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VAKIF ÜNİVERSİTESİ

# BEZMİÂLEM science

3rd ANNUAL  
MEDICAL STUDENTS  
RESEARCH  
PRESENTATION DAY



14 MARCH 2019

BEZMIALEM  
VAKIF UNIVERSITY

3rd ANNUAL MEDICAL  
STUDENTS RESEARCH  
PRESENTATION DAY

14 MARCH 2019

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**14 MARCH 2019**

**BEZMIALEM  
VAKIF UNIVERSITY**

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## Acknowledgements

Bezmialem Vakif University thanks everyone who organized this event for their contribution and assistance

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## Program

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**09.00-09.15:** Introduction

*Rümevza Kazancıođlu, M.D.*

**09.15-10.30:** Oral presentations (*Conference Hall*)

**10.30-10.45:** Coffee break

**10.45-11.45:** Oral presentations (*Conference Hall*)

**11.45-13.00:** Lunch + Poster presentations

**13.00-14.30:** Short oral presentations (*Parallel rooms*)

**15.30-17.00:** Medicine Day Ceremony

# Podyum Oral Presentations

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## Conference Hall / 09.15-11.45

09.15-09.30

**Fatma Zehra Yaşar**

Fecal Microbiota Transplantation Effect on Obesity Treatment: An Experimental Study

09.30-09.45

**Sevban Bayırlı**

Protective Effect of Potassium Channel Blockade and Nitric Oxide in Erythrocytes Exposed to Mechanical Trauma in Hyperlipidemic Rats

09.45-10.00

**Mehmet Akif Kaymakçı**

Investigation of Ganoderma Resinaceum's Cytotoxic, Genotoxic, Apoptotic and Autophagic Effects on Gastric Adenocarcinoma Cells

10.00-10.15

**Seda Tuğrul**

Testing the Availability of Fecal Calprotectin Assays Instead of Colonoscopy in the Remission/Activation Evaluation of Patients Followed-up in the Inflammatory Bowel Diseases Outpatient Clinic

10.15-10.30

**Tuğba Karslıoğlu**

Comparison of Efficacy of Cabergoline and Natural Progesterone in a Rat Endometriosis Model

10.45-11.00

**Şule Öztürk**

Protective Effect of Amniomax on Experimental Ischemia/Reperfusion Injury in Rat Ovary

11.00-11.15

**Şeyma Akkoç**

Evaluation of Complication Risk After Gamma Knife for the Meningiomas Which are Invading Major Venous Sinuses

11.15-11.30

**Kubilay Küce**

Genetic Anomalies Explained in the Form of Mythologies in Comparison to Modern Medicine

11.30-11.45

**Sıla Nur Taşkömür**

Assessment of Biopsies From Liver Neoplasia

# Short Oral Presentations

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## Deanery Conference Hall/ 13:00-14.30

**Sinem Güler**

The Effect of Theobroma Cacao on Hyperlipidemic Rats

**Zümra Akyol**

Effects of Amniomax on Ischemia- Reperfusion Induced Kidney Injury in Rats

**Nezahat Esra Güneş**

Comparison of Quality of Life among Patients Treated with Cyanoacrylate Glue Ablation and Surgical Stripping for the Treatment of Insufficient Great Saphenous Veins

**Serhat Bayrak**

The Effect of the Human Growth Hormone and İnsülin-like Growth Factor-1(Igf1) on the Life Quality of Patients with Acromegaly

**Ebrar Sevim**

Burnout Syndrome and Affecting Factors in Medical Faculty Students

**Halime Dulun**

The Approach of Bezmialem Vakif University Medical Students to Death and a Dying Patient

**Ayşe Nur Güney**

Examination of Self-esteem and Social Anxiety Level in Female Patients with Urinary Incontinence

**Esra Aydınlı**

Protective Effect of Potassium Channel Blockade and Nitric Oxide in Erythrocytes Exposed to Mechanical Trauma in Diabetic Rats

**Hatice Kübra Sarı**

Cytotoxic, Genotoxic, Autophagy and Apoptotic Effects of Anastatica Hierochuntica on Malign Melanoma B16 Cells



# Short Oral Presentations

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## Deanery Seminer Hall / 13:00-14.30

### Muhammed Ali Üçeş

Comparison of Smoking Status and Attitudes Towards Smoking of 1<sup>st</sup> and 4<sup>th</sup> Year Students Who are in Smoke Free Campus

### Batuhan Pişet

The Analysis of Factors Affecting Mortality on Septicemia Cases in the Pediatric Intensive Care

### Beyza Erdem

Evaluation of Characteristics of Patients with Type 1 Diabetes Mellitus and Assessment of the Educational Program "Diabetes At School"

### Alperen İnce

Violence Against Healthcare Workers in Bezmialem Vakif University Faculty of Medicine Students

### Nur Yonca İnan

Awareness, Knowledge, Practises and Relationship with the Duration of Illness in First-Degree Relatives of Diabetes Mellitus

### Sevde Nur Karabulut

The Consumption Habits and Knowledge Levels About Probiotics of Medical Students:  
The Example of Bezmialem Vakif University

### Hale Çalışır

Why the Anesthetic Agents Used in the Past Has Been Replaced by Today's Anesthetic Agents?

### Zeynep Özçelik

The Radiological and Pathological Characteristics and Risk Factors of Breast Cancer Patients Under 40 Years-Old

### Aylin Karar

Effects of Tablet-Smartphone-Television-Computer-Laptop Usage on Speech Delayed Children

# Short Oral Presentations

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## Oditorium 102 / 13:00-14.30

**Cemal Topal**

Daytime Sleepiness and Influencing Factors in Patients with Severe Obstructive Sleep Apnea

**Faruk Özçelik**

The Effect of S-Allylcysteine on Gastric Injury Induced by Cold Restraint Stress

**İrem Sueda Uçar**

Genotype and Phenotype Correlation in the Patients with Familial Mediterranean Fever

**Kübra Alpaslan**

Comparison of Self-esteem and Body Perception of Weak, Normal and Obese Individuals

**Zeynep Simay Ergin**

The Relationship Between Tirads Score of Thyroid Nodules and Thyroid Autoantibody Levels

**Erdoğan Eriş**

The Awareness and Knowledge of Bezmialem University Faculty of Year of 2-3-4 Medicine Students About People Who are Most Influential in History of Medicine

**İlayda Ağırbaş**

Effects of the Behaviors of the Parents on Doctor Phobia in Pediatric Population

**Nesli Ceren Bostancı**

A Comparative Inspection of Obsessive Beliefs Among Students in Faculty of Medicine and Vocational School of Health Sciences in Bezmialem Vakif University

**Ebrar Akkaya**

The Effects of Soy Based Infant Formulas on Thyroidal Functions

# Short Oral Presentations

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## **Oditorium 104 / 13:00-14.30**

**Zeynep Uçum**

Awarenesses, Attitudes and Solution Suggestions of Medical Doctors About Antibiotic Use and Resistance

**Gülnehal Danalıoğlu**

Diabetes Related Knowledge Between Medical Students Before and After Clinical Training

**Ece Uygun**

Evaluation of Knowledge, Attitude, and Behavior About Harmful Effect of Sun, Sun Protection and Sunscreens of Medical Students at Bezmialem Vakif University

**Sadret Mert Çınar**

The Protective Effect of Cinnamomum Zeylanicum in Streptozotocin-induced Diabetic Rats

**İlkin Su Yıldız**

Diagnosis and Treatment Process of Cmv Colitis with Inflammatory Bowel Disease

**Shima Korosh**

The Evaluation of Amnestic Effect of Midazolam Which is Used for Sedative and Anxiolytic Purpose on Major and Minor Surgical Interventions in Spinal Anesthesia

**Kübra Babacan**

The Effects of Cellular and Extracellular Factors on Erythrocyte Aggregation and Viscosity

**Sena Ceren Tatar**

Awareness of Cytomegalovirus Infection During the Pregnancy Period

# PREFACE

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

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

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

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

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

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

This Supplement of Bezmialem Science is dedicated to these presentations which were selected to be presented either orally or as posters by the faculty of the Scholarly concentration module. Each project has been peer reviewed by faculty both from BVU and JHU and we are all proud to complete the third course with great success.

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

**Rümeysa Kazancıoğlu, MD**  
**Bezmialem Vakif University**  
**Rector**  
**Head of Scholarly Concentration Module**

# BEZMIÂLEM science

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## ORAL PRESENTATIONS

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

**Assistant Editor**

Çiğdem Dilek Şahbaz

Bezmialem Vakıf University Faculty of Medicine, Department of Psychiatry

## OP-1

## Fecal Microbiota Transplantation Effect on Obesity Treatment: An Experimental Study

Fatma Zehra Yaşar<sup>1</sup>, Erkan Yardımcı<sup>2</sup>, Erhan Ayşan<sup>2</sup>, Fahri Akbaş<sup>3</sup>, Eray Metin Güler<sup>4</sup>

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**Objective:** According to the World Health Organization, the prevalence of obesity is increasing worldwide and this dramatic rise in obesity is associated with the increase in the prevalence of obesity-related comorbidities causing a significant health problem. Together with the environmental, genetic, and endocrine factors gut microbiota plays an important role in the mechanism of overweight and obesity. The alteration in the composition and diversity of the gut microbiota is associated with increased body weight and the abundance of some certain types of bacteria is detected to be related to weight gain and weight loss. As the role of gut microbiota effect on energy metabolism is understood, fecal microbiota transplantation (FMT) is gained currency as a potential treatment option of obesity. Some studies showed that microbiota transplantation to germ-free mice led to greater adiposity and body weight and FMT from lean to obese patients caused changes in gut microbial diversity. The aim of this study is to examine the effect of FMT on obesity and microbial diversity by performing FMT from lean control rats to obese rats.

**Methods:** In this study, 14 Sprague-Dawley male rats were divided into two groups: a control group and a FMT group treated with high-fat (60% fat) and cafeteria diet for 12 weeks. Body weights were measured weekly. Fecal samples were collected from the control group rats and orally inoculated by gavage to the FMT group rats for 6 days. Fecal and blood samples were collected at the beginning, before the FMT and 6 weeks after the FMT. Fecal microbiota was profiled by real-time PCR. Plasma leptin, ghrelin, adiponectin, lipid profile, and insulin levels were measured using enzyme-linked immunosorbent assay (ELISA).

**Results:** By 12 weeks of feeding both the FMT and control groups weights significantly increased ( $p=0.018$ ). The mean weight of the FMT group was found  $411\pm 29$  and the control group's mean was  $358\pm 29$ , but there was no significant difference between the two groups. After fecal microbiota transplantation, the FMT group did not show significant weight change ( $p=0.866$ ), but the weight of the control group statistically significantly increased ( $p=0.018$ ). In fecal samples, the abundance of *Bacteroidetes* phylum increased in both groups. While the levels of *Firmicutes* and *Enterobacteriaceae* decreased in the FMT group, they did not change in the control group. It was showed that decreased *Lactobacillus* levels by feeding high-fat diet increased after the FMT and levels of *Bifidobacterium* decreased. However, these changes in the diversity of gut microbiota were found statistically insignificant. In the FMT group plasma leptin ( $p=0.028$ ) and glucose ( $p=0.018$ ) levels increased but the plasma ghrelin levels decreased ( $p=0.018$ ).

**Conclusion:** The gut microbiota diversity has an important role in obesity, but the mechanism of this relation is not well determined yet. FMT seems to be an effective treatment option for obesity and the other metabolic diseases.

**Keywords:** Obesity, gut microbiota, fecal microbiota transplantation

OP-2

## Protective Effect of Potassium Channel Blockade and Nitric Oxide in Erythrocytes Exposed to Mechanical Trauma in Hyperlipidemic Rats

Sevban Bayırlı<sup>1</sup>, Faruk Özçelik<sup>1</sup>, Sadret Mert Çınar<sup>1</sup>, Sinem Güler<sup>1</sup>, Esra Aydın<sup>1</sup>, Savaş Üstünova<sup>2</sup>, Aysu Kılıç<sup>2</sup>, Huri Bulut<sup>3</sup>, Mehmet Üyükü<sup>2</sup>

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**Objective:** Changes in membrane cholesterol content due to changes in cell membrane lipid composition, that is to say cholesterol/phospholipid ratio, can significantly alter membrane properties. It has been shown that cholesterol/phospholipid ratio increases in erythrocyte membrane and erythrocyte membrane functions and fluidity are impaired in patients with high plasma cholesterol levels. The cellular elements of the blood are subjected to mechanical effects during the period in which they are present in the circulatory system, and these effects can alter the normal morphology and function of blood cells. In normal circulatory conditions, the magnitude of the mechanical forces acting on the blood cells in a large part of the circulatory system is not large enough to cause damage, but they may be affected by larger mechanical forces in artificial environments such as cardiopulmonary bypass, artificial heart and heart valve, circulatory support devices, hemodialysis equipment, and hemolysis. This study was planned to determine the importance of nitric oxide (NO) and potassium channel inhibition in the prevention of hemolysis by mechanical stress applied to erythrocytes of rats with hyperlipidemia induced by cholesterol diet.

**Methods:** In this study, 20 male Wistar albino rats weighing 300-350 g, 3 months old, were randomly divided into two groups as hyperlipidemia and control. After the commercially available cholesterol was dissolved in olive oil, it was gavaged and blood samples were taken from the abdominal aorta the day after the last application. Blood samples were exposed to mechanical forces for 15 minutes using a device made by us to mimic the conditions of the circulatory system. At the end of the period plasma hemolysis levels were measured spectrophotometrically, hemogram, total cholesterol, plasma HDL-cholesterol, LDL-cholesterol and triglyceride, were measured by ELISA. The data were considered as mean  $\pm$  standard error and  $p < 0.05$  was



considered statistically significant. Newman Keuls post-hoc test will be used for One-Way analysis of variance and pairwise comparison of variables between groups.

**Results:** This was confirmed by a gradual hemolysis of erythrocytes with mechanical stress applied to erythrocytes of rats with hyperlipidemia induced by cholesterol diet and rats with control group ( $p<0.05$ ). The blood incubated with NO donor (SNP) was exposed to stress in the same system and significantly decreased hemolysis in erythrocytes compared to the control group ( $p<0.05$ ). On the contrary, hemolysis rate was increased in blood that was incubated with NO blocker L-name ( $p<0.05$ ). No effect of the non-specific K<sup>+</sup> channel blocker (TEA) was observed. Hemolysis values were higher in the hyperlipidemic group than in the control group ( $p<0.05$ ). All these measurements were supported by spectrofluorometric measurements in plasma of blood samples taken after mechanical stress application.

**Conclusion:** It has been shown that NO has an important protective role in erythrocytes exposed to mechanical stress, whereas potassium channel blockade has no role in hemolysis of erythrocytes in this stress model. Erythrocytes which are unable to synthesize their own cholesterol and are directly affected by the plasma lipid profile, their cellular fluidity and deformities are impaired due to increased cholesterol in the membranes after hyperlipidemia. In this case, it causes the cells to become more fragile by reducing the response to external stresses. It is thought that mechanical stress applied to erythrocytes of hyperlipidemic rats cause more damage in the cells and NO has an important role in preventing this damage.

**Keywords:** Nitric oxide, hyperlipidemy, hemolysis, mechanical trauma

OP-3

## Investigation of *Ganoderma Resinaceum*'s Cytotoxic, Genotoxic, Apoptotic and Autophagic Effects on Gastric Adenocarcinoma Cells

M. Akif Kaymakçı<sup>1</sup>, Eray Metin Güler<sup>2</sup>, Ezgi Balkan<sup>2</sup>, Abdürrahim Koçyiğit<sup>2</sup>

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**Objective:** The exhaustive search for new ways of treating and preventing cancer has led to discovery of new drugs based on either natural products or analogs inspired by them. Fungi are some of these natural products which can be easily found in nature. *Ganoderma lucidum* is the most studied fungus of the genus *Ganoderma*. On the other hand, other species of the genus *Ganoderma* such as *Ganoderma resinaceum* has been less investigated. The aim of this study is to analyze antioxidant capacity, prooxidant capacity, cytotoxic, genotoxic, apoptotic and autophagic properties of *Ganoderma resinaceum* on gastric adenocarcinoma cells.

**Methods:** Fungus samples are collected from Bezmialem Vakıf University's garden. The microscopic characteristics of the specimens were determined by light microscopy using 30% KOH. We determined the total antioxidant capacity, pro-oxidant activity, total phenolic and flavonoid compound amounts of the *Ganoderma resinaceum*'s extract. Different concentrations of ethanolic extracts of the fungus exposed to AGS gastric adenocarcinoma cells. Cytotoxic effects are determined by ATP method, genotoxic effects are determined by Comet Assay method; apoptotic effects are determined by microscopy with acridine orange/ethidium bromide dye and western blot method. Autophagic effects are determined by Western-Blot method.

**Results:** *G. resinaceum*'s antioxidant capacity was found to rise with increasing doses, with increased pro-oxidant activity was observed. Total phenol and flavonoid levels were found to rise with increasing doses. It was found that low doses of *G. resinaceum* were proliferative for AGS cells by 40 ug/mL and it has cytotoxic activity after 40 ug/mL. ROS levels were found to be decreased with increasing doses up to 40 ug/mL. It was found that ROS levels were increasing with increasing doses after 40 ug/mL. A positive correlation was found between increasing ROS doses and DNA injury and apoptosis.

**Conclusion:** In conclusion, low doses of *G. resinaceum* extracts have proliferative effects on gastric adenocarcinoma cells, conversely high doses have cytotoxic effects. Cytotoxic, genotoxic and apoptotic effects might be related with ROS production capacity.

**Keywords:** *G. resinaceum*, apoptosis, DNA injury, cytotoxicity

OP-4

## Testing the Availability of Fecal Calprotectin Assays Instead of Colonoscopy in the Remission/Activation Evaluation of Patients Followed-up in the Inflammatory Bowel Diseases Outpatient Clinic

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**Objective:** Chronic inflammatory bowel diseases consist of Crohn's disease and chronic ulcerative colitis. The diagnosis of disease activation is classically made by the mucosal changes seen in the colonoscopy. Colonoscopy is an invasive procedure that is wanted to be avoided from time to time due to both it is invasive and takes time for both the physician and patient and sometimes requires hospitalization. Therefore, non-invasive tools are needed to evaluate the activation of Inflammatory Bowel diseases instead of the colonoscopy. The CRP, leucocyte, ESR and Plt values measured in blood have been used because of this. However, as seen in the

clinical practice, in addition to all patients with activation, one or more of these parameters are measured high in patients with very little actually active disease. Fecal calprotectin levels are the new noninvasive tools used in inflammatory bowel diseases and indicate inflammatory activation in the bowel. In this study, the fecal/calprotectin sensitivity was tested and compared with the classical 4 (CRP, leucocyte, ESR, Plt).

**Methods:** A total of 21 patients were included in this study. The data of 3 patients were lacking, they were excluded from the study. The study was designed prospectively (30.01.2018-30.07.2018). The follow-up time was at least 6 months for each patient. In this study, the diagnoses of the patients were made with the CT (abdominal oral iv contrast), clinical and laboratory (primary the CRP, WBC, ESR, Plt, and fecal calprotectin) parameters. The mesalazine and immunosuppressive therapies (azathioprine  $\pm$  biological agent) were used for the patients with Crohn's disease. The ulcerative colitis patients were also managed similarly. The colonoscopy and laboratory parameters taken at the beginning and after a treatment period of at least 6 months were compared.

**Results:** The data and colonoscopy and laboratory (CRP, ESR, Plt, WBC, stool/calprotectin) parameters of 18 patients were complete. When examined individually, in 6 of 18 patients, at least one of the CRP, WBC, ESR, Plt, the classical activation parameters, measured during the activation period was high and became normal when the disease was in remission. On the other hand, in all 18 patients, the fecal calprotectin levels were measured as very high or too high to be measured at the beginning of the disease. In colonoscopic complete or partial remission, sometimes depending on the severity of the disease, partial but significant recoveries were seen in the complete remission calprotectin.

**Conclusion:** Colonoscopy (pathology), one of the invasive tests in evaluating the activation of chronic inflammatory bowel diseases, is of golden value. However, due to it is both invasive and costly, sometimes a non-invasive test is needed in the clinical practice (particularly in the follow-up period). In this study, the importance of the use of calprotectin in the inflammatory bowel patients instead of the colonoscopy, a gold standard non-invasive test, was tested. And the fecal calprotectin levels were found to be closely correlated with the severity of the inflammatory bowel disease. However, when the classical 4 were evaluated individually, the CRP value was found to be more sensitive to the severity of the disease compared to the other three. However, it was seen that it was a useful tool only in 1/3 of the patients. In 2/3 of the remaining patients, it was not possible to report any sensitivity for the CRP. The calprotectin levels showed colonoscopic changes, namely the changes related to the endoscopic mucosal remission and remission level. In conclusion, the fecal calprotectin levels rise to prominence, when it is considered at least on the patient basis, as a useful, as well as cheap, noninvasive tool, which does not take up much time of both the physician and patient, for ensuring the reduction of the number of invasive, expensive and time-consuming colonoscopies done throughout the life in patients with chronic inflammatory bowel disease

**Keywords:** Calprotectin, endoscopic mucosal remission, inflammatory bowel diseases

OP-5

## Comparison of Efficacy of Cabergoline and Natural Progesterone in a Rat Endometriosis Model

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**Objective:** Endometriosis is a common gynecological disorder in reproductive age woman. There are two treatments approaches; cabergoline and synthetic progesterone. Cabergoline is well-known dopamine agonist and whereas progesterone is anti-mitotic agent. There are no studies comparing the effects of natural progesterone with cabergoline on endometriosis in the literature.

