öykü Zeren ÖZEREN¹, Halime ÇALI ÖZTÜRK², Rabia Zehra BAKAR³, Çağlar ÇETİN³, Emel TORUN³

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Pediatrics, İstanbul, Turkey

³Bezmialem Vakıf University, Faculty of Medicine, Department of Obstetrics and Gynecology, İstanbul, Turkey

Introduction: Hepatitis is an inflammatory condition of the liver caused by hepatitis B virus. In our country, infants of hepatitis B carrier mothers are vaccinated and administered immunoglobulin at birth. In addition, the infants are vaccinated again when they are 1 and 6 months old. In serologic evaluations, HBsAg positivity indicates carriage. Hepatitis B antibodies in IgG and IgM structures show immunization. In Turkey, after the vaccines are administered, immunization is evaluated with hepatitis B antibody when the infants are 9 and 15 months old.

In studies evaluating hepatitis B serology, gestational week, gender, duration of breastfeeding, type of delivery, and birth weight are rarely considered. We contribute to the elucidation of the effect of these characteristics in our study.

Method: Infants of hepatitis B carrier mothers who presented to Bezmialem Vakıf University Medical Faculty Hospital Pediatrics and Obstetrics & Gynecology Polyclinics were included in the study. The data, including the infants' immunization status, gender, gestational weeks, type of birth, birth weight, and duration of breast milk intake, were collected from the hospital database of previously followed-up patients in the presence of a physician. The effect of these criteria on immune response formation was evaluated.

Results: Of the 166 patients evaluated, 50.6% were male (group 1), 27.7% preterm (group 2), 7.8% had low birth weight (group 3), 40% were a cesarean delivery baby (group 4), 26.5% breastfed for less than 6 months (group 5), and these characteristics did not affect immune response (p values were group 1, p=0.680; group 2, p=1; group 3, p=1; group 4, p=0.234; group 5, p=1).

Conclusion: Infant gender, gestational week, birth weight, mode of delivery, and duration of breastfeeding did not affect immunity developed by the hepatitis B vaccine.

Key words: Hepatitis B, infant of a carrier mother, primary immunization

SOP-32

Effect of Social Media on Plastic Surgery

Atakan UNUTMAZ¹, Nuh EVİN²

¹Bezmialem Vakıf University, Faculty of Medicine, Istanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Plastic, Reconstructive, and Aesthetic Surgery, Istanbul, Turkey

Introduction: Social media is a platform used by more than half of the world's population, and the appearance of people on social media is essential. The aim of this study was to evaluate if there is a significant relationship between patients' social media usage and their desire to undergo plastic surgery and how they find suitable surgeons.

Method: In this study, a survey consisting of 20 multiple-choice questions was administered to patients between the ages of 18 and 65 years who applied to the Bezmialem Vakıf Hospital Clinics. The questionnaire consisted of questions about demographics, preferred social media platforms, average daily screen time, and whether it is possible that social media had an impact on their decision to undergo plastic surgery.

Results: A total of 74 patients participated, and the most used social media platform was Instagram. There was a significant difference found between the people who trust the surgeons who share their patient satisfaction on social media and the people who want to find surgeons from social media or from friends ($p < 0.05$). So that means patients have more trust in you if you share your patient satisfaction on social media but still they prefer to go to surgeons who are known by their close social environment. There wasn't a statistically significant relationship between the people who spent 5+ hours on social media and those who found surgeons from social media ($p > 0.05$). So social media may advertise the surgeons, but at the end of the day, it is not enough to make them trust you, whether they use social media a lot or not.

Conclusion: According to this study, there is significant difference found between the social media advertising and advice from their social environment. People may like if a surgeon is well known on social media but still they want to go the surgeons recommended by their friends.

