EISSN 2148-2373

BEZMIALEM VAKIF UNIVERSITY 1845

BEZMİÂLEM science

10th ANNUAL MEDICAL STUDENTS' RESEARCH DAY 13 MARCH 2026

Volume 14 • Supplement 1 • March 2026

bezmialemscience.org

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Publisher Contact
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Publisher Certificate Number: 14521
Publication Date: March 2026
E-ISSN: 2148-2373
International scientific journal published quarterly.

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The journal is published electronically.

Owner: Bezmiâlem Vakıf University

Responsible Manager: Adem AKÇAKAYA

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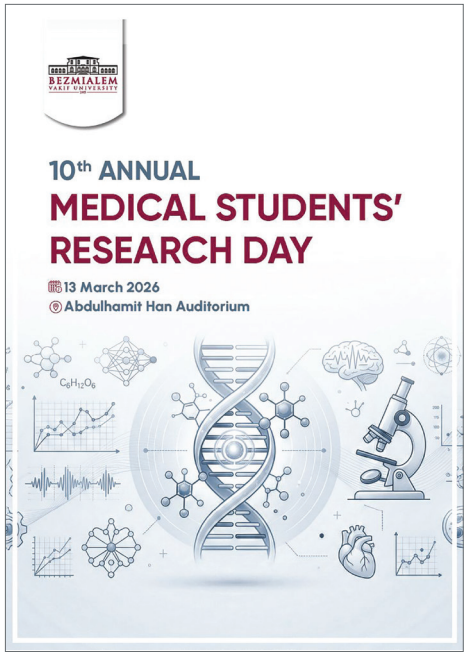
Bezmialem Vakıf University Faculty of Medicine,
Department of Geriatric Medicine



Acknowledgements

Bezmialem Vakıf University thanks everyone for their contribution and assistance in organizing this event.

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PREFACE

Training as a physician demands meticulous attention not only to knowledge and patient care but also to the pursuit of lifelong learning and scholarly endeavors, essential facets characterizing the skillset of a physician.

The mission of Bezmialem Vakıf University (BVU) is to equip health professionals and scientists with innovative educational models, harnessing modern science and technology within the framework of our cultural values. Our commitment extends to conducting impactful research that translates into tangible products and services while concurrently providing high-quality, accessible healthcare services aimed at elevating the overall health standards of our society.

To this end, in 2014, BVU and Johns Hopkins University (JHU) entered into a collaborative agreement focused on curriculum development, which includes the integration of JHU's Scientific Concentration Module. This collaboration serves not only as a significant milestone but also as a potential blueprint for the enhancement of medical curricula worldwide.

The overarching goals and objectives of our program, comprising six modules, closely mirror those of the esteemed Johns Hopkins program. Commencing in September of the program's inaugural year, which corresponds to the fourth year of Bezmialem medical students, students engage in a mandatory orientation course providing a comprehensive overview of the program's objectives and processes. During this phase, students are encouraged to begin contemplating their academic interests, laying the groundwork for their scholarly pursuits.

Throughout the duration of the program, spanning from the first to the sixth module, students are guided through the process of selecting a mentor, formulating a research question, conducting literature reviews, seeking ethics committee approval, collecting and analyzing data, drafting abstracts, and ultimately presenting their projects before the BVU scientific committee. The culmination of this journey occurs at the end of two years, as each student presents their scholarly project at the prestigious Medical Student Research Symposium held in March.

The Bezmialem Science Supplement showcases select presentations endorsed by the faculty of the Academic Concentration Module for oral or poster presentation. Each abstract undergoes rigorous peer-review by both BVU and JHU faculty, reaffirming our commitment to academic excellence and scholarly rigor.

I extend my sincere gratitude to our collaborators at JHU, the dedicated faculty at BVU, and, above all, to our students—the future trailblazers of scientific inquiry. Together, we are all proud to have successfully completed the tenth course, a testament to our collective commitment to excellence and innovation in medical education.

Pınar SOYSAL, M.D.

Bezmialem Vakıf University Faculty of Medicine,

Department of Geriatric Medicine

RESEARCH DAY

13 MARCH 2026

09.00 - 09.10: Introduction
09.10 - 10.05: Podium I (Oral Presentation)
10.05 - 10.15: Break
10.15 - 11.10: Podium II (Oral Presentation)
11.10 - 11.20: Break
11.20 - 12.20: Poster Presentation
12.20 - 13.00: Break
13.00 - 14.30: Short Oral Presentation

BEZMIALEM VAKIF UNIVERSITY 1845

BEZMİÂLEM science

CONTENTS

BEZMİÂLEM science

10th ANNUAL MEDICAL STUDENTS' RESEARCH DAY 13 MARCH 2026

ORAL PRESENTATIONS

OP-1

Effect of CRY Stability on P53 Knockout PDAC Cells

Haroon SARWARI[1], Betül ORUÇOĞLU[2], Şeref GÜL[2]

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Introduction: Pancreatic ductal adenocarcinoma (PDAC) is a highly lethal malignancy characterized by early metastasis, chemoresistance, and frequent KRAS and TP53 mutations. Circadian clock disruption contributes to tumor progression and therapy resistance, with CRY1 and CRY2 regulating transcriptional feedback loops and undergoing ubiquitin-mediated degradation. Small-molecule CRY modulators (TW68, M47) have been proposed as chemosensitizers. This study evaluated whether modulation of CRY stability by these molecules alters the chemosensitivity of Kras-G12D; Trp53-/- murine (F3056, F4407) PDAC cells to gemcitabine, paclitaxel, and 5-FU.

Methods: PDAC cell lines were cultured under standard conditions and treated with chemotherapeutic agents across a range of concentrations, alone or in combination with TW68 or M47. After 72 hours of exposure, cytotoxicity and dose-response profiles were quantified using MTT assays. IC_{50} values and statistical significances were evaluated using two-way analysis of variance (ANOVA). The synergistic interactions of potent drug combinations were quantified using Synergy Finder by calculating the ZIP synergy score for each combination.

Results: Both M47 and TW68 enhanced the cytotoxic potency of paclitaxel and 5-fluorouracil in F4407 cells, with reduced IC_{50} values (PAC: 2.5-6.4-fold, p=0.0157; 5-FU: 1.9-3.2-fold, p=0.0041). Two-way ANOVA showed significant treatment effects except PAC+M47 (p=0.0649). Tukey's test showed dose-sparing effects: 7.5 nM PAC+TW68 was equipotent to 15-240 nM PAC, and 5 µM 5-FU+TW68 was equipotent to 10 µM 5-FU (p=0.0245). ZIP synergy scores were negative (-31.8 to -45.0) across all combinations. Notably, no IC_{50} shift occurred in F3056 cells.

Conclusion: TW68 significantly enhances paclitaxel and 5-FU potency in F4407 cells via non-synergistic, cell line-specific clock modulation, enabling substantial dose reduction. This mechanism represents a promising therapeutic strategy for clock-disrupted malignancies.

Keywords: Circadian clock genes, pancreatic ductal adenocarcinoma (PDAC), CRY1/2 modulation, chronotherapy

OP-2

The Role of ECG in ADHD Treatment: Insights into S-Wave Upstroke and Ventricular Repolarization in Children

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Introduction: Attention-deficit hyperactivity disorder (ADHD) is often managed with methylphenidate, which can influence cardiac electrophysiology. Electrocardiography (ECG) enables non-invasive evaluation of ventricular repolarization and conduction, while echocardiography assesses cardiac structure and function. The repolarization parameters assessed were QTc, Tp-Te interval, Tp-Te/QTc ratio, and S-wave upstroke. This study aimed to evaluate the effects of methylphenidate on ECG parameters and echocardiographic findings in pediatric patients with ADHD.

Methods: This prospective observational study included 22 patients under 17 years of age diagnosed with ADHD using the K-SADS-PL-5 and scheduled to initiate methylphenidate treatment. After obtaining parental consent, baseline ECG and echocardiography were performed prior to treatment initiation. Follow-up evaluations were conducted after six months of methylphenidate use. The primary ECG parameters analyzed were predefined and included QTc, Tp-Te interval, Tp-Te/QTc ratio, and S-wave upstroke. Demographic and clinical characteristics were recorded. Within-subject paired comparisons were performed using parametric or non-parametric statistical tests according to data distribution.

Results: After six months of methylphenidate treatment, most ECG parameters—including P-wave indices, QTmax, QT dispersion, and Tp-Te measures—showed no significant changes compared with baseline. A small but statistically significant increase in S-wave upstroke was observed after treatment (paired t-test, $p=0.031$). Echocardiographic measurements demonstrated no meaningful structural or functional differences between baseline and follow-up.

Conclusion: Methylphenidate treatment did not result in clinically meaningful ECG or echocardiographic changes in this pediatric patient group over the study period. Ventricular repolarization markers and cardiac structure were preserved during follow-up. The observed change in S-wave upstroke may reflect subtle right ventricular electrophysiological changes following methylphenidate treatment. Findings should be interpreted cautiously given the limited sample size.

Keywords: ADHD, electrocardiography, S-wave upstroke, ventricular repolarization, pediatrics, methylphenidate

OP-3

The Effect of IQOS (Heated Tobacco) Use on Nasal Mucociliary Clearance (NMC)

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Introduction: Nasal mucociliary clearance (NMC) is a key defense mechanism of the respiratory system, enabling the removal of inhaled particles and microorganisms through coordinated ciliary activity and mucus transport. Cigarette smoking is known to disrupt NMC by reducing ciliary function and altering mucus characteristics. IQOS, a heated tobacco product that produces aerosol without combustion, is promoted as a less harmful alternative to conventional cigarettes; however, its effects on multiple physiological systems remain unclear. This study aimed to evaluate the impact of IQOS use on NMC.

Methods: Thirty-six healthy individuals aged 18-35 years were enrolled and allocated equally to three groups: IQOS users, cigarette smokers, and non-users. None of the participants had systemic disease, recent infection, active medication use, nasal surgery, or pathology. NMC was evaluated using the saccharin test under standardized conditions, and clearance time was recorded as the interval until perception of a sweet taste.

Results: Mean NMC times were 1125 seconds in cigarette smokers, 1067.5 seconds in IQOS users, and 825 seconds in non-users. Clearance time was prolonged by 36.4% in cigarette smokers and 29.4% in IQOS users compared to non-users. Both cigarette smokers and IQOS users demonstrated significantly prolonged clearance times relative to non-users ($p<0.02$). No statistically significant difference was observed between cigarette smokers and IQOS users ($p=0.22$).

Conclusion: Both cigarette smoking and IQOS use significantly impair NMC compared with non-smoking individuals. Despite being marketed as a less harmful alternative, IQOS appears to have a comparable negative effect on mucociliary function.

Keywords: Nasal mucociliary clearance, saccharin test, cigarette smoking, heated tobacco products, ciliary dysfunction

OP-4

The Impact of Simple Renal Cysts on Disease Progression in Chronic Kidney Disease: A Retrospective Cohort Study

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Introduction: Chronic kidney disease (CKD) is a major global health problem with a progressive course and high complication risk. Simple renal cysts (SRCs) are common renal abnormalities, but their contribution to renal function decline remains uncertain. This study evaluates the independent effects of SRC presence, number, and parapelvic location on kidney function decline using estimated glomerular filtration rate (eGFR) slope and fully adjusted models.

Methods: This retrospective cohort study included 4,115 adult patients followed in a nephrology clinic, not receiving renal replacement therapy at baseline, with at least three creatinine measurements. eGFR slope was calculated using the CKD epidemiology collaboration 2021 equation. Patients were classified according to cyst presence, number, and parapelvic location. Multivariable linear regression analyses were adjusted for age, sex, baseline eGFR, hypertension, diabetes, C-reactive protein (CRP), and urine protein-creatinine ratio.

Results: In the analysis cohort (n=4,115), the median eGFR slope was -3.85 mL/min/1.73 m^2/year. In univariate analysis, the rate of eGFR decline was significantly higher in patients with cysts compared to those without (-3.91 vs. -3.68 mL/min/year; p=0.042). However, in the multivariable regression model, after adjusting for age, proteinuria, and CRP, the presence of cysts had no independent effect on the eGFR slope (β=0.22; p=0.681). Similarly, no independent association was found between cyst count or parapelvic location and the rate of progression. The primary independent predictors of rapid functional loss were advanced age, higher proteinuria, and elevated CRP levels.

Conclusion: Although SRCs are associated with faster eGFR decline in CKD, this relationship is not independent of key risk factors, including age, proteinuria, and inflammation. Thus, SRCs should be regarded as morphological markers prompting closer assessment of overall patient risk.

Keywords: Chronic kidney disease, eGFR slope, inflammation, proteinuria, simple renal cyst

OP-5

Generating Synthetic Intermediate Slices in Sparse Pathological Medical Images Using Generative Models

Hilal HACIOĞLU[1], Furkan KIRIK[2], Ali Esad UĞUR[3], Abdusselim Adil PEKER[4], Hasan Fatih DURKAYA[3], İbrahim Arif KOYTAK[2], Hakan ÖZDEMİR[2]

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Introduction: Medical imaging techniques such as optical coherence tomography (OCT), computed tomography (CT), and magnetic resonance imaging (MRI) require numerous high-resolution slices for reliable diagnosis. However, this increases scan time, motion artifacts, and radiation exposure. To address this, existing generative artificial intelligence (GenAI) model studies target single modalities and healthy data. This study aims to use a single GenAI architecture to generate intermediate slices across OCT, CT, and MRI using real patient images to reduce acquisition time and radiation exposure without losing clinical data.

Methods: This study analyzed 60341 cross-sectional images, including 1769 OCT scans for diabetic macular edema, 270 CT scans for lung cancer, and 81 MRI scans for breast cancer. Data were split into 80% training, 10% validation, and 10% testing. U-Net variants with bilinear upsampling and FILM loss were performed. Model-v1 (OCT) fine-tuned for CT (Model-v2) and zero-shot tested on MRI. Performance was evaluated using structural similarity index (SSIM), peak signal-to-noise ratio (PSNR), and blind/referenceless image spatial quality evaluator (BRISQUE). Two experts performed region of interest (ROI) analysis and blinded Likert scoring ranging from 1 to 5 (fake-real) of the generated images for clinical assessment.

Results: GenAI generated high-fidelity slices across all modalities. Model-v1 achieved SSIM 0.44, PSNR 21.82dB, and BRISQUE 12.21. Model-v2 reached SSIM, PSNR, and BRISQUE for OCT (0.41; 21.59dB; 10.39), CT (0.94; 28.08dB; 75.85), and MRI (0.92; 30.59dB; 0.48). ROI-based SSIM/PSNR were 0.22/22.18dB (OCT), 0.82/20.07dB (CT), and 0.85/23.53dB (MRI). Expert ratings for OCT, CT, and MRI averaged 3.85, 4.10, and 4.13.

Conclusion: To the best of our knowledge, this pilot study demonstrates the first application of a single GenAI model generating high-quality synthetic intermediate slices with high accuracy across multiple modalities while preserving pathological features.

Keywords: Artificial intelligence, OCT, CT, MRI

OP-6

The Effects of Itaconate on Cardiovascular Damage and Ferroptosis Caused by Long-term Alcohol Consumption

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Introduction: Chronic alcohol consumption induces cardiovascular injury through oxidative stress, inflammation, and ferroptosis. Itaconate, a tricarboxylic acid cycle-derived metabolite, possesses antioxidant and anti-inflammatory properties and may exert cardioprotective effects; however, its impact on alcohol-induced cardiac injury remains unclear. This study investigated whether itaconate mitigates oxidative and inflammatory alterations induced by chronic alcohol consumption.

Methods: Thirty-two adult male Wistar rats were assigned to control, itaconate (25 mg/kg/day, i.p.), alcohol (3 g/kg/day, 1:2 alcohol-milk mixture), and alcohol + itaconate (AI) groups. After 15 days, surgical procedures were performed under anesthesia (75 mg/kg thiopental), following a 15-minute stabilization period, hemodynamic parameters and ECG were recorded. Serum and cardiac tissues were collected for biochemical and histopathological analyses. Statistical analyses were performed using the Shapiro-Wilk test, one-way analysis of variance or Kruskal-Wallis tests with appropriate post-hoc analyses.

Results: Alcohol significantly increased cardiac malondialdehyde (MDA) and tumor necrosis factor-alpha (TNF-α) levels ($p<0.01$) and caused marked myocardial structural damage characterized by myofibrillar disarray and vacuolization ($p<0.001$ vs. control). Itaconate treatment reduced cardiac MDA levels both alone ($p<0.01$) and in alcohol-exposed rats ($p<0.05$) and significantly lowered TNF-α and interleukin-1β levels compared with the A group ($p<0.05$). Histopathological injury scores were significantly lower in the AI group than in the A group ($p<0.001$). At the molecular level, itaconate increased cardiac Nrf2 expression while decreasing Keap1 expression ($p<0.05$), indicating activation of antioxidant defense pathways. Cardiac GSH levels were elevated with itaconate treatment ($p<0.05$). Hemodynamic parameters were largely unchanged except for increased pulse pressure in itaconate-treated groups.

Conclusion: Itaconate attenuates alcohol-induced cardiac injury by decreasing lipid peroxidation and inflammatory cytokines while modulating antioxidant responses. These findings support itaconate as a potential therapeutic modulator of oxidative and inflammatory pathways in alcohol-related cardiac damage.

Keywords: Itaconate, alcohol consumption, cardiac damage, ferroptosis, rats

OP-7

Investigation of the Relationship Between Follicular Fluid and Cumulus Cells of Patients with Polycystic Ovary Syndrome and Embryo Quality

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Introduction: Polycystic ovary syndrome (PCOS) is a common endocrine disorder associated with reproductive dysfunction and impaired oocyte competence. Follicular metabolic alterations may influence oocyte and embryo quality. This study aimed to evaluate follicular fluid (FF) metabolites and cumulus-granulosa cell morphology in relation to in vitro fertilization (IVF) outcomes in PCOS patients.

Methods: Forty-two age-matched women undergoing IVF were included. Oocytes were classified according to cumulus-granulosa cell morphology as Group I (bright, loosely packed) or Group II (dark, densely packed). FF metabolomic profiling was performed using ultrahigh performance liquid chromatography high-resolution mass spectrometry and analyzed with MetaboAnalyst 6.0. Total oxidative status (TOS) and total antioxidant status were assessed using spectrophotometric methods.

Results: Clinical characteristics, including age, body mass index, and follicle-stimulating hormone, were comparable between groups ($p>0.05$). PCOS patients showed higher anti-Müllerian hormone levels ($p=0.004$) and a greater number of total, MII, and 2PN oocytes as well as day-5 embryos ($p<0.05$). However, rates of oocyte maturation, fertilization, and day-3/5 embryo quality were similar to controls ($p>0.05$). Group II cumulus-granulosa morphology was associated with fewer top- and good-quality day-5 embryos ($p=0.024$). Metabolomic analysis revealed reduced arginine, L-carnitine, and Gly-Leu levels in PCOS patients, with pathway analysis indicating disrupted arginine biosynthesis. Among oxidative stress markers, only TOS was significantly higher in PCOS patients (3.21 ± 1.34 vs. 2.46 ± 1.15, $p=0.041$), with no significant correlations with IVF outcomes.

Conclusion: Despite a higher ovarian reserve and oocyte yield, PCOS patients demonstrated embryo developmental competence comparable to controls. The association between Group II cumulus-granulosa morphology and reduced blastocyst quality suggests potential predictive value. Metabolomic alterations indicate underlying metabolic differences in PCOS, whereas oxidative stress markers showed no clear association with IVF outcomes in this cohort.

Keywords: PCOS, oocyte maturation, embryo quality, metabolomics, TOS/TAS

OP-8

Investigation of the Relationship Between Metabolic Network Analysis and Nav1.6 Sodium Channel in Brain Tissue of an Alzheimer's Model

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Introduction: Voltage-gated sodium channel Nav1.6 plays a critical role in neuronal excitability and action potential propagation, particularly in fast-spiking neurons involved in cognitive functions. Dysregulation of Nav1.6 activity has been suggested to contribute to neurodegenerative processes; however, its metabolic and behavioral correlates in Alzheimer's disease (AD) remain insufficiently characterized.

Methods: Ten-month-old 5XFAD mice and age-matched controls were evaluated (control n=8, AD n=6). Nav1.6 protein levels were quantified using enzyme-linked immunosorbent assay, and LC-HRMS-based metabolomic profiling was performed in serum, total brain, and liver tissues. Behavioral assessments included open field test, elevated plus maze, and Morris water maze to evaluate locomotor activity, anxiety-like behavior, and spatial learning and memory. Statistical significance was determined with appropriate parametric or non-parametric analyses.

Results: AD mice demonstrated marked deficits in cognitive performance in the Morris water maze, reflected by prolonged escape latencies ($p<0.01$), together with altered exploratory behavior in anxiety-related paradigms ($p<0.001$). Hepatic Nav1.6 protein expression was significantly decreased in AD animals relative to controls ($p<0.001$). HRMS-based metabolomic analysis identified widespread disturbances in metabolic networks governing cellular energy production, redox balance, and phospholipid remodeling in serum, brain, and liver samples. Notably, levels of hepatic 3-phosphoglyceric acid and brain glycerophosphorylcholine were significantly altered in the AD group ($p<0.05$). Correlation analyses revealed that Nav1.6 exhibited its most prominent hepatic association with glycerophosphorylcholine ($r=0.66$), while in cerebral tissue, strong relationships were observed with L-DOPA, glycerophosphorylcholine, and pantothenate ($r\approx-0.60$).

Conclusion: AD was associated with reduced hepatic Nav1.6 expression and coordinated metabolic disturbances across central and peripheral tissues, linking sodium channel remodeling to systemic metabolic dysregulation.

Keywords: Alzheimer's disease, Nav1.6 sodium channel, metabolomic profiling, LC-HRMS metabolomics, behavioral dysfunction, multi-tissue analysis

OP-9

Can an AI-driven System Enhance Physician History Taking?

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Introduction: History taking is essential for accurate diagnosis, yet time constraints and language barriers often lead to incomplete data collection. Artificial intelligence (AI) can automate parts of history taking while preserving core clinical skills. This study evaluates whether an AI-driven system can maintain the quality of history taking by structuring patient information ahead of time-limited consultations.

Methods: We developed an AI-driven history-taking system with two components: a structured medical knowledge base and a language-processing module that maps patient responses to it. Using each mapped response, the system selects the next relevant question, conducts an adaptive, case-specific interview, and generates a structured summary for the clinician before the consultation. The knowledge base contains 74 symptoms (30 primary, 44 secondary), in which primary symptoms trigger structured question trees and secondary symptoms are recorded without branching, with predefined structured questions used to further characterize reported symptoms. A total of 74 of internal medicine patients were recruited. For comparison with physician histories, all collected items were categorized as overlap, AI-only findings, physician-only findings, or contradictions.

Results: Our system verified symptom presence or absence and processed 462 positive and 537 negative structured question responses from the participants. It demonstrated 71.3% overlap with physician histories, with 17.1% of findings identified only by the AI system, 9.2% identified only by physicians (including instances where information had been elicited by physicians but not documented), and 2.4% classified as contradictions.

Conclusion: The AI-driven system reproduced most of the physician's questions and enriched histories with additional details on symptoms, lifestyle, family history, and medications. Despite some limitations in this beta version, the results suggest that such systems can support the quality of history taking in time-limited clinical settings.

Keywords: Artificial intelligence, history-taking, large language model

OP-10

Drug-repurposing Against the Marburg Virus

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Introduction: Marburg virus (MARV), a member of the Filoviridae family, is a lethal pathogen responsible for severe hemorrhagic fever, with fatality rates reaching up to 88%. Many recent and ongoing outbreaks demonstrate the continuing threat of MARV. Despite past efforts, effective therapeutic options are not yet established. This study aims to evaluate the Food and Drug Administration (FDA)-approved drugs effectiveness against the MARV by targeting vital viral proteins.

Methods: Four MARV proteins—viral protein (VP)40, VP35, VP30, and the nucleoprotein-RNA complex—were selected for their essential roles in the viral life cycle processes. The nucleoprotein-RNA complex was found to have significant therapeutic potential due to its role in RNA encapsidation and transcription. Structures were retrieved from the Protein Data Bank and visualized using PyMOL to identify active binding regions. Molecular docking of 3,948 FDA-approved drugs was performed using AutoDock tools. Top candidates were further evaluated through molecular dynamics (MD) simulations using GROMACS, with input files generated via CHARMM-GUI. TRUBA, a high-performance computing infrastructure, was used to expedite simulations, and data analysis was conducted via visual molecular dynamics and GROMACS utilities.