**Methods:** In this experimental study, surgical induction of endometriosis was performed by autotransplantation technique on 21 adult female Sprague-Dawley rats. Endometriosis formation was confirmed by a second-look laparotomy (n=18) 2 month later. Three study groups were randomly generated according to their treatment regimens: group 1 (cabergoline, n=6), group 2 (natural progesterone, n=6) and group 3 (control, n=6). After 30 days of treatment, a third laparotomy was performed to all rats. Endometriotic implants were excised for histopathological and immunohistochemical examination.

**Results:** Three rats died of complications related to surgery. At the end of the treatment, there was a reduction in the size of the endometriotic lesions in the cabergoline and natural progesterone groups (group 1; p=0.08, group 2; p=0.052). In the histopathological evaluation stromal tissue scores of group 1 and 2 were decreased in comparison to controls without a statistically significant difference (p=0.4). In the immunohistochemical examination, staining of IL-6 of group 1 and 2 were decreased in comparison to controls without a statistically significant difference (p=0.14).

**Conclusion:** Natural progesterone is as effective as cabergoline in the regression of experimental endometriotic implants in rats. Further trials are needed to elucidate the pathways affected by dopamine agonists and natural progesterone.

**Keywords:** Experimental endometriosis, cabergoline, natural progesterone

## OP-6

## Protective Effect of Amniomax on Experimental Ischemia/Reperfusion Injury in Rat Ovary

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**Objective:** Ovarian torsion is a rare cause of acute abdominal pain and requires rapid diagnosis and treatment due to ischemia/reperfusion injury which can cause reduced follicular activity and infertility. As yet, there is no substance known to protect ovarian function from ischemia/reperfusion injury after detorsion. Amniotic fluid contains several growth factors which have stimulatory effects on mesenchymal cells and chondrocytes. It also contains hyaluronic acid, chondroitin sulfate and keratan sulfate. The aim of this study is to evaluate the protective activity of amniomax treatment against ischemia/reperfusion damage created experimentally in rat ovaries.

**Methods:** Forty adult female Wistar albino rats were randomly assigned to four groups, each of which contains 10 animals: Sham, I/R, I/R+ Intraparenchymal Amniomax, I/R+ Topical Amniomax. Sham group; without torsion and detorsion of the ovary, right ovary and blood samples were taken. Ischemia/Reperfusion (I/R) group; the right ovary was twisted and rotated 720° clockwise and then fixed to the abdominal wall. After 4 hours of ischemia, reperfusion was performed. Four weeks later, right ovary and blood samples were taken. I/R + Intraparenchymal Amniomax group; the right ovary was twisted and rotate 720° clockwise and then fixed to the abdominal wall. After 4 hours of ischemia, reperfusion was performed and intraparenchymal amniomax (0.3 cc) given. Four weeks later, right ovary and blood samples were taken. I/R+ Topical Amniomax group; The right ovary was twisted and rotated 720° clockwise and then fixed to the abdominal wall. After 4 hours of ischemia, reperfusion was performed and topical amniomax (0.5 cc) given. Four weeks later, right ovary and blood samples were taken. Sham, I/R, topical (T) and intraparenchymal (P) groups were compared in terms of oxidative stress index (OSI) and inflammation markers-interleukin 1 beta (IL1B), interleukin 6 (IL6), and tumor necrosis factor alpha (TNFα).

**Results:** In tissue samples which I/R procedure was applied ( $p < 0.01$ ), OSI and inflammation markers have been found significantly reduced after T and P treatment of amniomax (OSI-T  $p < 0.001$ , OSI-P  $p < 0.05$ , IL1B-T  $p < 0.001$ , IL1B-P  $p < 0.05$ , IL6-T  $p < 0.01$ , IL6-P  $p < 0.005$ , TNFα-T  $p < 0.01$ , TNFα-P  $p < 0.005$ ). Likewise, in the serum samples ( $p < 0.001$ ), OSI and inflammation markers have been found significantly reduced (OSI-T  $p < 0.001$ , OSI-P  $p < 0.001$ , IL1B-T  $p < 0.001$ , IL1B-P  $p < 0.005$ , IL6-T  $p < 0.001$ , IL6-P  $p < 0.005$ , TNFα-T  $p < 0.001$ , TNFα-P  $p < 0.005$ ). In both serum and tissue samples, T treatment of amniomax has been found more effective than P treatment.

**Conclusion:** The results of the present study show that the adjuvan amniomax administration has an important effect on the prevention of I/R damage in the ovary. Our results should be confirmed with further experimental and clinical studies.

**Keywords:** Ovary, ischemia-reperfusion injury, amniomax

OP-7

## Evaluation of Complication Risk After Gamma Knife for the Meningiomas Which are Invading Major Venous Sinuses

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**Objective:** Meningiomas neighboring major venous sinuses in the brain are challenging tumors for surgical treatment. Although the standard treatment of meningioma is total surgical resection, invasion of venous sinuses usually prevents total removal of meningiomas. Gamma Knife provides effective treatment for meningiomas. However, there is lack of data on the effect of Gamma Knife on the treatment of meningiomas neighboring major venous sinus. Therefore, we aimed to review patients treated with Gamma Knife for meningiomas invading venous sinuses in brain.

**Methods:** We retrospectively analyzed patients with intracranial meningioma neighboring major venous sinuses that were treated with Gamma Knife at Bezmialem Vakıf University between August 2014-July 2018. We investigated variables including patients age, gender, location, which venous sinus affected, histological type, tumor grade, tumor volume, pre-Gamma knife surgery, presence of peritumoral edema, radiosurgical prescription dose, isodose and complication.

**Results:** Thirty one patients were included in this study. Twenty eight patients were female and 3 patients were male. Median age was 57. The median radiological follow-up time was 3 months (range: 2 months-19 months). Nine patients' tumor were surgically removed before Gamma Knife. The histologies from previous surgeries were classical type meningioma in one patient, transitional meningioma in four patients, meningothelial meningioma in two, psammomatous meningioma in two patients. All meningiomas were WHO grade 1 tumors. The median tumor volume was 3.40 cc (range: 1.36 cc-25.63 cc). The median prescription dose was 13 Gy (range: 11 Gy-14 Gy) and the median isodose was 50%. The affected venous sinuses were superior sagittal sinus in 17 patients, transvers sinus in nine patients, sigmoid sinus in four patients, lateral sinus in one patient. Only

one patient (3%) developed headache after Gamma Knife, which was controlled by medication. No patient developed radiation-related peritumoral edema.

**Conclusion:** Our results suggested that Gamma Knife treatment was safe for the treatment of patients with meningioma invading major venous sinuses.

**Keywords:** Gamma Knife, meningioma, venous sinus

OP-8

## Genetic Anomalies Explained in the Form of Mythologies in Comparison to Modern Medicine

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**Objective:** It's a known fact that the ancient Greeks have believed that the Gods controlled the natural events, which also included health and sickness. There are also very important medical messages to be taken from these ancient mythologies. This project looked into the description of genetic anomalies in Greek mythology. There are comparisons between the stories told, especially appearances and organ growth, with modern day medical congenital anomalies recorded into textbooks and journals. This research has looked into the idea that if the following stories, which reconcile with modern medicine, has surfaced in those ancient days and thus entered their life in their arts and religion, could it be that more could be learned from their texts to further our medical knowledge, and tackle the idea that perhaps we should reflect if our medical knowledge has actually moved forward in the modern era as we believe, or have we been going round in circles resurfacing the lost knowledge.

**Methods:** In order to be historically accurate, both in time and context, Homer's very own "The Odyssey" and "Iliad" was used to physically identify the God's and creatures of Greek mythology and countless journals were obtained and observed for literature purposes from PubMed.

**Results:** The use of the name Atlas as the name for the first vertebrae, whom also holds the skull on its shoulders shows how the modern medicine is still influenced by the ancient religious backgrounds. Both the Prometheus and Tityus's stories of organ regeneration, especially the liver's, is still proven to be accurate to date, as shown in a research that a recovery of total DNA/liver/100 g content was an astonishing  $6.10 \pm 0.36$  from the original  $6.37 \pm 0.21$ , after just 10 days of post-partial hepatectomy. Hephaestus's story also adds up with modern statistics, where a male predominance, like Hephaestus, was also consistent with the previous studies, along with inheritance (family history in 1<sup>st</sup> degree relatives) were shown to

have greater risks, in our case the parents Zeus and Hera being siblings. Although marked archaeological evidence supports the reality of these warrior women, unfortunately there isn't any primarily scientific data about the Amazons as there is no material penned by any Amazons themselves. Studies diminished the acceptance of a stale birth of HPE, the modern counterpart of Cyclopia described by Homer himself in his masterpiece the *Odyssey*, by showing a majority of live-born cases (122/200; 61%) along with a female predominance (male/total; 42%).

**Conclusion:** Athenian pottery on clay vessels, stones, etc., was common in the Mediterranean region, the land of the Greek mythology, and date as far back as 2,800 years ago, where some paintings either intact or fragmented has survived to our day. At the time period, they became a repository, not only of painting but also of religious and social norms and daily activities. Historical and mythological scenes were used heavily, providing opportunity to inject life scenes with life lessons. Use of Atlas's name, along with that of Psyche, and Venus, etc., still to this day shows the heavy influence in modern medicine. Prometheus's arc could be analysed as a verification of livers regenerational capabilities were also observed in ancient times, and whether it was lost along the history or lack of textbook documentation limited the spread of such knowledge is questionable. This perhaps can be seen as a leading candidate for re-surfacing what was acknowledged before. Current textbook knowledge unite that Holoprosencephaly doesn't reconcile with live birth, although recent studies is proving to out date this data, although there are no grown Cyclops' live in time. However, it has to be taken into consideration that after an educated guess suggesting the population of the planet as 66,000,000 among the time period of Homer composing the *Odyssey*, approx. 53 cases of Cyclopia were born by year. It has to be debated that these creatures may perhaps have found themselves in textbooks are a results of fully-grown Holoprosencephaly patient. We will have to ask ourselves if they had found a way to save these new-borns and bread to adulthood. If so this would mean that we have not advanced but rather lost our knowledge along the way of history, rising the ultimate question, if these mythological creatures are a reflect of congenital anomalies of the time period, have we lost the knowledge to help those we do not see today and why shouldn't the other creatures we deem myth not be true?

**Keywords:** Holoprosencephaly, mythology, genetic disorders, cyclopia, homeros



## OP-9

## Assessment of Biopsies from Liver Neoplasia

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**Objective:** The liver is a common metastatic site for many types of tumors, making up 25% of solid organ metastases. Metastatic malignancies are more common than primary hepatic neoplasia. Among the primary malignancies, hepatocellular carcinoma is the most common and constitutes 90% of this group. The most common metastatic tumor is colon adenocarcinoma. Definitive diagnosis of masses detected in the liver is made by histopathological examination. The purpose of this study is to compare the prevalence of primary and metastatic tumors in patients who underwent biopsies at Bezmialem Vakıf University, to determine which tumors most frequently metastasized to the liver, and to differentiate the histological, morphological and immunohistochemical data of primary and metastatic tumors.

**Methods:** The study included 388 biopsies performed on liver masses at Bezmialem Vakıf University between 2012-2017. Morphological findings of the primary and metastatic tumors were examined and the most important immunohistochemical staining was determined for origin differentiation. Pathologic diagnosis of the tumors, the location of the tumor on the liver, the size of the tumor, and the number of tumors were examined.

**Results:** Of the patients included in the study, 62% (239) were male and 38% (149) were female. The youngest patient was 1 years old, the oldest patient was 91 years old, and the mean age was 63. Three hundred and four cases were tru-cut biopsies and 41 of the tru-cut biopsies were HCC. Eighty-four cases were resections and 11 of the resections were HCC. CK7, CK20, CDX2, CK19, TTF-1, Synaptophysin, Chromogranin, GCDPF15, RCC, Progesterone, Estrogen, Pax8, and GATA3 were the most frequent immunohistochemical stains used to differentiate metastatic tumors. Hep Par, pCEA, CD10, CD34, Glypican 3, Glutamine synthetase, Arginase, and AFP were the most frequent immunohistochemical stains used to identify hepatocellular carcinoma. Adenocarcinoma was the most common metastatic tumor and hepatocellular carcinoma was the most common primary tumor. The most common origin was the colon, followed by the pancreato-biliary system, the lungs, and the breast. The origin of 36 tumors could not be determined histopathologically. 69.5% of the patients had multiple tumors, while 30.5% had a single tumor. 45% of the tumors were located on the right lobe, 28% were located on the left lobe, and 27% were located on both lobes. The smallest tumor was 0.7 cm, the largest tumor was 21.8 cm, and the average tumor size was 5.31 cm. The average size of the hepatocellular carcinomas was 6.4 cm, and the average size of the metastatic tumors was 5.14 cm.

**Conclusion:** The most common metastatic tumor is adenocarcinoma and the most common origin is the colon. The pancreato-biliary system, lungs, and breast are the most common origins following the colon. The most common primary tumor is hepatocellular carcinoma. The results of this study are consistent with

the literature. Although this study only includes data from one hospital between a six year time frame, it provides information about liver cancer morphology, radiology, and immunohistochemistry. Similar but more comprehensive studies done in the future may help in determining approaches to tumors of unknown origin and thus providing tailored therapies. In conclusion, by expanding this study, it can be used as a basis for future research which can potentially be helpful for guiding and developing new diagnostic and treatment modalities.

**Keywords:** Hepatocellular carcinoma, liver metastasis



**BEZMÎÂLEM**  
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# BEZMÎÂLEM science

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

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## SOP-1

## The Effect of Theobroma Cacao on Hyperlipidemic Rats

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**Objective:** Changes in the structural and functional properties of erythrocytes are important for all tissues in the organism, as they are closely related to the fluidity of blood tissue, especially the behavior of blood in the microcirculation. As a result of structural changes in the erythrocyte membrane, an increase in cholesterol accumulation in the membrane (pathological cholesterol/phospholipid ratio) disrupts membrane fluidity and function, limits the erythrocyte deformability. These results contributed to the disruption of the microcirculation and the initiation of pathological processes. In particular, coronary heart disease, angina pectoris, retinopathy, cerebral and peripheral circulations cause disruption. Many clinical trial data strongly supported the initiation of lipid-lowering therapy in patients with coronary artery disease. Therefore, dietary factors that may positively affect serum lipids are of great importance. In this study; aimed to determine the hypolipidemic effect of cocoa in rats fed-cholesterol diet and the changes in the hemorrhological characteristics of the blood.

**Methods:** This work; in order to determine the hypolipidemic effect of cocoa and the hemorrheological properties of blood in rats fed with cholesterol diet, it was planned to determine the possible changes. In this study, adult Wistar albino rats with weight ranging between 300-400 g and 3 months as experimental animal were randomized; hyperlipidemia control (n=15), hyperlipidemia cocoa (n=10) and normolipidemi control (n=20) divided into three. The amount of cholesterol to be given for 3 weeks was calculated as 30 mg/kg and the amount of cocoa to be 500 mg/kg according to the weight of the rats. Commercially taken cholesterol was dissolved in olive oil, cocoa was dissolved in distilled water and gavage was given and blood samples were taken from abdominal aorta the day after the last application. Plasma and whole blood viscosity, haemogram and plasma samples were taken from the blood samples, total cholesterol, alanine aminotransferase, aspartate aminotransferase, HDL-cholesterol, LDL-cholesterol, triglyceride, NOx, TNF- $\alpha$ , IL-1 $\beta$ , IL-4 and IL-5 and CRP levels were measured by ELISA. The data were considered as mean $\pm$ standard error and p<0.05 was considered statistically significant. One-Way ANOVA were used for comparisons of variables across groups. Newman Keuls post-hoc test were used for binary comparison of variables.

**Results:** There was a significant increase in lipid profile in rats fed intragastric with cholesterol diet compared to control group (p<0.05). Cholesterol and cocoa were given together in the group of lipid profile, especially in the total cholesterol, there was a significant decrease compared to the hyperlipidemic group (p<0.05). A similar change was observed in whole blood and plasma viscosity. In hyperlipidemic animals, viscosity values increased as expected, and values decreased with cocoa application (p<0.05).

**Conclusion:** The introduction of cocoa along with a high-fat diet prevented the increase of total cholesterol, leading to reduced viscosity. As a result of the measurements, it was thought that cocoa had a hypolipidemic effect and that it could contribute to the regulation of the circulation, thus, its use in pathological processes might support the treatment processes.

**Keywords:** Thebroma cacao, cholesterol, hyperlipidemia, plasma viscosity, hypolipidemic effect

## SOP-2

# Effects of AmnioMAX on Ischemia-Reperfusion Induced Kidney Injury in Rats

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**Objective:** Acute kidney injury (AKI) is associated with high morbidity and mortality rates in humans and can lead to end-stage renal disease. Ischemia-reperfusion (IR) injury to the kidney occurs in a range of clinically important scenarios including hypotension, sepsis and in surgical procedures such as kidney transplantation, leading to AKI. The aim of this study was to demonstrate IR injury on the kidney tissue in rats and to evaluate the effect of amnioMAX.

**Methods:** Data belonging to 40 rats weighing between 270-310 g were analyzed. Groups had unilateral renal vasculature clamped for 45 min ischemia before clamps were removed, and 24 hours reperfusion was applied. A total 40 rats were randomly divided into 4 groups. Group 1: Sham (n=10), group 2: IR (I/R), group 3: I/R+subcapsular amnioMAX (inject to the subcapsular area), group 4: I/R+supracapsular amnioMAX (sponges which impregnated amniomax placed around the kidney). At the ending of reperfusion period blood and tissue samples gathered. We looked at oxidative stress (TAS, TOS and OSI) and inflammation markers (IL1B, IL6 and TNFa) in tissue and serum samples.

**Results:** The oxidative stress in kidney tissue with IR and blood samples is reduced with amnioMAX therapy. Supracapsular amnioMAX therapy reduced the oxidative stress more than subcapsular amnioMAX therapy. Also the inflammation increasing by I/R decreased with amnioMAX therapy. For this inflammation decrease, the response to supracapsular therapy is better than the response to subcapsular therapy. A significant difference ( $p<0.05$ ) was found among the groups (except between group 2 and 3).

**Conclusion:** This study demonstrated that amnioMAX may have protective effects on the kidney after renal I/R injury. Future investigations are necessary to validate the kinds of conclusions that can be drawn from this study.

**Keywords:** Ischemia, reperfusion, amnioMAX, kidney, injury

## SOP-3

# Comparison of Quality of Life Among Patients Treated with Cyanoacrylate Glue Ablation and Surgical Stripping for the Treatment of Insufficient Great Saphenous Veins

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**Objective:** CVI is a condition that occurs when the venous wall and/or valves in the leg veins are not working effectively, making it difficult for blood to return to the heart from the legs. An estimated 30% of adults in the general population have CVI. The aim of treatment is the elimination of reflux. There is a lack of data about the effects of ablation and stripping technique on quality of life. The aim of this study is to compare (by using the SF-36 form) the quality of life of patients with large saphenous vein insufficiency treatment with cyanoacrylate glue ablation and surgical stripping.

**Methods:** In this observational study, 130 patients who underwent surgery at Bezmialem Vakıf University Hospital between March-April 2018 are evaluated. Patients with Great Saphenous Vein failure treated with either with Cyanoacrylate Glue Ablation (63 patients) or Surgical Stripping (67 patients) are included. Socio-demographic data, Doppler ultrasound findings and postoperative clinical findings will be evaluated. In addition, patients will be evaluated for the primary outcome of SF-36 Quality of Life Form at the 6<sup>th</sup> month after treatment. We compared quality of life (SF-36) between those treated with Cyanoacrylate Glue Ablation (group 1) or Surgical Stripping (group 2).

**Results:** When the socio-demographic data were evaluated, female gender ( $p=0.006$ ) was higher in both group, hypertension ( $p=0.011$ ) was higher in group 1 and the other data were similar ( $p>0.05$ ). Postoperative complications, aesthetically pleasing and number of RDUS results found similar ( $p>0.05$ ) (Table 2). When SF-36 results were compared, the results of Physical Functioning ( $p=0.004$ ), Mental Health ( $p=0.027$ ), Health Changes ( $p=0.010$ ) found higher in group 2 (Table 1).

**Conclusion:** Ablation method is preferred due to ease of application, short hospital stay, early return to work life and cosmetic superiority. However, in our study, the results of stripping method were found to

be better in terms of physical functioning and mental health when the quality of life was evaluated in 6 months.