Key words: Social media, plastic surgery, surgeon

SOP-33

Effect of Particulate Matter on Lung Diseases in People Living at Different Air Quality Index Ratios: A Retrospective Study

Yağmur VARLI¹, Hamza OGÜN²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Chest Diseases, İstanbul, Turkey

Introduction: Particulate matter (PM), a foreign substance that negatively affects air pollution, is a mixture of solid particles and liquid droplets suspended in the atmosphere. These particles can cause aggravated asthma, reduced lung function, bronchitis, and increased respiratory symptoms, such as coughing or difficulty breathing.

Method: In our study, 1-year air quality data of Istanbul Metropolitan Municipality will be used, and patients diagnosed with asthma and chronic obstructive pulmonary disease (COPD) who applied to Bezmialem Vakıf University, Faculty of Medicine Hospital Chest Diseases Polyclinic in 2023 will be included in our study. Access to the data will be provided on the website havakalitesi.ibb.gov.tr. Our study will be based on patients residing in 5 air quality measurement stations around our hospital in Istanbul (Aksaray, Alibeyköy, Bağcılar, Esenler and Yenibosna) and surrounding districts, applying to our hospital, and the air quality report will be examined according to where they live. Because of the comparison of air quality levels, the effect of these values on diseases will be evaluated based on the number of patients admitted. The minimum sample number to be used for our study was calculated as 150 when the correlation coefficient was taken as 0.308 for 80% power at 95% confidence level with reference to previous studies. The statistical significance level will be taken as $p < 0.05$. Based on the statistical data, at least 150 patients will be included in the study.

Results: When regions with significant differences in air quality were compared, a correlation was found between places with higher air quality and the higher number of applications.

Conclusion: Air quality based on PM is associated with asthma and COPD.

Key words: Asthma, COPD, particulate matter, air quality

SOP-34

Association of Third Trimester 2D and Doppler Ultrasound Exposure with Left-handedness

Zeynep OKTAY¹, Çağlar ÇETİN²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Obstetrics and Gynecology, İstanbul, Turkey

Introduction: Left-handedness is a condition whose etiology is unknown. Because cerebral cortex development continues until the 32nd week, it is thought that ultrasound exposure during this period may affect lateralization. The hypothesis we intend to examine in this study is that the frequency of left-handedness increases in children of pregnant women with higher exposure to 2D and Doppler ultrasound than in other groups.

Method: Lateralization will be questioned by the Edinburgh Questionnaire to be conducted among pregnant women who were exposed to ultrasound during routine ultrasound examinations and among the children of pregnant women whose ultrasound exposure was higher than others who applied to Bezmialem Vakıf University, Faculty of Medicine, Department of Obstetrics and Gynecology Polyclinic between 2020 and 2023. The questionnaire will be administered online using Google Forms.

Results: The total number of participants who met the conditions for participation was 43. While the number of participants who had ultrasonography (USG) exposure for less than 1 hour during the 3rd trimester was 23 (53.48%), according to the inventory, the number of left-handers among these participants was 4 (17.39%), while the number of participants with a total USG exposure of 1 hour or more during the 3rd trimester was observed as 20 (46.42%), and according to the inventory, the number of left-handed participants was 3 (15%).

Conclusion: In this retrospective cohort study, depending on the duration of USG exposure, a group with a history of USG exposure of less than 1 hour in the 3rd trimester was compared with a group with a history of ultrasound exposure of 1 hour or more. Prenatal USG exposure did not create a statistically significant difference in left-handedness ($p>0.375$). Our results need to be confirmed by further survey studies.

Key words: Left-handedness, 2D and Doppler, brain development

SOP-35

Correlation between Body Mass Index and Laboratory Data of Patients Referred to Family Medicine in the Last Year

Kerem KAHYA¹, Zeyneb Irem SALDUZ², Aclan ÖZDER²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Family Medicine, İstanbul, Turkey

Introduction: Obesity and malnutrition correlate with each other. They both concluded massive health problems for individuals. These health problems cause changes in laboratory values. Vitamin D and B12 are two essential vitamins. This study includes the relationship of these two values with many parameters and their averages.