Results: Among all of the drugs, those that had a binding affinity better than -8.5 kcal/mol were analyzed dynamically and adapalene, bromocriptine, netupitant, and ergotamine were found to demonstrate the highest stability and sustained binding on the nucleoprotein-RNA complex. These compounds maintained consistent interactions within the protein's RNA-binding pocket, suggesting their potential to disrupt MARV's replication cycle by interfering with nucleoprotein function.

Conclusion: This study portrays that specific FDA-approved drugs have inhibitory effects on the nucleoprotein-RNA complex, thus hindering the proliferation of the MARV. The strong binding stability and persistent interactions observed in MD simulations position adapalene, bromocriptine, netupitant, and ergotamine as potential candidates for therapeutic approaches against the MARV.

Keywords: Marburg virus, drug repurposing, molecular docking, molecular dynamics, FDA-approved drugs

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10th ANNUAL MEDICAL STUDENTS' RESEARCH DAY 13 MARCH 2026

Short Oral Presentations

SOP-1

Establishment of New Antistreptolysin-O Reference Ranges Derived from Children Presenting to the Tertiary Pediatric Cardiology Unit of Bezmialem Vakıf University Hospital and Their Association with Clinical and Echocardiographic Findings

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Introduction: Antistreptolysin O (ASO) is commonly used as a marker of active upper respiratory tract infections; however, streptococcal exposure may also be associated with immune response and cardiac involvement in the absence of overt infection. This study aimed to evaluate ASO level distribution in children admitted to a tertiary pediatric cardiology center, compare ASO levels between children with active or recent streptococcal-related conditions and those presenting with cardiac symptoms without active infection, and assess the clinical adequacy of universal ASO reference ranges. The ultimate goal was to support prevention of rheumatic heart disease through early identification and benzathine penicillin prophylaxis.

Methods: This retrospective descriptive study included children aged 4-18 years with available ASO measurements. The URTI group comprised patients with active streptococcal infection, recent antibiotic use, acute rheumatic fever, rheumatic heart disease, or immune-affecting conditions. The comparison group included children presenting with chest pain, palpitations, or syncope without active infection. ASO levels were measured by ELISA. Appropriate parametric or non-parametric tests and ROC analysis were performed.

Results: ASO level distributions were similar between groups. ROC analysis showed limited discriminatory ability of ASO for identifying streptococcal-related conditions (area under the curve: 0.52). The commonly accepted ASO reference range (0-50 IU/mL) was insufficient to reflect streptococcal exposure in this population.

Conclusion: ASO elevation may be observed in children presenting with cardiac symptoms even in the absence of active streptococcal infection. Therefore, ASO should not be interpreted in isolation but rather in conjunction with clinical and echocardiographic findings, using population-specific reference ranges to support appropriate follow-up and prevention of rheumatic heart disease.

Keywords: Antistreptolysin O, streptococcal exposure, cardiac symptoms, rheumatic heart disease, pediatrics

SOP-2

Comparison of Total Phenolic, Total Flavonoid, Total Antioxidant Capacity, Vitamin C, and Capsaicin Levels of İslahiye and Şanlıurfa Peppers

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Introduction: *Capsicum* is a genus of pepper belonging to the *Solanaceae* family, and the most widely cultivated one is *Capsicum annuum*. İslahiye and Şanlıurfa peppers are different subtypes of this species. *Capsicum* varieties are rich in phenolic compounds such as carotenoids, vitamins C and E, flavonoids, and capsaicinoids. Its antioxidant, anti-inflammatory, antiviral, and immunomodulatory properties are associated with these compounds. The aim of this study is to determine which of these two widely consumed pepper types may offer greater benefits for public health.

Methods: The peppers were dried in the shade and extracted using water. Total phenolic and flavonoid content, as well as total antioxidant capacity, were analyzed. The cytotoxic activity on HT-29 colorectal cancer cells was evaluated using the MTT assay, and the results obtained for Şanlıurfa and İslahiye peppers were compared.

Results: The total phenolic content and flavonoid levels of İslahiye pepper were found to be significantly higher. Although İslahiye peppers also showed a higher total antioxidant capacity (11.54 vs. 9.40 mmoL vitamin C equivalents/L), this difference was not statistically significant (p=0.1484). The cytotoxic activity showed a similar pattern in both peppers: proliferation was observed at 50 µg/mL, while cytotoxic effects began at concentrations of 100 µg/mL and above. The IC_{50} values were calculated as 716.243 µg/mL for İslahiye pepper and 688.346 µg/mL for Şanlıurfa pepper.

Conclusion: Although both pepper types contain bioactive compounds of nutritional and functional importance, the results indicate that İslahiye pepper may contribute more substantially to dietary antioxidant intake.

Keywords: İslahiye pepper, Şanlıurfa pepper, antioxidant, phenolic compounds, flavonoids

SOP-3

The Relationship Between Clinical Features and Hypoxia-related Biomarker Levels in Parkinson's Patients

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Introduction: Parkinson's disease (PD) is characterized by dopaminergic neuron loss and α-synuclein aggregation. Hypoxia-related pathways, including hypoxia-inducible factor 1 alpha (HIF-1α) signaling, sirtuins, and erythropoietin (EPO), may contribute to the pathogenesis of PD. This study aimed to evaluate serum HIF-1α, sirtuin 2 (SIRT2), and EPO levels in patients with PD and their clinical associations.

Methods: The study included twenty PD patients and twenty age-matched healthy controls. Serum samples were obtained from venous blood and stored at -80 °C. HIF-1α, SIRT2, and EPO levels were measured by the ELISA method, and results were compared between groups by SPSS 28.0.

Results: Serum levels of HIF-1α, EPO, and SIRT2 were found significantly higher in the control group compared with the PD group. The differences were statistically significant for HIF-1α ($p=0.001$) and EPO ($p=0.009$), while SIRT2 showed borderline significance ($p=0.050$). No statistically significant differences were observed between the groups in terms of smoking status, gender distribution and Hoehn and Yahr scale ($p>0.05$). In addition, no significant differences were found in the mean serum levels of HIF-1α, SIRT2, and EPO in the early-onset PD (≤50) and late-onset PD (>50) ($p>0.05$). These findings may indicate a marked reduction of hypoxia-related and neuroprotective biomarkers in patients with PD.

Conclusion: Significantly lower serum levels of HIF-1α, EPO, and SIRT2 in patients with PD indicate impaired hypoxia-related and neuroprotective signaling, which may contribute to mitochondrial dysfunction, oxidative stress, and α-synuclein toxicity. The lack of significant differences according to age, smoking status, Hoehn and Yahr scale and gender suggests that these alterations are primarily disease-related. Overall, these findings support the involvement of hypoxia-associated molecular pathways in PD and highlight these markers as potential diagnostic, prognostic, and therapeutic targets.

Keywords: Parkinson's disease, hypoxia, HIF-1α, SIRT2, EPO

SOP-4

Evaluation of Quality of Life in Patients with Psoriasis Vulgaris Receiving Biological Therapy and Assessment of the Family Impact Scale in Patients' Relatives

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Introduction: Psoriasis is a chronic inflammatory disease that affects not only patients but also their families, significantly impairing quality of life. Although biological therapies effectively reduce disease severity, their impact on patient and family quality of life in patients with low disease activity requires further evaluation.

Methods: This cross-sectional study included 60 psoriasis patients receiving biological therapy. Disease severity was assessed using the Psoriasis Area and Severity Index (PASI). Patient quality of life was evaluated with the Dermatology Life Quality Index (DLQI), and family impact was assessed using the family DLQI, both scored over 30 points.

Results: The mean PASI score was 1.27±0.48, indicating low disease severity. Mean DLQI and family DLQI scores were 1.87±3.64 and 4.15±4.92, respectively, suggesting minimal impairment in patient and family quality of life. PASI scores showed a significant positive correlation with DLQI (Spearman's rho=0.636, $p<0.001$). Patients with DLQI scores greater than 5 had significantly higher PASI scores compared to those with DLQI ≤5 ($p<0.001$).

Conclusion: Even among psoriasis patients receiving biological therapy with low PASI scores, disease severity remains significantly associated with patient quality of life. These findings highlight the importance of considering quality-of-life measures alongside clinical severity assessments in the management of psoriasis. The low PASI, DLQI, and family impact scores observed in patients receiving biological therapy suggest that current treatment regimens may be effective in achieving disease control. However, further prospective studies with larger sample sizes are needed to establish causal relationships and to evaluate long-term outcomes.

Keywords: Psoriasis, biological therapy, PASI, DLQI, quality of life

SOP-5

Retrospective Evaluation of Ovarian Surface Epithelial Tumors in a Tertiary Hospital

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Introduction: This study aimed to characterize the histopathological variations of ovarian surface epithelial tumors and to analyze their distribution according to the 2020 World Health Organization (WHO) classification. Additionally, patient age, clinical features, and tumor lateralization patterns were evaluated to provide an updated perspective on epithelial ovarian tumor profiles.

Methods: Pathology reports, clinical data, treatment information, and follow-up records of all patients diagnosed with ovarian surface epithelial tumors at our institution between January 2013 and January 2024 were retrieved from the hospital information system. Cases with diagnostic changes under the updated WHO classification were re-evaluated by two pathologists using archived pathology slides. Histopathological and clinical variables were analyzed using SPSS version 28.0.

Results: A total of 452 patients were included. According to the WHO 2020 classification, serous tumors were the most common subtype (61.6%), followed by mucinous (26.7%), clear cell (3.8%), seromucinous (2.6%), endometrioid (0.9%), Brenner tumors (0.9%), and other carcinomas (1.3%). Regarding tumor lateralization, 78.4% of cases were unilateral and 21.2% bilateral. When laterality was assessed individually, 61.1% of tumors involved the left ovary and 60.0% the right ovary.

Conclusion: Serous tumors remain the predominant subtype of ovarian surface epithelial tumors in accordance with the WHO 2020 classification. The distribution of tumor subtypes and lateralization patterns observed in this large retrospective cohort provides valuable insight into the epidemiological and pathological landscape of epithelial ovarian tumors. These findings highlight the importance of updated classification systems and multidisciplinary review in ensuring diagnostic accuracy.

Keywords: Ovarian epithelial tumors, WHO 2020 classification, histopathology, serous tumors, retrospective study

SOP-6

The Effect of Anemia and Lactate Levels on Prognosis in Patients with Heart Failure

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Introduction: Acute heart failure (AHF) is a major global health burden associated with substantial morbidity and mortality. Although anemia and elevated lactate are each recognized as adverse prognostic markers in AHF, their combined effects have not been sufficiently defined. This study aims to assess the prognostic impact of anemia and hyperlactatemia in patients presenting with AHF.

Methods: This ethics committee-approved retrospective study included adults presenting to the emergency department with AHF between 01.01.2023 and 31.12.2024. Patients under 18 years, with missing data, or transferred elsewhere were excluded. Demographic, clinical, and initial laboratory data, including haemoglobin index and lactate, were analysed by anaemia status. Minimum sample size was 193.

Results: Among 240 patients, 58.3% were women and 41.7% men; mean age was 79.1±9.7 years. Hemoglobin, hematocrit, and mean corpuscular volume (MCV) showed no significant differences across discharge, ward, intensive care, and exitus groups ($p=0.89$, 0.75, 0.34). Lactate increased stepwise from discharged to ward, intensive care, and exitus patients (1.93, 2.17, 2.89, 4.18 mmol/L; $p<0.001$). Patients with cardiogenic shock had similar hemoglobin, hematocrit, and MCV values ($p=0.28$, 0.53, 0.13), but markedly higher lactate levels (4.37 vs. 2.31 mmol/L; $p<0.001$). Comparing deceased and survivors, hemoglobin, hematocrit, MCV, and lactate values did not differ significantly, despite numerically higher lactate and cell indices in the exitus group (all $p>0.05$). Overall trends indicated lactate as the primary discriminator of clinical severity and outcomes in this elderly cohort during the hospitalization follow-up period.

Conclusion: Our findings indicate that anemia parameters have limited prognostic value in acute conditions, whereas lactate is a strong marker of adverse outcomes. Routine lactate assessment in the emergency department may improve risk assessment, particularly in elderly patients with heart failure.

Keywords: Acute heart failure, anemia, lactate, prognosis

SOP-7

The Effect of Sentinel Lymph Node Biopsy and Total Lymph Node Dissection on Clinical Outcomes in Patients with Cutaneous Malignant Melanoma

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Introduction: Cutaneous malignant melanoma (CMM) is one of the aggressive skin cancers. Wide local excision and sentinel lymph node biopsy (SLNB) is complementary in treatment, staging and prognosis. Total lymph node dissection (TLND) is an invasive procedure with controversial benefits for survival. This study examines the effect of SLNB and TLND on clinical-pathological outcomes and survival in patients with CMM.

Methods: Ninety-seven patients with CMM were retrospectively reviewed. Patients were divided into three groups: Group 1, surgical excision + SLNB (n=47); Group 2, surgical excision only (n=18); and Group 3, surgical excision + TLND ± SLNB (n=32). Patients' demographic data, tumor subtype and size, Breslow thickness, Clark stage, ulceration, mitotic index, lymphovascular invasion, serum lactate dehydrogenase (LDH) level, metastasis, and survival were compared. Continuous variables were analyzed using analysis of variance or Kruskal-Wallis; categorical variables were analyzed using the chi-square test.

Results: The mean age was 60.3±15.7 years. Gender distribution was similar (p=0.930). The most common subtype was superficial spreading melanoma, and similar between groups. No significant differences were found between groups for age, comorbidities, and lymphovascular invasion (p=0.110, p=0.482, p=0.113). Tumor size, Breslow thickness, mitotic index, metastasis, serum LDH levels, and Clark stage were significantly different between groups (p=0.042, p=0.001, p<0.001, p<0.001, p=0.012, p<0.001). Ulceration, high mitotic activity, metastasis, and high LDH were most frequently observed in Group 3 (71.9%, 50.0%, 84.4%, 50.0%) and least frequently in Group 2 (44.4%, 16.7%, 27.8%). Survival was worst in Group 3 and best in Group 2.

Conclusion: In CMM patients, wide excision and SLNB were effective in making prognostic distinctions; however, adding TLND to surgical treatment was not found to improve survival.

Keywords: Cutaneous malignant melanoma, sentinel lymph node biopsy, total lymph node dissection

SOP-8

Effects of Gadolinium-based Contrast-enhanced Imaging on Renal Function in Patients with Advanced Chronic Kidney Disease: A Single-center Retrospective Cohort Study

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Introduction: In this study, we evaluated early and long-term changes in renal function, as well as exceedance of the creatinine-based Kidney Disease: Improving Global Outcomes (KDIGO) screening threshold, in patients who underwent contrast-enhanced magnetic resonance imaging (MRI) using gadobutrol (Gadovist) at our center, stratified according to baseline eGFR levels.

Methods: In this single-center retrospective observational cohort study, 325 patients were analyzed. Patients were categorized into four groups based on baseline eGFR: Group 1 (<30; n=35), Group 2 (30-60; n=140), Group 3 (60-90; n=91), and Group 4 (≥90; n=59; control). The KDIGO screening threshold for early post-MRI creatinine increase was defined as ΔCr1 ≥0.3 mg/dL. To reduce heterogeneity in measurement timing, two sensitivity analyses were performed: (i) T1≤7 and T2≤7 days (n=72), and (ii) T2≤30 days (n=155).

Results: In the overall cohort, exceedance of the KDIGO screening threshold was observed in 34 of 325 patients (10.5%), with no significant difference among groups (Group 1: 4/35, 11.4%; Group 2: 17/140, 12.1%; Group 3: 9/91, 9.9%; Group 4: 4/59, 6.8%; p=0.719). In the early time-window subcohort (T1≤7 and T2≤7), no KDIGO threshold exceedance was observed in the eGFR <30 group (0/14; 0%). In the T2≤30 subcohort, exceedance in the eGFR <30 group was 2/25 (8.0%), with no significant intergroup difference (p=0.591). No dermatological complications, including nephrogenic systemic fibrosis/sclerosis, were identified in clinical records.

Conclusion: Following gadobutrol-enhanced MRI, creatinine-based KDIGO screening threshold exceedance was low and did not differ among eGFR groups. No distinct safety signal was observed in the eGFR <30 group within early post-imaging time windows.

Keywords: Gadobutrol, gadolinium-based contrast agent, chronic kidney disease, magnetic resonance imaging, nephrogenic systemic fibrosis

SOP-9

The Role of Artificial Intelligence in Medicine and the Perspective of BVU Medical Students

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Introduction: Artificial intelligence (AI) is unlikely to fully replace physicians; however, it is highly probable that it will assume many responsibilities and introduce new tasks in medical practice. To adapt to these roles, medical students and physicians must acquire knowledge of AI and data science, mathematical foundations, and ethical and medico-legal considerations alongside conventional medical education. The scale used to assess readiness for medical AI, as found in the current literature and detailed in the appendix, was utilized. This study presents the development of a psychometrically sound tool to evaluate medical students' perceived readiness regarding AI technologies and healthcare applications.

Methods: The control group consisted of 1st-6th year medical students. Based on previous studies, assuming a ratio of 0.26 with 95% confidence and 80% power, the minimum sample size was calculated as 54. Descriptive statistics were expressed as mean ± standard deviation, and frequencies and percentages. Categorical variables were analyzed using t-test and chi-square test. Statistical analyses were performed with SPSS version 28, and significance was set at α=0.05. Students' perspectives and confidence regarding AI in medicine were evaluated.

Results: The mean age of participants (50 females, 21 males) was 22.54±1. Of the students, 54.2% reported receiving AI-related courses during medical education, while 45.8% had not. Interaction with AI applications in medical practice was desired at a moderate level by 63.9% and at a high level by 26.4%. While 54.2% stated they could combine AI-based information with professional knowledge, 22.2% were neutral and 23.6% disagreed. The proportion finding AI valuable for education, service, and research was 87.5%, whereas 12.5% were neutral or disagreed.

Conclusion: Bezmialem Vakıf University medical students are interested and willing to use AI in learning and practice but lack sufficient preparation. Integrating AI into basic medical education and structured training programs would be beneficial.

Keywords: Artificial intelligence in medicine, medical education, readiness assessment, medical students' perceptions, healthcare innovation

SOP-10

A Prospective Study in Which an ENT Examined Abnormal Larynx Images Seen During Upper Gastrointestinal System (UGIS) Endoscopy Performed by a Gastroenterologist

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Introduction: Laryngeal pathologies are common but difficult to detect early, often resulting in delayed diagnosis and increased clinical risk. Although the larynx can be incidentally visualized during upper gastrointestinal system (UGIS) endoscopy, these views are frequently overlooked. Evidence suggests that such visualization may help reveal otherwise unrecognized abnormalities. This study aimed to determine whether abnormal laryngeal images captured during UGIS endoscopy can indicate underlying pathology when evaluated by ear, nose, and throat (ENT) specialists.

Methods: This prospective observational study included adults undergoing UGIS endoscopy between September 2024 and September 2025. Laryngeal structures were recorded when visible, and abnormal findings—such as edema, hyperemia, vocal cord irregularity, or mass-like lesions—were documented. Patients with abnormalities were referred to ENT for further evaluation. Demographic and clinical data were collected, and statistical analyses were performed using chi-square and Fisher's exact tests, with $p<0.05$ considered significant.

Results: A total of 1,200 UGIS endoscopies were performed, and abnormal laryngeal findings were identified in 11 patients (0.92%). Among 200 patients with clearly visualized laryngeal structures, abnormalities were more frequent (5.5%) than in those without adequate visualization (0%, $p<0.001$). In the last month, 50 high-quality images were obtained, with 9 showing abnormalities (18%). The most common findings were vocal cord irregularity (44.4%), mucosal edema (33.3%), hemorrhagic polyp (11.1%), and hyperemia (11.1%). Symptomatic patients had higher abnormality rates than asymptomatic individuals (30% vs. 10%, $p=0.04$). All patients with abnormalities were referred for ENT follow-up.

Conclusion: Systematic evaluation of the larynx during endoscopy significantly increases the detection of laryngeal abnormalities when image quality allows. Incorporating routine laryngeal inspection into endoscopic practice may facilitate earlier diagnosis and timely referral for ENT evaluation.

Keywords: Laryngeal abnormalities, laryngeal screening, endoscopic detection

SOP-11

Investigation of Anti-inflammatory and Immunomodulatory Effects of Hazelnut (*Corylus avellana* L.) Plant Seed Extract

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Introduction: *Corylus avellana* L., a flowering plant in the Betulaceae family, is a traditional Mediterranean crop native to Europe, Asia, and continental North America. Recent studies have reported its antioxidant, anticancer, and antimicrobial properties; however, comprehensive investigations of its immunomodulatory and anti-inflammatory effects remain limited. The present study aimed to evaluate the anti-inflammatory and immunomodulatory effects of *Corylus avellana* L. seed extract in lipopolysaccharide (LPS)-stimulated RAW 264.7 macrophages.

Methods: Fresh *Corylus avellana* L. seeds were dried at 40 °C and extracted using ultrasound-assisted extraction with 80% ethanol. Total phenolic and flavonoid contents were determined using gallic acid and quercetin standards, respectively. The MTT assay was used to assess cell viability. An inflammatory model was established in RAW 264.7 macrophages using LPS, and inflammation was confirmed by measuring nitric oxide (NO) levels via a colorimetric assay. ELISA was used to evaluate the effects of the extract on interferon-gamma (IFN-γ) levels, and inducible nitric oxide synthase (iNOS) protein expression was analyzed by Western blotting and immunofluorescence methods.

Results: The extract exhibited high phenolic (100.90 mg gallic acid equivalents/g extract) and flavonoid (25.15 mg quercetin equivalents/g extract) contents. MTT analysis revealed cytotoxic effects at concentrations above 125 µg/mL, whereas concentrations below this level significantly enhanced cell viability. In LPS-stimulated macrophages, the extract markedly attenuated inflammatory responses in a dose-dependent manner. IFN-γ levels were significantly reduced at concentrations up to 60 µg/mL, tumor necrosis factor-alpha levels at doses up to 40 µg/mL, and interleukin-4 levels starting from 25 µg/mL. Additionally, NO production was significantly decreased, accompanied by a notable reduction in iNOS protein expression.

Conclusion: In conclusion, *Corylus avellana* L. seed extract demonstrates significant anti-inflammatory and immunomodulatory activity in LPS-stimulated macrophages without inducing cytotoxicity at low concentrations.

Keywords: Inflammation, immunomodulatory, *in vitro*, *Corylus avellana* L.

SOP-12

Comparison of Seronegative and Seropositive Autoimmune Hepatitis: A Retrospective Analysis of Clinical, Laboratory, and Therapeutic Outcomes

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Introduction: Autoimmune hepatitis (AIH) is a chronic inflammatory liver disease characterized by hepatocellular injury and elevated liver enzymes. Diagnosis is generally supported by disease-specific autoantibodies; however, some patients lack detectable autoantibodies and are classified as having seronegative AIH. This absence may complicate diagnosis and delay treatment. This study compared clinical characteristics, laboratory findings, and biochemical responses to therapy between seronegative and seropositive AIH patients.

Methods: A retrospective analysis was conducted on 27 patients diagnosed with AIH. Demographic data, autoantibody status, pretreatment and posttreatment liver enzymes—including aspartate aminotransferase (AST), alanine aminotransferase (ALT), alkaline phosphatase (ALP), and gamma-glutamyl transferase (GGT)—vitamin D levels, imaging findings, and treatment regimens were recorded. Patients were classified as seropositive (n=22) or seronegative (n=5). Treatment approaches included ursodeoxycholic acid monotherapy and azathioprine-corticosteroid-based immunosuppressive regimens.

Results: Seronegative patients were more frequently male and slightly older than seropositive patients. Baseline aminotransferase and cholestatic enzyme levels were lower in the seronegative group, while imaging more commonly demonstrated hepatosteatosis or parenchymal heterogeneity. Vitamin D levels were similar between groups. Following treatment, significant biochemical improvement was observed, with marked reductions in AST, ALT, ALP, and GGT levels (all $p<0.05$). Posttreatment liver enzyme levels did not differ significantly between groups ($p>0.05$).

Conclusion: Seronegative AIH patients achieved biochemical responses comparable to seropositive patients despite lower baseline disease activity. The absence of autoantibodies did not affect treatment efficacy, supporting similar therapeutic approaches for both AIH subtypes. Larger studies are required to confirm long-term outcomes.

Keywords: Autoimmune hepatitis, seronegative, seropositive, ursodeoxycholic acid, azathioprine, liver enzymes

SOP-13

Infections and Associated Mortality in VEXAS Syndrome: A Systematic Review and Meta-analysis

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Introduction: Vacuoles, E1 enzyme, X-linked, autoinflammatory, somatic syndrome is a late-onset monogenic autoinflammatory disease caused by somatic mutations in the *UBA1* gene in hematopoietic stem cells. Management frequently requires prolonged and intensive immunosuppressive therapy, which increases susceptibility to infections. This systematic review aimed to evaluate the spectrum of infectious pathogens and associated complications reported in patients with VEXAS syndrome.