**Keywords:** Chronic venous insufficiency, great saphenous vein, cyanoacrylate glue ablation, surgical stripping, quality of life, Short Form-36

| Table 1. Comparison of Changes in Quality of Life with Short Form-36 |         |         |       |
|--|---------|---------|-------|
| Variables  | Group 1 | Group 2 | p     |
| Physical functioning   | 88.49   | 97.16   | 0.004 |
| Role limitations due to physical health                              | 98.41   | 100.00  | 0.143 |
| Role limitations due to emotional problems                           | 98.413  | 99.776  | 0.513 |
| Energy   | 76.67   | 83.84   | 0.083 |
| Mental health  | 83.11   | 90.81   | 0.027 |
| Social functioning   | 98.413  | 99.627  | 0.117 |
| Pain   | 86.94   | 92.76   | 0.139 |
| General health   | 78.10   | 75.90   | 0.098 |
| Health changes   | 82.54   | 90.67   | 0.010 |

## SOP-4

# The Effect of the Human Growth Hormone and Insulin-Like Growth Factor-1 on the Life Quality of Patients with Acromegaly

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**Objective:** Acromegaly is a rare endocrine disease which is generally caused by an excessive amount of growth hormone secretion by an active adenoma of the pituitary gland. Acromegaly may significantly affect the quality of life of the patient. The aim of this study was to investigate the relationship between GH and IGF-1 bioactivity and the quality of life of acromegalic patients.

**Methods:** A total of 45 patients (28 females, 17 males, mean age 43±22 SD) with acromegaly were included in the study at Bezmialem Vakıf University Hospital Endocrinology Outpatient Clinic. Quality of life questionnaire was performed to evaluate the quality of patient's life (AcroQoL). GH and IGF-1 values of the patients were measured simultaneously.

**Results:** The mean AcroQoL score of the patients was  $59.31 \pm 20.97$ . The mean GH and IGF1 levels of the patients were 2.18 ng/mL and 219.34 ng/mL, respectively. There was a significant negative correlation between the GH values and the quality of life in acromegaly patients ( $r = -0.381$ ,  $p = 0.009$ ). No relationship was found between the IGF-1 values and AcroQoL score.

**Conclusion:** As a result, this study showed that GH was negatively correlated with Quality of Life (AcroQoL) in acromegaly. Controlling disease activity could improve quality of life in patients with acromegaly.

**Keywords:** Acromegaly, growth hormone, insulin-like growth factor type 1, AcroQoL (Acromegaly Quality of life)

## SOP-5

# Burnout Syndrome and Affecting Factors in Medical Faculty Students

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**Objective:** Researches that has been conducted for many years shows that the risk of burnout syndrome is higher in physicians and healthcare workers. This outcome should be examined in terms of students studying in medical school either. Because being away from the family, economic distress, housing problems, closedness of new occupations or interests are conditions that have a serious potential to lead students to burnout. In this study, it is aimed to compare and statistically evaluate the burnout status and related characteristics of intern physicians in Bezmialem Vakıf University Faculty of Medicine.

**Methods:** 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> grade students of Bezmialem Vakıf University Medical Faculty were included in this study. A total of 89 students participated in this study and a questionnaire composed of 13 questions such as gender, age, marital status, year loss (if any), reason to choice of medical faculty, preparation status of Medical Specialization Exam, smoking status and “Maslach Burnout Inventory-Student Form (MBI-SF)” applied to participants. A total of 85 people were required in the survey at a level of 80% power and 95% confidence. The collected data were edited by Microsoft Office Excel and analyzed with IBM, SPSS, Statistics 22.0 package program. In the analysis, results were obtained based on variables such as age, gender, marital status, reason for choice of medical faculty, preparation status of Medical Specialization Exam, and the answers given to the questionnaire were compared. Mann-Whitney U test was used to compare categorical variables. In order to evaluate the subscales of the scale, the correlation between points was examined with correlation coefficient.  $p < 0.05$  was considered statistically significant.



**Results:** A total of 89 students participated in the study, 49 of whom were in the fourth grade, 33 in the fifth grade, 7 in the 6<sup>th</sup> grade. Of the students, 75.3% were women, 24.7% were men and the majority of the students were single (96.6%). 16.9% of the participants lost a year during the medical education and 10.1% of the students were smokers. 31.5% of the group has difficulty in meeting their monthly expenses. 74.2% of the students in the research live with their family/relatives. 57.1% of the group consisted of students preparing for Medical Specialization Exam. Students attending 5<sup>th</sup> and 6<sup>th</sup> grade students have higher “desensitisation” score and lower “competency” score than 4<sup>th</sup> grade students. This difference was found statistically significant ( $p<0.05$ ). The “desensitization” score of the students who have difficulty in meeting their monthly expenses is determined higher than the others. This difference was found statistically significant ( $p<0.05$ ). Students who choose the Faculty of Medicine voluntarily with their own desire have lower “exhaustion” scores and a significant difference was obtained ( $p<0.05$ ). Students who prepare for Medical Specialization Exam have higher “exhaustion and desensitisation” scores, while “competency” scores are lower. A statistically significant difference was found in the sub-headings of “competence and depersonalization” ( $p<0.05$ ), but no significant difference was found in the “exhaustion”.

**Conclusion:** The findings emphasize the importance of medical education of intern physicians in terms of Burnout syndrome. This study was carried out with the thought that the exhaustion and desensitisation scores of the students prepared for Medical Specialization Exam will be higher and the competency score will be lower. As a result of this study, the expected results were obtained and a meaningful result was obtained for competence and desensitisation scores, but no statistically significant difference was found for the exhaustion score. It is recommended that the study should be repeated with more students, and medical education and working conditions should be improved and students should be supported socially.

**Keywords:** Burnout syndrome, faculty of medicine, internship, student

## SOP-6

# The Approach of Bezmialem Vakıf University Medical Students to Death and A Dying Patient

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**Objective:** Most of the young physicians find it stressful to discuss medical issues such as the dying patients and their relatives and the course of the disease, care and treatment options. It is unclear if medical students communication skills about death and the avoidance behavior of the dying patients and their relatives. We aim to determine whether a medical education changes the approach of medical students to death and a dying patient.

**Methods:** We surveyed all Bezmialem Vakif University medical students in May-July 2018 about their attitudes to death and dying. We obtained socio-demographic characteristics of students and used the Approach to Death and Dying Patient Attitude Scale for Medical Students (ADDPAS). The ADDPAS is a 20 item scale with two-dimensional structure including communication difficulties with dying patients and their relatives and avoidance of death and dying patients. For each participant, avoidance behavior scores and communication difficulty scores were calculated by using factor loads of the items in the scale. Medical students' "communication with dying patients and relatives" and "death and dying patient avoidance" levels were examined in terms of period, gender, presence of a history of death in first-degree relatives, care for a dying person and a visit to a palliative care center.

**Results:** Two hundred two students responded to the survey (27.5%). Fourth grade students showed the most participant (33.7%), and second grade students are the minimum (7.9). Other years are distributed similar. More women (70%) responded than men, and only 6% had a first degree relative experience death. "Hardness in communication" scores of the students who have a history of death in their first degree relatives are higher than the students who don't have. However there is no significant change in "hardness in communication" scores from grade 1 to 6, women and men, students who giving and not giving care to dying patient, students who visiting and not visiting palliative care center. There is a significant increase in "avoiding" scores from grade 1 to 6. "Avoiding" scores of women is found higher than the men and scores of students who not giving care to dying patient are higher than students who giving care. The research didn't show that significant difference between "avoiding" scores of students have history of death in first relatives and not have.

**Conclusion:** Our study showed that medical students' fear of death increasing as they face with death. Because of this fear their avoiding attitudes increasing year by year. In addition, there are still many questions waiting to be answered. How medical students tried to struggle about this issue? What kind of education programme should be to improve their skills and to defeat their fears?

**Keywords:** Fear of death, avoiding dying patient, medical education

SOP-7

## Examination of Self-Esteem and Social Anxiety Level in Female Patients with Urinary Incontinence

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**Objective:** According to the International Continence Society (ICS), urinary incontinence (UI) is defined as an involuntary loss of urine that is objectively demonstrable and a psychological, social or hygienic problem. Even though it is not a direct life-threatening event, the feeling of discomfort caused by continuous wetness, irritation and odor is a problem which affects the family and social life of the woman significantly in terms of physical and psychological aspects. The aim of this study is to evaluate psychosocial determinants such as Self-Esteem and social anxiety levels in women with UI.

**Methods:** We conducted a case aims of study comparing patients with UI who were admitted to Bezmialem Vakıf University Urology Outpatient Clinic and Obstetrics and Gynecology Outpatient Clinic to healthy control group with regard to their psychological characteristics in January-September 2018. We used the socio-demographic data form, Hospital Anxiety Depression scale (HADS), Liebowitz Social Anxiety scale (LSAS) and Rosenberg Self-Esteem scale (RSES). With these scales, we evaluated the levels of anxiety, depression and Self-Esteem of individuals, and the social situations in which individuals showed fear/avoidance behavior.

**Results:** Fifty woman with UI and fifty woman without UI were studied. The average age was 49. There were no differences between cases and controls in age and education. It was found that HADS anxiety, HADS depression, Liebowitz anxiety and Liebowitz avoidance scores were significantly higher, and rosenberg Self-Esteem score was significantly lower in the patient group than the control group ( $p<0.001$ ).

**Conclusion:** In conclusion, the social anxiety and depression levels were found higher in female patients with UI than healthy women. The Self-Esteem levels of these patients were found lower than healthy women. These results showed that psychological support can be provided to improve the quality of life of patients with UI.

**Keywords:** Urinary incontinence, Self-Esteem, social anxiety, psychological characteristics

## SOP-8

## Protective Effect of Potassium Channel Blockade and Nitric Oxide in Erythrocytes Exposed to Mechanical Trauma in Diabetic Rats

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**Objective:** The cellular elements of the blood are subjected to mechanical effects during the period in which they are present in the circulatory system, and these effects can change the normal morphology and function of blood cells. In normal circulatory conditions, the magnitude of the mechanical forces on the blood cells in most of the circulatory system does not cause damage. However, they may be affected by greater mechanical forces in artificial environments such as cardiopulmonary bypass, artificial heart and heart valve, circulatory support devices, hemodialysis equipment. High shear stress, turbulence, impact on foreign surfaces is inevitable when blood is in contact with artificial organs and may cause hemolysis. It is known that erythrocyte deformation ability is reduced in diabetes mellitus. These changes in the structural and functional properties of erythrocytes are important for all tissues in the organism, as they are closely related to the fluidity of blood tissue, especially the behavior of blood in the microcirculation. In this study; it was planned to determine the importance of nitric oxide (NO) and potassium channel inhibition in the prevention of hemolysis due to mechanical stress applied to the erythrocytes of rats with diabetes mellitus induced by streptozotocin (STZ). It was thought that the negative effects of mechanical stress on erythrocyte rheology and hemolysis could be prevented by using NO donor and this study was planned. In this study, it was also aimed to clarify the possible protective mechanism of NO by using non-specific K<sup>+</sup> channel blocker.

**Methods:** In this study, adult male Wistar albino rats (3 months old, weights were 300-350 g) were randomly divided into two groups: Diabetes group (hyperglycaemia) (n=10) and normoglycemia group (n=10). A single dose (i.p) of 60 mg/kg STZ was administered. Blood samples were taken from the abdominal aorta after the last applications. Blood samples were taken under the influence of mechanical forces for 15 minutes by imitating the conditions of the circulatory system using a device made by us. At the end of the period, hemolysis levels were measured spectrophotometrically from blood samples, hemogram, total NO and eNOS levels were measured by ELISA method from plasma samples. Datas were shown as mean  $\pm$  standard error. P<0.05 accepted statistically significant. Newman Keuls post-hoc test was used for One-Way analysis of variance and pairwise comparisons of variables between groups.

**Results:** The model of diabetes that was created with STZ and the control group rats of erythrocytes applied with mechanical stress erythrocytes with a gradual hemolysis of the erythrocytes were made and measured with the numbers of hematocrit and erythrocytes confirmed ( $p < 0.05$ ) The blood incubated with NO donor (SNP) was exposed to stress in the same system and significantly decreased hemolysis in erythrocytes compared to the control group ( $p < 0.05$ ). On the contrary, hemolysis rate was increased in blood that was incubated with NO blocker L-name ( $p < 0.05$ ). No effect of the non-specific  $K^+$  channel blocker (TEA) was observed. Hemolysis values were higher in diabetic group than in control group ( $p < 0.05$ ). All these measurements were supported by spectrofluorometric measurements in plasma of blood samples taken after mechanical stress application.

**Conclusion:** It has been shown that NO has an important protective role in erythrocytes exposed to mechanical stress, whereas potassium channel blockade has no role in hemolysis of erythrocytes in this stress model. It is thought that diabetes causes damage especially with oxidative stress in erythrocytes, the mechanical stress applied after this damage causes more damage in the cells and NO has an important role in preventing this damage.

**Keywords:** Nitric oxide, diabetes, hemolysis, mechanical trauma

## SOP-9

# Cytotoxic, Genotoxic, Autophagy and Apoptotic Effects of *Anastatica Hierochuntica* on Malign Melanoma B16 Cells

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**Objective:** *Anastatica hierochuntica* colloquially known as “Milk Thistle” is a xerophytic plant used by people for centuries especially in Arabian Peninsula in order to become pregnant, make the delivery easier and heal the injuries. It is revealed that *A. hierochuntica* herb has antioxidant, antifungal, antimicrobial, hypolipidemic, hepatoprotective, gastroprotective, anti-inflammatory and antimutagenic effects, besides, it is foreseen that a research about anticancer mechanisms of action can be carried out as it has a potential to be a new medication on the treatment of cancer. The aim of this research is to reveal the cytotoxic, genotoxic, apoptotic and reactive oxygen production effects of *A. hierochuntica* herb extract's different concentrations on malignant melanoma cancer cells (B16F10) at *in vitro* culture media.

**Methods:** We analyzed 2 different parts of *A. hierochuntica* (root and leaf) collected in Saudi Arabia. Antioxidant activity, DPPH, Cuprac, total phenol and flavonoid amount of the root and the leaf extracted with methanol were appointed. The extracts prepared in different concentrations were planted at B16F10 cell line and incubated for 24 hours. Cell proliferation levels were analyzed with ATP cell viability assay. IC<sub>50</sub> values of

these onions were calculated. Genotoxic, apoptotic and reactive oxygen species (ROS) generating effects are analyzed under these IC<sub>50</sub> values. And the apoptotic expressions were analyzed with Western Blot method.

**Results:** It is found that antioxidant and prooxidant capacity and phenol and flavonoid level of the plant's leaf methanol extracts are higher than the plant's root methanol extracts. It is also found that the leaf's cytotoxic, genotoxic and apoptotic effects on malign melanoma cells are higher than the roots.

**Conclusion:** As a result, it is revealed that the plant's leaf extracts have cytotoxic, genotoxic and apoptotic effects on cancer cells. In order to analyze the Milk Thistle leaf's effects on cancer in detail, *in vivo* studies are required.

**Keywords:** *A. hirerochuntica*, malign melanoma, apoptosis, genotoxicity

## SOP-10

# Comparison of Smoking Status and Attitudes Towards Smoking of 1<sup>st</sup> and 4<sup>th</sup> Year Students Who are in Smoke Free Campus

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**Objective:** Smoking, which is an important public health problem in the world and in Turkey, has the potential to be highly addictive. The aim of this study is to investigate the smoking status, smoking habits, factors affecting the frequency of smoking in 1<sup>st</sup> and 4<sup>th</sup> grade students and attitudes and behaviors of the students who are in "Smoke Free Campus" which is a concept of Bezmialem Vakıf University since its established.

**Methods:** Our research was conducted in the Faculty of Medicine and Health Sciences of Bezmialem Vakıf University in 2018, by obtaining permission from the relevant deans. It was applied to the students of Medicine, Physiotherapy and Rehabilitation and Audiology faculties. Two hundred eighty students have attended to the study in total. A questionnaire consisting of 25 questions was applied to the students by taking in consideration the features that the World Health Organization proposed to take into account in the surveys for this age group. The questionnaires applied to 1<sup>st</sup> and 4<sup>th</sup> grade students. They were questioned of their demographic characteristics, their smoking habits, the reasons of starting smoking, knowledge about smoking related diseases and their approaches to smoking addiction.

**Results:** Two hundred eighty students participated in our study in total. Two hundred-ten (72.9%) of them were female and 78 (27.1%) were male. One hundred forty-nine (51.7%) were students of the Faculty of Medicine and 139 (48.3%) were in the Faculty of Health Sciences who participated in the study. One hundred forty-two (49.3%) students were in the first grade and 146 (50.7%) were in the 4<sup>th</sup> grade. Forty-one (14.2%) of the 1<sup>st</sup> year students were smokers and 247 (85.8%) were non-smokers. In our study, the rate of smoking was 6.1% in the 1<sup>st</sup> year students Faculty of Medicine and 22.9% in the 4<sup>th</sup> year students of the Faculty of Medicine ( $p=0.005$ ). In the Faculty of Health Sciences, these rates were found to be 7.9% for grade 1 students and 19.0% for grade 4 students ( $p=0.05$ ). The students that participated the questionnaire stated that being affected from environment and having a significant issue in their life are primary and most important reasons for starting smoking (48.9%).

**Conclusion:** In our study, when male and female students were compared in terms of smoking habits, it was observed that male students have smoking habits significantly more than female students. When smoking rates of 1<sup>st</sup> and 4<sup>th</sup> grade students are compared, it is observed that students studying in the 4<sup>th</sup> grade have significantly more smoking habits than 1<sup>st</sup> grade students. In our study, it was found that the students who lived separately from their families smoke more than the students living with their parents, but the findings did not reach a significant level.

**Keywords:** Smoke free campus, addiction, cigarette, smoke, student, university

## SOP-11

# The Analysis of Factors Affecting Mortality on Septicemia Cases in the Pediatric Intensive Care

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**Objective:** Severe conditions like septicemia, septic shock and multiple organ failure are experienced frequently in pediatric intensive care units (PICU). Despite effective treatment approaches, sepsis can lead to mortality and long term disability. The aim of this study was to characterize the clinical presentation, pathogens, and factors affecting mortality in children admitted to PICU at a single hospital in İstanbul, Turkey.

**Methods:** Medical records of patients aged 29 days to 18 years admitted to PICU at Bezmialem Vakıf University Hospital from March 2012 to April 2018 were retrospectively collected. Sepsis and septic shock were defined according to the 2005 pediatric consensus criteria. Data on clinical presentation, underlying disease, microbiological results, treatment (mechanical ventilation, blood products, dialysis, plasmapheresis), length of hospital stay, and outcome were analysed.

**Results:** Out of the 201 patients that had sepsis, 156 of them had also septic shock. Ninety four patients (46.7%) were female, 107 were male (53.3%). Median age was 4 and median length of stay was 16 days. Forty-five patients died (22.5%). The mortality rates of septicemia and septic shock cases were 13% and 25%. The main causes of septicemia were respiratory system diseases. One hundred seven patients (53%) had underlying disorders (most commonly neuromuscular diseases). Microbiological growth was detected in blood culture in 74 (36.8%) patients. Gram-negative bacteria were the most frequently detected pathogens (*S. maltophilia* 6, *E. coli* 5, *Pseudomonas* 4). Blood cultures were positive in the first 48 hours in 30 patients (14.9%) (community acquired sepsis). Sex, age, underlying disease, age, blood neutrophil and monocyte count, serum electrolyte levels, blood culture positivity were not associated with mortality. Patients with used to mechanical ventilation, blood products, dialysis and plasmapheresis and length of stay had significantly increased mortality rate ( $p<0.001$ ).

**Conclusion:** Sepsis and septic shock are both very fatal diseases in the world. Particularly, children are affected more severely. In this study, mortality rate was significantly high. As a result, more studies about long term effects of septicemia must be done.

**Keywords:** Septic shock, pediatric intensive care unit, septicemia

## SOP-12

# Evaluation of Characteristics of Patients with Type 1 Diabetes Mellitus and Assessment of the Educational Program “Diabetes at School”

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**Objective:** Type 1 diabetes mellitus (DM) is one of the most abundant of all chronic endocrine diseases. In order to enlighten multifactorial causes in our region; geographical, demographical and biological differentiations has to be studied. In 2016, a school program has been scheduled by Pediatric Endocrinology and Diabetes Association, to be noticed diabetes mellitus in earlier period by children or by their parents. This program intend to reduce complications such as diabetic ketoacidosis before the diagnosis and inform about type 1 DM. In our study, we have planned to compare patients’ data before the program (2013) and after the program (2016) in aspects of demographical characteristics to settle on success of the program.

**Methods:** Thirty-seven patients who diagnosed with type 1 DM in 2013 and 33 patients who diagnosed with type 1 DM in 2016 have been included in study. Retrospectively age, month, season of application, state of arrival, sex, height, height standard deviation score (SDS), weight, weight SDS, body mass index (BMI), BMI, SDS,



glucose, C-peptide, insulin, HbA1c, pH, HCO<sub>3</sub>, anti-GAD, anti-insulin, islet cell antibodies, celiac antibodies, anti-Tg, anti-TPO of patient has been included in study. With parameters mentioned above has been used to compare patients before (2013) and after (2016) the program.