Method: The research examined 10 different parameters that are related to body mass index (BMI) and age. These are responsible for diabetes mellitus, kidney disease, and hematological problems. These ten parameters include vitamin D, vitamin B12, estimated glomerular filtration rate (eGFR), red cell distribution width-coefficient of variation, glucose, hemoglobin, HbA1c, homeostatic model assessment for insulin resistance, lipase, and sedimentation. This research mainly observed vitamin D and B12, and then looked at their relationship with BMI and age. Fifty-two parameters were obtained by analyzing patients applying to family doctors in Bezmialem Vakıf University Hospital.

Results: A total of 294 patients, 26 extremely obese (8.9%), 60 obese (20.4%), 105 overweight (35.7%), 85 normal (28.9%), and 18 underweight (6.12%) were included. The average BMI is 28.07, which is considered overweight according to numerous health societies. Vitamin D has a correlation with age, blood urea nitrogen, eGFR, HbA1c, creatinine, and urea levels. These results are likely to occur because of kidney disease. Vitamin B12 correlates with aspartate aminotransferase and protein levels. These values are also related to malnutrition and eating habits.

Conclusion: The correlation of vitamin D with other parameters was considered, and within these values, alkaline phosphatase, eGFR, gamma-glutamyl transferase, and HbA1c were inversely proportional with an average of 23.04 ng/mL. The correlation of B12 with other parameters was researched, and according to the comparison of parameters, both were directly proportional with an average of 405.29 pg/mL, indicating that both parameters were borderline high.

Key words: Body mass index, vitamin D, vitamin B12

SOP-36

Comparison of Treatment Results of Rheumatoid Arthritis with Biological Agents and Disease-Modifying Anti-Rheumatic Drugs

Sümeyra ELİBÜYÜK¹, Teoman AYDIN²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Physical Medicine and Rehabilitation, İstanbul, Turkey

Introduction: Rheumatoid arthritis (RA) is a systemic, inflammatory, and autoimmune disease characterized by polyarthritis. Although its etiology is not fully known, genetic and environmental factors are emphasized. RA causes symmetric inflammatory synovitis in peripheral joints. In the later stages of the disease, inflammation is followed by cartilage damage, bone erosion, and deterioration in joint integrity. As the disease progresses, disability and shortened life span may occur.

Method: In our study, 28 patients between the ages of 18 and 65 years who were diagnosed with RA and received treatment for at least 6 months were included by retrospectively examining their files. Patients were divided into two groups. The first group consists of 39 people who use only disease-modifying antirheumatic drugs (DMARDs). The second group consisted of 39 people treated with biological agents. Laboratory results [erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), rheumatoid factor (RF)] of the patients at the first examination and 6th month follow-up were recorded from their files and analyzed to compare the effect of different drug groups on prognosis.

Results: The average age of patients using biological agents and using DMARDs are 50.27 ± 7.9 , respectively, and was calculated as 46.79 ± 8.6 . Treatment between groups among the parameters examined and a statistically significant difference was detected. The pre- and post-treatment parameters examined in both groups decreases, but this decrease does not occur with combined anti-tumor necrosis factor statistically higher in the group receiving treatment than in the DMARD group was found to be significant. At the 6th month follow-up between both groups, ESR, RF, and CRP values were examined and a statistically significant difference was detected ($p < 0.001$).

Conclusion: Disease activity of biological agents compared with DMARDs was found to be statistically more effective in reducing disease activity.

Key words: Anti-TNF drugs, DMARDs, rheumatoid arthritis

SOP-37

Effect of Increasing Triglyceride-Glucose Index on Blood Pressure and Heart Rate Recovery Values Examined in Exercise Stress Tests in Cardiovascular Disease Risk

Onur SARI¹, Ahmet BACAŞIZ²

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Cardiology, İstanbul, Turkey

Introduction: The triglyceride-glucose index (TgG) was first used as an important biomarker of insulin resistance. $\ln[\text{fasting triglyceride value} \times \text{fasting glucose value}/2]$ is the formula used to calculate TgG. The exercise stress test shows changes in heart rhythm and blood pressure at different stages. Heart rate recovery (HRR) is how quickly your heart returns to normal after you stop exercising. It is the difference between your heart rate at its maximum in the treadmill and heart rate at one or three minutes later while at rest. The aim of the study was to observe how an increase in TgG changes HRR and blood pressure values.