Methods: This review was conducted according to the PRISMA 2020 guidelines and was registered in PROSPERO. MEDLINE and EMBASE were searched from inception to March 25, 2025. Eligible studies were cohort studies reporting infections with a confirmed etiologic pathogen in patients with genetically confirmed VEXAS syndrome. Case reports and studies without diagnostic confirmation were excluded. The primary outcome was the frequency distribution of infectious agents categorized as bacterial, viral, or fungal.

Results: Five cohort studies, including 333 patients, were analyzed. Two hundred ninety-nine patients (89.8%) were receiving glucocorticoids. During follow-up, 110 patients (33%) experienced at least one confirmed infection, with multiple infections reported in 10 patients (3%). A total of 146 infectious episodes were identified. Bacterial infections accounted for 49.3% of cases, most commonly caused by *Enterobacteriaceae* (22.2%), *Legionella pneumophila* (19.4%), and non-tuberculous mycobacteria (19.4%). Viral infections were predominantly due to SARS-CoV-2 (41.2%), varicella-zoster virus (21.6%), and herpes simplex virus (15.7%). Fungal infections were mainly attributed to *Pneumocystis jirovecii* (73.9%). The bronchopulmonary system was the most frequently involved site (64.4%). Infectious episodes occurred during cDMARD (19.3%), bDMARD (29.4%), JAK inhibitor (34.4%), and azacitidine (16.8%) therapies. The infection-related mortality risk was 8%.

Conclusion: Infections are a major cause of morbidity and mortality in VEXAS syndrome. Careful monitoring and optimization of immunosuppressive therapy are essential, and further studies are needed to define the role of anti-infective prophylaxis.

Keywords: Autoinflammatory diseases, infection, mortality, inflammation

SOP-14

Investigation of the Coexistence of Primary Biliary Cholangitis and Autoimmune Hepatitis

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Introduction: Primary biliary cholangitis (PBC) is a chronic autoimmune cholestatic liver disease. In some patients, autoimmune hepatitis (AIH) may coexist, leading to the PBC-AIH overlap syndrome which can influence both prognosis and therapeutic strategies. We aimed to evaluate the serological, histopathological coexistence of overlap syndrome and explore the relationship between treatment strategies and treatment response.

Methods: We screened patients diagnosed with PBC between 2010 and 2025. Demographic data, autoantibodies [anti-mitochondrial antibody (AMA), anti-nuclear antibody (ANA), anti-smooth muscle antibody (ASMA), liver kidney microsomal antibody (LKM)], laboratory parameters [aspartate aminotransferase (AST), alanine aminotransferase (ALT), alkaline phosphatase (ALP), gamma-glutamyl transferase (GGT)], liver biopsy findings, and treatments were reviewed. Biopsy findings were classified as either isolated PBC or overlap syndrome. Patients were categorized into four treatment groups: ursodeoxycholic acid (UDCA), UDCA plus corticosteroid, UDCA plus azathioprine, UDCA plus azathioprine and corticosteroid. The changes in AST, ALT, ALP, GGT levels were analyzed after at least three months of used.

Results: One hundred and sixty-nine patients were included. Sixty three patients were diagnosed as overlap syndrome. LKM positivity was not observed. Liver biopsy was performed in 63 patients and 42 patients were diagnosed overlap syndrome. ANA positivity was higher in patients diagnosed with overlap syndrome based on liver biopsy compared with those diagnosed with PBC alone (p=0.034). In six patients, AIH related autoantibodies were negative; however, liver biopsy findings supported a diagnosis of overlap syndrome. No significant differences were observed between the PBC and overlap syndrome biopsy groups for AMA and ASMA positivity. No significant association was found between treatment type and treatment response (p=0.776).

Conclusion: AMA and ANA positivity was consistent with isolated PBC, while ASMA positivity suggested additional autoimmune activity in some patients. Liver biopsy was essential for diagnosis, particularly in seronegative cases. Treatment type did not significantly influence response.

Keywords: Primary biliary colangitis, autoimmune hepatitis, PBC-AIH overlap syndrome

SOP-15

Effect of Resilience on Nutrition in Breast Cancer Patients

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Introduction: Previous research indicates that higher resilience might help patients better manage treatment-induced stress, which could theoretically limit nutritional decline. This study investigates the relationship between resilience and nutritional status in breast cancer patients receiving chemotherapy.

Methods: Female breast cancer patients attending the oncology outpatient clinic were enrolled. Demographic and clinical data were recorded. Resilience was measured with the brief resilience scale, nutritional status with the Mini Nutritional Assessment, functional status with the Barthel index, and nutritional attitudes with the attitudes towards healthy nutrition scale. Assessments were conducted at baseline and repeated after 3 months of chemotherapy.

Results: Of the 52 female breast cancer patients followed, 10 were lost to follow-up and 5 died during the study period. The mean age of the cohort was 53.45±14.24 years. At baseline, 15.9% of patients were stage IA, 38.6% stage IIA, 6.8% stage IIB, 2.2% stage IIIA, and 38.6% stage IV. There was an association between baseline nutritional status and resilience at follow-up ($p=0.0069$), as well as between follow-up nutritional status and resilience ($p=0.0156$). Resilience levels and nutritional status were homogeneously distributed across disease stages, indicating no significant imbalance between cancer stage and these variables. All patients in the high-resilience group were married ($p<0.05$), whereas no association was observed between resilience and the Barthel index or the attitudes towards healthy nutrition scale.

Conclusion: The better nutritional status was associated with higher resilience during follow-up in female breast cancer patients. Nutritional screening is essential in cancer patients in order to support resilience during chemotherapy and preserve nutritional status. Larger studies are warranted to confirm these findings.

Keywords: Breast cancer, chemotherapy, psychological resilience, malnutrition

SOP-16

Use of Renin-angiotensin-aldosterone System Blockers and Reasons for Discontinuation in Geriatric Patients with Chronic Kidney Disease

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Introduction: Renin-angiotensin-aldosterone system inhibitors (RAASi) are cornerstone therapies in chronic kidney disease (CKD), but their discontinuation, often due to hyperkalemia, poses an important clinical dilemma. This study aims to evaluate RAASi use patterns, reasons for discontinuation, and the impact of discontinuation on the annual eGFR decline rate (slope) in the geriatric CKD population compared to a younger cohort.

Methods: This retrospective cohort study included 4787 patients with an eGFR <90 mL/min/1.73 m^2 (under 65 years, n=2495; 65 years and older, n=2292). Reasons for RAASi discontinuation and annual eGFR slopes were analyzed. Independent risk factors for eGFR decline were identified using multivariate regression analysis.

Results: RAASi use was higher in the geriatric group (41.9% vs. 35.1%; p<0.001). Discontinuation rates were similar between groups (9.4% in <65 years vs. 10.3% in ≥65 years; p=0.545). Hyperkalemia was the most common reason for discontinuation in both groups (87.8% in <65 years; 85.9% in ≥65 years). In multivariate analysis, RAASi discontinuation had no statistically significant protective effect on annual eGFR loss (beta: -0.56; p=0.681). Baseline eGFR, proteinuria (>1000 mg/day), diabetes, and high C-reactive protein levels were identified as independent risk factors for eGFR decline.

Conclusion: RAASi discontinuation dynamics and rationales are similar in older and younger CKD patients, with hyperkalemia being the primary driver. However, discontinuing RAASi therapy does not slow the rate of eGFR decline. These findings support that clinicians should focus on strategies to ensure treatment continuity rather than outright discontinuation in the management of hyperkalemia.

Keywords: Chronic kidney disease, RAAS inhibitors, geriatrics, eGFR slope, hyperkalemia

SOP-17

Single Center Plasmapheresis Experiences and Prognostic Parameters

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Introduction: Plasmapheresis is a therapeutic procedure that removes harmful substances like antibodies or toxins. However, its impact on routine laboratory parameters and prognosis remains unclear. This study aimed to evaluate changes in hematologic, inflammatory, and renal markers pre- and post-plasmapheresis and their association with patient outcomes.

Methods: This retrospective study analyzed 100 patients undergoing therapeutic plasmapheresis at Bezmialem Vakıf University between 2012-2024. Demographics, clinical data, intensive care unit (ICU) admission, and mortality were recorded. Pre- and post-procedure Hemoglobin (Hb), white blood cell (WBC), platelets (PLT), C-reactive protein (CRP), lactate dehydrogenase (LDH), and creatinine were analyzed.

Results: A total of 100 plasmapheresis patients were included (55% female). The most common blood group was A Rh positive (42%). Patients received 1-5 sessions, most frequently 2 sessions (26%). ICU admission occurred in 28% of cases, and mortality was 21%. Post-procedure comparisons showed significant decreases in Hb ($p=0.0000000636$), PLT count ($p=0.00000017$), CRP ($p=0.000357$), and creatinine ($p=0.0000384$), while WBC count ($p=0.815$) and LDH ($p=0.2288$) remained unchanged. ICU patients showed significant reductions in Hb ($p=0.00000932$), PLT ($p=0.0000276$), LDH ($p=0.0376$), and creatinine ($p=0.000361$). In patients who died, Hb ($p=0.00000137$), PLT ($p=0.00000518$), and CRP ($p=0.0329$) decreased significantly. Higher session numbers correlated with greater decreases in Hb, PLT, and creatinine.

Conclusion: Plasmapheresis is associated with significant changes in hematologic and renal parameters. Monitoring these laboratory shifts provides valuable prognostic information regarding ICU admission and mortality risks.

Keywords: Hematology, plasmapheresis, prognosis, parameters

SOP-18

Investigation of the Relationship Between Nav1.1 Sodium Channels and Metabolic Pathways in Alzheimer's Disease

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Introduction: Voltage-gated sodium channel Nav1.1 is a critical regulator of neuronal excitability and network stability. Increasing evidence suggests that excitability remodeling contributes to Alzheimer's disease (AD) pathophysiology; however, the metabolic mechanisms underlying Nav1.1 dysregulation remain poorly understood. This study aimed to investigate Nav1.1 alterations in a 5xFAD mouse model of AD and their associations with metabolic and behavioral changes.

Methods: Ten-month-old 5xFAD mice (AD, n=6) and age-matched controls (n=8) were evaluated using the Morris water maze, open field test, and elevated plus maze. Nav1.1 protein levels were quantified in total brain and liver tissues by ELISA. Liquid chromatography-high resolution mass spectrometry-based metabolomic profiling was conducted in serum, total brain, and liver tissues to characterize metabolic alterations associated with Nav1.1 remodeling. Correlation network analyses were performed to investigate tissue-specific metabolite-Nav1.1 interactions.

Results: AD mice exhibited significant impairments in spatial memory in the Morris water maze ($p<0.01$) and reduced center exploration in the open field test ($p<0.001$). Hepatic Nav1.1 protein levels were significantly reduced in AD mice compared with controls ($p<0.001$). Metabolomic profiling revealed significant perturbations in pathways related to energy metabolism, oxidative stress, and membrane phospholipid turnover across serum, brain, and liver. Among individual metabolites, hepatic 3-phosphoglyceric acid and cerebral glycerophosphorylcholine were significant ($p<0.05$). In the AD group, Nav1.1 showed its strongest liver association with glycerophosphorylcholine ($r=0.77$), whereas in brain the strongest associations were with L-DOPA, glycerophosphorylcholine, and pantothenate ($r=-0.60$).

Conclusion: AD is characterized by hepatic Nav1.1 reduction and multi-tissue metabolic dysregulation linked to behavioral deficits, supporting a metabolic contribution to systemic sodium channel remodeling.

Keywords: Nav1.1 sodium channel, Alzheimer's disease, metabolic remodeling, LC-HRMS metabolomics, behavioral analysis, liver-brain axis

SOP-19

Prevalence of ADHD Diagnosis and Illicit Stimulant Use among Medical Students and Associated Factors

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Introduction: This study aimed to investigate the prevalence of attention deficit hyperactivity disorder (ADHD) and the underlying motivations for non-medical stimulant use among medical students. The competitive nature of medical education may place students at greater risk of misusing stimulant medications.

Methods: The study sample consisted of 244 undergraduate students, who completed an anonymous online questionnaire. Participants were divided into three groups: Group 1 (medical use), Group 2 (illicit use); Group 3 (control). All participants completed the Turkish adult ADHD self-report scale (ASRS) and Symptom Checklist-90-Revised.

Results: Among the 244 medical students, 30 were found to be using stimulants illicitly, whereas 46 were using them medically for diagnosed ADHD. Most students initiated use during their first year of medical school (40.5%), suggesting that early academic pressure and performance-related anxiety may contribute to the onset of non-medical use. These stimulants were primarily obtained from friends, with a smaller proportion reporting access through family members. Among the 46 students diagnosed with ADHD, only 17 were currently using prescribed stimulants, a pattern that may reflect concerns regarding long-term medication use and potential side effects. Pairwise comparisons demonstrated that ASRS inattention, hyperactivity, and total scores were significantly higher in the ADHD group (Group 1) compared with the control group (Group 3) ($p<0.05$).

Conclusion: The primary motivations for illicit stimulant use were academic performance enhancement (83.3%), increased wakefulness (36.6%) and stress reduction (10%). Furthermore, the prevalence of ADHD among medical students appears to exceed that of the general population. Given that academic pressures appear to play a primary role in motivating non-medical stimulant use, institutional support may help reduce this pattern of use.

Keywords: ADHD, medical students, illicit use

SOP-20

Main Determinants of QuantiFERON Gold Positivity in Patients with Inflammatory Bowel Disease: Age or Medications?

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Introduction: Immunosuppressive therapies used in inflammatory bowel disease (IBD), particularly anti-tumour necrosis factor alpha agents, are known to be associated with an increased risk of latent tuberculosis infection (LTBI) reactivation. Given the intermediate TB prevalence in Türkiye, this study aimed to determine the LTBI prevalence using the QuantiFERON-TB Gold (QFTB) test and compare the characteristics of QFTB-positive and QFTB-negative IBD patients prior to treatment initiation.

Methods: This retrospective, cross-sectional study included 303 adult IBD patients assessed between 2015 and 2023. Demographic data, IBD subtype, extraintestinal manifestations, initial treatments, calprotectin levels and detailed TB evaluation results were collected. Continuous variables were analyzed using the Mann-Whitney U test, and categorical variables using chi-square or Fisher's exact tests.

Results: The overall QFTB positivity rate was 23.1% (n=70), with 1.7% indeterminate results. Mean age (53 vs. 42.5 years, $p<0.001$) and age at IBD diagnosis were significantly higher in the QFTB-positive patients, suggesting cumulative lifetime exposure. No significant differences were observed across initial IBD treatments including mesalazine, corticosteroids, or azathioprine-based immunosuppression. Notably, all three cases of active TB occurred in relatively young patients (median age 30.6 years), despite older age predicting LTBI positivity. QFTB-positive patients showed higher purified protein derivative (PPD) negativity (61.6% vs. 38.4%, $p<0.001$), while the QFTB-negative group exhibited more anergic PPD responses (82.4% vs. 17.6%).

Conclusion: LTBI is common among adult IBD patients, especially in older individuals. QFTB results were not influenced by IBD medications, indicating that age is the main determinant of positivity. However, active TB can still occur in younger patients due to false-negative screening, highlighting the need for routine QFTB testing and individualized risk assessment.

Keywords: Inflammatory bowel disease (IBD), latent tuberculosis infection (LTBI), QuantiFERON-TB Gold (QFTB), age

SOP-21

The Role of Metabolomic Analysis in IVF Treatment and Future Perspectives

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Introduction: Infertility is defined as the inability to conceive after one year of unprotected intercourse and affects 8-12% of reproductive-age couples. Embryo quality is the key determinant of embryo selection in the in vitro fertilization (IVF) laboratory. Metabolites in embryo culture media have been linked to embryo viability and implantation potential. This study aims to evaluate metabolic profiles of the culture media associated with embryo development and implantation outcomes.

Methods: The study included women <38 years of age with body mass index <30, no uterine/endometrial pathology, and male partners with sperm concentrations ≥5 million/mL. Embryo morphology was evaluated using Gardner's criteria, and day-3 Grade I-II embryos were compared based on their ability to reach top/good-quality (TQ/GQ) blastocyst on day-5. Additionally, day-5 culture media from TQ/GQ embryos resulting in either positive or negative beta-human chorionic gonadotropin (β-hCG) outcomes were analyzed for implantation-related metabolic differences. Metabolites were detected using an Orbitrap liquid chromatography-tandem mass spectrometry system.

Results: A total of 57 day-3 media samples (30 developed into TQ/GQ blastocyst, 27 arrest) and 47 day-5 samples from transferred TQ/GQ embryos were collected for metabolomic analysis. In day-3 embryo culture media, the level of cocarboxylase (thiamine-diphosphate) was observed to be lower in the arrest group. Pathway analysis indicated an alteration in thiamine metabolism. In day-5 culture media analyzed according to β-hCG results, L-arginine and Gly-Leu levels were lower in β-hCG (+) group, whereas trehalose 6-phosphate and γ-aminobutyryl-histidine levels were higher. Pathway analysis based on these metabolites revealed disruptions in arginine biosynthesis and metabolism of arginine/proline.

Conclusion: Our findings show that early disruptions in thiamine-dependent metabolism may contribute to embryo arrest, while implantation outcomes are associated with alterations in arginine-related pathways. These metabolomic signatures highlight the potential of non-invasive biomarkers for improving embryo selection and IVF success.

Keywords: IVF, embryo morphology, implantation, metabolomics, LC-MS/MS

SOP-22

Investigation of the Effects of *Prunus laurocerasus* Extract on Brain Serotonin, Dopamine Levels, and Oxidative Stress *In vivo* and *In vitro*

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Introduction: *Prunus laurocerasus* is widely consumed, yet its neurological effects remain unclear. This study investigates its impact on brain dopamine and serotonin levels *in vivo* and evaluates its cytotoxicity on neuroblastoma cells *in vitro*.

Methods: For the *in vivo* study, 35 male Wistar rats were divided into five groups and treated for 28 days with either physiological saline, *Prunus laurocerasus* extract (500 or 1000 mg/kg, gavage), or 87.5 mg/kg/day intraperitoneally. In the *in vitro* study, SH-SY5Y cells were exposed to 0.01-5.00 mg/mL extract for 24 hours, and cell viability was measured by MTT.

Results: The *in vitro* cytotoxicity assay demonstrated an IC_{50} value is calculated 8.46 mg/mL. The phytochemical content was consistent with the *in vivo* extract measurements, namely ~348.9645 mg GAE/100 g total phenolics, ~196.1966 mg QE/g flavonoids and total antioxidant activity of approximately 75%. Importantly, the cytotoxic activity of the extract was shown to be dependent. In *in vivo*, the control group had significantly lower tissue dopamine levels compared with the gavage 1 (500 mg/kg), gavage 2 (1000 mg/kg), and intraperitoneal (IP) groups (respectively, p=0.0002, p=0.0198; p=0.0177). Additionally, tissue dopamine levels were significantly higher in the gavage 1 group than in the IP group (p=0.0053). The increase in serotonin levels was borderline and did not reach statistical significance, one-way analysis of variance.

Conclusion: The control group had significantly lower tissue dopamine levels compared with the gavage and IP groups. Additionally, tissue dopamine levels were significantly higher in the gavage 1 than in the IP group. The increase in serotonin levels was borderline and didn't reach statistical significance.

Keywords: *Prunus laurocerasus*, serotonin, dopamine, neuroprotection, rat model, SH-SY5Y cell culture

SOP-23

Medial and Lateral Plantar Nerve Conduction Velocity and Amplitude: Relationship with Foot Length, Leg Length, Body Mass Index and Age

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Introduction: The aim of this study was to investigate the relationship of conduction velocity and amplitude of the medial and lateral plantar nerves with anthropometric variables and to establish normal reference values for the Turkish population.

Methods: This prospective cross-sectional study included volunteers over 18 years of age without peripheral nervous system disease. Demographic data [age, sex, height, weight, body mass index (BMI), leg length, foot length] were recorded. Sensory conduction studies of the medial and lateral plantar nerves were performed using the orthodromic method with electromyography.

Results: A total of 44 healthy individuals were evaluated. In the medial plantar nerve, right latency was 4.05 ms, conduction velocity 41.8 m/s, and amplitude 3.4 µV; left latency was 4.01 ms, conduction velocity 41.3 m/s, and amplitude 3.6 µV. In the lateral plantar nerve, right latency was 4.0 ms, conduction velocity 42.5 m/s, and amplitude 1.4 µV; left latency was 4.4 ms, conduction velocity 43.9 m/s, and amplitude 1.2 µV. Right and left medial plantar amplitudes showed a moderate negative correlation with both age ($r \approx -0.58$ and $r \approx -0.54$, respectively) and BMI ($r \approx -0.47$ and $r \approx -0.42$; all $p<0.05$). Age was also strongly negatively correlated with right lateral plantar conduction velocity ($r \approx -0.63$, $p<0.01$), and BMI showed a weaker but significant negative association with right lateral conduction velocity ($r \approx -0.40$, $p<0.05$).

Conclusion: Medial and lateral plantar nerve conduction parameters are measurably influenced by age and BMI, whereas leg and foot length show weaker, non-significant trends. The findings of this study contribute to the establishment of normal reference values for the Turkish population and highlight the importance of considering anthropometric factors when interpreting plantar nerve studies.

Keywords: Medial plantar nerve, lateral plantar nerve, conduction velocity, amplitude, anthropometric variables

SOP-24

Evaluation of Cardiac Arrest Patients Receiving Fibrinolytic Therapy in the Emergency Department

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Introduction: This study evaluated outcomes associated with fibrinolytic therapy administered during cardiac arrest in the emergency department.

Methods: This retrospective observational study included adult patients presenting with cardiac arrest between January 1, 2023, and December 31, 2024. Data on age, sex, initial cardiac rhythm, and fibrinolytic therapy during cardiopulmonary resuscitation were collected. Primary outcomes were return of spontaneous circulation (ROSC) and survival after ROSC. Multivariable logistic regression analysis was performed adjusting for age, sex, and initial rhythm.

Results: Among 502 cardiac arrest patients, 44 (8.8%) received fibrinolytic therapy. The adjusted odds ratio (OR) for ROSC was 0.50 [95% confidence interval (CI): 0.17-1.43], and the OR for post-ROSC survival was 0.61 (95% CI: 0.30-1.24). Mortality rates were similarly high in thrombolysis and non-thrombolysis groups (88.6% vs. 91.7%, p=0.68). Initial cardiac rhythm emerged as a strong prognostic factor, being significantly associated with both ROSC (OR: 0.15, 95% CI: 0.07-0.30) and survival (OR: 0.38, 95% CI: 0.22-0.65), with non-shockable rhythms associated with significantly worse ROSC and survival. Increasing age was independently associated with lower survival, while sex showed no significant association.

Conclusion: Fibrinolytic therapy during cardiac arrest was not independently associated with improved ROSC or post-ROSC survival. Initial cardiac rhythm remained the most important prognostic factor, underscoring the importance of careful patient selection for advanced resuscitative interventions.

Keywords: Cardiac arrest, fibrinolytic therapy, resuscitation, ROSC

SOP-25

Evaluation of Demographic and Radiological Findings in Patients with Subacute Thyroiditis

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Introduction: Subacute thyroiditis is a painful, inflammatory thyroid disorder with a significant female predominance. Establishing a definitive diagnosis remains a clinical challenge due to absence of globally standardized criteria. Disease is typically characterized by altered thyroid function and elevated acute-phase reactants, while stage-dependent ultrasonographic features are predominantly defined by poorly-defined hypoechoic areas. This study evaluates these parameters to facilitate diagnostic standardization and clinical management.

Methods: In this retrospective study, all patients aged 18 to 65 diagnosed with subacute thyroiditis, admitted to the Internal Medicine Clinics of Bezmialem Vakıf University Hospital between September 2021 and January 2025 will be included. Patients must not have any inflammatory rheumatologic disease or infections other than thyroiditis. Demographic data, laboratory parameters [thyroid-stimulating hormone (TSH), FT4, FT3, C-reactive protein (CRP), anti-thyroid peroxidase antibodies (anti-TPO), white blood cells, platelets] and radiological imaging findings were collected and evaluated retrospectively.