**Results:** In 2013 a total of 37 patients (19 female, 18 male) and in 2016 a total of 33 patients (17 female, 16 male) has been admitted. In terms of seasons of application, patient who admitted in 2013 and 2016 were as; 10/37 vs 8/33 in spring, 7/37 vs 8/33 in summer, 10/37 vs 6/33 in fall, 10/37 vs 11/33 in winter. There were no significant differences between two groups in sense of sex and admission season. In addition, these two group has the similar arrival age average ( $9.4 \pm 3.87$  vs.  $10.1 \pm 3.7$ ). In 2013, 16 out of 37 of patients were in diabetic ketoacidosis (DKA) (43%); while in 2016 15 out of 33 of patients were in DKA (45%), this difference was not statistically significant. In patients who have admitted in state of DKA comparison of laboratory values such as pH, HCO<sub>3</sub>, insulin were found with no statistical difference, on contrary glucose levels were lower [ $530 \pm 185$  vs  $369 \pm 103$  ( $p=0.006$ )] also C-peptide levels were higher [ $0.311 \pm 0.16$  vs.  $0.512 \pm 0.285$  ( $p=0.03$ )] in 2016.

**Conclusion:** Measurements of demographical characteristics, frequency of DKA, severity of DKA were found to be with no relevant difference between years 2013 and 2016. On contrary, higher levels of C-peptide and lower glucose levels may be accepted as indicator of early admission and diagnose. In the light of our research, we have found that the program has not reached is anticipated effect but have reached a level of success so there is a need to continue and improve of diabetes education program.

**Keywords:** Diabetes, ketoacidosis, diabetes education program

## SOP-13

# Violence Against Healthcare Workers in Bezmialem Vakıf University Faculty of Medicine Students

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**Objective:** Workplace violence against healthcare providers including the medical students being an important issue all over the world. The aim of this study is to survey the medical students about the exposure to workplace violence while they are doing their medical training in hospitals.

**Methods:** This was a cross-sectional study carried out among all medical students (4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> class) attending a teaching hospitals at Bezmialem Vakıf University, İstanbul, Turkey. A total of 150 students in 2017-2018 academic year were recruited in this study. Data were collected using modified questionnaire through a face to face interview. Data were analyzed using SPSS 20.

**Results:** About one third of students (54, 36.0%) exposed to violence and 71.3% of them witnessed accident of violence against healthcare providers at workplace. The prevalence of physical violence, and verbal abuse among medical students was reported 5.5 and 92.6 percent respectively. About 81.5% were females compared to 18.5% of their counterparts. Patients (38.9%) and their relatives (61.1%) were the main sources of the violence respectively. More than half of students exposed to violence at outpatient services and 25.9% at the emergency room and 16.7% at inpatient wards. Few of them (22, 14.7%) thought that they will get support if they make a complaint.

**Conclusion:** Being a medical student and has a direct contact with patients and their relative is not always safe practice. Our results suggested a high prevalence of verbal and physical abuse against medical students. Health sector authorities should adopt a restrictive and clear strategy to protect medical students and other healthcare providers.

**Keywords:** Violence, health care workers, medical students

## SOP-14

# Awareness, Knowledge, Practises and Relationship with the Duration of Illness in First-Degree Relatives of Diabetes Mellitus

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**Objective:** Diabetes mellitus is a common endocrinologic disease which is affected by environmental factors such as diet, habits, life style. Diabetes mellitus is an example for genetically heterogenous disease. In addition type 2 diabetes mellitus which is increased day by day and responsible for lots of health problems. People who have first degree relatives of type 2 diabetic, are described as high risk group for developing diabetes caused by having genetical inherited predisposition to diabetes and sharing similar life style with diabetic relatives. We have aimed to learn how much these people know about diabetes, their thoughts about diabetes and its treatment, do they have an attitude to prevent being diabetic. And also we have aimed to learn if there is an effect for knowledge, thoughts, attitudes about diabetes which is related to the number of diabetic people among the family and how many years they are diabetic.

**Methods:** Two hundred twenty people participated in our study who were first degree relatives of type 2 diabetic people and got treatment at internal medicine clinics of Bezmialem University, Şişli 75. Yıl Mecidiyeköy

Health Care Center. They are evaluated by answering 35 questions which were prepared for this study. Our questionnaire were divided into four chapters. First chapter was designed to learn socio-demographic informations of participants for instance sex, age, weight... (8 questions). Second chapter was designed to learn when they meet diabetes for the first time in their lives, questioning their life styles, habits (17 questions). Third chapter was designed to evaluate their knowledge about diabetes (5 question). Fourth chapter was designed to determine their thoughts and attitudes toward diabetes and its treatment (5 questions). Participants have been compared each others by age, number of relatives who has/have type 2 diabetes, how many years they have been diabetic. Chi-square test was used for compared the categorical variables. Values of  $p < 0.05$  was considered statistically significant in analyse.

**Results:** One hundred and sixty-one people (73.5%) among 220 participants who joined this study, have thought that they might be diabetic and 145 people (65.9%) have been to doctor's appointment. Diabetic first degree relatives of 106 participants (48.4%) have mentioned about risk of being affected by diabetes to their families. Eighty four participants have said that they had an information about diabetes before joining this study and 52 participants among this group have said that they had this information from their families and friends. There is no statistically significant differences in their knowledge, thoughts, concerns about diabetes; having preventive behaviours for avoid from diabetes when we evaluated and compared participants by how many years their relatives is or are diabetic. There is a statistical significant differences in concerns about being diabetic and go to the doctors to learn if there is a possibility for being diabetic when we compared participants with regard to which family member is/are diabetic. Participants whose mothers are diabetic, were more worried about being diabetic than others and they went to doctor for that (91 people said yes: Worried about being diabetic, 84.3%  $p=0.034$  and 79 people among this group went to doctors, 72.5%  $p=0.04$ ) 103 people (49.5%) said that they knew the names of medicine which are used for diabetes treatment. There is a question that we asked about what type of people is under high risk for diabetes. This is one of the questions which grabs more attention among the others. One hundred three people (48.1%) answered that people who have high cholesterol, are under high risk of being diabetic. Sixty eight people (31.8%) among the participants answered that people who gave birth to large babies, are under high risk for diabetes. This is correct answer of this question.

**Conclusion:** It was revealed that the majority of participants in this study knew diabetes what kind of disease is, its symptoms, health problems which are related to diabetes mellitus. Diabetic people should be encouraged to share more details about diabetes to their families and freinds. Additionally we suggest that they warn their families for their risks of being diabetic and be a right source about diabetes when their families, friends ask them to learn what diabetes is. Finally people who are under high risk of being diabetic should be encouraged to do some physical activities which are good for their health.

**Keywords:** Type 2 diabetes, family history, awareness, protection from diabetes

SOP-15

# The Consumption Habits and Knowledge Levels About Probiotics of Medical Students: The Example of Bezmialem Vakıf University

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**Objective:** Probiotics are live microorganisms that when consumed in enough amount exert their health benefits. Several studies have shown the effectiveness of these bacteria in prevention and controlling of different diseases but their consumption is still low. This study examines the opinions, knowledge and the consumption habits of probiotics among the medical students in Turkey.

**Methods:** A web-based survey was conducted among 240 students of the 1<sup>th</sup> to the 5<sup>th</sup> year of the graduation course of Medicine at the Bezmialem Vakıf University. Chi-square test used to compare categorical variables. Values of  $p < 0.05$  in all analyzes considered statistically significant. IBM SPSS Statistics 22.0 used for analysis.

**Results:** Seventy six male and 178 female were included in the study. 44.7% of male students and 32.6% of female students said that they consumed probiotic products regularly ( $p > 0.05$ ). It was determined that 39.8% of those consuming probiotic products read the labels on products 54.7%, of students do not know the microorganisms in probiotic products, 68.1% students do not know in which conditions they can recommend a patient to use probiotics. It was seen that 90.2% students think that they do not get enough information about probiotics in their education process.

**Conclusion:** The students involved in this study have mainly the opinion that they have lack of knowledge about the probiotics. Therefore, necessary trainings should be given during medical education.

**Keywords:** Probiotics, medical students, preventive medicine

## SOP-16

## Why the Anesthetic Agents Used in the Past Has Been Replaced by Today's Anesthetic Agents?

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**Objective:** The Development of modern anesthesia is lead back to the first successes of humanity against pain. In the 19<sup>th</sup> century, the pain elimination was effected with opium, mandragora, hyosyamus and the use of alcohol. The discovery of ether and chloroform enabled initial surgical procedures on patients. The longest known and which is still used today worldwide analgesic is the nitrous oxide. Today's anesthesia includes such factors as sediation, loss of consiousness (hypnosis), pain insensitivity (analgesia), movement or motionlessness and memory loss (amnesia). The aim of this research is to compare the advantages and disadvantages of anesthetics and methods between the past and the present.

**Methods:** The study of why the anesthetic agents used in the past has been replaced by today's anesthetic agents is based on published literature and researches of individuals, who have worked in the field of anesthesiology in the past period.

**Results:** On October 16, 1846, Dentist William Thomas Green Morton demonstrated the pain-killing effect of sulfuric acid during a surgical intervention, physicians and students at the Massachusetts General Hospital in Boston. The great euphoria after the first operations with ether was quickly clouded when first patients died. The patients suffocated from vomit or saliva in the trachea. Ether caused hypersecretion. Also the duration of action of ether played an important role. It took several minutes until the full effect began. Thus, the patients were in a state of agitation, which resulted in injuries of the patients. Also the discovered chloroform hid many disadvantages. A disadvantage is the pronounced toxicity to the liver, which can lead to acute atrophy of the organ. Both anesthetics are not used today because of the many deaths. In 1844, Dentist Horace Wells discovered the still known and used nitrous oxide. It showed minor complications during a hundred percent administration of nitrous oxide via a breathing mask. That's why it is still used today. However, nitrous oxide is mixed with oxygen today to avoid suffocation and any brain damages. Modern anesthesia distinguishes between three basic types of anesthesia: General anesthesia, local anesthesia and partial anesthesia. Fast-acting hypnotics, analgesics (such as opioids) and muscle-relaxing drugs are injected via a vein. During a general anesthesia patients inhale gaseous anesthetics, such as sevoflurane, isoflurane or nitrous oxide. The risk of dying from anesthesia is quite low today, because of the modern techniques and successful monitoring of the vital signs of all patients.

**Conclusion:** In conclusion, the development in anesthesia shows that fewer and fewer side effects such as nausea and vomiting occur. The progress of synthetic anesthetic agents allows specialist and anesthesiologists

to dose exactly anesthetics today. Therefore there are less dangerous incidents during the operation. Many of the opiates and hypnotics that have been introduced over the next few years, such as fentanyl, bupivacaine, midazolam, sevflurane, remifentanyl and propofol, are now important anesthetics for critical care and pain therapy. The number of deaths has fallen drastically. We can predict an excellent future on the progress to be made in anesthesia.

**Keywords:** Anesthesia, pain, development, discovery, agents

SOP-17

## The Radiological and Pathological Characteristics and Risk Factors of Breast Cancer Patients Under 40 Years-Old

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**Objective:** The most important risk factors for breast cancer are; gender, age, genetic factors, family history of breast cancer, history of personal breast cancer, race and ethnicity, intense breast tissue, some benign breast diseases, lobular carcinoma in situ, menstrual period, radiation exposure, having children at a late age, birth control pills, post-menopausal hormone therapy, no breastfeeding, alcohol use, excess weight and less physical activity. Recently, breast cancer has been detected in earlier ages and it has been reported that there is a more aggressive course in cancers detected in early ages. The aim of this study is to investigate the risk factors, radiological and pathologic features of breast cancer patients under the age of 40, who were diagnosed, treated and followed up at our breast clinic, and to benefit from these data for our following patients.

**Methods:** Data of demographic characteristics, risk factors, preoperative and postoperative radiologic evaluations like magnetic resonance imaging (MRI), positron emission tomography (PET), ultrasound (US), mammography (MMG), informations about operations, and pathological evaluations like TNM stage, tumor type, hormone receptors, Ki-67 etc., and adjuvant/neoadjuvant treatments of the breast cancer breast patients under 40 years were investigated via BIZMED Database system.

**Results:** According to the data obtained in our study, 3.1% of our patients who were all female were diagnosed with breast cancer under the age of 40 years. The percentages of cancer at 25, 26, 30, 31, 32, 33, 34, 35, 36, 37, 38 and 39 years of age were 1.54%, 1.54%, 1.54%, 4.62%, 1.54%, 9.23%, 4.62%, 4.62%, 15.38%, 15.38%, 21.54% and 18.46%, respectively. Most of the patients were in age group 38. Initial complaints of the 72.30% of our patients were breast nodularity and palpable mass. Menstrual cycles were regular in 69.33% and irregular in

23.07%. Because of lactation, 4.62% did not have cycles and 1.54% were on menopause. None of the patients used alcohol, but 9.23% used cigarette. There was history of hormone replacement therapy in 1.54%, and oral contraceptive drugs in 4.62% of the patients. 26.15% had a family history of cancer (18.46% had a history of breast cancer). When examined according to BIRADS staging, it was determined that the stages were 6, 5, 4, 3, 2, 1 and 0 in 40%, 33.8%, 15.3%, 3.6%, 1.54%, 3.07% and 1.54%, respectively. The pathology result was invasive ductal carcinoma in 90%, and invasive lobular carcinoma in 10%. The mass was found in the right breast in 52.3% and in the left breast in 47.7% of the patients. 30% of the patients were Her-2 positive, 7.6% were suspicious and 61.5% were negative. Progesterone receptor positivity was 64.6% and estrogen positivity was 60%. Luminal A, Luminal B and triple negative results were in 26.7%, 66.7% and 6.6% of the patients, respectively. The American Joint Committee on Cancer (UICC/AJCC-2010) TNM classification system was used for staging. Of our patients, 47.3% were T1, 30.4% were T2, 12% were T3, and 10.4% were Tis. On behalf of nodal status, 47.6% were N0, 23% were N1, 23.25% were N2 and 6.15% were N3. The recurrence rate of our patients was 12.4%.

**Conclusion:** In our study, the most common molecular sub-type under 40 years of age was Luminal B. All of the results of subtype analysis were compatible with the literature. Histopathological analysis of most of the patients revealed invasive ductal carcinoma, the most common type of breast cancer. The recurrence rate of the cancer was like the rate stated in the other studies and a significant part of our patients were diagnosed in the earlier stage compared to the literature. Since breast cancer was shown to be more aggressive in younger patients, it is important to diagnose at an earlier stage and individualize the treatment according to the characteristics of the tumors and the patients.

**Keywords:** Breast cancer, young age, prognostic factor, histopathological features

## SOP-18

# Effects of Tablet-Smartphone-Television-Computer-Laptop Usage on Speech Delayed Children

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**Objective:** The use of technological devices in children has become widespread in recent years, but their effects have not yet been investigated. The purpose of this study is; the aim of this study was to evaluate the duration of the use of audio and visual technological devices such as tablet-smartphone-television-computer-laptop in the daily life of 2-4 year old patients with delayed speech delay with demographic characteristics.

**Methods:** A total of 18 children who were admitted to Bezmialem Vakıf University Pediatric Neurology Outpatient Clinic between the ages of 2-4 were included in the study. The participants were informed about the study. Demographic information and stories were taken, and the children were asked to give a questionnaire (Annex 1). In the survey, it was questioned how children use technological devices, how they used these devices, how often the family used these devices for inculcating their children, and how children reacted when they separated from these devices.

**Results:** 5.6% of the children had less than 30 minutes with their family, 8 (44.4%) had 30 minutes-1 hour, 7 (38.9%) had 1-3 hours and 2 (11.1%) was spent on 4 hours. Twelve of the families (66.7%) said that their children did not use computers because they did not have a computer in their homes. Three of the children (50.0%) who were reported to be using computers by their families were informed that they watched videos, 2 (33.33%) watched cartoons and 1 (16.66%) had time spent watching videos and cartoons. It has been reached. The age of the child and the time of tablet use ( $p=0.028$ ), the age of the child with smartphone usage time ( $p=0.014$ ), the time of smartphone usage with the tablet usage hour ( $p=0.024$ ), and the hours of computer use with the tablet hours ( $p=0.006$ ) meaningful. The relationship between the number of children in the family and television watching time ( $rs=-0.444$ ,  $p=0.065$ ) was found to be significant. Seven (38.9%) of the children (7.9%) are sometimes affected, 9 (50.0%) are often times, and 1 (5.6%) always give them their children to indulge; 4 of the children (22.2%) were almost never, 7 of them (38.9%) sometimes, 6 of them (33.3%) were often when they left the data they cried were reached.

**Conclusion:** There was no statistically significant relationship between screen exposure and speech delay. We believe that this result is due to the small size of our study group. We believe that the study should be applied to large audiences in order to obtain more meaningful and reliable results.

**Keywords:** Speech delay, television, tablet, smart phone, computer

## SOP-19

# Daytime Sleepiness and Influencing Factors in Patients with Severe Obstructive Sleep Apnea

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**Objective:** Excessive daytime sleepiness is the main patient-reported symptom of obstructive sleep apnea. However some patients do not experience excessive sleep during the daytime. We examined the relationship of Epworth Sleepiness Scale (ESS) with other parameters in patients with severe Obstructive Sleep Apnea syndrome (OSAS).



**Methods:** During the 2017-2018 years, 1570 patients' files were screened retrospectively that performed night sleep polysomnography in sleep laboratory Bezmialem Vakıf University Hospital patients who diagnosed as OSAS. The remaining 423 severe OSAS patients were examined with some criteria including; age, gender, ESS (Epworth Sleep Scale), necks circumference, waist circumference, body mass index (BMI), respiratory distress index (RDI), lowest saturation, desaturation index (DI), apnea index (AI), hypopnea index (HI), REM apnea index. The non-parametric Spearman correlation coefficient was used to test the correlation between the ESS and other sleep parameters.

**Results:** Two hundred fifty-one of the patients were male and 172 were female. The mean age was 50 (20-78), mean BMI 33 (18-56) and the mean RDI value was 22.4. When the patients were grouped as ESS>10 and ESS <10, significant differences were found in BMI, Lowest Saturation, DI, Neck/Waist ratio (Mann-Whitney U test,  $p<0.05$ ). ESS was correlated with OSAS severity. In subgroup analysis, there was a close correlation with the AI which is the component of AHI, but no relation was found with HI.

**Conclusion:** In conclusion, this shows us that apnea index is a more important parameter on daytime sleepiness.

**Keywords:** Daytime sleepiness, epworth, severe OSAS, obstructive sleep apnea syndrome, respiratory distress index, desaturation index

## SOP-20

# The Effect of S-Allylcysteine on Gastric Injury Induced by Cold Restraint Stress

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**Objective:** Gastric stress ulceration is a complication after prolonged anxiety, emotional stress, hemorrhagic surgery, shock, burns, sepsis and trauma. The pathogenesis of stress-induced acute gastric mucosal damage is multifactorial. In rats with a cold and restrained stress model, S-allylcysteine is planned to determine the protective effect of gastric injury and the possible changes in the hemoreological characteristics of blood.

**Methods:** In this study, 40 male Wistar albino rats 3 months old and weighing 300-350 gram were randomly divided into Control and Stress groups. The commercially available S-allylcysteine prepared in distilled water and gavaged. For stress, animals put into restraints tubes and left immobilized at +4 °C for 3 hours. After cold

restrained stress blood samples have been taken. Plasma and whole blood viscosity, complete blood count, from plasma samples TNF- $\alpha$ , IL-1 $\beta$ , IL-4, IL-5, and CRP levels measured by ELISA method.

**Results:** In rats with severe cold and restrained stress model, severe rates of gastric damage and hemorrhages were established in comparison with the control group. It was observed that S-allylcysteine administered 2 hours before the stress application was prevented with significant gastric damage ( $p<0.05$ ). In the measured whole blood viscosities, a significant increase was observed in the group after stress and S-allylcysteine application was observed to improve this viscosity ( $p<0.05$ ). Plasma viscosities did not differ significantly between the groups.

**Conclusion:** S-allylcysteine, which was applied acutely before cold and restrained stress model, prevented gastric damage formation and improved blood circulation. Thus, it is revealed that S-allylcysteine previously taken is a protective feature. The regulation of blood flow in the gastric mucosa may have played an important role in this protective feature. The use of S-allylcysteine in pathological processes may support treatment processes.

**Keywords:** S-allylcysteine, stress, gastric injury, inflammation, cold and restrained stress

## SOP-21

# Genotype and Phenotype Correlation in the Patients with Familial Mediterranean Fever

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**Objective:** Familial Mediterranean Fever (FMF) is a disease characterized by painful and noninfectious inflammation attacks of serous membrane accompanied by fever and amyloidosis over time. The disease is inherited in autosomal recessive manner and prevalent especially in some societies. Besides Jews, Armenians and Arabs, Turks are the one of the most affected ethnic groups. However, the disease may be encountered sporadically around the world. Early diagnosis of FMF, which is a frequent health disorder in our country, is important for the treatment of the disease and prevention of the possible complications. Frequency of the FMF in our country is known as 1/1000. Carriage rate is reported as 15-34% in different surveys. In other words, one fifth of every person is carrier. *MEFV* gene is located at the short arm of chromosome 16 (16p 13.3) and encodes a 781-amino-acid protein called pyrin. It is stated that pyrin protein plays role in neutrophil activation and inhibition of inflammation during the FMF attacks. *MEFV* gene is a big gene which contains 10 exons. Although in the literature almost 22 different mutations identified at this gene, it is known that the mutations are specially localized at exons 2, 3, 5, 10 in a small area in the gene.

**Methods:** In this retrospectively carried out study, symptoms, ages, family histories, drug using and drug responses of 100 patients which are regularly monitored with the diagnosis of FMF at the Medical Genetic Department was researched and compared with the identified mutations. All coding parts of the *MEFV* gene sequenced with the new generation sequencing method at the Illumina Miseq platform.