Method: The research project was a prospective study including 98 patients. The examined parameters in the exercise stress test and calculated TgG data were obtained from Bezmialem Vakıf University Hospital.

Results: Correlation coefficient of TgG with HRR at 1 min, at 3 min, peak systolic pressure, and peak diastolic pressure is (-0.32/-0.46/0.03/0.07) respectively. The mean values of HRR in 3 min were 55.9 and 61.3 in coronary artery disease (CAD) patients and non-CAD patients ($p=0.046$). In patients with CAD first (Q1), second (Q2), third (Q3) quartiles are (50/57/61.7) at HRR in 3 min, whereas the distinctly non-CAD patient quartiles are (54.2/61/68). The mean TgG value of CAD patients is 9.17 and 8.89 in non-CAD patients ($p=0.05$)

Conclusion: TgG and HRR are slightly inversely proportional to 1 min and moderately inversely proportional to 3 min. There was no significant correlation between TgG levels and blood pressure. CAD patients have greater mean TgG values, and their HRR values tend to be longer compared with non-CAD patients.

Key words: Triglyceride-glucose index, heart rate recovery, blood pressure, exercise stress test

SOP-38

Investigation of the Incidence of CALR, MPL, and JAK2 Gene Mutations in Essential Thrombocytosis Cases with Laboratory Findings and Complications

Çağla ORBAY¹, Güven ÇETİN², Bülent UYANIK³

¹Bezmialem Vakıf University, Faculty of Medicine, İstanbul, Turkey

²Bezmialem Vakıf University, Faculty of Medicine, Department of Internal Medicine, Division of Hematology, İstanbul, Turkey

³Bezmialem Vakıf University, Faculty of Medicine, Department of Internal Medicine, Division of Medical Genetics, İstanbul, Turkey

Introduction: Chronic myeloproliferative diseases are characterized by uncontrolled proliferation of clonal hematopoietic stem cells. One of the most common of these diseases is essential thrombocytosis. It is known that JAK2, CALR, and MPL gene mutations are the main causes of this disease. Our aim in this retrospective study was to investigate how effective these genes are in the diagnosis of essential thrombocytosis and its complications.

Method: A total of 146 patients were included in the study. The study was designed retrospectively. In this study, the diagnoses of the patients were made using the clinical and laboratory parameters. Genetic reports of the patients were reviewed, *JAK2*, *MPL*, and *CALR* gene positivity or negativity and hemorrhagia were noted.

Results: Of the patients, 68.5% (n=100) were female and 31.5% (n=46) male aging from 19 to 90. No significant difference was found between the three mutation genes we examined gender, hepatomegaly, and hemorrhage. A significant difference was found between the absence of the *JAK2* mutation gene and low hemoglobin and platelet counts over 1 million (p=0.012; p=0.05). Also the average age of those with *mpl* mutation was found to be significantly higher than that of those without this gene. Prefibrotic phase myelofibrosis transformation was noticed in 21 patients. Moreover, hypothyroidism was detected in 25 patients, and 52% of these patients were positive for the *JAK2* gene. In our study, we observed that hemorrhage and bruising complications developed in 25 patients. Seven female patients had a miscarriage.

Conclusion: The results of this study show that there is no co-relation between CALR, MPL, and clinical prognostic parameters. However, it has been shown that patients carrying the *JAK2* gene are at a higher risk for complications, and we confirmed its diagnostic importance. Our results should be confirmed by further clinical studies.

Key words: Essential thrombocytosis, JAK2, CALR, MPL