Results: Analysis of 160 participants revealed a female predominance (71.9%), primary age distribution between 40-65 years (56.9%). Geographically, 57.9% of cases originated from Marmara region. Laboratory findings indicated elevated CRP levels in 43.7% and anti-TPO elevation in 42%. TSH values were decreased in 38.8% and remained normal in 49.4% of the cohort. Ultrasonographic assessments identified the thyroid gland enlargement in 46.2% and normal gland size in 51.3%. Parenchymal heterogeneity was detected in 73.8%, while homogeneous pattern was noted in 26.2%. Reactive cervical lymph nodes were present in 35.5% of cases. Thyroid nodules were present in 62.5% (n=25/40); among documented cases, 62.5% were hypoechoic and 18.2% were hyperechoic.

Conclusion: This study confirms the predominance of subacute thyroiditis among middle-aged women. The combined evaluation of clinical, laboratory, and ultrasonographic findings contributes to filling an existing gap in the literature and provides a foundation for future research to enhance diagnostic and management approaches.

Keywords: Subacute thyroiditis, radiology, laboratory

SOP-26

Evaluation of Colonoscopy and Polypectomy Procedures at Bezmialem Vakıf University Hospital

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Introduction: The gold standard for colorectal cancer prevention is the detection and appropriate removal of polyps. Recently, lowering the screening age has become a topic of discussion, making it important to determine the prevalence of polyps and technical standards in the young population. This study aims to evaluate the compliance of polypectomy procedures at Bezmialem Vakıf University Hospital with the European Society of Gastrointestinal Endoscopy (ESGE) 2024 guidelines and to investigate histopathological differences between patients under and over 45 years of age.

Methods: Data from 49 patients who underwent polypectomy at Bezmialem Vakıf University Hospital between January 2022 and December 2024 were reviewed retrospectively. Patients were grouped as <45 years and ≥45 years. Polyp size, localization, and applied techniques (Cold/Hot Snare, Forceps) were recorded. The compliance of techniques with current guidelines was analyzed, and histopathological results were compared between groups using SPSS 22.

Results: Among the 65 polyps analyzed, 92.3% had a low-risk profile. High-grade dysplasia was limited to 6.2%, and no invasive malignancy was found (Incidental NET: 1.5%). It was determined that all high-risk lesions were in the ≥45 age group ($p=0.303$). Furthermore, 93.5% of the procedures complied with ESGE guidelines, and a statistically significant relationship was found between polyp size and technique selection ($p<0.001$).

Conclusion: Our study demonstrates that polypectomy procedures are performed with high adherence to current guidelines. The finding that all lesions in the young population had a low-risk profile supports the need for personalized clinical assessment in early screening approaches.

Keywords: Colorectal cancer, polypectomy, ESGE 2024, polyp, adenoma

SOP-27

The Impact of Breast Cancer Treatment on Obsessive-compulsive Symptoms: A Comparative Evaluation with Individuals Presenting for Screening

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Introduction: Obsessive-compulsive disorder is a disabling psychiatric condition marked by intrusive thoughts and repetitive behaviors. Its prevalence is elevated in individuals with chronic medical illnesses, and physical diseases may act as triggers for symptom exacerbation. Breast cancer may also be considered a potential trigger for obsessive-compulsive symptoms. This study aims to compare obsessive-compulsive symptom levels between women receiving breast cancer treatment and healthy women.

Methods: In this study, a total of 104 women were recruited, consisting of 52 breast cancer patients under treatment and 52 healthy controls attending screening. Participants completed a socio-demographic form and the Obsessive-Compulsive Inventory-Revised (OCI-R). Data were collected through face-to-face surveys. Group comparisons were performed to assess differences in obsessive-compulsive symptom severity and potential associations with socio-demographic variables.

Results: The median OCI-R score was 21 [interquartile range (IQR): 15-28] in the healthy control group and 11 (IQR: 7-18) in the treatment group. Contrary to initial expectations, obsessive-compulsive symptom severity was significantly higher in the healthy group compared with women undergoing breast cancer treatment. Age was negatively correlated with OCI-R scores, indicating a decrease in obsessive-compulsive symptoms with increasing age.

Conclusion: Women presenting for routine screening exhibited higher obsessive-compulsive symptom levels compared with patients receiving breast cancer treatment. The finding may be partly explained by the inverse relationship between age and OCI-R scores, as the treatment group was older on average. These results highlight that obsessive-compulsive symptoms may not necessarily increase in the context of serious medical illness and may, in some cases, be more prominent among younger individuals or those without chronic disease.

Keywords: Obsessive-compulsive disorder, breast cancer, psychological distress

SOP-28

Assessment of Clinical Decision-making Levels of Bezmialem Vakıf University Faculty of Medicine Students

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Introduction: Clinical decision-making is an essential skill for successful medical practice. This pilot study evaluates the clinical decision-making scale in this sample for the first time, aiming to understand how professional interest, gender, and class level relate to students' decision-making abilities.

Methods: Fourth, 5th, and 6th-year students studying at Bezmialem Vakıf University Faculty of Medicine were included in this cross-sectional study (n=236). Data were collected via Google Forms using a 4-item demographic form and the 27-item clinical decision-making scale. The obtained data were analyzed using the SPSS program, and factor analysis, reliability tests, and correlation analyses were performed.

Results: Factor analysis yielded a Kaiser-Meyer-Olkin value of 0.939, and Bartlett's test of sphericity was found to be significant ($p<0.001$), indicating that the data were suitable for factor analysis. The analysis revealed a 4-component structure explaining 66.81% of the total variance and has a Cronbach's alpha coefficient of 0.953. In inter-group comparisons, it was determined that the students' clinical decision-making levels did not show a statistically significant difference according to gender and class level ($p>0.05$). However, a statistically significant and positive relationship was detected between students' total clinical decision-making scores and their willingness to choose medical school ($r=0.349$; $p<0.001$) and interest in the profession ($r=0.450$; $p<0.001$).

Conclusion: This pilot study demonstrated that the scale used is a valid and reliable tool for medical students. The results indicate that clinical decision-making skills are more strongly associated with the student's interest and motivation in the profession rather than gender or year of study. Therefore, it is considered that approaches enhancing professional motivation in medical education will contribute to the development of clinical decision-making abilities.

Keywords: Clinical decision making, medical students, pilot study, professional interest, validity

SOP-29

The Relationship Between Anxiety and Mitral Valve Prolapse Syndrome in Children

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Introduction: This study aims to evaluate the somatic and functional manifestations of anxiety-related symptoms in children with mitral valve prolapse (MVP), specifically examining subjective fatigue, motivation, concentration, and physical activity levels compared to healthy peers.

Methods: The study was concluded with a total of 166 participants (83 MVP, 83 healthy controls) aged 8-17 years. The functional status of the participants, within the framework of anxiety scoring, was assessed using the Turkish version of the checklist individual strength scale. This scale effectively differentiates four subscales: subjective feeling of fatigue (SFF), concentration, motivation, and physical activity.

Results: The study reached its full sample size of 166 participants. Statistical analysis revealed that children with MVP syndrome experienced significantly higher functional impairment across all anxiety-related domains (SFF, concentration, motivation, physical activity) compared to the control group ($p<0.001$). SFF scores were markedly higher in the MVP group (43.55 ± 6.69) than in the controls (32.01 ± 8.54) ($p<0.001$). Furthermore, children with MVP demonstrated significantly lower levels of physical activity participation and motivation compared to their healthy peers ($p<0.001$).

Conclusion: The findings of this study prove that pediatric MVP syndrome is not merely a cardiac condition but is associated with high levels of anxiety-related fatigue and significant functional limitations. The assessment of parameters such as low physical activity and loss of motivation in the follow-up of children with MVP underscores the necessity of a multidisciplinary approach to improve the patients' quality of life.

Keywords: Mitral valve prolapse, pediatric cardiology, child psychology, anxiety, subjective fatigue, physical activity, CIS-T Scale, motivation, concentration

SOP-30

Accuracy of 18F-FDG PET/CT in Predicting Pathologic Response After Neoadjuvant Chemotherapy in Breast Cancer: Association with Molecular Subtypes

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Introduction: Breast cancer is the most common malignancy in women and a leading cause of cancer mortality. Neoadjuvant chemotherapy (NACT) enables tumor downstaging and chemosensitivity assessment, with pathologic complete response (pCR) as a key prognostic marker. Treatment response varies by molecular subtype and is highest in triple-negative and HER2-positive disease. This study evaluated fluorine-18-fluorodeoxyglucose (18F-FDG) positron emission tomography/computed tomography (PET/CT) accuracy in predicting pCR after NACT.

Methods: This retrospective single-center cohort included breast cancer patients treated with NACT between October 2010 and December 2024 who underwent baseline 18F-FDG PET/CT and curative surgery. Eligible patients' demographic and tumor characteristics were recorded across 54 parameters. Primary tumor and axillary SUV_{max} were measured pre- and post-NACT. pCR was defined as the absence of residual invasive carcinoma in the breast and axilla.

Results: Among 627 screened patients, 50 met the inclusion criteria, with an overall pCR rate of 28.0%. pCR was highest in triple-negative breast cancer (54.5%) and HER2-positive tumors (33.3%), followed by luminal B tumors (20.7%), with no pCR in luminal A tumors ($p=0.024$). Patients with pCR showed a median primary tumor SUV_{max} reduction of 100% versus ~68% in partial responders. SUV_{max} reductions <70% were associated with partial pathological responses (3/5-4/5). In the axilla, complete metabolic regression was frequent in pCR patients, although residual nodal disease persisted.

Conclusion: 18F-FDG PET/CT demonstrated strong concordance between metabolic regression and pathologic outcomes following NACT. Complete metabolic reductions were highly predictive of pCR, whereas partial decreases were more frequently associated with incomplete responses. Predictive value was higher in HER2-positive and triple-negative cancers and more limited in luminal subtypes. These findings support 18F-FDG PET/CT as a valuable noninvasive tool for predicting treatment response.

Keywords: Breast cancer, positron emission tomography, neoadjuvant chemotherapy, pathologic complete response

SOP-31

Cognitive and Behavioral Impairments in Patients with Idiopathic Focal Distonia

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Introduction: Basal ganglia dysfunction in dystonia is proposed to contribute to cognitive and behavioral disturbances via connections with the prefrontal cortex. Imbalances in dopaminergic and GABAergic systems likely influence both motor and non-motor domains. This study evaluated anxiety, depression, obsessive behaviors, and cognitive performance in patients with idiopathic focal dystonia (IFD).

Methods: In this prospective controlled study, 25 IFD patients and 36 age- and sex-matched radiculopathy controls were evaluated. Assessments included the Montreal cognitive assessment (MoCA), Pittsburgh sleep quality index (PSQI), Beck depression inventory (BDI), Beck anxiety inventory (BAI), and Padua inventory (PI).

Results: The IFD group (mean age 54.6±11.87 years) and control group (mean age 48.4±13.49 years) showed no significant age difference ($p=0.068$). Education duration was significantly higher in controls ($p<0.001$). A history of depression or anxiety diagnosis was significantly more prevalent in the IFD group ($p<0.001$). Regarding cognitive performance, MoCA scores were significantly higher in the control group ($p<0.001$). No statistically significant differences were found in PSQI, BAI, BDI, or PI scores between groups ($p>0.05$). Family history of movement disorders was similar across both groups.

Conclusion: IFD patients demonstrate significant differences in cognitive performance and psychiatric history compared to controls. Lower MoCA scores suggest cognitive impairment, though education levels may be a factor. The high prevalence of prior psychiatric diagnoses supports the hypothesis that basal ganglia dysfunction impacts behavioral domains. These findings suggest the IFD clinical spectrum includes non-motor symptoms arising from disruptions in basal ganglia-prefrontal cortex circuits.

Keywords: Idiopathic focal dystonia, obsession, anxiety, depression, cognitive function, sleep quality

SOP-32

Investigation of the Effects of Cilengitide on Gliosis and Microglial Responses in Alzheimer's Disease and the Metabolic Pathways of Fibronectin Protein

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Introduction: Activated astrocytes and microglia contribute to gliosis and cytokine release, amplifying synaptic and neuronal dysfunction. Integrin receptors, particularly αvβ3 and αvβ5, connect extracellular matrix (ECM) remodeling to immune activation, positioning them as central regulators of neuroinflammatory cascades. Cilengitide (CIL), a high-affinity RGD-based integrin antagonist, offers a targeted approach to modulating ECM-associated signaling.

Methods: Male 5xFAD and wild-type mice were assigned to C (control), Alzheimer's disease (AD), CIL (wild type+cilengitide) and AD+CIL (Alzheimer's+cilengitide) groups and received daily intraperitoneal CIL (4 mg/kg) for four weeks. Cortical and hepatic glial fibrillary acidic protein (GFAP), interleukin (IL)-1β, IL-6 and fibronectin levels were quantified via ELISA. Metabolomic data from C, AD, CIL+AD and CIL mice groups were analyzed using global liquid chromatography-mass spectrometry profiling, variance-adjusted group comparisons and pathway enrichment analysis.

Results: AD mice exhibited significantly reduced exploratory activity in the open field test ($p<0.01$) and increased time spent in closed arms of the elevated plus maze ($p<0.05$), indicating impaired exploration and heightened anxiety-like behavior. CIL treatment partially alleviated these deficits. Liver GFAP and IL-6 were significantly altered and fibronectin expression was modulated in both cortex and liver. These findings indicate a selective biological response involving differential regulation of inflammatory and ECM-related pathways. Significant alterations in oxidative stress-and energy metabolism-related metabolites were observed among groups ($p<0.05$). CIL treatment partially modulated Alzheimer-associated metabolic changes.

Conclusion: CIL demonstrates anxiolytic-like behavioral effects and selectively modulates peripheral and central molecular markers. The integration of behavioral and biochemical outcomes supports its potential to target ECM-associated neuroinflammatory mechanisms in AD.

Keywords: Alzheimer's disease, cilengitide, fibronectin, metabolomics, 5xFAD, neuroinflammation

SOP-33

All-inside vs. Anteromedial Portal ACL: Comparison of Clinical and Radiological Results

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Introduction: Several arthroscopic techniques have been described for anterior cruciate ligament (ACL) reconstruction; among these, the all-inside and anteromedial portal approaches have emerged as two of the most preferred and widely used techniques in current clinical practice. It is still unclear whether radiological tunnel parameters are associated with postoperative functional outcomes.

Methods: This retrospective cohort study included patients who underwent primary ACL reconstruction between 2017 and 2024. Patients were divided into two groups according to surgical technique: all-inside technique and anteromedial portal technique. Knee function and pain were evaluated using patient-reported outcome measures including Lysholm, Cincinnati, Tegner activity scale, International Knee Documentation Committee, and visual analog scale. Radiological assessment included preoperative magnetic resonance imaging evaluation of posterior tibial slope to exclude anatomical risk factors and postoperative radiographic analysis of femoral tunnel depth, height, and angle, as well as tibial tunnel anteroposterior position (Staubli and Jakob method), mediolateral position, and tibial tunnel angle. The relationship between radiological parameters and functional scores was also analyzed.

Results: Both surgical techniques resulted in marked postoperative improvement in knee function and activity levels compared with the preoperative period ($p<0.001$). The all-inside group reported less postoperative knee pain than the anteromedial portal group. Postoperative functional outcome scores did not differ between the two techniques ($p>0.05$). Radiological tunnel positioning parameters showed no meaningful association with functional or pain-related outcomes.

Conclusion: Both all-inside and anteromedial portal techniques lead to meaningful improvements in knee function following ACL reconstruction. From a clinical perspective, the all-inside technique may offer an advantage with respect to postoperative pain. Radiological tunnel positioning parameters were not associated with functional outcomes, suggesting that favorable clinical results can be achieved with either technique when appropriate surgical principles are followed.

Keywords: Anterior cruciate ligament, all-inside, anteromedial portal, radiological outcomes, knee arthroscopy

SOP-34

The Effect of Prior Chemotherapy on Short-term Cognitive Outcomes in Elderly Patients After Gamma Knife Radiosurgery

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Introduction: Gamma knife (GK) radiosurgery is an effective method for intracranial tumor control and may help preserve cognitive function in elderly patients. However, the neurotoxic effects of prior systemic chemotherapy (CT) may reduce cognitive recovery. This study aimed to determine whether a history of CT influences short-term cognitive gain in patients aged 65 years and older undergoing GK radiosurgery.

Methods: This retrospective study included 37 patients (≥65 years) treated with GK between 2014 and 2024. Patients were divided into two groups: those with prior CT (CT group, n=19) and those without (non-CT group, n=18). Cognitive status was assessed before treatment and again 3 months after GK using clinical cognitive grading. Cognitive gain was defined as an increase in cognitive scores from baseline. Statistical analysis included the Wilcoxon, Mann-Whitney U, and chi-square tests.

Results: Baseline demographics were similar between the groups (mean age: 72.7 vs. 71.2 years). The most notable result was the difference in overall cognitive trajectories: the non-CT group demonstrated significant cognitive improvement 3 months after GK (p=0.008), whereas the CT group showed no significant change, indicating stabilization rather than recovery (p=0.207). Comparative analysis confirmed that short-term cognitive gain was higher in the non-CT group (p=0.039). Subgroup analyses showed that the suppressive effect of CT on cognitive gain appeared across primary tumor types, particularly lung cancer, and was most significant in male patients (p=0.007). Advanced age was negatively associated with cognitive gain, particularly in the CT group.

Conclusion: Prior systemic CT may limit short-term cognitive gain following GK radiosurgery in elderly patients. While CT-naive patients tend to demonstrate measurable cognitive recovery, those with a CT history show stability without significant improvement. These findings may help guide clinical decision-making and patient expectations.

Keywords: Gamma knife, chemotherapy, cognitive gain, elderly, radiosurgery

SOP-35

Prognostic Value of Serum Cardiac Markers in Acute Pancreatitis

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Introduction: Acute pancreatitis (AP) presents with a wide clinical spectrum, from mild inflammation to life-threatening disease with multi-organ failure. Early prediction of disease severity remains challenging despite advances in imaging and laboratory testing. Cardiac and inflammatory biomarkers—such as troponin I, creatine kinase-myocardial band (CK-MB), N-terminal pro-B-type natriuretic peptide, C-reactive protein (CRP), lactate dehydrogenase (LDH), aspartate aminotransferase (AST), and D-dimer—have been proposed as potential indicators of disease burden, yet their prognostic value is still unclear. This study aimed to assess the usefulness of these biomarkers in estimating severity, complications, and clinical outcomes in AP.

Methods: This retrospective, two-center study included adult patients diagnosed with AP between January 2021 and December 2023 according to the Atlanta criteria. Patients with chronic pancreatitis, pancreatic cancer, insufficient laboratory or imaging data, or age under 18 were excluded. Demographic features, etiology, and laboratory results were retrieved from electronic medical records. Biomarker levels were compared across Balthazar computed tomography grades, complication status, etiological subgroups, and ward versus intensive care unit (ICU) admission. Statistical analysis were performed using the Kruskal-Wallis test, with significance set at $p<0.05$.

Results: Among 703 screened patients, 359 met the inclusion criteria and were analyzed. The mean age was 58.7±10.9 years, and 53.5% were female. No significant relationship was detected between Balthazar grades and D-dimer, LDH, AST, troponin, CK-MB, or CRP. CRP was significantly higher in patients who developed complications ($p=0.0218$) and in those with non-biliary etiology ($p=0.00126$). Troponin levels were significantly higher in ICU-admitted patients ($p=0.040$), while other biomarkers showed no significant differences.

Conclusion: Most biochemical markers did not correlate with radiological severity or clinical outcomes in AP. CRP showed the strongest association with complications and etiology, and troponin appeared to reflect greater physiological stress in critically ill patients. These results indicate that individual biomarkers alone are insufficient for predicting AP severity and should be interpreted alongside established clinical scoring systems.

Keywords: Acute pancreatitis, cardiac, biomarkers, prognosis, CRP

SOP-36

Evaluation of the Impact of DM on Cancer Development Risk and Awareness Levels

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Introduction: Diabetes mellitus (DM) is an escalating global metabolic disorder associated with increased risks of pancreatic, colorectal, breast, and endometrial cancers. This study evaluates participants' awareness of the relationship between DM and cancer risk to provide recommendations for enhancing public health literacy.

Methods: This descriptive study included 106 volunteers. Data were collected face-to-face interviews using a sociodemographic questionnaire and two validated scales: cancer awareness measure and Risk Perception Survey-DM. Informed consent was obtained, and ethical principles were followed. Analysis was performed with IBM SPSS 29.0 utilizing Shapiro-Wilk, t-test, analysis of variance and Pearson's correlation tests, significance set at $p<0.05$.

Results: Risk knowledge, optimism, anxiety, personal illness risk, environmental risk, warning signs awareness, preventive measures and risk factors were compared across demographic groups. Regarding education, only preventive measures differed significantly, with higher scores in the pre-high school cohort ($p=0.032$). Family history of diabetes yielded no significant differences ($p>0.05$). However, participants with a familial history of cancer exhibited higher risk knowledge ($p=0.005$) and personal illness risk ($p=0.002$), alongside lower optimism ($p=0.014$). Personal illness risk was also elevated in those with chronic illnesses ($p=0.036$). Correlation analysis showed risk knowledge was inversely associated with personal illness risk ($p=0.017$) and positively with environmental risk ($p=0.05$). Optimism was negatively correlated with anxiety ($p=0.03$) and positively with warning signs awareness ($p=0.006$). Anxiety showed positive correlations with personal illness risk ($p=0.013$) and environmental risk ($p=0.023$). A significant, low-level positive correlation was identified between personal illness risk and preventive measures ($p=0.027$, $r=0.215$).

Conclusion: Risk perception, risk knowledge, optimism, and anxiety are influenced by demographic factors and their interrelationships. Increased risk perception in individuals with a family history of cancer or chronic illness supports the need for targeted education for high-risk groups.

Keywords: Diabetes mellitus, cancer, CAM, RPS-DM

SOP-37

In vitro Evaluation of The Effects of *Piper nigrum* Extract on Melanogenesis

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Introduction: *Piper nigrum*, a medicinal plant widely used in traditional medicine, contains diverse bioactive constituents; however, its effects on melanogenesis have not been fully elucidated.

Methods: Total phenolic content (TPC) and total flavonoid content (TFC) of *Piper nigrum* extract (PNE) were determined using spectrophotometric methods. B16F10 cells were treated with increasing concentrations of PNE (0, 12.5, 25, 50, 75, 100, and 300 µg/mL). Cell viability was assessed using an adenosine triphosphate (ATP)-based luminescent viability assay to identify non-cytotoxic concentrations. Melanin content was quantified spectrophotometrically following treatment. Based on viability results, non-toxic concentrations (12.5, 25, and 50 µg/mL) were selected for further evaluation.

Results: PNE exhibited a substantial level of phenolic and flavonoid constituents. The TPC was measured as 45.25±1.37 mg gallic acid equivalents/g extract, while the TFC was 11.12±0.87 mg quercetin equivalents/g extract, confirming that the extract is rich in bioactive compounds. The ATP-based viability assay demonstrated that PNE did not induce significant cytotoxicity at concentrations of 12.5, 25, and 50 µg/mL, whereas higher concentrations resulted in reduced cell viability. Treatment with non-cytotoxic doses of PNE modulated melanin production in B16F10 cells in a dose-dependent manner.

Conclusion: The findings indicate that the phenolic- and flavonoid-rich PNE may influence melanogenesis at non-toxic concentrations. PNE may represent a promising natural candidate for further investigation in the context of pigmentation disorders such as vitiligo, and future studies are warranted to elucidate the underlying molecular mechanisms.

Keywords: *Piper nigrum*, piperine, vitiligo, melanogenesis, tyrosinase activity

SOP-38

Elucidating Relationship Between Epilepsy and Neuroinflammation: Assessment of HMGB1 Levels and Cognitive Function

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Introduction: High mobility group box 1 (HMGB1) is an important mediator of neuroinflammation and is thought to play a role in the pathophysiology of epilepsy. However, its relationship with cognitive performance and response to antiseizure drugs remains unclear. Our aim is to investigate differences in HMGB1 levels between patients with epilepsy (PWE) and healthy controls (HCs) and to examine the relationship between HMGB1 and cognitive performance in relation to patients' response to treatment.

Methods: This cross-sectional study included PWE and age-comparable HCs. Serum HMGB1 levels and Montreal Cognitive Assessment (MoCA) scores were evaluated. Group comparisons were performed using appropriate parametric or non-parametric tests. Receiver operating characteristic (ROC) analysis assessed the discriminative ability of HMGB1. Among patients, associations between HMGB1, MoCA, and treatment response were further analyzed using logistic regression models.