**Results:** The frequency of complaints monitored at the 100 cases included in the study: 60% abdominal pain, 31% arthralgia, 25% fever, 4% chest pain. The most widespread variations in sequence are *M694V* (39%), *E148Q* (19%), *V726A* (12%), *M680I* (12%), and other rare variations are *P369S* (2%), *A744S* (1%), *E167D* (1%). 7% of these variations are found homozygote, 54% of them are heterozygote and 10% of them are compound heterozygote. Average age of cases are found 24.32. When patients are asked to describe their pains during the attacks as low, medium and intense; 66% of them described the attacks as intense. 49% of them take drug. 51% of them have family stories and 6% of them have consanguineous marriages. The rate of mutations accompanied with specific pain type are found respectively; with abdominal pain *V726A* (75%), *M694V* (71.8%), *M680I* (66.7%), *E148Q* (57.9%), with arthralgia; *E148Q* (57.9%), *M680I* (25%), *M694V* (23.1%), *V726A* (8.3%), fever; *E148Q* (47.4%), *M680I* (41.7%), *M694V* (30.8%), *V726A* (8.3%). It is found that of the patients that have homozygote mutation 66.7% have complaints of abdominal pain, 33.3% arthralgia, 25% fever. 75% of them stated that they have intense attacks. From the patients who stated that they have intense attacks, it is identified that 78% of them have abdominal pain, 37.9% arthralgia and 28.8% fever complaints. It is observed that 4% of the patients have kidney involvement. 19% of the patients have both symptoms of abdominal pain and fever, 17% of them have both abdominal pain and arthralgia, 8% of them have both arthralgia and fever.

**Conclusion:** The studies indicate that, the most frequent symptoms are abdominal pain, arthritis and fever. In our study the most frequent symptoms observed are these three ones. The most compound symptoms are observed as abdominal pain and fever with the rate of 19%. An another common symptom is pleuritis. In some patients, abdominal symptoms can repress the chest pain and hinder the feeling of pain. In our study chest pain observed as the 4<sup>th</sup> frequent symptom. Amyloidosis is frequently observed in Jewish society. It is less common in Turkish society. The reason for this is the high frequency of homozygote *M694V* mutation in Jews, which is known for its link to a poor prognosis. In our study, kidney involvement at the rate of 4% is observed. It demonstrates the importance of early diagnosis and medication. In conclusion, the differentiation of the mutation frequency in the studies carried out in our country, is the result of existence of many different ethnic groups in Anatolia. This shows us the genetic heterogeneity. Genetic tests are of vital importance in many aspects and have many benefits like early diagnosis, prevention of the complications and determination of risk groups. We should keep in mind that even in heterozygote forms it leads to clinical symptoms. Today, FMF disease comes to mind more frequently and it is considered in differential diagnosis. Low average age and scarcity of complications in our study also indicates that.

**Keywords:** FMF, genetic mutations, symptoms

SOP-22

## Comparison of Self-Esteem and Body Perception of Weak, Normal and Obese Individuals

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**Objective:** Self-Esteem can be expressed as know oneself, acceptance, self-worth. In this way, the person accepts his own abilities and powers as they are. The body mass index, which is calculated to let people know what weight they are in according to their height and gender, shows whether your weight is weak, ideal, overweight and obese. Body perception is closely related to Self-Esteem and how our body is shaped by ourselves in our minds. The vast majority of studies have shown that there is more body displeasure in obese and extremely weak groups. The aim of this study is to evaluate the confidence and depression levels of obese and extremely weak people who are not satisfied with their external appearance.

**Methods:** This study was carried out between April 2018 and January 2019 in Bezmiâlem Vakıf University with hospital workers and relatives of healthy patients. The study group consisted of 30 patients with body mass index >30 and body mass index <19. The control group consisted of a group of 30 patients with body mass index between 20 and 25 years. Beck Depression scale, Rosenberg Self-Esteem scale, Body Perception scale and body mass index were used in the study.

**Results:** The Beck Depression scale scores of the obese and overweight individuals were significantly higher than those of normal individuals, whereas the Rosenberg Self-Esteem scale scores were significantly lower. There was no significant difference between three groups in body perception scale scores ( $p<0.001$ ).

**Conclusion:** In this study, it was found that obese and extremely weak individuals had lower levels of Self-Esteem and higher levels of depression than normal individuals. These results showed that body mass index plays an important role in terms of Self-Esteem and depression levels.

**Keywords:** Self-Esteem, depression, body mass index, body perception

## SOP-23

# The Relationship Between TIRADS Score of Thyroid Nodules and Thyroid Autoantibody Levels

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**Objective:** TPOAb and TGAb are main autoantibodies of thyroid gland. There are masses that may radiologically differentiate from normal thyroid gland and palpable according to their size called thyroid nodules. Today at some institutes Thyroid Imaging Reporting and Data system (TIRADS) is used to classify the risk of malignancy by ultrasonographic appearances of nodules. As known, clinical history of age, gender and radiation exposure are predictive factors for formation of thyroid nodule. In this study, we aim to clarify the relation between thyroid autoantibody levels and TIRADS score.

**Methods:** In this retrospective study we run, 178 patients with thyroid nodule are grouped by their thyroid functions (euthyroid, hypothyroid, hyperthyroid), thyroid autoantibody (antiTPO, antiTG) levels (normal, normal-499, 500+) and autoantibody status (normal-high). Thereafter the relation between these groups and their TIRADS score is analyzed. Descriptive analysis of data is done by the elaboration of frequency tables for categorical variables and measurement of position and dispersion for numerical variables. The association between categorical variables are verified by the chi-square test. Whereas numerical variables are verified by the Kruskal-Wallis test. Comparison between measurement of two groups is obtained by the Mann-Whitney U test. The significance level adopted is 5% ( $p < 0.05$ ) for all tests. All calculations are done using the SPSS 23.0.

**Results:** As a result of our study, there is no statistically significant relation found between thyroid functions (TFT) and both gender and TIRADS score ( $p > 0.05$ ). However we found relation between TFT and nodule distribution (unilateral-bilateral) ( $p = 0.017$ ). According to this, hypothyroid patients tend to have unilateral nodule whereas hyperthyroids are more likely to have bilateral nodules. We also found remarkable relation between antiTPO status and gender that it appeared higher in women ( $p = 0.019$ ). Likewise, antiTPO levels are also related to gender that is in favor of women at all three levels (normal, normal-499, 500+) ( $p = 0.036$ ). Additionally, antiTPO status ( $p = 0.004$ ) and all three levels of antiTPO ( $p = 0.003$ ) found markedly higher in euthyroid patients. Also we found that antiTPO is normal in bilateral cases whereas it is elevated in unilateral ones when we compared the nodule distribution and antiTPO status ( $p = 0.024$ ). But neither antiTPO status nor antiTPO levels there is no relation with TIRADS score ( $p > 0.05$ ). Last but not least, gender, TIRADS score, nodule distribution and TFT shown no relation with both antiTG status and levels.

**Conclusion:** In this research, we found a relation between antiTPO and TFT, unlike TIRADS score. In spite of that we are expecting different outcomes if it is studied with more patients as a broad research.

**Keywords:** Thyroid autoantibody, TIRADS, antiTPO, antiTG, thyroid nodule

## SOP-24

# The Awareness and Knowledge of Bezmialem Vakıf University Faculty of Year of 2-3-4 Medicine Students About People Who are Most Influential in History of Medicine

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**Objective:** In the history of medicine and health; to know how hospitals develop with the help of healers, patients, diseases, medicines and other treatment methods, to comprehend how medical discoveries are made and to compare them with those of today is important. These will open up new areas of study for medical students and give new interpretations. The aim of this study is to determine the level of curiosity of medical students against medical discoveries and their effects on humanity.

**Methods:** In this study, Bezmialem Vakıf University Faculty of Medicine 2-3-4. Students were asked about the important discoveries in the history of medicine and the scientists of the invention. The responses of the participants were collected through prepared questionnaire forms. The survey includes 12 demographics and 20 medical history questions. When each information question was evaluated over 5 points, the participants obtained a score of 100 points. Student's scores and answers to demographic questions were compared. Thus, it was revealed that there is a significant difference in which variables.

**Results:** In our study, a total of 92 students, 21 students from 2<sup>nd</sup> grade, 26 students from 3<sup>rd</sup> grade and 45 students from 4<sup>th</sup> grade students participated. When 12 variables and the scores of the students were compared, it was observed that there were 5 variables with a statistically significant difference. If we examine them respectively, the average score of 3<sup>rd</sup> grade students was higher than both 2<sup>nd</sup> and 4<sup>th</sup> grades ( $p=0.0007$ ). When we look at our second significant variable, the scores of the students who wanted to take part in any medical research were found to be higher than those who did not want to take place ( $p=0.02$ ). Again, the subjects who were interested in research were found to have higher scores compared to those who were not interested in research ( $p=0.04$ ). When we look at another meaningful variable, it is seen that the scores of the students who are interested in the history of the subjects they have seen in the courses are higher than the others ( $p=0.0005$ ). Finally, "Would you like to solve one of the health problems that science has not yet solved?" the score of those who answered yes to the question was found to be statistically significantly higher than those who gave no answer ( $p=0.02$ ). A statistically significant linear relationship was not observed between other variables and scores. In addition, the average score of the students of the Faculty of Medicine 2-3-4 was found to be 56.30 over 100.

**Conclusion:** In the light of these results, it is seen that students should do more research about the history of medicine and read more articles and examine the paths of scientific discoveries in detail. They should read carefully the discoveries made by medical students in the past and realize that they have this potential. In this way, they understand the ways to shed light on the problems that medicine has not yet illuminated.

**Keywords:** History of medicine, scientist, discovery, medical student

SOP-25

## Effects of the Behaviors of the Parents on Doctor Phobia in Pediatric Population

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**Objective:** Fear of doctors in children disrupts the quality of examination of pediatricians and makes it difficult to obtain the necessary examination findings. Children who cry or do not want to be examined due to the fear of the doctor, transform the examination room into a chaos environment and disrupt the concentration of the physician and the family. With this study, we aimed to investigate whether the fear of the doctor directly affecting the health of the community is dependent on the behavior and socioeconomic status of the parents and to raise the awareness of the problem and to create a healthier society by raising the awareness of the families.

**Methods:** In this study, 136 children aged between 4 and 7 years who were admitted to the general pediatric outpatient clinics of Pediatric Health and Disease, Bezmialem Vakıf University Faculty of Medicine Hospital were included. Fifty-four children who were afraid of the physician were the control group and 85 children who were not afraid of the doctor were determined as the control group. The questionnaire, which was formed on the basis of the literature, was completed by face to face interviews with families. The demographic characteristics of the child and the family, the fear of the family physician, the experiences of the child related to the hospital, the fears and concerns about the hospital, the factors that can trigger this fear and anxiety, the child's fear of the doctor and the applications of the families to love the hospital environment were questioned. The data were evaluated in SPSS16.0 package program. Number, percentage and mean were used for descriptive properties. Mann-Whitney U test, chi-square test and Fisher's exact test were used to compare the groups. Significance level was accepted as  $p < 0.05$ .

**Results:** The fear of doctors was determined in 51 of the children included in the study. 78.58% of the children in the control group did not have any mood changes that were noticed by the family, 82.35% of the children with a fear of doctors showed aggressive, stagnant, unhappy, or more mobile than usual. At

the same time, it was observed that these children cried more during the examination and did not want to be examined and the difference was found to be statistically significant ( $p=0$ ). It was questioned whether the children had a serious health problem, which was thought to cause fear of the physician, whether they had been hospitalized for a long time or not, but a significant result could not be obtained ( $p=0.510$ ). At the same time, no significant relationship was found between the level of income and the fear of physicians ( $p=0.417$ ). Parents' words to ensure that children eat, behave well, but the control group was questioned in combination with the control group was not shown a significant effect on the fear of the physician ( $p=0.139$ ). Children were questioned whether they had a serious health problem that could cause fear of the doctor, but no significant difference could be obtained ( $p=0.510$ ). When the relationship between age groups and the fear of doctors was investigated, the relationship between fear of age and doctor was not statistically significant (0.569).

**Conclusion:** Fear is a certain real or unreal situation and a sudden, emotional unwanted behavior and an emotional response to danger. Fears of children may vary depending on age. At this time, children see that, if not really, very scared is a safe way to attract parents' attention. Doctor's surgeries and hospital settings are frequently used for follow-up or during illnesses since the birth of the child. Here, not only the examination of the vaccine, blood, painful operations such as injection, are also done. This can lead to fear and anxiety in children. In addition, the fear of doctors in the parents can increase the anxiety and fear of children. In our study, the same fear was found in the parents of children with fear of doctors and there was a statistically significant difference between the other groups. In the studies, it was found that the high level of education of the parents was a factor reducing the fear of the physician. Similar results were observed in our study. Although it is thought that the sentences such as m if you make mischief by the parents, if you make a mischief m may cause a fear of a doctor, it is seen that these warnings do not intimidate the children. We found that the number of children in the family is high and the time spent with the child increases the fear of doctors in children. As a result; in order to reduce the fear of the physician in children, we think that the education level of the parents, the family talk about the hospital at home, playing a doctor at home, talking with the child during the examination, and informing the children before the medical intervention can be a role.

**Keywords:** Phobia, pediatry clinic, parent attetute



SOP-26

## A Comparative Inspection of Obsessive Beliefs Among Students in Faculty of Medicine and Vocational School of Health Sciences in Bezmialem Vakıf University

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**Objective:** Obsessive compulsive disorder (OCD) is obsessions defined as repetitive thoughts, impulses and imaginations which are involuntarily occurring, being perceived as inappropriate, causing an evident anxiety in the individual. This psychiatric disorder is the repetitive behaviors or mental actions (compulsions) of the individual which emerge as a response to obsessions and cannot be prevented strictly. This study's aim is to compare of the students of Faculty of Medicine and Vocational School of Health Services (VSHS) of Bezmialem Vakıf University according to the obsessive beliefs by using "Obsessive Beliefs Scale-44 (OBS-44)".

**Methods:** Inclusion criteria to attend the study were volunteering and studying in a Faculty of Medicine/VSHS. OBS-44 was applied to each groups including 30 students of Faculty of Medicine of Bezmialem Vakıf University and 30 VSHS students of Bezmialem Vakıf University, who accepted to participate in the study and comply with exclusion-inclusion criteria.

**Results:** Converting all score to 100, the students of VSHS got higher scores in total and for each three subcategories than the students of Faculty of Medicine, in terms of their obsessive beliefs. The difference was found as statistically significant ( $p < 0.05$ ). In particular,  $p$  values were found higher in the subcategory of caring about/controlling the opinions.

**Conclusion:** In the society, obsessive beliefs have been usually found in men less frequently than women. VSHS students got higher scores in total and for each three subcategories than the students of Faculty of Medicine in terms of their obsessive beliefs; however, it is not known whether the cause of this is that VSHS students participated in the study are predominantly women and the medical students are predominantly men, or that their departments differ. Obsessive beliefs do not only pertain to OCD. These could also be seen in individuals who are not diagnosed with OCD. Since obsessive beliefs affect the individual's functions in their family, social, occupational and private lives negatively, they should be searched and examined by multi-group studies with more extensive sampling.

**Keywords:** Obsessive compulsive disorder, faculty of medicine, vocational school of health services

# The Effects of Soy Based Infant Formulas on Thyroidal Functions

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**Objective:** It is a known fact that the soy plant and its products have a negative influence on thyroidal functions. It is also shown that an increase in the daily soy intake disturbs the thyroidal functions in monkeys and the thyroidal hormone homeostasis in rats with orchiectomy. The studies on humans on the other hand, are limited to adults. An increase in soy intake is shown to disturb the bone turnover by women in early menopause. It can be seen that the studies regarding this topic in the literature are mostly covering adults and no serious study is present on infants. However soy is widely used in infant formulas. The aim of this project is to research the effects of infant formulas that contain soy, on thyroidal tissue.

**Methods:** After approval of Border of Ethics, the experiment was performed on 28 Sprague dawley rats. The rats were divided in four groups of seven. Group 1 (n=7) standard pellet feed for rats, group 2 (n=7) organic formula without soy content (8 g/day, Hipp®), group 3 (n=7) formula with standard dosage of soy (8 g/day, Similac®), group 4 (n=7) formula with high dosage of soy (8 g/day, Modilac®). Peripheral blood samples were taken on day zero and monthly thereafter. Levels of sT3, sT4, TSH, thyroglobulin, TBG, anti-TG and anti-TPO in the serum were investigated, and the weights of rats were noted. At the end of the third month the rats were sacrificed. Their thyroidal tissues were removed and histopathologically examined.

**Results:** As the results indicate, a statistically significant difference is in existence between TSH, sT3, sT4, anti-TPO and anti-TG levels in rats' blood samples in all groups (p<0.05). Although statistically significant increase with TSH, sT3 and sT4 levels in all groups is observed, the rate of increase in group 4 is the highest. There is no significant difference in histopathological examination.

**Conclusion:** Soy based infant formulas are causing thyroidal dysfunction. The mechanism of this dysfunction is not clear. The increase of TSH, sT3, sT4 accompanied by thyroid autoantibodies is to be believed the process is caused by low level inflammatory mechanism without histopathological changes.

**Keywords:** Soy, infant formula, TSH, thyroid, function, baby

## Awarenesses, Attitudes and Solution Suggestions of Medical Doctors About Antibiotic Use and Resistance

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**Objective:** Antibiotics are among the most commonly prescribed drugs to protect and treat human health. Antibiotic resistance caused by inappropriate use of antibiotics for various reasons is an important public health problem in the world, especially in our country. We aimed to evaluate the awareness, attitudes and solutions of medical doctors against antibiotic use and resistance in order to shed light on what can be done in the future.

**Methods:** This survey study included 82 medical doctors in different titles and branches from Bezmialem Vakıf University Hospital and Marmara University Pendik Training and Research Hospital. The questionnaire consists of 4 parts. In the first part, general questions such as age, title, branch, rational drug education (10 questions), awareness in the second part (10 questions), attitudes in the third part (10 questions) and solution proposals (10 questions) in the fourth section were questioned. In the first part, multiple choice questions and in the other sections 7 points liekert scale were used. When we compare the awareness, attitude and solution suggestions of the doctors in both hospitals, it was calculated that at least 80 people could get 95% confidence level and 80% power. Research data was edited in Microsoft Office Excel and converted into statistical data with SPSS 22.0 program. Descriptive statistics were used for categorical variables and frequency calculations were expressed in percent. Chi-square, Student T-test, Mann-Whitney U test and Kruskal Wallis-H test were used and  $p < 0.05$  was considered statistically significant.

**Results:** 97.6% of 82 physicians participating in the study stated that antibiotics were over-used and that it was an important public health problem in the world. 70.3% were trained in antibiotic resistance. It was found that the awareness of the use of antibiotics more than necessary ( $p=0.23$ ). There was no significant difference between hospitals in terms of awareness, attitude and solution proposals. As a source of information about antibiotics, a significant difference was found between the attitudes of those who used books or magazines and those who did not ( $p=0.044$ ). The attitudes ( $p=0.02$ ) and awareness ( $p=0.04$ ) of the attending conference physicians were significant. 65.9% of the physicians know that Turkey is in the 1<sup>st</sup> place in antibiotic consumption according to OECD data and it is in 2<sup>nd</sup> place in antibiotic resistance. 78.1% stated that inappropriate antibiotic use in agriculture and animal husbandry could lead to the development of antibiotic resistance.

**Conclusion:** As a result, doctors are aware that antibiotic resistance is a problem and doctors support what needs to be done to prevent antibiotic resistance. Efforts should be made to increase the number of books, journals and conferences and to encourage participation in conferences. We believe that periodic trainings should be organized after graduation to increase attitude and awareness about rational antimicrobial use and development of resistance.

**Keywords:** Rational drug use, antibiotic resistance, awareness, attitude

SOP-29

## Diabetes Related Knowledge Between Medical Students Before and After Clinical Training

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**Objective:** Diabetes mellitus is a chronic, life-long disease that prevents the energy in the consumed food to be used by the body. Diabetes has 3 major types: type 1, type 2 and gestational diabetes. In the presence of DM, the body cannot produce insulin or use the insulin it produced. Therefore the cells can't use the glucose taken into the body, resulting in the accumulation of glucose in blood. High levels of blood sugar harm kidneys, heart, eyes, nerves and vessels; causing cardiovascular diseases, kidney damage, eye damage and nerve damage. Turkey has the highest diabetes prevalence in Europe. Therefore it is quite important to work towards evaluating/increasing awareness and knowledge. The purpose of this study is to compare knowledge in diabetes between medical students who have started their clinical education and those who have not.

**Methods:** In our project, willingness and being a medical student were set as the inclusion criteria. We gave a questionnaire developed by researchers, containing 16 questions, 13 of which were directly related to diabetes, to a total of 42 students in Bezmiâlem Vakıf University Faculty of Medicine, 21 of which are in the first 3 years of their study without participating in clinical studies alongside 21 students currently in their last 3 years of study participating in active clinical studies. The two groups were evaluated out of both 13 and 100. All numerical data were given as mean  $\pm$  standard deviation and all categorical data were presented with frequency and probability tables. All data were analyzed using IBM SPSS statistics 22.0 package program. Independent t-test for numerical comparisons and Fisher's Exact test and chi-square test for categorical comparisons were used. A p value of  $<0.05$  was accepted for the statistical significance limit.