Results: A total of 51 individuals were included (27 PWE, 24 HCs). HMGB1 levels were significantly higher in PWE (median 16.5 vs. 21.0; p=0.006), with an area under the ROC curve of 0.72 (95% confidence interval 0.58-0.86). An HMGB1 cut-off value of 19.81 yielded 85% sensitivity and 56% specificity for distinguishing PWE from HCs. Global cognitive performance assessed by MoCA did not differ between patients and controls (p=0.43). Among patients, treatment-resistant epilepsy (TRE) had significantly lower MoCA scores (median 23 vs. 26; p=0.028). HMGB1 levels were higher in TRE, but this difference did not reach statistical significance (p=0.068). In multivariable logistic regression including both HMGB1 and MoCA, lower MoCA scores independently predicted TRE, whereas HMGB1 was not independent predictor.

Conclusion: HMGB1 is elevated in PWE and independently distinguishes patients from controls, supporting its role as a disease-related biomarker. However, cognitive performance rather than HMGB1 levels independently predicts antiseizure medication response, suggesting that cognitive impairment reflects clinical disease burden more directly than systemic inflammatory markers.

Keywords: Epilepsy, neuroinflammation, HMGB1, MoCA

SOP-39

Evaluation of Cilengitide's Impact on Amyloid-β Deposition and Metabolomic Profiles in an Alzheimer's Disease Model

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Introduction: Alzheimer's disease (AD) is a multifactorial neurodegenerative disorder characterized by amyloid-β (Aβ) accumulation, extracellular matrix (ECM) remodeling, and associated metabolic dysregulation that contribute to neuronal vulnerability. Cilengitide, a selective αvβ3/αvβ5 integrin antagonist, targets cell-matrix interactions implicated in amyloid deposition and represents a mechanistically distinct approach for modulating AD-related pathological networks.

Methods: Male 5x familial AD and wild-type (WT) mice were assigned to control, AD, WT+cilengitide, and AD+cilengitide groups. Cilengitide was administered intraperitoneally at 4 mg/kg/day for four weeks. Behavioral assessments included the open field, elevated plus maze, and Morris water maze tests. Cortical and liver tissues were analyzed for Aβ1-40, Aβ1-42, Aβ42/40 ratio, and fibronectin levels using enzyme-linked immunosorbent assay. Untargeted metabolomic profiling was performed to assess disease- and treatment-associated metabolic alterations, followed by normalization, statistical analysis, and pathway enrichment.

Results: Cilengitide treatment partially improved locomotor activity and anxiety-like behavior in AD mice ($p<0.01$), while spatial learning performance was not significantly restored. In the AD group, cilengitide significantly reduced cortical Aβ1-40 ($p<0.001$) and Aβ1-42 levels ($p<0.05$), accompanied by a significant decrease in fibronectin expression ($p<0.01$). Treatment also induced a significant alteration in the Aβ42/40 ratio ($p<0.05$), indicating modulation of amyloid processing. In liver tissue, the Aβ42/40 ratio was significantly shifted toward control levels following cilengitide administration ($p<0.05$). Metabolomic analysis identified significant treatment-associated changes in 3-hydroxykynurenine, thiamine monophosphate, cyclo-Tyr-Ala, and S-lactoylglutathione ($p<0.05$), with pathway enrichment highlighting thiamine metabolism and phenylalanine-associated pathways.

Conclusion: Integrin inhibition with cilengitide modulates amyloid pathology, ECM-associated processes, and metabolic networks in AD. These findings support integrin signaling as a promising therapeutic target for addressing interconnected molecular mechanisms underlying AD progression.

Keywords: Alzheimer's disease, cilengitide, amyloid-β, integrins, metabolomics, extracellular matrix

SOP-40

Evaluation of Patients With Inflammatory Bowel Disease Upadacitinib: A Clinical Assessment Study

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Introduction: Inflammatory bowel disease (IBD) is a chronic condition characterized by recurrent gastrointestinal inflammation. Common symptoms include abdominal pain, diarrhea, rectal bleeding, weight loss, and fatigue. Its etiology involves genetic, environmental, microbial, and immune factors. Although immunosuppressants, biologics, and immunomodulators constitute standard treatment, some patients experience loss of response or intolerance. Upadacitinib provide oral administration, low immunogenicity, and proven efficacy, though long-term safety remains under investigation. Real-world data are essential to assess their effectiveness.

Methods: This mixed retrospective-prospective study included IBD patients receiving upadacitinib at Bezmialem Vakıf University Hospital. Retrospective data covered demographics, diagnosis, disease and treatment duration, and endoscopic findings. Prospective data were collected through a structured questionnaire evaluating prior therapies, reasons for initiation, clinical response, adverse effects, management, discontinuation, and satisfaction.

Results: Between January 1999 and December 2022, 106 IBD patients receiving upadacitinib were identified, and 52 formed the analytic cohort. The mean age was 41.3 years, and 45.8% were female. Most patients had prior exposure to anti-tumour necrosis factor agents (97.9%) and azathioprine (81.3%). The main reason for switching was inadequate response (54.2%). Clinical improvement was frequently reported, particularly reductions in abdominal pain (39.6%) and diarrhea (58.3%). Mild adverse events occurred in 58.3% and were easily managed. Treatment was discontinued in 9 patients (18.8%), mainly due to insufficient response or persistent mild dermatologic effects.

Conclusion: Upadacitinib provided meaningful symptom improvement with a favorable safety profile, as all adverse events were mild and discontinuation remained low (15.8%). These findings support its use as a well-tolerated and effective option for patients who do not respond to or cannot tolerate previous treatments.

Keywords: Upadacitinib, ulcerative colitis, Crohn's disease

SOP-41

In vitro Evaluation of the Synergistic Interaction Between Tamoxifen and Chestnut Honey in Luminal A Breast Cancer Therapy

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Introduction: Tamoxifen (TAM) is widely used in luminal A [estrogen receptor (ER)+/progesterone receptor (PR)+] breast cancer, yet its adverse effects remain an important concern. Chestnut honey (CH), known for its antioxidant and antiproliferative properties, may help enhance therapeutic responses, but evidence on its combined use with TAM is limited. This study investigated the cytotoxic and apoptotic effects of CH alone and in combination with TAM in luminal A (ER+/PR+) breast cancer cells.

Methods: The cytotoxic and apoptotic effects of TAM, CH, and their combination on Michigan cancer foundation-7 (MCF-7) cells were evaluated via MTT assay and acridine orange/ethidium bromide (AO/EB) staining. Relative expression levels of BAX, caspase-3, and B-cell lymphoma 2 (BCL-2) were quantified using probe-based real-time polymerase chain reaction, with results normalized to β-actin via the 2-ΔΔCt method.

Results: CH exhibited total phenolic and flavonoid contents of 44.85±8.58 mg GAE/100g and 42.07±2.35 mg QE/100g, respectively. In MCF-7 cells, the combination of TAM and CH demonstrated a synergistic interaction (confidence interval: 0.48), significantly enhancing cell death to 41-45% compared to TAM (5.1%) or CH (26.7%) alone confirmed by AO/EB staining. Treatment with the TAM (10 µM) and CH (4%) combination for 24 hours resulted in a marked activation of pro-apoptotic signaling, as evidenced by significant upregulation of BAX ($p<0.05$) and *caspase-3* ($p<0.001$) gene expression. Notably, caspase-3 expression increased 10.61-fold compared with the control group, despite no significant change in the BAX/BCL-2 ratio.

Conclusion: CH synergistically enhances the antitumor activity of TAM in MCF-7 cells. These findings suggest that CH may have potential as an adjuvant approach to support endocrine therapy in luminal A breast cancer and warrant further investigation.

Keywords: Chestnut honey, luminal A (ER+/PR+) breast cancer, tamoxifen, synergy

SOP-42

Investigation of Mean Arterial Pressure at Emergency Department Admission and Initial NIHSS Score in Acute Ischemic Stroke Patients

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Introduction: Mean arterial pressure (MAP) is a reliable indicator of organ perfusion, with a normal range of 70-100 mmHg. Adequate cerebral perfusion is vital in stroke patients. This study aimed to investigate the relationship between MAP levels at emergency department admission and initial stroke severity, as assessed by the National Institutes of Health Stroke Scale (NIHSS), in patients with acute ischemic stroke.

Methods: This retrospective study included patients aged 18 years and older who presented to the emergency department with acute ischemic stroke between January 1, 2022 and January 1, 2024. MAP and NIHSS scores were calculated on admission. Patients were divided into MAP groups and NIHSS scores were compared.

Results: A total of 215 patients were evaluated. In the low MAP group (n=47), mean NIHSS was 12.6±4.9; in the medium MAP group (n=111), 9.9±3.9; and in the high MAP group (n=57), 10.2±5.0. The overall mean NIHSS was 10.6±4.5. The difference between groups was statistically significant (p=0.001). Gender distribution showed slightly higher rates of low MAP in females (25.3% vs. 19.2%) and higher rates of high MAP in males (27.5% vs. 25.3%), but this was not statistically significant (p>0.05).

Conclusion: Higher NIHSS scores in the low MAP group suggest that hypoperfusion may increase stroke severity. The similarity of scores in the medium and high MAP groups indicates that MAP values above a certain threshold may not provide additional benefit. These findings suggest that low MAP at presentation is associated with greater initial stroke severity, highlighting the importance of avoiding hypoperfusion during early stroke management.

Keywords: Stroke, mean arterial pressure, NIHSS, hemodynamics, clinical outcomes

SOP-43

Evaluation of the Relationship Between Coronary CT Angiography Findings and Clinical, Demographic Characteristics and Laboratory Parameters in Hypertension Patients

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Introduction: Coronary artery disease (CAD) is one of the major causes of morbidity and mortality worldwide. Coronary computed tomography angiography (CCTA) has rapidly evolved method for diagnosis and evaluation of CAD. The aim of this study is to evaluate the consistency between two techniques used in the diagnosis of CAD; non-invasive CCTA and the gold standard conventional angiography.

Methods: This retrospective study included consecutive patients which first, CAD was detected by CCTA, and then conventional angiography was performed. A CCTA was performed on all patients utilising a 128-slice single-source scanner (SOMATOM go.Top; Siemens Healthcare, Forchheim, Germany). Demographic characteristics and laboratory results of all patients were examined from hospital records.

Results: Among 210 study patients, 136 (64.8%) were males. Mean age of the study population was 64.3±11.1 years. Single vessel, two and multi (≥3) vessel diseases were present in 98 (46.7%), 43 (20.5%) and 34 (16.2%) respectively; 27 (12.9%) were having insignificant disease and 8 (3.8%) showed normal coronaries. Mean coronary artery calcium score and CAD-reporting and data system scores were 264.5±448.8 and 3.2±1.0 respectively. CCTA results were consistent with conventional angiography in only one-third of patients. (78 patients, 37.1%). Most patients (23/35, 65.7%) with non-critical (<50%) coronary stenosis at CCTA had compatible angiography results whereas only in 58/175 (33.1%) patients with significant coronary stenosis at CCTA had similar angiographic lesions ($p<0.01$). None of the demographic characteristics or laboratory parameters, such as age, gender, diabetes, hypertension, or smoking status, were associated with this condition.

Conclusion: In patients undergoing CCTA for suspected CAD, many non-critical coronary stenoses appear similarly on conventional angiography, while the accuracy decreases in critical coronary stenoses.

Keywords: Coronary CT angiography, coronary artery disease, conventional angiography

SOP-44

Comparison of Plasma Cell Ratios in Bone Marrow Aspiration by Flow Cytometry and Pathology Values in Multiple Myeloma

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Introduction: Plasma cell ratios often differ with flow cytometry (FC), bone marrow aspiration (BMA), bone marrow biopsy (BMB) methods and decrease in the order BMB, BMA, FC in multiple myeloma (MM). We aimed to analyze plasma cell ratios in BMB, BMA, FC within each other and then its relationship with hemogram and biochemistry results.

Methods: In this retrospective cohort study, 399 patients diagnosed with MM between 2012 and 2025 were examined. One hundred and sixty-six patients over the age of 18; who had no concurrent malignancy or hematological disease and whose FC, BMA, BMB were performed at Bezmialem Vakıf University (BVU) Hospital and whose results were evaluated at BVU Hospital, were included to study. The relationship between FC, BMA, BMB ratios and their relationship with hemogram and biochemical results were analyzed with SPSS.

Results: Friedman's test revealed that FC, BMA, BMB ratios were significantly different from each other in pairwise comparisons. The mean plasma cell ratios from FC, BMA, BMB were respectively found as 15%±17%, 31%±23%, 45%±26%. Statistically significant strong positive correlations were found between FC, BMA, BMB ($r=0.643$-0.770, all $p<0.001$). A weak to moderate negative correlation was found between eosinophils and BMB ratio ($r=-0.369$, $p<0.001$), a weak to moderate positive correlation was found between total protein and BMB ratio ($r=0.339$, $p=0.001$). Weak positive significant correlation was found between MCV and BMA ratio ($r=0.226$, $p=0.004$).

Conclusion: We observed that plasma cell ratios in FC, BMA, BMB differed from each other; with BMB showing higher and FC showing lower. A weak to moderate negative significant correlation was observed between BMB ratio and eosinophil count. Weak positive significant correlation was observed between BMA ratio and MCV.

Keywords: Multiple myeloma, plasma cell ratios, flow cytometry, bone marrow biopsy, bone marrow aspiration

SOP-45

Effects of Using Curcumin-ellagic Acid Combination on Colorectal Polyp & Cancer Patients with Respect to Liver Functions

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Introduction: Colorectal polyps, arising from the mucosal or submucosal epithelium, are clinically relevant because of their potential to progress into colorectal cancer (CRC). CRC is one of the most common cancers worldwide, developing through multistep genetic and environmental mechanisms. PolyPhyto CurcuNar®, containing turmeric extract (curcumin) and pomegranate peel extract (ellagic acid), has gained attention for its polyphenol-rich antioxidant and anti-inflammatory profile. Although both components have documented benefits in liver and colorectal diseases, no study has evaluated their combined effects on both systems simultaneously.

Methods: This retrospective study included patients diagnosed with CRC or polyps who were treated at the General Surgery Outpatient Clinic of Bezmialem Vakıf University Hospital between January 2019 and April 2025 and received PolyPhyto CurcuNar®. Demographic data, diagnoses, treatment characteristics, and liver function tests [aspartate aminotransferase (AST), alanine aminotransferase (ALT), gamma-glutamyl transferase (GGT)] from the first three months of supplementation were analyzed to assess hepatic effects.

Results: A statistically significant difference appeared only in ALT levels at the second month: the supplement group showed a median ALT of 29 versus 23 in the non-supplement group ($p=0.031$). All other measurements—AST 1, AST 2, AST 3, ALT 1, ALT 3, GGT 1, GGT 2, and GGT 3—showed no significant differences (all $p>0.05$). Importantly, even the slightly elevated ALT remained within the normal reference range (<41 U/L), indicating no clinically meaningful hepatic disturbance.

Conclusion: Overall, the findings demonstrate that PolyPhyto CurcuNar® does not adversely affect liver function in patients with colorectal polyps or cancer. The supplement appears safe as an adjunct to standard therapy and may serve as a supportive phytotherapeutic option in clinical practice.

Keywords: Colorectal neoplasms, colonic polyps, curcumin, AST, ALT, GGT

SOP-46

Assessment of Human Papillomavirus (HPV) and HPV Vaccine Awareness Among Medical Students in İstanbul

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Introduction: Human papillomavirus (HPV) is among the most common sexually transmitted infections and is a major etiological factor for cervical, anogenital, and oropharyngeal cancers. HPV vaccination is a proven preventive method. This study aimed to assess medical students' knowledge, awareness, and attitudes regarding HPV and its vaccination.

Methods: A cross-sectional survey was conducted in 2025 using an 18-item structured questionnaire administered to 387 medical students. Data were analyzed using descriptive statistics.

Results: Of the participants, 57.2% were female (n=222) and 42.5% male (n=165). Knowledge of high-risk HPV types was correct in 45.9%, and 55.9% recognized its natural course. Regarding HPV-related male malignancies, 44.6% answered completely correct and 43.6% partially correct. Only 21.6% correctly identified the immune response to vaccination. Knowledge of age and dose schedule was high (90.7% correct). Awareness of HPV-related health policies in Türkiye was 87.1%. Concerning education adequacy, 38.1% found it sufficient, 44.3% partially sufficient, and 17.5% insufficient. Almost all students (99.5%) supported including the vaccine in the national immunization program, and 95.4% supported free public access. Awareness of the Pap smear-HPV relationship was 87.9%, while knowledge of contraindications was low (32.2%). Furthermore, 44.1% reported negative perceptions about HPV vaccination in their environment, and 90.7% emphasized the counseling responsibility of healthcare professionals.

Conclusion: Medical students strongly support HPV-related health policies. However, substantial knowledge gaps persist concerning immune response, natural history, contraindications, and HPV-related male cancers. Strengthening curricula especially in clinical and preventive medicine and improving communication and counseling skills are essential to address societal prejudices and enhance future medical practice.

Keywords: HPV, HPV vaccine, medical students, knowledge, attitudes, public health

SOP-47

Does Atorvastatin Have An Effect On Endometriosis Lesions? A Rat Model

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Introduction: Endometriosis is a chronic inflammatory disease characterized by the implantation of ectopic endometrial tissue outside the uterus. Atorvastatin is a 3-hydroxy-3-methylglutaryl-coenzyme A reductase inhibitor known for its anti-inflammatory and antiproliferative properties. The aim of this study is to investigate the effects of atorvastatin on lesion size and inflammatory response in an experimental endometriosis model.

Methods: Twenty-one female Sprague Dawley rats were included in the study. An endometriosis model was established by implanting uterine horns onto the abdominal peritoneum (November 27, 2025). Successful lesion formation was confirmed in all subjects by relaparotomy performed 22 days after implantation (December 18, 2025), and baseline lesion sizes (mm^2) were measured. The treatment group (n=11) received atorvastatin at a dose of 10 mg/kg/day via oral gavage for 22 days, while the control group (n=10) received an isotonic solution. On January 20, the subjects were sacrificed, lesion sizes were re-measured, and tissues were scored histopathologically (hematoxylin and eosin) and immunohistochemically [tumor necrosis factor-alpha (TNF-α), interleukin-6 (IL-6)].

Results: No statistically significant differences were found between the control and treatment groups in terms of endometrial gland and stroma scores, chronic hemorrhage, and TNF-α expression ($p>0.05$). Furthermore, no significant regression in lesion sizes was observed from baseline to the end of the study in either group ($p>0.05$). However, IL-6 staining intensity was found to be higher in the treatment group compared to the control group ($p=0.030$).

Conclusion: In this experimental model, it was observed that atorvastatin administered at a dose of 10 mg/kg did not have a significant effect on endometriosis foci at the macroscopic or inflammatory level. Further studies covering different doses and durations are needed to evaluate the potential effects of atorvastatin use.

Keywords: Endometriosis, atorvastatin, rat model

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10th ANNUAL MEDICAL STUDENTS' RESEARCH DAY 13 MARCH 2026

POSTER PRESENTATIONS

PP-1

Performance of a Novel Smartphone-based Slit-lamp Device for Accessible Cataract Screening

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Introduction: Cataracts are the leading cause of blindness worldwide, but traditional slit-lamps are often large, non-portable, expensive, and require trained personnel, limiting accessibility in underserved settings. Here, we evaluate the usability and performance of a novel smartphone-based slit-lamp device, Seeker™, for accessible cataract screening.

Methods: We developed a smartphone-based imaging device using a Samsung Galaxy S8 camera with a magnifying lens, LED-powered slit beam system, and ambient light-blocking scope. The device was tested in a prospective study involving patients with dilated and non-dilated pupils (≥4 mm), recruited from cornea and glaucoma clinics at the Wilmer Eye Institute. Ophthalmologists graded images for clinical diagnosability and six quality criteria: focus, absence of lighting artifacts, eye centration, slit beam pupil transection, primary gaze, and eyelid opening.

Results: Imaging was performed on 52 eyes (30 artificial intraocular lens, 16 immature cataract, 6 clear lens) from 28 patients (median age 68.5 years; 57.1% female). Ophthalmologists found 88.5% of images suitable for diagnosis. The device met image quality standards as follows: focus (73.1%), no lighting artifacts (100%), eye centration (100%), slit beam transection of pupil (88.5%), primary gaze (100%), eyelid opening (94.2%). All criteria were met in 65.4% of images. Cataract grading concordance between smartphone-based grading and the gold standard, in-clinic slit-lamp assessment was 88.5%. All discordant cases were rated as clear lens via in-clinic slit-lamp examination but were graded as immature cataract via Seeker™ image review.

Conclusion: The Seeker™ smartphone-based slit-lamp device enables acquisition of clinical grade, diagnostically useful images, offering a promising tool for cataract screening and telemedicine-based assessment of lens status, particularly in underserved settings where trained specialists may not be readily available.

Keywords: Cataract screening, slit-lamp, smartphone-based

PP-2

Morphometric Evaluation of Foot Size and Height Ratio of Today's Young People

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Introduction: The human foot, composed of 26 bones and 13 muscles, bears the entire weight of the body and plays a crucial role in locomotion. Previous studies have demonstrated a strong correlation between foot dimensions and stature, suggesting that foot measurements can be used to estimate an individual's height. However, these studies often rely on broader age groups, limiting the precision of their findings. This study aims to investigate the morphometric relationship between foot size and height among individuals aged 15-29 years, segmented into five-year intervals, to achieve more specific results by gender and age group.

Methods: This cross-sectional study targets 100 healthy adolescents and adults (50 females, 50 males) aged 15-29 years, divided into five-year segments, with each segment including 10 males and 10 females. Individuals with any pathological conditions, amputations, deformities, rheumatic diseases, or growth disorders affecting the feet or height are excluded. Data were collected using a structured questionnaire including demographic data, height, and foot length. The data will be analyzed using SPSS 23.0 with descriptive statistics, standard deviations, ratios, and a significance threshold of $p \leq 0.05$. Informed consent obtained.

Results: Correlations ranged from moderate to strong, with the strongest correlation found in females aged 15-17 years of age ($r=0.672$, $p<0.05$). Correlation strength for other ages and genders tended to follow similar trends, although in general terms correlations tended to be weaker when compared to younger or older age groups.

Conclusion: This study found that foot length is related to height regardless of age group with the degree of association varying widely between the age groups. Future studies with larger sample sizes will provide further evidence to support our initial findings.

Keywords: Foot dimensions, stature estimation, morphometry

PP-3

The Impact of Brain Reserve on Functional Recovery After Acute Ischemic Stroke

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Introduction: Functional outcomes after acute ischemic stroke (AIS) vary widely, even among patients with similar clinical presentations and perfusion imaging findings. Perfusion-based imaging plays a key role in acute stroke evaluation through identification of the ischemic penumbra, defined as hypoperfused but potentially salvageable brain tissue. Although penumbral volume is commonly used to estimate tissue at risk and guide treatment decisions, it does not consistently predict functional recovery.

Methods: Perfusion imaging obtained by computed tomography or magnetic resonance imaging is used to differentiate irreversibly damaged ischemic core from surrounding penumbral tissue. Brain reserve is conceptualized as the brain's structural capacity to tolerate injury and is approximated using imaging-based measures such as total brain volume and cortical integrity. Functional outcome is evaluated using standardized clinical outcome scales. The relationship between perfusion-defined penumbra and functional outcome is examined in the context of brain reserve.

Results: It is anticipated that patients with greater brain reserve will demonstrate more favorable functional outcomes despite larger perfusion-defined penumbra volumes. In contrast, patients with lower brain reserve may experience disproportionate functional impairment even when ischemic injury is relatively limited.

Conclusion: Brain reserve may act as an important modifier of the relationship between perfusion-defined penumbra and functional outcome in AIS. Considering brain reserve alongside perfusion imaging may improve prognostic accuracy and contribute to a more individualized approach to acute stroke management.

Keywords: Acute ischemic stroke, brain reserve, perfusion imaging, penumbra, functional outcome

PP-4

The Frequency of *Candida* Infection in Patients with Pre-diagnosis of Vaginitis Applying to Bezmialem Vakıf University Application and Research Hospital

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Introduction: Vaginitis is a common cause of gynecology outpatient admissions and contributes significantly to healthcare costs. *Candida* species are the second most frequent infectious agent after bacterial vaginosis. Several predisposing factors, including pregnancy, diabetes, poor hygiene, and socioeconomic status, may increase susceptibility. This study aimed to determine the prevalence of *Candida* infection among patients presenting with suspected vaginitis and to evaluate microbiological characteristics.

Methods: This retrospective descriptive study included patients admitted between January 2019 and December 2024 with a preliminary diagnosis of vaginitis. Vaginal swab samples were analyzed using Gram staining and cultured on blood and chocolate agar. Demographic, clinical, microbial, and antibiotic susceptibility data were retrieved from the hospital information system. A priori power analysis indicated a required minimum of 62 patients, while 404 were included. Statistical analyses were performed using SPSS 28 with chi-square and t-tests, considering $p<0.05$ as significant.