**Results:** When all the data were examined; it was determined that the students of the Faculty of Medicine who had undergone clinical education had a significantly higher rate of accurate answer to 3 of the 13 questions compared to the students of the Faculty of Medicine who had not yet undergone clinical education. Questions 2, 7, and 9, which had significant differences in their response, were directed to the symptoms and signs

of diabetes and clinical tests that help diagnose it. The gender of the participants in both groups and the presence of their relatives with diabetes were questioned and no significant difference was found for both of them. When we graded the groups out of 100; the score of the first group of the students who had not received clinical education was 56.41, the score of the second group with clinical education was 73.26 and the difference was statistically significant ( $p < 0.001$ ).

**Conclusion:** Clinical education at Bezmialem Vakıf University Faculty of Medicine significantly increases the knowledge and awareness levels of medical students in diabetes, which is a very important health problem for Turkey as well as all over the world.

**Keywords:** Diabetes mellitus, faculty of medicine, clinical education

## SOP-30

# Evaluation of Knowledge, Attitude, and Behavior About Harmful Effect of Sun, Sun Protection and Sunscreens of Medical Students at Bezmialem Vakıf University

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**Objective:** Although sun has positive effect on human body potentially, it is known that overexposure can cause different skin lesions such as skin cancers. Recently, skin cancer has an increasing incidence in the world and in our country. Therefore, sun protection is important. In order for people to internalize sun protection as their behavior, they must firstly know the harmful effects of the sun and the ways of protection. In this study, we have tried to evaluate the awareness of the medical students about sun damage, sun exposure, sun protection, sunscreen.

**Methods:** This study is planned with permission of Bezmialem Vakıf University Non-interventional Research Ethics Committee and 140 students from Bezmialem Vakıf University Faculty of Medicine were included in the study. The questionnaire consisting of 24 questions; sunshine times, sunburn condition, the need for sun protection, protection methods, use of sunscreen cream, sun protection from children, harmful effects of sun, factors increasing the risk of skin cancer, the use of artificial UV light sources, whether solariums cause skin cancer and questions about the necessity of educating the society on that issues.

**Results:** The age range of the participants was 18-26 and 50% of the respondents were female and 50% were male 97 (69.3%). of the participants stated that they had previously been sunburned. One hundred twenty

seven (90.7%) of the participants find it necessary to protect from the sun. In order to be protected from the sun, it is preferred to sit in the shade (102; 72.9%), wear glasses (93; 66.4%) and use sunscreen cream (86; 61.4%). Preservation of sunscreen cream; sun protection factor (SPF) (74; 83.1%), brand (44; 49.4%) and broad spectrum (44; 49.4%) are in the foreground. Seventy (50.0%) of the participants use sunscreen cream at least 15 minutes prior to sun exposure. Thirty four (24.3%) of the participants use the sunscreen cream every two hours with a regular application. No significant difference was found between female (16; 23.2%) and male (38; 53.5%) who did not use sunscreen ( $p=0.061$ ). The ones who stated that sunscreen creams should be used in children were 123 (88.5%), and 130 (92.9%) of the participants stated that sun rays caused skin cancer. The percentages of those who stated that sun rays cause activation of cataracts, latent infections and immunosuppression are (59; 42.1%), (53; 37.9%), (27; 19.3%), respectively. The knowledge rates about skin coloration, skin tone, light skin color, the presence of nevus, sunburn, long-term exposure to sun and family history are (91; 65%), (105; 75%), (91; 65%), (110; 78.6%), (102; 72.9%), respectively. One hundred thirty-three (95%) of the participants did not go to the solarium and 90 (64.3%) of them stated that they knew the effect of solarium on skin cancer. One hundred thirty-three (95%) of the participants stated that the society should be educated about the damages of the sun and the protection of the sun. The rate of using sunscreen cream was found to be more in women. While the importance given to the sunscreen protection factor in the selection of sunscreen creams was 83.1%, the importance given to being broad spectrum (both UVA and UVB effective) was found to be 49.4%. The knowledge about the application of sunscreen creams repeated throughout the day was found low.

**Conclusion:** The students of the medical school have high levels of knowledge about the risks of sunlight, the importance of sun protection and the risk factors of skin cancer. The majority of medical students think that the community should be informed. In addition, the level of knowledge about the harmful effects of sun rays and skin cancer risk factors has been found to be increased with grade level. As a result, this study showed that medical students have both high awareness level about harmful effects of the sun and sufficient knowledge level for preventive medicine.

**Keywords:** Sun, skin cancer, protection

## SOP-31

## The Protective Effect of *Cinnamomum Zeylanicum* in Streptozotocin-Induced Diabetic Rats

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**Objective:** Diabetes mellitus is a metabolic disease characterized by insulin deficiency, insulin resistance or hyperglycemia due to both. Cinnamon is used in traditional medicine for hepatoprotective, antioxidant, anti-obesity, antihyperlipidemic and antidiabetic treatments. This work is planned to show *Cinnamomum Zeylanicum*'s effects on the blood sugar and hemoreological parameters in Streptozotocin (STZ) induced diabetic rats.

**Methods:** In this study, 40 male Wistar albino rats weighing 300-450 g in adults were divided into two groups as diabetes group (Hyperglycemia) and Normoglycemia group. A commercially available STZ of 55 mg/kg was given intraperitoneally. Cinnamon, as cinnamon oil 1.35 mg/kg was gavaged after dissolving in corn oil. Plasma and whole blood viscosity, hemogram, total cholesterol, alanin aminotransferase, aspartat aminotransferase, HDL-cholesterol, LDL-cholesterol, triglyceride, NOx, TNF- $\alpha$ , IL-1  $\beta$ , IL-4 and IL-5 C-peptide levels from blood taken from abdominal aorta, were measured by ELISA. The data were considered as mean  $\pm$  standard error and  $p < 0.05$  was considered statistically significant. One-Way analysis of variance and pairwise comparison of the variables were performed by Newman-Keuls post-hoc test.

**Results:** Cinnamon oil was gavaged to STZ induced diabetic rats for 21 days. At the end of the experiment significant differences in blood glucose levels was found ( $p < 0.05$ ). When the blood and plasma viscosities of the diabetes group were compared with the control group, a significant increase was observed and these values regressed in the cinnamon group ( $p < 0.05$ ). Only hematocrit values of the measured hemogram parameters were found to be slightly higher in the diabetic group, but no significant difference was found between the groups. As expected, significant weight loss was observed in diabetic rats and the same weight loss was observed in cinnamon treated animals.

**Conclusion:** In conclusion, it was found that cinnamon decreased blood glucose, whole blood and plasma viscosity. Although the cinnamon did not decrease the blood sugar to the control group level, a serious decrease was occurred. There may be more important changes by changing the dose and duration of cinnamon administration. By increasing the fluidity of blood and plasma, it can also contribute to the reduction of pathologies occurring especially in the microcirculation level as a result of diabetes.

**Keywords:** Cinnamon, diabetes, type 1 diabetes, hypoglycemia, viscosity

## Diagnosis and Treatment Process of CMV Colitis with Inflammatory Bowel Disease

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**Objective:** The prevalence of cytomegalovirus (CMV), a member of the Herpesviridae family, has been reported in humans up to 70. It is usually asymptomatic in healthy people but may remain latent for life in many tissues and organs. Patients with inflammatory bowel disease (IBD) become immunosuppressed as a result of factors such as malnutrition, immunosuppressive therapy and impaired immune function. There is no definitive conclusion about whether CMV contributes to the deterioration of IBD or innocent bystander as well as the theory of presentation of CMV as a cause of serious infection. In addition, there is no specific gold standard diagnostic method for laboratory tests used for CMV colitis diagnosis. The aim of this study was to present retrospective data on clinical and laboratory data of patients with CMV positivity in blood or tissue samples.

**Methods:** Between 2010 and 2018, we reviewed the data of patients who underwent colonoscopic biopsy due to suspicion of CMV colitis. In addition to demographic data such as age, gender, height, weight, smoking, IBD etiology, disease involvement and treatment, endoscopic findings, CMV IgG, IgM and CMV PCR results in blood, CMV PCR results in colonoscopic tissue biopsies, inclusion body in histology laboratory results such as presence of CMV antigen and presence of antiviral treatment, clinical and laboratory responses to treatment were evaluated.

**Results:** Sixty-four patients with CMV PCR positive (median 18644,5 IU/mg; range: 8-1354414) were evaluated in the colonoscopic biopsy specimens. The mean age of the patients included in the study was 39.23 (35.9%) were male and 41 (64.1%) were female. Fifty-three (82.8%) patients were diagnosed with ulcerative colitis, 10 (15.6%) were diagnosed with Crohn's disease and 1 person was diagnosed with ischemic colitis. The CMV PCR median value of the 30 patients (46.9%) who received ganciclovir treatment was 63570 IU/mg and remission was achieved in 12 patients (40%). Fifteen patients (50%) had partial remission and 3 patients (10%) had no response to treatment. A total of 29 patients with IHC were found to be positive and IHC was not studied in 35 patients. In 34 patients (53.1%) who did not receive ganciclovir treatment, median was 2976 IU/mg and in 25 patients (73.5%) remission was observed. In 8 patients (23.5%) partial remission was observed. Although there was no patient unresponsive to treatment, colectomy was performed in 1 patient due to the accompanying colon malignancy. It was observed that remission was achieved (73.5%) with steroid, anti-TNF, immunomodulator therapy or combinations thereof without antiviral treatment. At the same time, CMV PCR positivity was detected during the exacerbation of the disease and 60% of the patients did not recover despite



the treatment. This situation was found to be significant ( $p=0.007$ ), suggesting that CMV is innocent bystander and that remission can be achieved when the appropriate treatment is regulated.

**Conclusion:** In CMV colitis which has not a specific gold standard diagnostic method, in case of CMV PCR positivity immunosuppressive treatment can be beneficial rather than antiviral treatment in selected cases. It should be noted that mild-to-moderate values can be acceptable as innocent bystander and treatment plan can be adjusted accordingly.

**Keywords:** CMV colitis, inflammatory bowel disease, ulcerative colitis, ganciclovir

### SOP-33

## The Evaluation of Amnestic Effect of Midazolam Which is Used for Sedative and Anxiolytic Purpose on Major and Minor Surgical Interventions in Spinal Anesthesia

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**Objective:** Midazolam is a benzodiazepine which is synthesized in 1976 with short-acting, sedative, hypnotic and amnestic effects. The amnestic effect is dose-dependent but not definite and is limited to the duration of action of the drug. However, this effect is very pronounced compared to other sedative-hypnotic agents. During the postoperative visits, intensive attention was drawn to lead us to think that orthopedics patients undergoing total knee arthroplasty (TKA) and total hip arthroplasty (THA) under sedation accompanied by regional anesthesia has recalled much more about the operation. In order to evaluate the amnestic effects of the drug, relatively small and noisy-less operations such as inguinal hernia repairment, transurethral resection of the prostate (TUR-P) and lower extremity varicerebral surgery were compared with large and noisy operations such as TKA and THA at patients under spinal anesthesia with midazolam sedation.

**Methods:** The study was designed as two groups. The first group (group B) included patients who were going to undergo major surgical operation, e.g., TKA and THA, while the second group (group K) included patients with smaller surgeries such as inguinal hernia, TUR-P, and varisectomy. A total of 29 patients (14 in group B and 15 in group K) were included in the study. Before the patients were taken to the operating room, they were informed of the study, as “Montreal Cognitive Assessment Test” had been applied. A total of 0.06 mg/kg for 20-40 years, 0.05 mg/kg for 41-60 years and 0.03 mg/kg for 61-80 years were given I.V. midazolam, as no other sedatives were given for the duration of the operation. Spinal anesthesia was performed quickly following after midazolam. After the spinal anesthesia effect was fully observed (sensorial and motor block

developed in the lower extremities), the patient was informed about the name, age, occupation and address of an imaginary person as follows: 1) Ramazan Keskin, 2) policeman, 3) 42 years of age, 4) Osmaniye, 5) Bakırköy, 6) Istanbul, where the patient was asked to memorize this information, and was repeated until she told this information in full. In order to evaluate the amnestic effect, this information was requested from the patient twice, first just one hour after the operation and the second after 24 hours since operation, where at the same time, the patients were asked whether they remembered anything about the surgical process or any of the communications between the surgical team and if they had felt any pain or discomfort at the time. The Montreal cognitive assessment test was repeated 24 hours after the operation.

**Results:** There were no statistically significant differences between the groups in terms of remembering the 6 information given and remembering the operation after midazolam was given. However, in terms of the number of information they remembered, and in terms of the median value of the number of recollections, group K had lower scores, i.e., they re-called less information. Again, group K had remembered less noises, music or any speeches during the operation, etc., than of group B. There was a statistically significant difference between the groups in terms of gender distribution. In group B, there were a female gender domination (3 males: 12 females), as group K had higher male participants (12 males: 2 females). There was a statistically significant difference between the groups in terms of height values of the patients, as the patients in group K were longer than the patients in group B. There was no statistically significant difference between the groups in terms of age, weight, ASA values of patients and preoperative and postoperative montreal test values. Blood pressure, heart rate and blood oxygen saturation values recorded during the operation were found to be statistically significant only in terms of “minimum diastolic blood pressure” between the groups, as there was no significance in terms of other values.

**Conclusion:** According to the present study, midazolam has a similar effect on the amniestic effect of large and relatively noisy operations compared with small and relatively noiseless operations.

**Keywords:** Midazolam, sedation, amnestic effect

SOP-34

## The Effects of Cellular and Extracellular Factors on Erythrocyte Aggregation and Viscosity

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**Objective:** The fluidity of the blood tissue varies depending on the first class erythrocyte mass, the nature of the plasma and the interaction of these two phases. Accordingly, the fluidity of blood is affected by plasma

viscosity, hematocrit value and rheological behavior of blood cells. Erythrocyte aggregation is affected by changes in cellular properties of both plasma and erythrocytes. Various methods are used to determine erythrocyte aggregation *in vitro*. These are; measurement of light transmission or light reflection from erythrocyte suspensions, microscopic indexes, erythrocyte sedimentation rate, low shear viscosity and electrical measurements. In this study, it is aimed to compare the sedimentation rates and viscosities of the samples prepared by two different approaches (plasma composition and cellular properties of erythrocytes).

**Methods:** Volunteers with certain criteria were included to the study. These were; 18-25 years old, male, non-smoker, without chronic disease, no painkillers or aspirin usage in the last 3-4 days. 20 mL of blood was taken from the volunteers to the heparin containing injectors. Blood samples were centrifuged to separate the plasma and erythrocyte package. The erythrocyte package was suspended in plasma (whole blood/control) in a manner such that the hematocrit was 0.4l/l. A portion of the washed erythrocyte package was incubated with isotonic phosphate buffer (PBS), a portion of plasma containing 1% dextran 500 and a portion with glutaraldehyde (GA, 0.003%) then hematocrit values were suspended to 0.4l/l. After the procedures, erythrocyte sedimentation rate and whole blood viscosity of the four groups 1) whole blood, 2) PBS, 3) dextran 500, 4) GA which prepared for the study were recorded and the preparations which prepared from each sample were monitored by light microscopy on a 40x objective. The data were considered as mean  $\pm$  standard error and  $p < 0.05$  was considered statistically significant. One-Way analysis of variance was used to compare the variables between groups and Newman Keuls post-hoc test was used to binary comparison of variables.

**Results:** As a result of measurements, sedimentation and whole blood viscosities measured by changing the suspension media (extracellular) or applying GA (cellular damage) were found to be significant among the groups according to the control ( $p < 0.05$ ). A similar pattern was observed in the whole blood viscosity and sedimentation values (dextran 500 > whole blood > GA > PBS). The images which made and recorded in the microscope also support this sequence.

**Conclusion:** As a result, changing the cellular properties of erythrocytes and/or changing the suspension media in which these cells are present causes the changes of the physical properties (viscosity/aggregation/fluidity) of the blood.

**Keywords:** Viscosity, erythrocyte aggregation, sedimentation

# Awareness of Cytomegalovirus Infection During the Pregnancy Period

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**Objective:** Cytomegalovirus (CMV) is the most common cause of congenital infections in developed countries. There is no cure for it once the fetus is infected and affected. Vaccination is currently not available. The best way to prevent this infection is to follow some hygiene rules while pregnant, especially in the first trimester. The aim of this study is to determine the awareness levels of pregnant women about this infection.

**Methods:** We used a survey method for the study. Participants were chosen among pregnant women who have another kid(s) below 5 years old. The second inclusion criteria was not being a health worker. The third criteria was being able to communicate with in Turkish. The participants were asked to fill a survey that had several questions regarding CMV infection. They were classified as their socio-economical/cultural levels. The survey included 8 questions (without demographic questions).

**Results:** Two hundred and twenty-five participants filled out the survey. We started giving the surveys to the participants at the beginning of August and surveys were completed at the middle of September. We compared the results of participants' ages, occupational status, number of children they have and education level. When knowledge score and educational level is compared by Kruskal-Wallis test, p score was 0.114 and there was no significant difference. According to nonparametric correlations, age and number of children p score are also above 0.05 and no significant difference was found. When knowledge score and occupational status is compared by Mann-Whitney U test, p score was 0.901 and there was no significant difference.

**Conclusion:** In conclusion, women's obedience of hygiene rules during pregnancy isn't dependant on their socio-economical or socio-cultural levels. All pregnant women need to learn the hygiene rules during pregnancy to prevent congenital CMV infection.

**Keywords:** Cytomegalovirus, pregnancy, congenital, hygiene



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## ORAL PRESENTATIONS

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Bezmialem Vakıf University Faculty of Medicine, Department of Psychiatry

## PP-1

## Comparison of Atopic Prepubertal Children with Non-atopic Peers

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**Objective:** In recent years, many studies have been conducted on the relationship between obesity and asthma, atopic dermatitis and food allergy. The results of the studies are contradictory and in these studies more obese children were evaluated and children with malnutrition were not evaluated. In this study, we will compare the anthropometric measurements of children between the ages of 2 and 12 with atopy in the allergy clinic and the non-atopic children in the same age group who come to the general polyclinic.

**Methods:** Our study was randomized among children between the ages of 2-12 who applied to the Pediatric Health and Diseases Department of Bezmialem Vakıf University Hospital. A total of 129 people, 90 atopic [a) skin test +, b) immunoglobulin E high or over 4% eosinophilia] and 39 non atopic were included in the study. Children's weight, height, body mass index, anthropometric properties such as the way of birth were investigated and compared.

**Results:** After the approval of the ethics committee, it was started to work. A questionnaire was completed for 90 atopic children. Thirty nine non-atopic children in the same age group were investigated in the control group. Our study was performed on 74 (57.4%) boys and 55 (42.6%) girls. Fifty one (56.7%) of the 90 patients who were atopic, were born by cesarean section and 25 (64.1%) of the 39 non-atopic patients were born by cesarean section. There was no statistically significant difference between the mean changes in the mode of delivery according to the patient group ( $p=0.430$ ). Twelve (13.3%) of the 90 atopic children, and 6 (15.4%) of the non atopic 39 children had malnutrition (relative weight  $<90$ ). At the same time, 20 (22.2%) of 90 atopic children and 4 (10.3%) of 39 non-atopic children were obese (relative weight  $>119$ ). A statistically significant difference was not observed for the relative weight of the patient group ( $p=0.276$ ).

**Conclusion:** Although there is no significant correlation between atopy and obesity and malnutrition in children, further studies are needed to show how atopy may affect children's growth and development.

**Keywords:** Atopy, obesity, malnutrition, caesarean

PP-2

## Comprasion of Anxiety and Depression Prevelance Between Patients Using Hearing Aids and Healthy People

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**Objective:** The first thing that is affected in hearing loss is ability of communication. Especially in the patients with acquired hearing loss, depression and anxiety frequency is increased. If healthcare workers who will deal with those patients will be aware of their anxiety and depression levels, this may help to increase the life quality and care of patients. The aim of this study is to determine the frequency of depression and anxiety in patients who are using hearing device because of hearing loss, and to raise awareness among healthcare workers.

**Methods:** The study included 25 patients with a hearing loss of at least 30 dB or more, and 25 healthy volunteers from the adult patients admitted to the Otorhinolaryngology Department of Bezmialem Vakıf University Hospital. A questionnaire consisting of 11 questions, Beck Depression and Anxiety Scales was applied to the participants about gender, age, educational status, income status, birth/later development of hearing loss, use of hearing aids, finding additional disability, speaking and hearing.

**Results:** Fifty adults participated to our research in total. Twenty five adults were with hearing loss and using hearing device, and 25 adults who were in control group were healthy volunteers that have no hearing loss. Twenty eight of the participants who answered the questionnaire were female (56%) and 22 of them were male (44%). Seven of them (14%) were illiterate, 11 (22%) were primary school graduates, 10 (20%) were secondary school graduates, 10 (20%) were university graduate. When the total anxiety and depression differences between the groups were compared according to the Beck Scales, the scores of the patient group were significantly higher ( $p=0.008$ ) ( $p=0.002$ ). And the more time the patients have lived with hearing loss, the less they find their hearing ability adequate ( $r=-0.471$ ) ( $p=0.017$ ).

**Conclusion:** Before the research started, anxiety and depression levels were expected to be found as increased in patients with hearing loss. After the research was completed, the findings supported the expectations. It is recommended for the patients with hearing loss to have psychologic and psychiatric follow up and rehabilitation beside their treatment.

**Keywords:** Hearing impairment, depression, anxiety, Beck Scale

## PP-3

## Investigation of Anxiety and Depression Prevalence Between Patients with Blindness and Healthy People

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**Objective:** The number of people who have visual disability around the world is increasing due to the aging population. Visual loss leads to serious negative consequences including mental health problems. In addition, untreated eye diseases cause that refrain from to participate social environment, lead to social isolation, require physical help and finally make people unable to live without help. In this study, we aimed to understand whether the frequency of anxiety and depression in patients with blindness shows significant difference with healthy individuals.

**Methods:** The patients with blindness and healthy individuals were included in the study. The visual acuity of the patients and healthy individuals was determined by the Snellen Scale. The age, sex and vision status of the patients (to be filled by the researcher) are questioned in the questionnaire used in the study; there are also Beck Anxiety Scale and Beck Depression Scale. The anxiety and depression status of the patients were categorized for anxiety as low (1)-moderate (2)-serious (3); for depression as minimal (1)-mild (2)-moderate (3)-serious (4) according to the scores they received as a result of the filled scales.

**Results:** In the study, there were totally 22 people (11 men and 11 women) in the patients with blindness group and the age mean was 38.8. There were also 11 women and 11 men in the healthy group and the age mean was 36.2. In the study, depression levels were higher among those with versus without blindness (mean 2.77 vs 1.73,  $p=0.001$ ). Moreover, anxiety levels were higher among those with versus without blindness (mean 1.73 vs 1.14,  $p=0.002$ ). As a result, it was observed that anxiety and depression were more frequent in visually impaired patients than those without visual impairment.

**Conclusion:** According to results of our research, patients with blindness may have higher levels of anxiety and depression.

**Keywords:** Anxiety, depression, psychiatry, ophthalmology, blindness



PP-4

## Investigation of Mean Platelet Volume in Patients with Type 2 Diabetes Mellitus and in Patients Without Type 2 Diabetes Mellitus

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**Objective:** Diabetes mellitus is a global pandemic. The increased platelet activity may play a role in the development of vascular complications of this metabolic disorder. The mean platelet volume (MPV) is an indicator of the average size and activity of platelets. Larger platelets are younger and exhibit more activity. Aim of this study was to determine the MPV in diabetics compared to non-diabetics, to see if there is a difference in MPV between diabetics with and without vascular complications, and to determine the correlation of MPV with fasting blood glucose, glycosylated hemoglobin (HbA1c), body mass index, and duration of diabetes in the diabetic patients.

**Methods:** The platelet count, neutrophil lymphocyte rate (NLR) and MPV are measured in 70 type 2 diabetic patients, 35 impaired fasting blood glucose patients and 35 non-diabetic patients. Male patients with hemoglobin below 13 gm% and female patients below 12 gm%, non-diabetic subjects with coronary artery disease and diabetics on antiplatelet drugs and subjects with any diagnosed malignancy are excluded. The blood glucose levels and HbA1c levels are also measured. We are also compared the MPV of diabetics having HbA1c <7.0% to that of diabetics having HbA1c ≥7.0%. Statistical evaluation will be performed by Student's t-test and Pearson correlation tests.

**Results:** The samples were collected but aren't analysed yet.

**Conclusion:** MPV and NLR values of type 2 diabetes mellitus patients would be biomarkers to detect early diagnosis.

**Keywords:** MPV, type 2 diabetes mellitus

PP-5

## Iron Replacement, D Vitamin Prophylaxis and Ministry of Health Vaccination Calendar of Children Under the Age of 2

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**Objective:** All of the children under the age of 2 years followed by family health centers, are recommended to take vitamin D and iron supplement, reliable age-appropriate vaccines. These are provided free of charge by the Ministry of Health. In spite of this, there may occur some issues related to adaptation of families to iron, vitamin D and vaccine program. Our study aimed to identify these discrepancies.

**Methods:** A questionnaire was applied to parents of 205 children aged under 2 years who admitted to Pediatric Health and Diseases Clinic of Haseki Training and Research Hospital for their demographic characteristics, hospital admissions, health insurance, adaptation to iron replacement and vitamin D supplement, compliance with vaccination program.

**Results:** According to results of study, 52% of 205 children haven't received any iron replacement, 25% had received iron replacement for nine months and 23% for 12 months. While most (96%) children have had vitamin D supplementation, 27 of 205 children had never taken any vitamin D supplementation another parameter of the study, the vaccine schedule compliance with the age of 96% in accordance with age.

**Conclusion:** In our country, compliance with vitamin D supplementation treatment for infants under 2 years of age is higher than that of iron replacement therapy. While the Ministry of Health is in compliance with the vaccination schedule, the rate of additional vaccination is low.

**Keywords:** Iron replacement, vitamin D supplement, vaccination schedule

PP-6

## The Knowledge and Attitudes About Cancer and Health Habits of Students of the Faculty of Medicine

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**Objective:** Cancer is the disease that occurs after uncontrolled increase and spread of cancer cells and is the second most important cause of death after heart disease. It is estimated that more than 12 million cancer-related deaths will occur in 2030. Many genetic and environmental factors play a role in the etiopathogenesis of cancer. Patients with inadequate and unbalanced nutrition, who do not have enough physical activity, who are sedentary or are fat have an increased risk of cancer. Nutrition with excessive fat increases the risk of developing colon, uterus and prostate cancer. The risk of breast, colon, esophagus, kidney and uterine cancer increases in individuals who do not have physical activity and are obese. The main purpose of our study is to determine the knowledge and attitudes of the students of the faculty of medicine on the effects of life style and habits on cancer.

**Methods:** Bezmialem Medical Faculty students were included in the study. Faculty of medicine students were included in the study with permission from the Dean of the faculty of medicine. A total of 169 people participated. Students' socio-demographic characteristics, smoking, alcohol, sports and nutrition habits were evaluated and their knowledge about the relationship between habits and cancer was measured by taking into consideration the characteristics of the World Health Organization for the age group. A questionnaire consisting of 12 questions was applied.

**Results:** A total of 169 students participated in the study, 55% of which were male and 45% were female. 28.5% of the research group had a history of cancer disease. 38.7% of the students still smoke. 25% of the study group used alcohol twice in a week or less frequently. 17% of the research group regularly do sports; the proportion of non-sedentary among all students is only 9.6%. The rate of people who know that lifestyle and some habits have cancer effect is 92% ( $p < 0.05$ ).

**Conclusion:** Smoking and alcohol use rates are similar to other studies in our country. The students who are engaged in sports are in the minority and the majority of them are sedentary and people with healthy eating habits have a very low rate. The level of knowledge about the effect of obesity on cancer formation is low. Students with high and medium health perception are eating foods that have more fat and more calorie. It is important that students should adopt an individual healthy lifestyle.

**Keywords:** Smoking, physical activity, sedentary life, nutrition

## The Relationship Between PNETs Size and Malignancy as a Result of Biopsy Pathologies of Patients Pre-diagnosed with PNET with EUS

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**Objective:** Pancreatic neuroendocrine tumors (PNETs) also known as islet cell tumors, are rare neoplasms that arise in the endocrine tissues of the pancreas. They can secrete a variety of peptide hormones, including insulin, gastrin, glucagon and vasoactive intestinal peptide, resulting in myriad clinical syndromes. In modern clinical series, however, between 50 and 75 percent of pancreatic NETs are nonfunctioning (i.e., unassociated with a hormonal syndrome). In this retrospective report reviews the relationship between pnet size and malignancy as a result of biopsy pathologies of patients pre-diagnosed with pnet with EUS.

**Methods:** In this retrospective study of 80 patients with pre-diagnosis of pancreatic NETs with EUS in the Gastroenterology Department of Bezmialem Vakıf University between 2011-2018, the data in the hospital computer system were used. In addition to data such as age, sex, arrival symptom, location and size of tumor; presence of operation, presence of metastasis, presence of biopsy, pathological outcome of biopsies and survival rate were evaluated.

**Results:** Among 80 patients (51 female, 29 male) with a pre-diagnosis of PNETs; 32 had PNET (40%), 6 had pancreatic malign neoplasm (7.5%), 6 had adenocarcinoma (7.5%), 1 had RCC metastasis (1.3%), 22 had no diagnosis (27.5%), 1 had pancreatic benign neoplasm (1.3%), 2 had TBC (2.5%), 5 had cystic lesions (6.3%), 1 had pancreatitis (1.3%). There were 4 patients who have no data of biopsy pathology and 4 patients who have no data of biopsy size. Minimum tumor size is 6 mm and maximum tumor size is 90 mm. The mean tumor size of 28 patients without malignancy is  $32.75 \pm 13.371$  mm and the mean tumor size of 44 patients with malignancy is  $30.27 \pm 18.640$  mm ( $p=0.544$ ).

**Conclusion:** Our results show that there is no significant difference in mean tumor size between patients with and without malignancy.

**Keywords:** Pancreas, neuroendocrine tumor, EUS

PP-8

## The Impact of Laparoscopic Sleeve Gastrectomy on Weight Loss and Diabetes Mellitus: The Result of Long Time Follow-up

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**Objective:** Obesity is a great concern in developed countries such as Turkey. Laparoscopic sleeve gastrectomy (LSG) is becoming a popular and stand-alone bariatric procedure. The purpose of this project is understanding the efficiency of LSG on differences of body mass index (BMI), total weight loss and diabetes mellitus.

**Methods:** We conducted an audit of data collected prospectively from electronic medical records (BizMed; Bezmialem Vakıf University Online Software) from 60 patients who underwent LSG performed by a single surgeon between 2010-2017. We examined some parameters of the patients: BMI, Total Weight Loss, Serum Glucose, HbA1c.

**Results:** We included 74 patients. The mean age of the patients was  $34.6 \pm 11.6$ . In terms of gender, there were 19 male (25%) and 55 female (75%) patients. As a result of our analyzes, we examined the pre-operative and 12-month weight status of the patients. The mean preoperative BMI was  $49.2 \pm 7.5$  and the BMI at the end of 12<sup>th</sup> month was  $30.9 \pm 6.4$ . The mean weight loss preoperatively was  $136.4 \pm 23.7$  kg and the mean weight loss at the end of 12<sup>th</sup> month was  $86.8 \pm 15.9$  kg. The result of the analysis on the excess weight loss in the body calculated as the difference between the actual weight and the ideal weight was the result: The body weight loss rate of the patient group after the 12<sup>th</sup> month was  $67.7 \pm 18.8\%$ . Ten patients with type 2 diabetes were in our patient group. Blood glucose and HbA1c values were compared between pre-operative and 12<sup>th</sup> month in diabetic patients. The mean pre-operative blood glucose value was  $116.9 \pm 33.5$  and the blood glucose value at the end of 12<sup>th</sup> month was measured as  $84.07 \pm 14.06$ . The mean pre-operative HbA1c value was  $7.84 \pm 1.32$  and the HbA1c value at the end of the 12<sup>th</sup> month was calculated as  $5.66 \pm 0.74$ .

**Conclusion:** At the end of our study, LSG was found to be an effective method for weight loss and especially for type 2 diabetes.

**Keywords:** Obesity, sleeve gastrectomy, bariatric surgery

PP-9

## Evaluation of the Degree of Awareness About GDM and Nutrition in Pregnancy

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**Objective:** In this century, there are many alternatives for unhealthy nutrition and frequency of obesity increases day by day. Also frequency of physical activity decreases in society. These conditions and gestational diabetes connect each other strictly. So, the aims of this study is appreciating the degree of knowledge about these subjects in group of pregnant women, evaluating their nutrition and physical activity in pregnancy and surveying their ideas about oral glucose tolerance test.

**Methods:** The study was performed in department of obstetrics and gynecology with pregnant women who came for antenatal control by questionnaire which had 19 questions about gestational diabetes, nutrition and physical activity. One hundred thirty pregnant women attended to the study, however 15 of them had exclusion criteria so the evaluation was concluded over 115 pregnant women.

**Results:** According to the analysed results, there was significant relationship between age and hearing the GDM before ( $p=0.004$ ), also there was significant relationship between working and thinking of having enough information about GDM ( $p=0.008$ ). It was evaluated that there were significant relationships between education and these parameters, knowing GDM increases the risk of DM in future ( $p=0.007$ ) and thinking that nutrition effects the GDM ( $p=0.004$ ) however there were not significant relationships for other parameters. It was found that 94.7% of pregnant women who heard GDM before, marked GDM was risky, and 46.5% of participants who have idea about oral glucose tolerance test, point out this test was risky. According to the assessment, 18.9% of the group which thought that nutrition effects the GDM, don't have regular nutrition and similarly, 21.1% of women who indicated doing exercise and physical activity may prevent GDM, never do exercise. In the group which asserted to have enough information about GDM, 10.3% of women remarked nutrition was not connected to GDM and 23.7% of the group stated that exercise was not related to GDM. Also 70.3% of pregnant women who signified not having enough information about GDM wanted to learn more knowledge regarding this subject.

**Conclusion:** According to the analysis, the pregnant women in society need more information about GDM, also it is estimated that incentivizing by health officer regarding regular life with healthy nutrition and exercise may be beneficial for pregnant women. Making organizations about these subjects, giving information to pregnant women in first obstetrics examination routinely, doing nutrition and exercise programmes by dietician and health officer for women who have plan for pregnancy or who are in their first term may decrease the risk of GDM. In future, performing different studies with bigger population and conducting surveys about risks of oral glucose tolerance test in women's ideas will give more qualitative information to us regarding these subjects.

**Keywords:** Gestational diabetes, nutrition, oral glucose tolerance test

PP-10

## Examination of Platelet Values in Blood in Schizophrenia Patients

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**Objective:** Recent studies have shown that there is a correlation between the increase in mean platelet volume (MPV) and psychiatric disorders. This correlation suggests an increased risk of cardiovascular disease in patients with psychiatric disorders. The aim of our study is to investigate the MPV increase in psychiatric disorders in patients with schizophrenia, to determine platelet values, and to establish a hypothesis about the significance and importance of these values in terms of treatment follow-up.

**Methods:** Platelet values including platelet count (PLT), MPV, platelet distribution width (PDW) and plateletcrit (PCT) of 80 patients, 40 men and 40 women, who were diagnosed as schizophrenia at Bezmialem Vakıf University Hospital in the 18-65 age group, were evaluated retrospectively by using the file scanning method on BIZMED system.

**Results:** The mean value of the patient group which half of male half of female gender was found as 251.75 for PLT, 8.0313 for MPV, 19.0527 for PDW and 0.19983 for PCT. When male and female gender groups were compared, p value was found as 0.144 for PLT, 0.781 for MPV, 0.228 for PDW and 0.167 for PCT; there was no significant difference between men and women. No significant difference was found between the patient group and normal values.

**Conclusion:** In conclusion, the platelet values of the patients were not significantly different from the normal values. There is also no significant difference between male and female genders. This result suggests that increased PLT is not a risk factor for cardiovascular diseases in schizophrenia.

**Keywords:** Schizophrenia, platelets, cardiovascular diseases

PP-11

## Assessment of Predatory Trait of *Bdellovibrio bacteriovorus* on Clinical Pathogenes *Klebsiella pneumoniae*, *Acinetobacter baumannii* and *Pseudomonas auriginosa*

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**Objective:** Misusage of antibiotic drugs caused increase of drug-resistancy among bacterias. This situation forced the researchers to find new strategies and tools to challenge with these day by day growing threat of public health. And predatory bacterias are one of these options. The aim of the project is to assess the predatory abilities of predator bacteria, *Bdellovibrio bacteriovorus*, against clinical pathogenes, *Klebsiella pneumoniae*, *Acinetobacter baumannii* and *Pseudomonas auriginosa*.

**Methods:** One sample of each pathogen, *K. pneumoniae*, *A. baumannii* and *P. auriginosa*, were cultivated in proper conditions one night before, and prepared in falcon tubes to OD(600)=1 in 10 mL HepesCa<sup>++</sup>Mg<sup>++</sup> and incubated for 2 days. Likewise, one sample of each pathogen had been prepared in tubes to OD(600)=1 in 10 mL HepesCa<sup>++</sup>Mg<sup>++</sup>. Every tube were mixed with 300 uL of *Bdellovibrio bacteriovorus* which had been prepared in HepesCa<sup>++</sup>Mg<sup>++</sup> with using *E. coli*. Prepared *B. bacteriovorus* co-cultures also incubated for 2 days. After 2 days, pathogen bacteria number in all samples were counted as CFU on LB agars by serial dilutions and OD(600) values of all samples also had been measured after 2 days.

**Results:** For every species of pathogenes, cell numbers had been found slightly lower in co-cultures which mixed with *B. bacteriovorus* in comparison with the cultures which include only pathogen. Statistical analysis of the data is in progress.

**Conclusion:** In conclusion, *B. bacteriovorus* had been found effective in reducing pathogen cell densities. This shows that *B. bacteriovorus* could be used as an antimicrobial agent. Further studies establishing the precise conditions for the optimum use of these as anti-bacterials are needed.

**Keywords:** Predator bacteria, *Bdellovibrio bacteriovorus*, drug resistance



## PP-12

## Sleep Disorder and Attention Deficit/Hiperactivity Disorder in Students of School of Medicine

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**Objective:** Sleep is open to external stimulus and also a functional process which is related to the development of an individual and the nervous system that is tired and to get exhausted during the day in order to repair it. Sleep disorder can cause absence of energy and sleepiness in the daytime. People can have problem about concentration, attention, learning and remembering. Also sleep correlates with attention deficit/hyperactivity disorder (ADHD). Medical students have difficult education system, night duty, difficult exams so lots of them have sleep disorder and ADHD however most of them do not know this. The aim of this study is to determine the frequency of medical students with sleep disorder and ADHD and the association between sleep disorder and ADHD.

**Methods:** Two scale [Pittsburgh Sleep Quality Index (PSQI), Adult Self-Report Scale (ASRS) for ADHD] are applied to 247 medical students at Bezmialem Vakıf University and categorised them in four groups: 2 gender (male-female), 2 grade [grade 1, 2, 3 (not take charge in the hospital)-grade 4, 5, 6 (take charge in the hospital)]. We calculated PSQI score and ASRS score for each person.

**Results:** Totally 247 medical students were included in this study. There were 156 female (63.2%), 91 male (36.8%), the average age was 21.87, 118 grade 1, 2, 3 (47.8%), 129 grade 4, 5, 6 (52.2%). Mean PSQI score was 6.64. Mean ADHD ASRS score was 29.81. No statistically significant difference was found in the rates of PSQI score ( $p=0.970$ ) and ASRS score ( $p=0.054$ ) between male and female. Statistically significant difference was found in the rates of PSQI score ( $p=0.023$ ) and ASRS score ( $p=0.015$ ) between grade 1, 2, 3 and grade 4, 5, 6. Statistically significant and positively association was found between PSQI and ASRS ( $p<0.001$ ).

**Conclusion:** PSQI score of 160 (64.8%) students are above 5 and ASRS score of 98 (39.4%) students are between 14-27, 136 (55.06%) students are between 28-72. So lots of student have bad sleep quality and have ADHD. We found statistically significant and positively and bidirectional association between PSQI and ASRS ( $p<0.001$ ).

**Keywords:** PSQI, sleep, collage students

PP-13

## The Effect of Early Onset Obesity on the Development of Precocious Puberty

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**Objective:** Precocious puberty refers to the appearance of secondary sex characters under the expected age, which is 8 for girls and 9 for boys. Early puberty causes long term complications like early menopause, higher risk of giving premature birth alongside with short term physical and mental problems. Not only dehydroepiandrosterone sulfate produced by adrenal glands is already higher in obese kids, it is also shown that adipokines produced by fat tissue can induce puberty at an earlier age. There is no previous study in our country that shows the frequency of pubertal disorders in kids who are diagnosed with obesity at an early age. With our study, we intended to search for the existence of precocious puberty, premature adrenarche and premature thelarche in obese kids and to evaluate the continuity of early obesity with anthropometric measurements after 5 years.

**Methods:** One hundred ninety six patients who had been referred to Bezmialem Vakıf University Hospital Pediatric Endocrinology Polyclinic with the diagnosis of obesity have been called and invited to the hospital for physical evaluation. Height, weight, BMI and z scores of these patients have been calculated and their puberty phases have been evaluated. Bone age, over total volume, luteinizing hormone and estradiol levels have been evaluated for children who showed puberty symptoms.

**Results:** Amongst 196 patients who had early obesity, 16 of them had Precocious puberty (8%), 25 of them had premature adrenarche (12.7%) and 5 of them had premature thelarche. One hundred fifty of the patients (76.5) had no sign of any pubertal development. Only 2 of the patients showed level of under 95% BMI after being tested for obesity and rest of the patients were still obese.

**Conclusion:** Early age obesity increases the risk for puberty disorders such as precocious puberty, premature adrenarche, premature thelarche and children with this diagnosis are likely to have obesity in later ages. In conclusion, it is reasonable to think that the increase in awareness of doctors and families about obesity should start at early ages.