Results: The mean patient age was 34.0±11.6 years. The most frequently isolated microorganism was *Escherichia coli* (30%), followed by *Staphylococcus aureus* (20.3%), *Gardnerella vaginalis* (11.4%), and *Klebsiella pneumoniae* (9.4%). *Candida species* were identified in 13.9% of samples, with *Candida albicans* detected in 5.9% and non-albicans species in 8%. Antibiotic susceptibility analysis revealed 100% susceptibility to carbapenems, aminoglycosides, cephalosporins. Penicillin (69.8%) and trimethoprim-sulfamethoxazole (76.7%) demonstrated the lowest susceptibility. Pregnancy was present in 10% of patients, and 45.7% had a history of prior admission with similar symptoms.

Conclusion: Although *Candida* species represent an important cause of vaginitis, bacterial pathogens were more frequently identified. High susceptibility to broad-spectrum antibiotics supports their continued clinical effectiveness. These findings provide valuable epidemiological and microbiological data regarding vaginitis etiology in the Turkish population.

Keywords: Vaginitis, *Candida* infection, prevalence, antimicrobial susceptibility, retrospective study

PP-5

Monitoring of Dialysis-Related Complications in Dialysis Patients with Diabetic Nephropathy

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Introduction: Diabetic nephropathy is a major cause of end-stage renal disease, making dialysis essential for patient survival. However, dialysis often leads to acute complications that can reduce quality of life and increase mortality. The most frequent event is intradialytic hypotension, followed by arrhythmias, cramps, headache, and hypoglycemia. This study aims to evaluate the frequency and types of dialysis-related complications in patients with diabetic nephropathy.

Methods: A three-month prospective study was conducted among adults (>18 years) receiving dialysis for at least three months due to diabetic nephropathy. Patients provided informed consent. Monitored complications included hypotension, hypo/hyperglycemia, cramps, headache, nausea, abdominal pain, catheter-site issues, loss of consciousness, joint pain, high venous pressure, deterioration, and thrombotic events. With a 95% confidence level, 5% margin of error, and 12% prevalence, the minimum sample size was 163. Descriptive statistics and appropriate parametric or non-parametric tests were used, with $p<0.05$ considered significant.

Results: A total of 163 patients (60.7% male, 39.3% female; age 36-90 years) were included. Blood flow rates ranged from 500-1200 mL/min, and membrane surface areas from 1.4-2.2 m^2. The mean number of antihypertensive drugs was 0.8, with an average of 12 dialysis sessions per month and a mean dialysis duration of 5.3 years. The mean interdialytic fluid gain was 4.3 kg. Complications occurred in 44.7% of patients, with hypotension (41%) being the most frequent, followed by cramp (12%). No complication differed significantly by sex ($p>0.05$).

Conclusion: Dialysis-related complications are common in diabetic nephropathy patients, with hypotension being the predominant acute event.

Keywords: Diabetic nephropathy, dialysis, complications

PP-6

Assessment of Awareness and Knowledge Levels Regarding Traditional and Complementary Medicine Among Students of the Faculties of Medicine, Dentistry, and Pharmacy at Bezmialem Vakıf University

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Introduction: Traditional and complementary medicine (TCM) has been gaining increasing attention as supportive healthcare practices and is widely used across populations. Assessing healthcare students' awareness and knowledge of these methods is essential, as it contributes to their future professional guidance and overall health literacy. This study aims to evaluate TCM awareness and knowledge among students from the Faculties of Medicine, Dentistry, and Pharmacy at Bezmialem Vakıf University.

Methods: This cross-sectional study included volunteer students aged 18-30 from the Faculties of Medicine, Dentistry, and Pharmacy. Data were collected using validated tools, including the 25-item CACMAS rated on a 7-point Likert scale. Prior studies indicated that a minimum of 48 participants was required for 95% confidence and 80% power. Descriptive statistics were applied, and chi-square and t-tests were used for group comparisons.

Results: This study found that students from the Faculties of Medicine, Dentistry, and Pharmacy at Bezmialem Vakıf University have high awareness of TCM. Despite being informed, most students showed low interest in using these methods and relied mainly on their physicians. A few had family members who practiced TCM, and only a small group supported its use. Overall, awareness was high, but willingness to apply TCM remained limited, indicating the need for clearer educational efforts.

Conclusion: Our study suggests that incorporating structured TCM content into the medical curriculum could enhance students' awareness and understanding of these practices. Strengthening educational programs is essential to better prepare Medicine, Dentistry, and Pharmacy students to critically evaluate and communicate about TCM methods in their future clinical practice.

Keywords: Traditional and complementary medicine, awareness, traditional health practices

PP-7

Assessment of Breast Self-examination Awareness and Knowledge Levels Among Students of the Faculties of Medicine, Dentistry, and Pharmacy at Bezmialem Vakıf University

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Introduction: Breast self-examination (BSE) is a simple and practical method that plays an important role in the early detection of breast cancer. A high level of awareness and knowledge among healthcare students is essential, both for their personal health behaviors and their future professional responsibilities. This study aims to assess the knowledge and awareness levels regarding BSE among students of the Faculties of Medicine, Dentistry, and Pharmacy at Bezmialem Vakıf University.

Methods: A cross-sectional survey was conducted among female students aged 18-30 from the Faculties of Medicine, Dentistry, and Pharmacy at Bezmialem Vakıf University. Participants were voluntarily recruited, and informed consent was obtained. Data were collected using the Self-Breast Examination Behavior Scale, which measures examination frequency on a four-point scale. Prior research indicated a minimum sample size of 68 for adequate statistical power (95% confidence, 80% power). Descriptive statistics were generated, and group comparisons were analyzed using chi-square and t-tests.

Results: This study found that students from the Faculties of Medicine, Dentistry, and Pharmacy at Bezmialem Vakıf University generally demonstrated high awareness and knowledge of BSE. While most answered questions on early detection, risk factors, and timing correctly, greater variation in responses related to technique and frequency indicates lingering uncertainty. Overall awareness was high, but the findings highlight the need for targeted educational efforts to address these specific gaps.

Conclusion: Our study suggests that integrating structured BSE training into health curricula can improve students' awareness and knowledge. Enhancing educational programs is important to better prepare medicine, dentistry, and pharmacy students to perform BSE correctly and to guide patients effectively in their future practice.

Keywords: Breast self-examination, early diagnosis, awareness

PP-8

Knowledge and Awareness Level of Collagen Use Among Bezmialem Vakıf University

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Introduction: The aim of this study is to evaluate the knowledge and awareness levels regarding collagen use among students of the Faculties of Medicine, Dentistry, and Pharmacy at Bezmialem Vakıf University and to examine the relationship between this knowledge and students' motivation and beliefs.

Methods: A cross-sectional descriptive study design was used, involving 32 students aged 18-30 from the Faculties of Medicine, Dentistry, and Pharmacy. Data collection was performed using a structured questionnaire consisting of demographic items, the Dietary Supplement Knowledge and Awareness Scale, and the Supplement Use Motivation and Belief Scale.

Results: A total of 32 students participated in the study. The sample consisted of 75% females (n=24) and 25% males (n=8). The majority of participants (93.8%, n=30) were in the younger age category (18-24). Regarding academic programs, 84.4% (n=27) were enrolled in the faculty of medicine. Awareness and knowledge scores varied across items: 93.8% of participants reported that they had never used collagen supplements. Responses regarding collagen use were evenly split between it is beneficial and it should be used with caution (46.9% each). The belief that collagen addresses nutrient deficiencies found in essential foods had the highest prevalence (37.5%). The need to consult a specialist about collagen supplements was more prevalent, with category 4 being most selected (37.5%). 75% of the responses indicated that had no social media influence or were not following social media before taking collagen supplements. When asked "Do you get collagen supplement recommendation from influencers?" 84.4% of respondents selected the "no" category.

Conclusion: The study revealed strong foundational knowledge and awareness of collagen supplementation among health sciences students. However, persistent misconceptions highlight the need for targeted educational strategies to promote evidence-based decision making among future healthcare professionals.

Keywords: Collagen, dietary supplements, awareness, medical students, social media influence

PP-9

Combined Evaluation of Fecal Occult Blood Test and Laboratory Parameters for Risk Assessment of Colorectal Neoplasia

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Introduction: Colorectal cancer (CRC) is a major health burden, and early detection of precursor lesions is essential. Fecal occult blood testing (FOBT) is widely used as a screening tool; however, its performance may be improved by incorporating routine laboratory parameters obtained in clinical practice. This study aimed to evaluate whether laboratory findings provide additional value alongside FOBT in colorectal neoplasia risk assessment.

Methods: This retrospective study included patients who underwent colonoscopy at Bezmialem Vakıf University Hospital between January 2015 and August 2025 with available FOBT results. Patients were categorized into four groups: polyp-free controls (n=49), non-advanced adenoma (n=74), advanced adenoma (n=53), and adenocarcinoma (n=19). Hematological parameters, inflammatory indices, and biochemical parameters were compared across groups.

Results: FOBT positivity increased with more advanced colorectal pathology ($p<0.001$). Significant differences were identified in several laboratory parameters. Hemoglobin and HDL levels differed significantly across groups, with lower values observed in neoplastic pathology ($p=0.033$ and $p=0.004$, respectively). Aspartate aminotransferase (AST) and carbohydrate antigen (CA) 19-9 levels also showed significant variation, with higher levels detected in neoplastic cases ($p=0.018$ and $p=0.011$, respectively). Inflammatory indices demonstrated weaker associations; although the systemic immune-inflammation index ($p=0.034$) and the pan-immune-inflammation value ($p=0.030$) varied across groups, pairwise differences were not significant after adjustment for multiple comparisons. Other parameters revealed no significant differences.

Conclusion: Specific laboratory parameters including hemoglobin, HDL, AST, and CA 19-9 were associated with colorectal neoplastic severity. While these findings suggest a potential supportive role alongside FOBT in risk assessment, further studies with larger and more evenly distributed patient groups are needed to better define their clinical relevance.

Keywords: Colorectal neoplasia, risk assessment, laboratory parameters

PP-10

The Impact of Hematological Indices on Disease Progression in Chronic Kidney Disease

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Introduction: Chronic kidney disease (CKD) is a progressive condition in which inflammation contributes to functional decline. To evaluate whether inflammatory indices derived from complete blood count are associated with CKD progression quantified by the annual estimated glomerular filtration rate (eGFR) slope.

Methods: This retrospective cohort study included adult patients with CKD followed in a nephrology outpatient clinic, not receiving renal replacement therapy at baseline, with at least three creatinine/eGFR measurements and a minimum follow-up of 90 days. eGFR was calculated using the race-free CKD-EPI 2021 equation. Neutrophil-to-lymphocyte (NLR), platelet-to-lymphocyte (PLR), and monocyte-to-lymphocyte (MLR) ratios were calculated from mean complete blood count values during follow-up. eGFR slope (mL/min/1.73 m^2/year) was estimated as the linear regression coefficient of eGFR over time (years). Multivariable linear regression with HC3 robust standard errors was used, adjusted for age, sex, baseline eGFR, proteinuria category, hypertension, diabetes mellitus, and log-transformed C-reactive protein (CRP).

Results: The cohort included 5,004 patients (61.1±13.1 years; 55.8% female). Median eGFR slope was -4.07 (interquartile range: -10.40 to -0.77). Indices and CRP showed weak inverse correlations with eGFR slope (ρ=-0.058 to -0.126; all $p<0.001$). In complete cases (n=2,599), ln(MLR) (β=-4.545; $p=0.012$) and ln(CRP) (β=-0.948; $p=0.001$) were independently associated, whereas ln(NLR) and ln(PLR) were not. Doubling of MLR corresponded to a -3.15 mL/min/1.73 m^2/year faster loss of kidney function.

Conclusion: Higher mean MLR and CRP levels are independently associated with faster CKD progression. NLR and PLR provide limited independent information when jointly modeled, and missing covariate data reduced the multivariable sample size. These findings support MLR as a practical inflammatory marker for clinical risk stratification.

Keywords: C-reactive protein, eGFR slope, chronic kidney disease, monocyte-to-lymphocyte ratio, systemic inflammation

PP-11

The Effect of Exam Stress on Cigarette Consumption

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Introduction: Exam periods represent one of the most significant sources of acute stress among university students, particularly in medical education. Stress is known to influence smoking behavior, often increasing both the frequency and urge to smoke. This study aimed to investigate the relationship between exam-related stress and cigarette consumption among medical students, as well as to assess their motivations and confidence levels regarding smoking cessation.

Methods: A cross-sectional online survey was administered to medical students using a structured questionnaire. Items included demographic variables, daily cigarette consumption, time to first cigarette after waking, and situations triggering smoking desire. Participants were also asked to rate their desire to quit smoking and confidence in their ability to do so. Descriptive statistics were used to analyze responses.

Results: A total of 80 students completed the survey. Most participants (37.8%) reported smoking 11-20 cigarettes per day, while 30.5% smoked 6-10. Regarding nicotine dependence indicators, 42.1% reported smoking their first cigarette more than 60 minutes after waking, whereas 28.9% smoked within 6-30 minutes. Situational triggers were highly exam-related: 35.1% smoked during exam periods, 32.4% before exams, and 35.1% after exams. Emotional triggers such as sadness (71.6%) and anger (67.6%) were also common. Health concerns were the predominant reason for wanting to quit (84.3%). Confidence in quitting remained low, with 45.9% stating they were only "somewhat confident."

Conclusion: Findings indicate that exam stress plays a substantial role in increasing cigarette consumption among medical students. Despite strong health-related motivation to quit, confidence in cessation remains limited. Larger-scale studies and targeted stress-management interventions may support healthier coping mechanisms during exam periods.

Keywords: Smoking, exam stress, medical students, nicotine dependence, cessation motivation

PP-12

Migraine Patients' Misophonia Prevalence and Its Associations with Quality Of Life, Anxiety and Depression

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Introduction: Misophonia, defined as disproportionate emotional or physiological reactions to specific everyday sounds, has received increasing clinical attention; however, its prevalence and clinical significance in migraine remain largely unclear. Determining whether misophonia contributes to disability and emotional burden may help clarify sensory-emotional dysregulation in migraine.

Methods: This cross-sectional study included 30 migraine patients diagnosed according to ICHD-3 criteria and 30 age- and sex-matched healthy controls evaluated between January and December 2025. All participants completed the Amsterdam Misophonia Scale, Migraine Disability Assessment Scale, Beck Anxiety and Depression Inventories, Maudsley Obsessive-Compulsive Inventory and WHOQOL-BREF.

Results: Misophonia severity was significantly higher in migraine patients compared with controls (44.06±26.84 vs. 26.09±16.11; $p<0.05$), and a larger proportion exceeded the clinical threshold. Migraine-related disability was markedly elevated (MIDAS: 62.83±60.56 vs. 9.63±26.84; $p<0.01$). Depressive symptoms were also greater in the migraine group (BDI: 16.41±9.63 vs. 9.36±7.27; $p<0.05$). Anxiety (BAI; $p>0.05$) and obsessive-compulsive symptoms ($p>0.05$) did not differ significantly. Quality-of-life scores showed a non-significant trend toward lower levels in migraine patients.

Conclusion: Misophonia is more prevalent and more severe in migraine patients and is accompanied by higher disability and depressive symptoms. These findings indicate that misophonia represents a clinically relevant, yet often overlooked, dimension of sensory hypersensitivity in migraine. Recognizing misophonia as part of the migraine phenotype may enhance clinical assessment and support the development of more individualized management strategies.

Keywords: Migraine, misophonia, sensory hypersensitivity, depression, quality of life

PP-13

Evaluation of Subretinal Fluid in CSR Patients with Contrast-noise Ratio

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Introduction: Central serous retinopathy (CSR) is characterized by serous detachment of the neurosensory retina, frequently associated with subretinal fluid (SRF). Contrast-noise ratio (CNR), obtained from optical coherence tomography (OCT), reflects the optical properties of SRF and may have prognostic value. This study aimed to compare CNR between acute and chronic CSR patients and to evaluate its association with visual acuity and SRF characteristics.

Methods: This retrospective study included 20 CSR patients, classified as acute (n=10) or chronic (n=10). Demographic data, LogMAR visual acuity, SRF width, and CNR were obtained from OCT images and analyzed using independent samples t-tests. Spearman correlation analysis was performed to assess relationships between CNR, visual acuity, and age. Statistical significance was accepted at $p<0.05$.

Results: No significant differences were observed between acute and chronic CSR patients regarding age (44.1±12.7 vs. 42.8±9.5; p=0.80), CNR (22.5±9.4 vs. 23.1±7.3; p=0.89), or LogMAR visual acuity (0.43±0.30 vs. 0.29±0.32; p=0.32). SRF width showed a non-significant trend toward higher values in acute cases (311.1±113.1 µm) compared to chronic cases (228.9±130.9 µm; p=0.15). Correlation analysis demonstrated no significant association between CNR and LogMAR (ρ=0.078, p=0.74), CNR and age (ρ=-0.37, p=0.11), or LogMAR and age (ρ=0.33, p=0.15).

Conclusion: In this 20-patient cohort, CNR did not differ between acute and chronic CSR patients and showed no significant association with visual acuity. Although SRF width tended to be higher in acute cases, the difference was not statistically significant. Larger sample sizes are required to clarify the potential prognostic value of CNR in CSR.

Keywords: Central serous retinopathy, contrast-noise ratio, OCT, subretinal fluid, visual acuity

PP-14

Retrospective Analysis of Demographic Characteristics of Patients with Melanoma

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Introduction: Melanoma is the most lethal form of skin cancer, shaped by demographic, anatomical, and pathological determinants. Identifying population-specific patterns supports early diagnosis and improved prognostic assessment. This study retrospectively examined demographic and clinical features of melanoma patients from a tertiary dermatology center in Türkiye.

Methods: Fifty-one patients diagnosed between 2014 and 2024 were included. Variables collected were age, sex, body mass index (BMI), lesion localization, melanoma subtype, and ulceration status. Statistical analyses were performed using SPSS v28. Chi-square tests were used to assess associations among categorical variables, with $p<0.05$ considered significant.

Results: Most patients were aged ≥60 years (56.9%), and 72% were overweight or obese. Superficial spreading melanoma was the most common subtype (49%). Tumors most frequently involved the trunk (27.5%) and upper extremities (27.5%). A significant association emerged between sex and tumor localization ($p=0.021$): males more often presented with trunk and head-and-neck lesions, while females showed higher extremity involvement. Ulceration was significantly associated with melanoma subtype ($p=0.048$), occurring more frequently in aggressive variants. Tumor localization also demonstrated a significant relationship with subtype ($p=0.021$), reflecting UV-exposure–related anatomical tendencies. BMI category was associated with subtype distribution ($p=0.020$), with overweight and obese patients more often exhibiting invasive forms. No significant association was found between sex and melanoma subtype.

Conclusion: This study highlights notable demographic and anatomical patterns in a Turkish melanoma cohort. The observed associations among ulceration, BMI, localization, and subtype emphasize the multifactorial nature of melanoma behavior. These findings support the importance of focused early detection, especially in high-risk anatomical regions, and suggest that metabolic status may influence tumor characteristics. Larger, prospective studies are needed to validate these results.

Keywords: Melanoma, demographic characteristics, tumor localization, melanoma subtype, ulceration, retrospective study, cutaneous oncology

PP-15

Retrospective Analysis of Demographic Characteristics in Patients with Lichen Planopilaris

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Introduction: This study assessed the demographic characteristics, comorbidities, and treatment-related features of patients with Lichen planopilaris (LPP) and examined associations among clinical variables. A patient data analysis was performed to achieve these objectives.

Methods: A retrospective analysis was conducted on 197 patients diagnosed with LPP. Demographic data (age, sex, age at diagnosis), disease duration, comorbidities (diabetes mellitus, hypertension, hypothyroidism, depression or anxiety), lifestyle factors (smoking, alcohol), concurrent dermatological manifestations, and treatment modalities were recorded.

Results: The mean age of patients was 45.52±13.35 years, and the mean age at diagnosis was 42.82±13.25 years. The average disease duration was 2.70±1.89 years. Most patients were male (64%), non-smokers (97.5%), and had no major systemic comorbidities. Extra-scalp lichen planus involvement was present in 32.5% of cases. A significant association was observed between sex and extra-scalp involvement, with males showing higher rates ($p=0.025$). Hypothyroidism was also significantly associated with extra-scalp disease ($p=0.021$). Patients not receiving topical therapy had longer disease duration than those receiving topical therapy, with a borderline-significant difference ($p=0.050$). No significant associations were identified between disease duration and smoking, diabetes, hypertension, or psychiatric comorbidity, nor between sex and systemic treatment modalities (hydroxychloroquine, systemic corticosteroids, or acitretin) (all $p>0.05$).

Conclusion: In this cohort, male sex and hypothyroidism significantly correlated with extra-scalp involvement in LPP, suggesting that demographic and autoimmune factors may influence disease patterns. Most other demographic and clinical parameters, including major systemic comorbidities and treatment choices, showed no meaningful associations. These findings highlight specific patient subgroups that clinicians may need to monitor more closely and underscore the need for further prospective studies to clarify potential pathogenic links.

Keywords: Lichen planopilaris, scarring alopecia, demographic characteristics, extra-scalp involvement, hypothyroidism, autoimmune associations, clinical epidemiology, retrospective study

PP-16

The Relationship Between Sleep Quality and Daily Life Functions in Patients with Fibromyalgia

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Introduction: The aim of this study is to examine the relationship between sleep quality and daily life functions in patients with fibromyalgia.

Methods: Patients diagnosed with fibromyalgia who presented to physical therapy outpatient clinics constituted the study group. A total of n=120 patient data were used in the study. Sleep quality was assessed using the Pittsburgh sleep quality index (PSQI), while the impact of fibromyalgia on daily life was evaluated using the fibromyalgia impact questionnaire (FIQ). The minimum required sample size was determined as 65. Depending on the distribution, Pearson or Spearman correlation analysis was used to evaluate the relationships between scale scores. Analyses were performed at a significance level of 0.05.

Results: According to the Pearson correlation analysis, a significant and positive correlation was found between the PSQI total score and FIQ total score ($r=0.381$, $p<0.001$). This finding indicates that worsening sleep quality increases daily functional impairment. A weak but significant positive correlation was also detected between daytime dysfunction, a subscale of the PSQI, and physical function, a subscale of the FIQ ($r=0.211$, $p=0.020$).

Conclusion: This study demonstrated a strong and positive relationship between sleep quality and daily life functions in patients with fibromyalgia. Poor sleep quality significantly and adversely affects patients' quality of life and daily functioning. These results emphasize the importance of multidisciplinary approaches in fibromyalgia treatment that focus not only on pain management but also on improving sleep regulation.

Keywords: Fibromyalgia syndrome (FMS), sleep quality, daily life functions, PSQI, FIQ, correlation

PP-17

The Impact of Social Media on Anxiety and Depression in Adolescents

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Introduction: In recent years, social media has become one of the most widely used communication tools among adolescents and young adults. While it facilitates social interaction and access to information, excessive use has been associated with psychological risks, particularly anxiety and depression. Understanding this relationship is crucial for developing preventive strategies.

Methods: A cross-sectional study was conducted with 42 participants. Data were collected using a sociodemographic questionnaire and the Social Media Addiction Scale. Normality was assessed with the Shapiro-Wilk test. Depending on distribution, the independent samples t-test and analysis of variance were used. Significance was set at $p<0.05$.

Results: A total of 42 students participated in the study, and the mean social media addiction score was 52.12±12.97 (24-82). Female students showed significantly higher addiction levels than males (55.70±10.47 vs. 45.67±14.81; $p=0.014$), indicating a moderate-to-large effect. Addiction scores increased steadily with daily social media use (<2 hours: 47.26±15.76; 3-4 hours: 54.44±6.43; >4 hours: 60.00±11.76) and approached significance ($p=0.052$). Students reporting recent loneliness had notably higher scores than those who did not (55.60±10.62 vs. 47.00±14.66; $p=0.033$). No significant differences emerged across class levels ($p>0.39$), and a positive correlation between daily usage duration and addiction scores ($r=0.31$) suggested a trend toward higher scores with increased use.

Conclusion: Female gender and recent feelings of loneliness are associated with higher social media addiction among university students. Increased daily use also mirrors greater addiction severity. These findings underscore the need for prevention strategies targeting students at increased risk.

Keywords: Social media, anxiety, depression, addiction, mental health, loneliness, university students, behavioral addiction

PP-18

Evaluation of the Knowledge and Skill Levels of Medical Students in Türkiye on Cardiopulmonary Resuscitation

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Introduction: Cardiopulmonary resuscitation (CPR) is a critical component of emergency care, significantly improving survival outcomes in cases of cardiac and respiratory arrest. High-quality and timely CPR is known to increase the chances of successful resuscitation. This study aims to evaluate the CPR knowledge, skills, and the effectiveness of related education among medical students in Türkiye. Understanding whether students receive adequate training is essential for improving emergency response readiness.

Methods: A total of 62 students from various medical faculties in Türkiye participated in this study. CPR knowledge and skills were assessed through theoretical questionnaires and practical evaluations, including tasks such as chest compression performance. The minimum required sample size was calculated as 62 with 95% confidence and 80% power. Data were analyzed using SPSS 28 with descriptive statistics and Chi-square tests, with statistical significance set at $p<0.05$.

Results: Of the 62 participants, 61.3% had not received oral CPR training, while 22.6% of university-level students also reported a lack of such training. Additionally, 77.4% of the total group and 29.5% of university students stated they had not previously received manikin-based CPR training. Regarding practical skills, 19% indicated they were unable to perform chest compressions, whereas only 4.8% reported being confident in their compressions.

Conclusion: The findings indicate that medical students in Türkiye generally lack adequate CPR knowledge and practical skills. Limited exposure to hands-on training appears to hinder the application of theoretical knowledge. Increasing manikin-based practice and revising CPR education methods may enhance students' competence and confidence in emergency situations.

Keywords: Cardiopulmonary resuscitation, medical students, CPR training, emergency medicine

PP-19

Evaluation of Libido and Erectile Dysfunction Among Male Healthcare Workers Vaccinated Against COVID-1 9

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Introduction: The coronavirus disease 2019 (COVID-19) pandemic raised concerns about the potential impact of severe acute respiratory syndrome coronavirus 2 infection and its vaccines on male sexual health. Although current evidence does not support a negative effect of vaccination on libido or erectile function, data among healthcare workers remain limited. This study aimed to evaluate libido and erectile function in male healthcare professionals vaccinated against COVID-19.

Methods: This descriptive, cross-sectional study included 68 male healthcare workers aged ≥18 years at Bezmialem Vakıf University Hospital. Participants completed a structured questionnaire covering demographic information and vaccination history. Sexual function was assessed using the Arizona Sexual Experience Scale (ASEX) and erectile function using the International Index of Erectile Function-5 (IIEF-5). Statistical analyses included independent t-tests and chi-square tests, with significance set at $p<0.05$.

Results: The mean age of participants was 32.4±7.1 years. The mean ASEX total score was 13.8±3.2, while the mean IIEF-5 score was 20.9±3.8, indicating predominantly mild or no erectile dysfunction. No significant differences were found in ASEX ($p=0.41$) or IIEF-5 scores ($p=0.37$) across vaccine types (mRNA vs. inactivated). Similarly, number of vaccine doses (two vs. three or more) did not significantly affect erectile function ($p=0.52$) or libido scores ($p=0.47$). A mild, non-significant trend toward lower IIEF-5 scores was observed in participants with a prior COVID-19 infection; however, this did not reach statistical significance ($p=0.09$).

Conclusion: Our findings indicate that COVID-19 vaccination does not negatively affect libido or erectile function among male healthcare workers. Both ASEX and IIEF-5 scores were comparable across vaccine types and dose counts. These results support existing literature suggesting that COVID-19 vaccines are safe regarding male sexual health and may help alleviate concerns contributing to vaccine hesitancy.

Keywords: COVID-19, vaccination, libido, erectile dysfunction, healthcare workers, ASEX, IIEF-5

PP-20

Retrospective Analysis of Demographic Characteristics of Patients with Androgenetic Alopecia (AGA)

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Introduction: Androgenetic alopecia (AGA) is a multifactorial condition influenced by genetic, hormonal, metabolic, and environmental factors. Insulin resistance, obesity, and androgen-related pathways are increasingly recognized contributors to disease progression. This study evaluates demographic features and laboratory parameters of AGA patients and identifies metabolic and endocrine markers associated with clinical severity.

Methods: Ninety-three patients diagnosed with AGA in a tertiary dermatology clinic were retrospectively analyzed. Demographic variables [age, sex, body mass index (BMI), comorbidities, family history, smoking, alcohol use], dermatological comorbidities, and laboratory measurements [ferritin, vitamin D, thyroid stimulating hormone (TSH), homeostatic model assessment of insulin resistance (HOMA-IR), testosterone, biotin, dihydrotestosterone (DHT)] were collected. Disease severity was graded using Ludwig, Hamilton-Norwood, and Combined staging. Associations between severity and metabolic-hormonal markers were assessed using Spearman's rho.

Results: Women constituted 59.1% of the cohort; mean coded age was 2.053±1.145. Family history was present in 53.5% and comorbidities in 50.6%. Regular medication use was reported by 42.2%. Ludwig stage correlated positively with BMI ($r=0.675$, $p<0.01$) and HOMA-IR ($r=0.658$, $p<0.01$), while vitamin D deficiency showed a weak negative correlation ($r=-0.108$, ns). Hamilton-Norwood stage correlated with age ($r=0.243$, $p=0.160$), BMI ($r=0.789$, $p<0.01$), HOMA-IR ($r=0.663$, $p<0.01$), and ferritin ($r=0.353$, $p=0.056$). DHT correlated with testosterone ($r=0.535$, $p<0.05$) and biotin ($r=-0.560$, $p=0.03$). Vitamin D and HOMA-IR were significantly associated ($r=0.707$, $p<0.01$). Combined Stage 2 was predominant (47.7%). Dermatological comorbidities occurred in 48.4%; smoking prevalence was 43.6%, and alcohol use 2.2%.

Conclusion: AGA severity is significantly associated with BMI, insulin resistance, and androgen-related hormonal markers, supporting a metabolic contribution to disease pathophysiology. The lack of correlation with TSH and the borderline ferritin association indicate limited predictive value. Incorporating BMI, HOMA-IR, and androgen markers into routine evaluation may enhance personalized management.

Keywords: Androgenetic alopecia, BMI, HOMA-IR, androgen hormones, ferritin, hair loss

PP-21

Evaluation of Knowledge Levels and Attitudes of Medical Students and Physicians Towards Homeopathy

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Introduction: Homeopathy, based on the principle of *similia similibus curentur* (like cures like), is a complementary therapeutic approach that emerged over 200 years ago. This study aims to evaluate the knowledge levels and attitudes of medical students and physicians regarding homeopathy, thereby contributing to awareness and the development of educational programs in this field.

Methods: This descriptive cross-sectional study was conducted at Bezmialem Vakıf University. The study population consisted of medical students (n=190) and physicians (n=95). A structured questionnaire was used to collect data on knowledge, attitudes, and behaviors related to homeopathy. Chi-square tests were employed for statistical analysis of categorical variables, performed using IBM SPSS 29.0.

Results: Statistically significant differences were identified between the participants' knowledge and attitudes toward homeopathy. The willingness to receive training in homeopathy (Q17) was significantly higher among medical students (67.9%) compared to physicians (40.0%) (χ^2=20.313; $p<0.001$). It was observed that students perceived homeopathy as more "scientifically based" (Q6, =16.187; $p<0.001$) and "reliable" (Q7, =15.553; $p<0.001$) than physicians. Additionally, significant differences were recorded between the groups regarding the awareness of the "like cures like" principle (Q2) and the frequency of receiving questions about homeopathy from their social environment (Q9).

Conclusion: The findings indicate that medical students, as future physicians, maintain a more open-minded and positive attitude toward homeopathy and exhibit a higher desire for training compared to current physicians. This highlights the necessity of developing educational modules within the medical curriculum to foster evidence-based and balanced awareness of complementary and alternative medicine practices.

Keywords: Homeopathy, complementary medicine, medical education, knowledge and attitudes, physicians, medical students

PP-22

The Relationship of Metabolic and Inflammation Parameters with Albuminuria Levels in Prediabetic Patients

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Introduction: This study aimed to evaluate the relationship between albuminuria and demographic-anthropometric characteristics, metabolic parameters, and inflammation-related markers in prediabetic patients.

Methods: This study was conducted with 94 patients, 56 of whom were women; selected from individuals who presented to the Bezmialem Vakıf University internal medicine outpatient clinic. Demographic and anthropometric variables [age, sex, body mass index (BMI), smoking status, blood pressure, and family history of diabetes], metabolic parameters [glucose, hemoglobin A1c (HbA1c), alanine aminotransferase, aspartate aminotransferase, homeostatic model assessment of insulin resistance, lipid profile, urea, creatinine, and thyroid-stimulating hormone], and inflammation-related markers [C-reactive protein (CRP), neutrophil-to-lymphocyte ratio (NLR), platelet-to-lymphocyte ratio (PLR), monocyte-to-lymphocyte ratio (MLR), neutrophil-to-platelet ratio (NPR), red cell distribution width (RDW)] were obtained from the hospital's electronic medical record system.

Results: The mean age of the patients was 49.7±12.4 years and the mean BMI was 31.5±7.1 kg/m^2. The mean HbA1c, microalbumin and microalbumin/creatinine ratio were 6.1±0.9, 10.6±25.4 and 9.16±14, respectively. A significant positive correlation was found between microalbumin levels and diastolic blood pressure, low-density lipoprotein cholesterol, high-density lipoprotein cholesterol, and total cholesterol, while a significant negative correlation was observed with urea and vitamin B12 levels ($p<0.05$, all). Furthermore, a significant positive correlation was detected between microalbumin levels and total cholesterol and triglyceride levels, whereas a significant negative correlation was found with vitamin B12 levels and mean corpuscular volume values ($p<0.05$, all). No significant correlation was observed in the analyses conducted for age, BMI, NLR, PLR, MLR, NPR, RDW, or CRP.

Conclusion: Albuminuria in prediabetic patients appeared to be more closely related to metabolic and hemodynamic factors than to systemic inflammation. The lack of significant associations with inflammatory markers may reflect the early stage of disease, in which inflammatory activity is not yet sufficiently pronounced to affect renal outcomes.

Keywords: Pre-diabetes, microalbumin, microalbumin/creatinine ratio, inflammation

PP-23

Erectile Dysfunction and Its Interaction with Stress

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Introduction: This study aims to examine the relationship between perceived stress levels and erectile dysfunction (ED).

Methods: The Beck Anxiety Inventory was used in this descriptive correlational study to assess perceived stress symptoms in patients with ED. Face-to-face questionnaires were given out in clinical settings, and anonymity and voluntary participation were guaranteed. Anonymity and voluntary participation were ensured.

Results: The mean total anxiety score was 21.06 [standard deviation (SD)=5.75]. The mean psychological anxiety score was 9.27 (SD=3.23), while the mean somatic anxiety score was 11.79 (SD=3.80), indicating measurable variability in both cognitive and physical domains. Participants who experienced adverse life events had higher anxiety scores than those who did not, and anxiety levels increased with the duration of the event's impact. Correlation analyses revealed a positive and statistically significant relationship between ED scores and total anxiety ($r=0.44$, $p<0.05$). Significant positive correlations were also observed between ED and psychological anxiety ($r=0.34$, $p<0.05$) and between ED and somatic anxiety ($r=0.37$, $p<0.05$), suggesting a moderate association.

Conclusion: Higher levels of ED symptoms were associated with increased anxiety levels. However, these findings are correlational and do not imply causation. Anxiety may negatively influence erectile function, erectile difficulties may increase anxiety, or shared factors such as age, chronic illness, medication use, relationship satisfaction, and life stress may contribute to both conditions. These results highlight the importance of comprehensive psychological assessment in the clinical evaluation of ED.

Keywords: Erectile dysfunction, perceived stress, anxiety, psychogenic factors, Beck Anxiety Inventory

PP-24

Comparison of Endometriosis Prevalence Rates in Patients with and without Mullerian Anomaly who Underwent Pelvic MRI for Various Reasons

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Introduction: Endometriosis is a gynecological condition defined by the presence of endometrial-like tissue outside the uterus. Congenital uterine anomalies result from abnormalities in formation, fusion or resorption of Mullerian ducts in the fetus. Obstructive congenital uterine anomalies are known risk factors for endometriosis. This study aims to compare the prevalence of endometriosis in female patients with and without mullerian anomalies in selected magnetic resonance imaging (MRI) records.

Methods: For this retrospective study, MRI records and patient files of Bezmialem Vakıf University Hospital were used. Patients were divided into two groups according to whether they had a Mullerian anomaly or not. In both groups, the presence and type of endometriosis, other related gynecological pathologies were examined. Statistical comparisons in the results were made with the Pearson chi-square or Fisher's exact chi-square test according to the expected value problem. All analyses were performed and reported in IBM SPSS Statistics 29.0.2 program at a significance level of $p<0.05$.

Results: Out of the 465 patients in this study, 17 had Mullerian anomaly. 1 patient with Mullerian anomaly was found to have an association with endometrioma ($p=0.087$), while deep pelvic endometriosis ($p=0.618$) and other endometriotic foci ($p=1$) were not observed. Since the study analysis was conducted at a significance level of $p<0.05$, no significant association between Mullerian anomaly and endometriosis was found in our study. The relationship between endometriosis and related gynecological pathologies (such as kissing ovaries, adenomyosis) will be discussed in later sections of the study.

Conclusion: This study found no significant association between Mullerian anomaly and endometriosis. Advanced research can be conducted with larger study groups in the future.

Keywords: Mullerian duct anomalies, endometriosis, endometrioma

PP-25

Relationship Between Premature Ejaculation and Perceived Stress Levels

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Introduction: Premature ejaculation is one of the most common male sexual dysfunctions and is influenced by both biological and psychological factors. Psychological stress has been suggested as an important contributing factor that may affect symptom severity. This study aimed to evaluate the relationship between perceived stress levels and premature ejaculation in male patients presenting with related complaints.

Methods: This descriptive cross-sectional study included 83 male patients who presented to the urology outpatient clinic with complaints of premature ejaculation. Sociodemographic characteristics and clinical history were recorded. Perceived stress levels were assessed using the perceived stress scale through face-to-face interviews. Statistical analyses were performed using IBM SPSS Statistics. Independent samples t-test was used for group comparisons, and statistical significance was accepted as $p<0.05$.

Results: Analysis of perceived stress scores revealed differences according to certain demographic and lifestyle factors. A statistically significant difference in perceived stress levels was observed between patients according to alcohol consumption status ($p=0.018$), with higher stress scores in patients who did not consume alcohol. No statistically significant differences in perceived stress levels were found according to smoking status or family history ($p>0.05$). Additionally, higher perceived stress levels were observed in patients with increased severity of premature ejaculation symptoms.

Conclusion: The findings of this study demonstrate a significant association between perceived stress levels and premature ejaculation severity. These results suggest that psychological stress may play an important role in the clinical presentation of premature ejaculation and should be considered during patient evaluation and management.

Keywords: Premature ejaculation, perceived stress, psychological factors, perceived stress scale, sexual dysfunction

PP-26

Cerebrospinal Fluid Total Protein Levels and Lesion Localization in Multiple Sclerosis: A Retrospective Study

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Introduction: Although elevated cerebrospinal fluid (CSF) protein levels have been described in multiple sclerosis (MS), data regarding their association with lesion localization on magnetic resonance imaging (MRI) are limited. The study aimed to examine the correlation between MRI lesion location and CSF total protein levels in MS patients.

Methods: This retrospective study was conducted at the Neurology Department of Bezmialem Vakıf University Hospital between January 2020 and January 2025. Patients with MS according to the 2017 revised McDonald criteria were included. Patients with hemorrhagic or contaminated CSF samples or other diseases were excluded. Demographic, clinical, and radiological data were obtained from medical records. CSF total protein levels were recorded in g/L. MRI lesions were classified as periventricular, cortical, infratentorial or spinal. Statistical analyses were performed.

Results: Ninety-six of the 100 patients who were assessed had enough information to be included in the study. Based on the available data, no statistically significant association was found between total CSF protein levels and T2 periventricular (p=0.437), juxtacortical (p=0.209), subcortical (p=0.978), infratentorial (p=0.099), spinal (p=0.184), and optic nerve lesions (p=0.194). Similarly, no significant difference was observed between CSF protein levels and gadolinium-enhanced periventricular (p=0.260), juxtacortical (p=0.516), subcortical (p=0.557), and spinal lesions (p=0.902). Although patients with infratentorial T2 lesions tended to have higher CSF protein levels, this trend did not reach statistical significance.

Conclusion: The study did not demonstrate a correlation between CSF total protein levels and MRI lesion localization in MS patients. According to the results, CSF total protein levels may have limited utility as a specific biomarker reflecting lesion distribution. Prospective studies with larger cohorts and advanced imaging techniques will contribute to a better understanding of disease.

Keywords: Multiple sclerosis, cerebrospinal fluid, protein, biomarker, lesion localization

PP-27

Retrospective Investigation of Factors That May Lead to Different Prognostic Patterns in Epileptic Patients

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Introduction: Epilepsy is a chronic neurological disorder with heterogeneous presentations and five recognized prognostic patterns: early remission, late remission, remitting-relapsing, worsening course, and no remission. This study aimed to identify clinical, demographic, and therapeutic factors associated with these patterns.

Methods: Records of 100 patients with epilepsy were retrospectively reviewed. Variables included seizure types, status epilepticus, photoparoxysmal response, catamenial epilepsy, psychiatric comorbidities, antiseizure medication (ASM) resistance, treatment failures, treatment duration, number of ASMs, and adherence. Fisher-Freeman-Halton exact test was used for categorical variables, and Kruskal-Wallis with Dunn-Bonferroni post hoc analysis for continuous ones.

Results: Epilepsy course patterns were distributed as follows: 17 patients (17%) showed no remission, 32 (32%) early remission, 16 (16%) late remission, 34 (34%) a remitting–relapsing course, and only 1 patient (1%) demonstrated a worsening course. Significant associations with course patterns were found: status epilepticus ($p=0.014$), photoparoxysmal response ($p=0.030$), imaging findings ($p=0.010$), catamenial epilepsy ($p=0.043$), and initial seizure count ($p=0.023$). Therapeutic factors such as early treatment failure ($p<0.001$), ASM resistance ($p<0.001$), and non-adherence ($p=0.008$) were also significant. Remission-related factors (presence, $p<0.001$; time to remission, $p<0.001$; relapse after remission, $p<0.001$; remission under ASM, $p<0.001$) were strongly correlated. Continuous variables also showed differences: remission duration ($p<0.001$), number of relapses ($p<0.001$), follow-up time ($p=0.010$), age at seizure onset ($p=0.036$), treatment duration ($p<0.001$), number of ASMs used ($p<0.001$), and failed ASMs ($p=0.012$). Borderline associations included seizure etiology ($p=0.051$) and multiple seizure types ($p=0.052$).

Conclusion: Clinical, therapeutic, and remission-related variables are key predictors of epilepsy prognosis. Status epilepticus, early treatment failure, ASM resistance, and poor adherence predicted unfavorable outcomes, while remission parameters were strongly linked to prognostic patterns. Borderline associations may still be clinically relevant and merit further study.

Keywords: Epilepsy, prognosis, remission, relapse, antiepileptic drugs

PP-28

Using a Gastroscope Device for Ileocolonoscopy Could Reduce Procedure Time and Overall Cost and Be More Beneficial for Patients with Comorbidities in Daily Practice

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Introduction: According to current guidelines, colonoscopic screening is recommended for both women and men aged 45 years and older. In recent years, colorectal tumors have been observed more frequently in individuals younger than 45 years. Our aim is to evaluate and compare procedural and patient-related variables between gastroscope and colonoscope devices used for ileocolonoscopic procedures.

Methods: This prospective study included patients undergoing ileocolonoscopy at the Gastroenterology Unit of Bezmialem Vakıf University Hospital. Procedures were performed under anesthesia using either a gastroscope or a standard colonoscope device (Pentax Imagina; diameters: 9.8 vs. 13.2 mm; lengths: 105 vs. 168 cm). Patient satisfaction and levels of anxiety before and after the procedure were assessed using a structured questionnaire. Physician-reported data included ileal intubation, procedure duration, and detected pathologies. Statistical analysis was performed using SPSS v28 with Mann-Whitney U, chi-square and t-tests, with significance set at $\alpha=0.05$.

Results: A total of 38 patients were included (gastroscope: n=26; colonoscope: n=12). Mean procedure time was significantly shorter in the gastroscope group compared with the colonoscope group (10.89±5.00 vs. 16.11±8.30 minutes), ($p=0.093$). Overall satisfaction scores were similar between groups (4.65±0.84 vs. 4.66±0.65). Ileal intubation and detected pathology rates did not differ significantly. Patients with prior colonoscopy experience reported lower anxiety, and anxiety scores significantly decreased from the waiting room to the procedure table.

Conclusion: Ileocolonoscopy performed with a gastroscope device demonstrated comparable patient satisfaction and technical performance to a standard colonoscope device, with a significantly shorter procedure time. Use of gastroscope device for ileocolonoscopic procedures could reduce overall costs and may be particularly beneficial for patients with comorbidities.

Keywords: Gastroscope, ileocolonoscopy, procedure time

PP-29

Evaluation of Awareness of the Risk of Later Development of Esophageal Cancer in Individuals with Gastroesophageal Reflux Disease

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Introduction: Gastroesophageal reflux disease (GERD) is a common condition and an established risk factor for esophageal adenocarcinoma. Despite its clinical importance, public awareness of esophageal cancer remains limited. This study aimed to evaluate the level of awareness regarding esophageal cancer in patients with GERD and to investigate whether awareness is associated with disease severity.

Methods: This cross-sectional survey study included 84 patients diagnosed with GERD. GERD severity and disease-related quality of life were assessed using the GERD Quality of Life scale, consisting of 16 items scored on a 0-4 Likert scale, with total scores ranging from 0 to 64. Awareness of esophageal cancer was evaluated using eight researcher-designed yes/no questions, with affirmative responses scored as 1 point to calculate a total awareness score. The relationship between GERD severity and awareness scores was analyzed using Spearman's rank correlation test. Gender was treated as a nominal variable and presented descriptively.

Results: Of the 84 participants, 43 (51.2%) were female and 41 (48.8%) were male. A statistically significant negative correlation was observed between GERD severity scores and esophageal cancer awareness scores (Spearman's r=-0.25, p=0.021), indicating a weak to moderate inverse relationship. Higher GERD severity was associated with lower levels of awareness. Gender did not demonstrate a major role in this relationship.

Conclusion: This study demonstrated that increased GERD severity does not correspond to higher awareness of esophageal cancer. On the contrary, patients with greater symptom burden showed lower levels of awareness. These findings highlight the need for targeted educational strategies to improve esophageal cancer awareness among patients with GERD, particularly those with more severe symptoms.

Keywords: Gastroesophageal reflux disease, esophageal cancer, awareness, quality of life

PP-30

Evaluation of Bezmialem Medical Students' Knowledge, Attitudes, and Behaviours Regarding Hepatitis B Disease and Its Vaccine

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Introduction: Hepatitis B virus (HBV) remains a major cause of morbidity and mortality worldwide. Medical students are high-risk groups due to occupational exposure. HBV infection is preventable through vaccination; however, antibody levels can decrease over time, leaving individuals susceptible. Therefore, raising awareness about the importance of complete vaccination is crucial. The aim of this study was to assess the awareness, immunization status, and knowledge of medical students toward HBV and to contribute to future preventive methods.

Methods: This descriptive cross-sectional study was conducted with medical students at Bezmialem Vakıf University using a structured questionnaire. A total of 67 students (52 female, 15 male) participated in the study, with a mean age of 21.6±1.8 years. Students were categorized as preclinical and clinical phases of education. Data were analyzed using SPSS software.

Results: Clinical students had significantly higher knowledge scores compared to preclinical students ($p=0.006$). A strong relationship was found between perceived immunity and actual testing status ($p=0.002$). Among students with available serological data ($n=22$), reflecting inadequate serological testing, non-protective anti-HBs levels (<10 mIU/mL) significantly decreased from 77.3% prior to vaccination to 14.3% following vaccination ($p<0.001$). Although vaccination status was significantly associated with the education phase ($p=0.016$), 80% of unvaccinated clinical students cited "lack of opportunity" as the primary reason. Furthermore, 91% feared transmission, and 92.5% believed vaccination should be mandatory before clinical rotations.

Conclusion: While medical education improves theoretical knowledge regarding HBV, this knowledge does not fully translate into protective health behaviours. The observed limitations are related more to accessibility than to lack of knowledge. It is recommended to integrate more accessible vaccination/screening programs for students, especially before starting clinical rotations.

Keywords: Hepatitis B virus, medical students, vaccination, occupational exposure, knowledge, awareness

PP-31

Hypercortisolemia in Prediabetic Patients

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Introduction: Prediabetes is a precursor to type 2 diabetes and increases risk of cardiovascular and metabolic complications. Hypercortisolemia in obesity may impair glucose metabolism .This study aimed to evaluate the presence of hypercortisolemia in prediabetic obese individuals.

Methods: Adults over 18 years were screened. Individuals with conditions or medications known to cause hypercortisolism were excluded. Study groups included prediabetic obese patients and normoglycemic obese patients. Demographic data, anthropometric measurements, metabolic parameters and cortisol-related tests [serum cortisol, adrenocorticotropic hormone (ACTH), and 1 mg dexamethasone suppression test (DST)] were obtained from hospital records.

Results: The study included 30 prediabetic and 40 normoglycemic obese patients. The number of patients having class-1, 2 and 3 obesity were 38, 14 and 18; respectively. The groups were similar in terms of age, gender and obesity classification. In the pre-diabetic group, hemoglobin A1c ($p<0.001$) and C-peptide levels ($p=0.005$) were significantly higher compared to the non-prediabetic group. There were no statistically significant differences between the groups in terms of serum cortisol levels, ACTH concentrations, or cortisol levels following the 1 mg DST (cortisol: $p=0.071$; ACTH: $p=0.275$; 1 mg DST $p=0.198$). Correlation analysis revealed a significant negative correlation between serum cortisol levels and epidermal growth factor receptor ($r=-0.516$, $p=0.02$), and a significant positive correlation between serum ACTH levels and spot urine microalbumin levels ($r=0.522$, $p=0.026$).

Conclusion: In this study, no increased serum cortisol and ACTH levels were observed in prediabetic obese individuals compared with normoglycemic individuals. This finding suggests that the dominant effect of obesity on the HPA axis may be independent of prediabetes, and that the metabolic disturbances present at the prediabetic stage do not yet have a significant impact on systemic HPA axis activity.

Keywords: Prediabetes, hypercortisolemia, obesity

PP-32

Comparison of Quality of Life Before and After Surgery in Patients with Temporal Lobe Epilepsy

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Introduction: Temporal lobe epilepsy (TLE) is frequently resistant to drug treatment. Psychiatric comorbidities such as depression, anxiety, obsessive-compulsive disorder, and anger regulation disorder are common in TLE and negatively affect quality of life. In epilepsy surgery, quality of life is as important as seizure control. This study evaluated the effect of surgery on the change in quality of life and psychiatric disorders.

Methods: In this retrospective study, 50 medically resistant TLE patients were examined. Psychiatric status was evaluated using the short form-36 (SF-36) for general quality of life, Beck Depression Inventory for depression level, and Symptom Checklist-90-Revised for general psychopathological symptoms. Data were analyzed preoperatively and postoperatively with SPSS 22.0.

Results: Gender distribution was equal (25 females, 25 males). 82% (n=41) were in the 18-35 age range, and 18% (n=9) in the 36-45 range. Education status: 55% (n=24) high school or below, 45% (n=20) university or above. Disease duration was over 10 years in 74% (n=37) and 10 years or less in 26% (n=13). 84% (n=42) received polytherapy; 16% (n=8) monotherapy. Postoperatively, statistically significant increases were detected in SF-36 pain ($p=0.001$), mental health ($p=0.013$), and general health ($p<0.001$) scores. Beck Depression scores showed significant improvement, decreasing from 18.24 ± 10.43 to 12.30 ± 9.21 ($p=0.031$).

Conclusion: In patients undergoing TLE surgery, statistically significant ($p<0.005$) improvements were detected in general health, pain, mental health, and depression scores compared to the preoperative period.

Keywords: Temporal lobe epilepsy, epilepsy surgery, quality of life, neuropsychiatry, depression

PP-33

Social Media Use and Its Impact on Sleep Quality, FoMO, and Academic Performance in Medical Students at Bezmialem Vakıf University

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Introduction: This study aimed to investigate the relationships between social media usage, sleep quality, fear of missing out (FoMO), and academic performance among medical students at Bezmialem Vakıf University.

Methods: This questionnaire-based, cross-sectional study involved 115 students from the Bezmialem Vakıf University Faculty of Medicine. The survey instrument comprised sociodemographic questions alongside the Bergen Social Media Addiction scale, the Pittsburgh Sleep Quality Index, and the FoMO scale. Data were analyzed using appropriate statistical methods to determine correlations between these variables.

Results: Daily screen time was found to be significantly related to FoMO levels, social media addiction, and sleep quality ($p<0.05$). Increased screen time was associated with higher FoMO scores, greater levels of social media addiction, and diminished sleep quality. Furthermore, FoMO was related to both social media addiction and poorer sleep quality ($p<0.05$). While higher levels of social media addiction were significantly related to poor sleep quality ($p<0.05$), no statistically significant relationship was observed between screen time and grade point average ($p>0.05$).

Conclusion: These findings highlight a clear connection between excessive social media use, FoMO, and impaired sleep quality. However, the lack of a significant impact on academic performance suggests that student success is influenced by a broader array of variables. These results underscore the necessity of promoting sleep hygiene and mindful social media consumption within the medical education curriculum.

Keywords: Social media use, FoMO, sleep quality, academic performance, medical students

PP-34

Identifying Humanizing Characteristics and Values as Described by Physician Exemplars

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Introduction: While professional identity formation is emphasized during medical training, how humanistic values manifest in the careers of outstanding physicians remains poorly understood. This study examines the personal mission statements of clinicians recognized for humanism to uncover values that can guide and inspire the next generation of medical professionals.

Methods: We used NVivo to conduct a qualitative analysis of the mission and value statements for 128 clinicians accepted to the Miller Coulson Academy of Clinical Excellence at Johns Hopkins, created to celebrate physicians for excellence in clinical care. Nominated clinicians are evaluated on qualities including humanism.

Results: Themes related to humanizing communication included listening (*"I take time to listen before speaking"*), taking concerns seriously (*"No concern too mundane"*), clarity (*"I'm often thanked by my patients for explaining … in a way that they can understand"*), humor (*"A good sense of humor is a mandatory prescription"*), and hope (*"I ask patients to believe that their life can improve … and remember that their life and health are worth the fight"*). Themes related to personal or moral values included humility (*"I consider every patient as an opportunity for learning"*), compassion (*"perhaps what I value the most is kindness"*), empathy (*"I share their elation when they improve or recover, and I am saddened when they get sick"*), and the importance of valuing patients as an individual [*"I … (recognize) the uniqueness of each patient"*] and equally (*"I believe ALL of my patients are VIP"*). Themes related to physician behaviors included presence (*"simply "be" with the patient"*) and accessibility (*"I always say yes when asked to see a patient"*).

Conclusion: The values and practices expressed by clinically excellent physicians can inform the professional development of future physicians.

Keywords: Humanism, clinical excellence, professional identity

PP-35

Managment of Patients with Acute Abdomen Consulted by Gynecology and General Surgery in the Emergency Department

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Introduction: Obstetrics and gynecology (OB/GYN) and general surgery are the specialties most often consulted, as many abdominal complaints in women may originate from either system. Effective collaboration between these departments is essential for improving diagnostic accuracy and preventing treatment delays. This study aimed to compare OB/GYN and general surgery consultation outcomes by examining diagnostic distribution, hospitalization rates, and clinical characteristics in patients presenting with acute abdomen.

Methods: This retrospective study included female patients who received OB/GYN or general surgery consultation for acute abdomen between January 2023 and June 2024. Patients were classified as having an emergent pathology or no acute pathology, and diagnoses were categorized as gynecologic or general surgical in origin. The consultation process and final outcomes were reviewed.

Results: A total of 66 female patients were included, with a mean age of 35.3±8.9 years. Emergent pathology requiring intervention was identified in 59.1% of cases, while 40.9% had no acute findings. Among patients with emergent conditions, 38% had gynecologic and 21.1% had general surgical etiologies. Common diagnoses included acute appendicitis, pelvic inflammatory disease, ovarian cyst complications, ectopic pregnancy, and ovarian torsion.

Conclusion: The detection of acute pathology in more than half of the patients suggests that the consultation process in the emergency department is being effectively managed. While 38% of patients consulted to OB/GYN had an acute gynecologic condition, approximately one-fifth required acute surgical intervention. The finding that nearly 80% of surgical evaluations were normal indicates that gynecologic and surgical causes of acute abdomen frequently overlap. These results highlight the need for more selective and structured consultation algorithms for women presenting with acute abdominal pain.

Keywords: Acute abdomen, emergency concultation, gynecology, general surgery, appendicitis, pelvic inflammatory disease, ovarian torsion

PP-36

Evaluation of Food Sensitisation in Patients with Atopic Dermatitis Visiting a Private Allergy Clinic

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Introduction: Atopic dermatitis (AD) is a chronic inflammatory skin disorder. Food allergens significantly aggravate AD. This impact is stronger in early childhood compared to adulthood, making the pediatric population a key group for investigation and highlighting the importance of early assessment. While sensitisation is linked to increased symptom severity, data on local prevalence remain limited. This study evaluated food sensitisation and its clinical relationships in pediatric AD patients.

Methods: This retrospective study analyzed pediatric AD patients who visited Mahmut Doğru Private Allergy Clinic between January and December 2024. The diagnosis of AD was established using the Hanifin-Rajka criteria, and food sensitisation was confirmed by skin prick tests. Clinical data (demographics, comorbidities, exposures) from patient files were analyzed using SPSS 29.02. Correlations were assessed using Spearman or Pearson tests (significance: $p<0.05$).

Results: A total of 72 patients were included (mean age: 34.0±27.9 months; 59.7% male). Family history of atopy was present in 36.1%. Food sensitisation was identified in 30.6%, mostly to egg (20.8%) and cow's milk (12.5%). Multiple sensitisations occurred in 68.2% of sensitised patients. A positive family history was more frequent in the sensitised group (45.5% vs. 31.4%, $p=0.048$). Sensitisation count correlated negatively with age ($r=-0.27$, $p=0.031$), while sex showed no notable association.

Conclusion: Food sensitisation was identified in approximately one-third of pediatric patients with AD, predominantly to egg and cow's milk. Sensitisation was associated with younger age and a positive family history of atopy (supporting a genetic and early-life influence). These findings highlight the importance of early allergological evaluation in infants and young children with AD to support timely and targeted management (in routine clinical practice).

Keywords: Atopic dermatitis, pediatric allergy, food sensitisation, skin prick test

PP-37

The Effects of Micronutrients on Inflammatory Processes and Their Anti-aging Potential: Magnesium, Zinc, B12, and Vitamin D

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Introduction: Deficiencies in micronutrients such as vitamin D, B12, zinc, and magnesium are closely linked to impaired host defense and systemic inflammation. These deficiencies contribute to "inflammaging", a state of chronic, low-grade inflammation known to accelerate biological aging. This study aims to investigate the association between these specific micronutrient deficiencies and key inflammatory markers—including C-reactive protein (CRP), neutrophil-to-lymphocyte ratio (NLR), and systemic immune-inflammation index (SII)—within a healthy population to better understand their role in systemic inflammatory processes.

Methods: This retrospective analysis included 102 adults (18-65 years) without chronic illnesses. Serum levels of micronutrients and inflammatory markers [CRP, NLR, SII, atherogenic index of plasma (AIP)] were analyzed using Welch's t-test and chi-square analysis ($p<0.05$).

Results: Vitamin D deficiency was prevalent in 55.9% (n=57) of the population, followed by deficiencies in magnesium (6.9%), B12 (4.9%), and zinc (2.0%). Patients with vitamin D deficiency exhibited significantly higher CRP, NLR, SII, and AIP compared to non-deficients. Chi-square analysis confirmed an association between vitamin D deficiency and elevated CRP. No significant differences were observed for platelet-to-lymphocyte ratio or sedimentation rate. For vitamin B12, zinc, and magnesium, no statistically significant associations were detected, likely due to limited statistical power from the small number of deficient cases.

Conclusion: The findings indicate that vitamin D deficiency is significantly associated with several systemic inflammatory indices in otherwise healthy individuals. These results support the role of vitamin D in promoting inflammatory activity, a key driver of inflammaging. While no significant links were identified for other micronutrients, this may be due to the limited sample size of deficient cases, suggesting a need for larger-scale prospective studies.

Keywords: Vitamin D, vitamin B12, zinc, magnesium, inflammation, CRP, NLR, PLR, SII, atherogenic index of plasma, inflammaging, aging

PP-38

Assessment of Knowledge and Attitudes Toward HPV and HPV Vaccination Among Healthcare Professionals and Medical Students

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Introduction: To assess the knowledge and attitudes toward human papillomavirus (HPV) and HPV vaccination among healthcare professionals and medical students, and to identify demographic and professional factors associated with variations in HPV knowledge.

Methods: This cross-sectional study included 903 participants comprising medical doctors, medical students, nurses, and other allied healthcare personnel. HPV knowledge was measured using the validated 33-item HPV knowledge scale, which evaluates four domains: general HPV knowledge, HPV screening tests, HPV vaccination, and the national HPV vaccination program. Demographic, educational, occupational, and geographical variables were also collected. Total and domain-specific scores were compared across gender, professional groups, and educational levels

Results: The mean total HPV knowledge score was 19.23 out of 33, indicating moderate overall knowledge. Correct response rates were high for core factual items, yet several misconceptions persisted, including misunderstandings about HIV/AIDS causation and HPV transmission dynamics. Male participants demonstrated significantly higher total knowledge ($p=0.008$) and greater HPV screening test knowledge ($p=0.003$) than females. Professional category did not yield significant differences in total scores, although medical doctors and medical students showed slightly higher vaccination-related knowledge. Participants who were not physicians or medical students had higher screening and vaccination knowledge, whereas physicians and medical students scored higher on vaccination program knowledge.

Conclusion: HPV knowledge among healthcare professionals and medical students was moderate, with persistent misconceptions across several domains. Gender-based differences and unexpected patterns among physicians and medical students suggest that existing curricula may not adequately address HPV and HPV vaccination. Strengthening formal education, integrating evidence-based HPV modules into health sciences training, and providing structured professional development are essential to enhancing HPV awareness, supporting vaccination advocacy, and improving preventive health practices.

Keywords: Human papillomavirus, HPV vaccination, healthcare professionals, medical students, knowledge assessment, screening programs, cervical cancer prevention, public health education

PP-39

Evoluation of Capillary Refill Time as a Routine Part of Physical Examination in Critically Ill Patients

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Introduction: Capillary refill time (CRT) is a simple, rapid, and non-invasive bedside indicator of microcirculatory status and has been proposed as a prognostic marker in critical illness. However, its clinical utility in the intensive care unit (ICU) remains insufficiently defined. The aim of this study was to assess the clinical relevance of CRT in critically ill patients.

Methods: This retrospective study included adult patients admitted to the tertiary ICU of Bezmialem Vakıf University Hospital in 2024. Patients under 18 years, pregnant women, those with epilepsy, severe peripheral edema or amputation preventing CRT measurement, and patients outside optimal ICU temperature were excluded. Demographics, vital signs, CRT, mottling score, lactate levels, norepinephrine requirement, length of ICU stay, diagnosis, and 28-day mortality were collected from records.

Results: A total of 105 patients were included (mean age 67±16 years; 53% male). Body mass index and body temperature showed no association with CRT, while all other variables differed significantly between CRT groups ($p<0.05$). Patients with prolonged CRT had lower arterial and systolic pressures, higher heart rates, and markedly elevated lactate and mottling scores, along with greater norepinephrine requirements (all $p<0.001$). CRT was also associated with older age ($p<0.05$) and showed significant variation across diagnostic categories, occurring more frequently in sepsis and malignancy ($p<0.001$).

Conclusion: Prolonged CRT was strongly associated with multiple indicators of impaired perfusion, hemodynamic instability, and illness severity in ICU patients. These findings suggest that CRT, despite its simplicity and bedside applicability, provides clinically meaningful information and may serve as a valuable supplementary marker for risk assessment and monitoring in critical care practice.

Keywords: Capillary refill time, microcirculation, intensive care unit, mortality

PP-40

Hallucinations in Bipolar Disorder, Unipolar Depression, and Schizophrenia: The Role of Vitamin B12 Deficiency and Characteristic Differences

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Introduction: Considering the potential role of vitamin B12 in brain function, this study aimed to investigate the relationship between hallucinations and serum vitamin B12 levels by comparing patients diagnosed with bipolar disorder, schizophrenia, and depression.

Methods: This retrospective study included 80 participants divided into three diagnostic groups: bipolar disorder (n=30), schizophrenia (n=30), and depression (n=20). Serum vitamin B12 levels were obtained from laboratory records. Descriptive statistics were calculated for each group.

Results: The study included 80 participants divided into three diagnostic groups: bipolar disorder (n=30), schizophrenia (n=30), and depression (n=20). The mean serum vitamin B12 level in the bipolar group was 362.4±152.4 pg/mL, in the schizophrenia group 472.1±290.7 pg/mL, and in the depression group 339.0±149.9 pg/mL. A one-way analysis of variance indicated no statistically significant difference among the three groups [F (2.77)=2.86, p=0.063]. In post-hoc comparisons, no significant pairwise differences were observed. The difference between bipolar and schizophrenia groups was 107.8 pg/mL (p=0.14), between bipolar and depression groups -23.4 pg/mL (p=0.91), and between schizophrenia and depression groups -133.1 pg/mL (p=0.089). Although schizophrenia patients showed higher mean B12 levels compared with both bipolar and depression patients, these results were not statistically significant.

Conclusion: The findings demonstrate that although serum vitamin B12 levels tended to be higher in patients with schizophrenia compared to bipolar disorder and depression, the differences were not statistically significant. These results suggest that hallucinations may not be directly associated with serum vitamin B12 status in the studied psychiatric populations.

Keywords: Vitamin B12, hallucinations, bipolar disorder, schizophrenia, depression, neuropsychiatric symptoms, cognitive function

PP-41

The Relationship Between Eating Attitudes, Psychological Conditions and Clinical Parameters in Patients with Epilepsy

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Introduction: Epilepsy is frequently accompanied by psychiatric comorbidities that negatively affect quality of life. However, eating attitudes (EAs) and their clinical and psychological determinants in adult patients with epilepsy (PWE) remain poorly understood. This study aimed to evaluate EAs in adults PWE and to identify epilepsy-related and psychological factors associated with pathological EAs.

Methods: In this cross-sectional study, 67 adult PWE and 55 age-sex-matched healthy controls (HCs) were included. EAs were assessed using the Eating Attitudes Test-26 (EAT-26). Demographic characteristics, epilepsy-related clinical variables, and antiseizure medication profiles, Beck Depression and Anxiety Inventory were recorded. Group comparisons, univariate and multivariable logistic regression analyses were performed.

Results: Patients and HCs did not differ significantly in terms of age, sex, body mass index, depression or anxiety levels (all $p>0.05$). PWE exhibited significantly higher EAT-26 scores ($p=0.028$). Within PWE, pathological EAs were associated with higher depressive symptom scores, anxiety symptom scores, and self-perceived overweight status. Patients with focal epilepsy syndrome showed higher EAT-26 scores compared to patients with generalized epilepsy. Epilepsy-related clinical characteristics, seizure frequency, neuroimaging findings, and antiseizure medication burden were not associated with EAs. In multivariable analysis, depressive symptom severity emerged as the only independent predictor of pathological EAs (odds ratio: 1.18,95% confidence interval: 1.04-1.34, $p=0.009$).

Conclusion: Pathological EAs are more prevalent in adult PWE compared to HCs, with focal syndromes and non-generalized tonicepilepsy showing the most pronounced patterns. These associations appear to be largely driven by depressive symptom severity. These findings underscore the importance of routine psychological screening in epilepsy care and indicate that early identification and treatment of depressive symptoms may help identify maladaptive EAs in this population.

Keywords: Epilepsy, anxiety, depression, eating attitudes

PP-42

Dislipidemia in Type 2 Diabetes Mellitus: Prevalence, Complications, and Management Strategies

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Introduction: Type 2 diabetes mellitus (T2DM) is a chronic metabolic disorder characterized by impaired glucose homeostasis and frequent lipid abnormalities, both of which increase cardiovascular and cerebrovascular risks. This study aimed to evaluate the association between serum lipid profile and glycemic parameters in diabetic patients.

Methods: This retrospective cross-sectional study included 149 patients with T2DM (84 women, 65 men) who were admitted to the outpatient clinic of Bezmialem Vakıf University, Department of Family Medicine. Medical records dated between April 2023 and April 2025 were reviewed. Data regarding fasting blood glucose (FBG), glycated hemoglobin A1c (HbA1c), total cholesterol (TC), triglycerides (TG), low-density lipoprotein (LDL), high-density lipoprotein (HDL), and the triglyceride/HDL ratio were obtained from electronic medical records. Descriptive analyses, independent t-tests, and Pearson's correlation tests were performed, with statistical significance defined as $p<0.05$.

Results: The mean age of participants was 50.2±17.3 years. Mean laboratory values were as follows: FBG 117.2±39.9 mg/dL, HbA1c 6.35±1.38%, TC 185.1±38.8 mg/dL, TG 147.3±93.6 mg/dL, LDL 117.5±33.9 mg/dL, HDL 49.2±13.4 mg/dL, and TG/HDL ratio 3.28±2.69. Correlation analysis showed that FBG was positively associated with TC ($p<0.05$). HbA1c was positively correlated with TG/HDL ratio ($p<0.05$), while HDL was inversely correlated with TG levels.

Conclusion: This study demonstrated that lipid profile abnormalities are seen frequently in T2DM. The correlation between HbA1c and TG/HDL ratio highlights the interplay between poor glycemic control and atherogenic lipid alterations. These results emphasize the necessity of monitoring both glucose and lipid parameters in the clinical follow-up of diabetic patients.

Keywords: Type 2 diabetes mellitus, lipid profile, glycemic control, dyslipidemia

PP-43

Public Knowledge and Practices on Antibiotic Use and Resistance

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Introduction: Antimicrobial resistance (AMR) is an increasing health problem, leading to higher mortality, infections that are harder to treat, and greater healthcare costs. Lack of public knowledge and incorrect practices regarding antibiotic use play an important role in the spread of AMR. Understanding how people use antibiotics and what they know about them is important for planning awareness programs. The aim of this study is to evaluate the knowledge and practices about antibiotic use among the general population.

Methods: An internet-based survey was conducted between June and September 2025 among Turkish speaking participants aged 18 and above. The questionnaire included 15 questions about demographics, knowledge, attitudes, and behaviors related to antibiotic use.

Results: In total, 250 people answered the survey, with 66.0% aged 18 to 30, and 76.4% having attended university. More than half (58.8%) correctly identified that antibiotics are only used to treat bacterial infections, yet 29.6% believed they are effective against both bacterial and viral infections. While 88.8% were aware of the concept of AMR, 39.2% had self-medicated themselves with antibiotics without consulting a doctor, and 52.8% reported stopping their treatment early.

Conclusion: The study highlights gaps in public knowledge and patterns of antibiotic use. These findings emphasize the need for educational interventions to reduce AMR.

Keywords: Antibiotics, antimicrobial resistance, self-medication, attitude, knowledge

PP-44

The Relationship Between Gastroesophageal Reflux Disease, Physical Activity and Sleep: A Cross-sectional Survey Study

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Introduction: Gastroesophageal reflux disease (GERD) is a prevalent chronic condition characterized by the retrograde flow of gastric contents, causing symptoms such as heartburn and regurgitation that significantly impact quality of life. While obesity and dietary habits are well-established risk factors, the specific roles of physical activity and sleep quality remain complex and debated. This study aimed to investigate the associations between GERD, physical activity levels, and sleep quality in an adult population.

Methods: A cross-sectional study was conducted online with individuals over the age of 18. Data were collected using three standardized questionnaires: GERD questionnaire for reflux symptoms, global physical activity questionnaire for activity levels, pittsburgh sleep quality index for sleep quality. Body mass index (BMI) was also calculated for all participants.

Results: The study included 73 participants (mean age 25.67±8.71 years; %69 male) with a mean BMI of 28.68±12.56 kg/m². High GERD risk was observed in 28.8% of participants, while 43.8% exhibited poor sleep quality. Correlation analysis revealed statistically significant positive correlations between GERD symptom severity and both BMI (p=0.012) and physical activity levels (p= 0.013). Conversely, no significant correlations were found between sleep quality and either reflux symptoms (p=0.190) or physical activity (p=0.824). In gender comparisons, males demonstrated significantly higher physical activity levels (p=0.039) with no significant differences observed in reflux or sleep scores.

Conclusion: This study identifies BMI as the most critical factor for controlling reflux symptoms in young adults. Unexpectedly, physical activity did not relieve reflux; on the contrary, higher activity levels were linked to increased symptom severity. Additionally, sleep quality was found to be not correlating with physical activity and reflux severity.

Keywords: GERD, physical activity, sleep, BMI, symptoms