**Keywords:** Precocious puberty, premature adrenarche, obesity

PP-14

## Evaluation of Allergic History of the COPD Patients

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**Objective:** COPD disease is a common lung disease in the population with chronic airway inflammation and airway obstruction. Previous works examined the effect of allergic factors on COPD patients and found a significant correlation, however, in our study, We found different results in the study we have done. In our study we were examined demographic information, Allergic history, cat/mMRC stores, sft findings and blood parameters of copd patients. The aim of our study is to help patients get better help in diagnosis and follow-up.

**Methods:** The study was performed on patients who were diagnosed with COPD according to GOLD 2011 criteria and followed up in Chest Diseases outpatient clinics of Bezmialem Vakıf University Hospital. Ninety seven patients were included in the study. Those who have an acute exacerbation or have an additional disease are not included in the study. A total of 45 questions which were closed-ended type, we were used. In our study, we were investigated demographic information, allergic histories, CAT scores, mMRC scores, spirometry results and blood parameters of the patients. When compared 97 people get 95% confidence level and 80% power the data were analyzed.

**Results:** Of the 59 patients evaluated in the study, 50 were male and 9 were girl. 20.8% had a history of allergy, 26.7% had a history of asthma, 21.1% had an allergy skin test, 32.2% allergic history was present of the cases in the copd patient, The difference between the allergic histories of copd patient was statistically insignificant ( $p=0.044$ ). The percentage of patient who had exposure smoking history was higher in allergic patient ( $p=0.046$ ). Women was higher percentage in allergic patient ( $p=0.047$ ). No statistically significant relationship between cat/mMRC scores, sft findings pattern of allergic patient was found ( $p>0.05$ ).

**Conclusion:** In conclusion, our findings that the allergic history is significant in copd patient. Also smoking exposure and female gender is significant difference in allergic history of copd patient. Determination of risk factors and taking preventive measures will help patients get a better clinical follow-up.

**Keywords:** Chronic obstructive pulmonary disease, asthma, airways disease, allergy

PP-15

## Nutrition and Lifestyle Habits of Bezmialem University Medical Students

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**Objective:** Healthy nutrition and lifestyle habits are very important for having long, energetic and vintage life. People who makes healthy lifestyle habits part of their life can maintain their health beside make it better. Thats why having healty behaviours are needed to be healthy and protecting from illnesses. Medical students know protecting effect of healthy lifestyle habits from diabetes, hypertension and otoimmun diseases. So medical students have to be a good example to people their around with nutrition, sports and sleeping habits they have. In this way people can effect positively about having new healthy lifestyle habits. Aim of the study is investigate the positive effect of medical education on medical students lifestyle and nutrition habits. Also revealing factors that effect these habits and create awareness on medical students are aims of this study.

**Methods:** First and fifth class 270 Bezmialem Vakıf University Medical students get involved in study. Eleven closed end, 8 likert type total 19 questions survey used to collect data. Socio-demographic features, sports frequency, nutrition education, believes positive effects of healty nutrition are asked medical students by closed end questions. Also food consumption freuquency investigated by every day, 3-4 times a week, 1-2 times a week, rarely choices.

**Results:** Students nutrition habits generally found balanced. First classes eat more fruits and make more breakfast, 5<sup>th</sup> classes eat more legume 80.7% medical students thinks that nutrition lectures in medical school is not enough. 98.9% medical students believe positive effect of healty nutrition. 18% of 1<sup>st</sup> classes and 34% of 5<sup>th</sup> classes never make sports. 28% of 1<sup>st</sup> classes and 12% of 5<sup>th</sup> classes make sports 3 times a week. First classes make more sports.

**Conclusion:** When comparing the 1<sup>st</sup> and 5<sup>th</sup> classes, its obvious that medical students couldnt have healthier lifestyle habits after medical education. That is considered the results of difficulty of medical education and deficiency of protective medicine lectures. In this sense protective medicine, nutrition lectures can be more in medical schools schdule and medical students awareness can be raised.

**Keywords:** Lifestyle habits, nutrition habits, sports, medical education

## PP-16

## The Incidence of Transient Hypothyroidism in Following-up Patients with Congenital Hypothyroidism

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**Objective:** The age of initiation of congenital hypothyroidism (CH) treatment is very important in terms of prevention mental retardation and it is critical to begin within the first month. Currently, even cases of transient hypothyroidism are treated up to the age of 3 in order not to risk the development of neurological development. This situation leads to unnecessary stress and cost to the patient. In our study, we aimed to determine the prevalence of transient/permanent hypothyroidism patients, the age of initiation treatment and some clues about whether this is transient or not.

**Methods:** The data of 113 patients with CH who have visited Bezmialem Vakıf University Pediatric Endocrinology policlinic on the dates between 2012 and 2014, have been scanned retrospectively. The patients' age at admission to the outpatient clinic, the first thyroid stimulating hormone (TSH) and free thyroxin (fT4) values, the drug dose per kg at the age of 3, the ultrasonography results, and the results of the first thyroid function test after discontinuation of drug were recorded. The frequency of transient hypothyroidism cases was calculated. Drug dose and initial TSH and T4 values of patients with permanent and transient hypothyroidism were compared.

**Results:** Thirty seven out of 113 patients were excluded from the study because they did not follow up. Total of the remaining 76 patients (45 females, 31 males), 29 (38%) had permanent hypothyroidism and 47 (62%) had transient hypothyroidism. Of 62 patients who underwent ultrasonography, 37 (59%) had normal thyroid gland and 25 (40%) had thyroid agenesis. The mean age of the patients at admission to the outpatient clinic was  $25.3 \pm 14.7$  days, also 24.7% of the patients were older than 30 days. When compared with patients with transient and permanent hypothyroidism, in transient cases, first TSH values ( $32.3 \pm 35.6$  vs  $152.0 \pm 204.8$ ,  $p < 0.01$ ) and drug dose per kg of patients who 3 years old ( $1.5 \pm 0.3$  vs  $3.1 \pm 0.8$ ,  $p < 0.01$ ) were lower. However, first fT4 values ( $12.4 \pm 3.6$  vs  $8.6 \pm 5.6$ ,  $p < 0.01$ ) was higher for these cases.

**Conclusion:** Although the aim of the scanning program was to detect the patients in the early period, admissions of the babies who were still older than 1 month showed that the screening system should be improved in our region. It was determined that the initial TSH levels of the patients who have transient hypothyroidism were lower than the patients with permanent hypothyroidism and the medication needs did not increased during the follow-up period. It is concluded that more extensive studies are needed to determine the cases of transient hypothyroidism earlier.

**Keywords:** Congenital hypothyroidism, transient, permanent, fT4

PP-17

## Do Pharmacists Know How to Apply Adrenaline Auto Injector?

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**Objective:** The adrenaline auto injector is a drug prescribed in the first-line treatment for the patients with a history of anaphylaxis or risk of anaphylaxis. Anaphylaxis is a multi-systemic disease with a high mortality rate when not promptly and accurately interrupted. Successful treatment of anaphylaxis in the community relies on early and correct use of adrenaline autoinjectors. In our study, it is aimed to measure the knowledge and skills of adrenaline auto injector application by pharmacists, who are the first places in the community to supply this drug.

**Methods:** A randomly selected 125 pharmacist were interviewed with 7-item questionnaire and were asked to demonstrate the use of adrenaline auto-injectors on a simulated patient according to the national guideline.

**Results:** Fifty four (42.7%) of the 125 pharmacists who participated in our study did not know what is adrenaline auto injector and how to use it. Although the 30 pharmacists (43.6%) knew which conditions adrenaline auto injector could use but they did not know how to use it. Forty one of the pharmacists (57.7%) who claimed to know how to use it were not successful when asked to use the adrenaline auto injector on the stimulated patient. It has been found that the amount of time that the pharmacists had actively in their job does not have statistical effect on the use of adrenaline auto injector.

**Conclusion:** Our results showed that pharmacists had insufficient knowledge and ineffective skills about epinephrine auto injectors. Considering the possibility of misinforming patients who applied to pharmacies, it was concluded that pharmacists should be educated about the use of epinephrine auto injectors appropriately.

**Keywords:** Adrenaline auto injector, pharmacists, anaphylaxis

PP-18

## Associations with Education of Diabetes Mellitus and Disease Complications and Awareness in Patients with Type 2 Diabetes Mellitus

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**Objective:** Diabetes mellitus is a chronic disease and it is accompanied by long term complications, which decrease life quality. Patients who have poor literacy may not have enough knowledge about their own disease, which can affect their control over it. It is noticed that especially women and people with poor literacy do not have knowledge about complications of diabetes; therefor demand medical help later on. Patients can develop a better attitude towards life by changing life style and educating themselves. That is why it is of great importance for patients' physical and mental health to be educated well enough. The aim of this study is to investigate the relationship between diabetes education with the level of awareness and the ability to transfer the knowledge into daily life in type 2 diabetic patients.

**Methods:** The study will be conducted with patients from Bezmialem University Hospitals "Outpatient Diabetes Clinic" via face-to-face interviews. A self-prepared questionnaire will be applied to patients. The study also requests demographic information and routine blood test parameters (e.g. HgA1c, fasting glucose level). Study group requires 120 patients out of which at least 30 needs to have had diabetes education by specialized nurses. At least 30% knowledge difference is predicted.

**Results:** The samples were collected but are not analysed yet.

**Conclusion:** Diabetes education creates awareness for complications and helps diabetic patients to have control over the disease and clinical improvement by positive affect on their daily lives.

**Keywords:** Diabetes mellitus, diabetes education, awareness

PP-19

## What Do the Physicians Think About Cancer Screenings?

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**Objective:** Cancer is the most common reason for mortality alongside cardiovascular diseases. But with the early screenings, cancer can be diagnosed without being symptomatic and it can end up with a cure. Despite the fact that there are early cancer screenings and have been applying in the worldwide, the fact that most of the patients who applied to the oncology outpatient clinics have been found they are diagnosed in late stages of cancer shows that awareness of the population in cancer screenings is low. In this study, it is aimed to find out what the doctors think about cancer screenings and to use this information in future studies to increase cancer screenings.

**Methods:** This study is done using a 13-questioned survey applied to physicians working throughout Turkey, either face to face or through the Internet. Physicians were asked about their age, gender, specialty, habits, backstory regarding cancer, family history regarding cancer, their amount of knowledge about cancer screenings, answers regarding the need of cancer screenings and whether they did or did not go through cancer screenings and if they did, which type of cancer was screened and which tests they took for the screened type of cancer.

**Results:** Among the total 999 physicians included in the study, 468 were female (46.8%) and 531 were male (53.2%). Three hundred and twelve of them were using alcohol (31.2%) and 348 were smokers (34.8%). Eighty-five had cancer in backstory (8.5%) and 335 in family history (33.5%). Six of the physicians reported their knowledge about cancer screenings as “none” (0.6%), 230 physicians as “very little” (23%) as 763 said their knowledge is “sufficient” (76.4%). Ninety-nine of the physicians told that they have “no previous education” about cancer (9.9%) while 900 told they were “educated” (90.1%). Twenty-eight physicians told cancer screenings are “unnecessary” (2.8%), three told “I don’t know” (0.3%), forty-seven were “undecided” while 921 of the physicians thought cancer screening is “necessary” (92.2%). 385 of the physicians “did not go through any cancer screening” (38.5%), 258 said they don't have a need at that moment but “will be screened when needed” (25.8%) and 356 were already screened (35.6%).

**Conclusion:** In this study, it is shown that although 7 out of 10 doctors think their knowledge on cancer is sufficient and 9 out of 10 doctors think that cancer screenings are necessary, 6 out of 10 doctors did not go through cancer screening. Increasing the awareness of doctors on cancer screening and their participation would increase the awareness and participation of whole people.

**Keywords:** Cancer screenings, cancer, doctor



# The Evaluation the State of Drug Abuse Consciousness of the Medical Students at Bezmialem Vakıf University

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**Objective:** Drug is the substance that changes body functions when taken by the living organism. Drugs change the function or process in the organism and are used to diagnose diseases, to treat, to prevent diseases, to eliminate disease symptoms and to facilitate surgical procedures. Nowadays, drugs are used indiscriminately in some countries. Rational drug use is a systematic approach that includes making a successful clinical diagnosis, careful identification of the problem, determination of treatment goals, selection of proven (reliable) treatment from various options, writing an appropriate prescription, initiation of treatment by giving clear information and instructions to the patient, monitoring and evaluation of the results of treatment. According to World Health Organization, rational drug use is defined as providing the appropriate medication in compliance with the clinical findings and the individual characteristics in the appropriate time and dosage, with the lowest price and easily. Rational drug use is an application that is implemented in different ways and valid in developed countries. The aim of this application is to prevent the use of excessive drugs and wrong medicines, especially in antibiotics, in this way to prevent economic losses, to decrease the side effects related to drugs and to decrease the antimicrobial resistance. In our country, the health education of the public is insufficient and the studies that are carried out to solve this problem are still far from solving the problem in terms of quality and quantity. Many of these reasons affect each other and make the problem even more complicated. In line with this information, this study was carried out to evaluate the state of consciousness of the students studying at Bezmialem Vakıf University Medical Faculty.

**Methods:** Our study was conducted among medicine students in 2018 in Bezmialem Vakıf University Medical Faculty. A questionnaire consisting of 21 questions was conducted to determine the age, diagnostic characteristics, year in faculty, drug use conditions, the reasons for using drugs, the types of drugs used and the level of awareness in drug use. A total of 206 people participated in the survey.

**Results:** Out of 206 participants; 84 of the students were male (40.7%) and 122 were female (59.3%). Among the students of the faculty of medicine participating in the study; 15 (7.2%) were from the first year, 26 (12.7%) were from the second grade, 22 (10.7%) were from the third grade, 36 (17.5%) were from the 4<sup>th</sup> grade, 64 (31%) were from the 5<sup>th</sup> grade and 43 (20.9%) were from the 6<sup>th</sup> grade. It was determined that 62.6% of the students use drugs for headache and flu. In addition, 86.4% of the students read the prospectus before using the medication and 51.9% of them stopped using the drug when their complaints ended. Moreover 53.3% of them used the drug in the last month and 26.6% of them used the medication without recipe. It was seen that 69.4% of the students use drugs without receipt when they have headache, and 63.5% of these drugs are painkillers. 62.1% of participants stated that the reason of taking drugs without prescriptions is having previously use of those

medications. It was also found that there was a significant correlation between the gender of the students and the use of drug in the last month ( $p<0.05$ ).

**Conclusion:** As a result of this study, it was found that among the reasons for using the drug; headache, cold and flu were on the first place. It was monitored that more than half of the students used drugs in the last month. 26.6% of them used drugs without any prescriptions and 63.5% of the drugs they used were painkillers and 37.8% of them were antibiotics. According to these conclusion; it may be suggested to organize conferences, programs and symposiums about rational drug use.

**Keywords:** Drug, drug use, student, university

PP-21

## The Determination the Risk of Obstructive Sleep Apnea Syndrome in Diabetic Patients

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**Objective:** Obstructive Sleep Apnea syndrome (OSAS) is the most common sleep disorder. OSAS characterized with repeating apnea, hypopnea and arousals during sleeping. It is common in obese people and has relationship with insulin resistance. The aim of this study is determining risk for OSAS in diabetic patients.

**Methods:** Epworth Sleepiness Scale and Berlin Questionnaire were polled 92 patients who admitted to endocrinology clinics. We separated ( $n=23$ ) these patients as four group; obese and diabetic, non-obese and diabetic, obese and non-diabetic and healthy (control group).

**Results:** Mean age of female patients is 49.2 and mean age of male patients is 44.5. Statistical difference for excessive daytime sleepiness was not determined between obese and diabetic, non-obese and diabetic, obese and non-diabetic patients and healthy people in our study. The results show that 82.6% of obese diabetic patients and 43.5% of non-obese diabetic patients, 65.2% of obese non-diabetic patients and 4.3% of healthy people are at high risk group for OSAS.

**Conclusion:** Obese patients with diabetes or not have high risk for OSAS and also the diabetic patients can carry risk for OSAS but diabetes mellitus can not be determinative as obesity. Daytime sleepiness can be affected by several situations like anemia, hypothyroidism, hypovitaminemia etc. Our study can not reflect the whole community and needs more patients.

**Keywords:** Sleep apnea, diabetes mellitus, obesity

PP-22

## Neuroprotective Effects of the PTEN Inhibitor bpV in A Rat Model of Kainate Induced Epilepsy

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**Objective:** Epilepsy is a chronic disorder of the central nervous system, characterized by spontaneous recurrent seizures and temporal lobe epilepsy (TLE) accounts for 70% of treatment-resistant epilepsies. The epileptic focus in TLE results from limbic structures such as the hippocampus. Kainic acid (KA) is an L-glutamate analogue which provides cell damage and secondary generalized epilepsy. KA provides an epilepsy model similar to human TLE in terms of neuropathological changes. As a result of tissue damage after KA injection, astrocytes are activated, causing the formation of reactive oxygen products. The phosphatase and tensin homolog (PTEN), a negative regulator of the AKT/PKB pathway and is also essential for the maintenance of normal cerebral architecture and plays an important role in controlling the regenerative capacity of neurons. Vanadium and peroxovanadium compounds [More in particular, bisperoxovanadium compounds, including bpV(pic) (bisperoxovanadium 5-hydroxypyridine)] used as general inhibitors of protein tyrosine phosphatases. Inhibition of PTEN by its potent inhibitor, bpV(pic), activates the Akt pro-survival pathway that confers resistance to cell death induced by oxidative stress.

**Methods:** Three months old 40 male Wistar albino rats with an average weight of 250-300 g will be used in the study. Rats will be divided into 2 control groups (n=5), 2 treatment groups [bpV(pic), n=5], 2 epilepsy model groups (KA, n=5) and 2 epilepsy models + treatment group [KA + bpV(pic) n=5]. Following KA injections, the time between the injection and the onset of seizures will be recorded and the seizures will be observed at 10 min intervals for 2 hours and scored between 0-5 according to the Racine Scale. According to the Racine Scale, animals reaching 3-5 points will be included in the study. The animals in the groups will be sacrificed by decapitation in order to evaluate the biochemical changes at 6<sup>th</sup> and 7<sup>th</sup> days, respectively. Immediately after decapitation, the brain tissue and bilateral hippocampus will be removed by thin dissection. The extracted tissues will be kept at -80 °C for biochemical analysis (Total oxidant status, total antioxidant capacity) and Western Blot (p-AKT, PTEN, Bcl-2 and BAX proteins) analyzes.

**Results:** The study has not started because even tough drugs and kits required for the study were ordered from the company, we haven't received it yet.

**Conclusion:** We, in this study, believe that bpV(pic) treatment in TLE model will have positive effects on neuronal death, oxidative stress and neurotoxicity in hippocampus, and will contribute to a better understanding of the pathophysiology of TLE.

**Keywords:** Epilepsy, kainic acid, oxidative stress, apoptosis, temporal lobe epilepsy

PP-23

## Specificity of CAT and mMRC Test Components on Turkish Patients with COPD

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**Objective:** Chronic obstructive pulmonary disease (COPD) is a disease that occurs due to smoking, biomass exposure and environmental conditions and causes chronic dyspnea, cough, sputum and social restriction. COPD is diagnosed with a respiratory function test and dyspnea surveys such as COPD Assessment test (CAT) and mMRC Dyspnea Scale. CAT is a symptom evaluating test which includes 8 components that are scored from 0 to 5 due to severity. mMRC Dyspnea Scale is scored from 0 to 4. These tests are found to be reliable by many studies, including studies in Turkey. But there are no studies on the specificity of CAT's components and mMRC Scales in diagnosing COPD.

**Methods:** The study included 97 patients in Bezmialem Vakıf University Hospital Department of Pulmonary Diseases. Patients were evaluated with a questionnaire including CAT, mMRC, demographic information and Respiratory Function Test results according to Global Initiative for Chronic Lung Disease (GOLD) 2011 criterias.

**Results:** In total, 97 patients were included in this study. There were 83 males (85.6%) and 14 females (14.4%). The average age (sd) was 62.69 (6.96). 96.01% of the cases were smokers and 3.09% were non-smoker. The mean Total CAT score (sd) was 24.37 (9.46), the mean mMRC (sd) was 2.62 (1.2) and the mean FEV1 rate (sd) was 45.64 (19.89). Patients were mostly stage 3 and 4. Total CAT score and FEV1 rates were correlated ( $p=0.023$ ) and FEV1 rates and mMRC scores were correlated ( $p=0.008$ ) significantly. Total CAT scores had correlations with its components ( $p=0.000$ ) but not all CAT components had correlations with FEV1 rates. Only two components had significant correlations with FEV1 which are related to dyspnea caused by going uphill and climbing a flight of stairs ( $p=0.043$ ), and confidence lost with going outside ( $p=0.001$ ).

**Conclusion:** In this study we confirmed that Total CAT scores and mMRC scores were efficient for diagnosing COPD. However not all CAT components were efficient for COPD and only two components were more specific for COPD.

**Keywords:** COPD, COPD Assessment test, mMRC Dyspnea Scale

PP-24

## Demographic, Clinical Characteristics of Polysomnography Patients in Bezmialem Vakıf University

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**Objective:** Polysomnography; also known as sleep test, is the examination done by measuring the patient's brain waves, eye movements, respiratory activities, oxygen amount in his blood and muscle activities during night sleep. In our study, it is aimed to evaluate the current clinical conditions of the patients in the sleep laboratory and to evaluate the additional clinical findings or diseases that may accompany these patients and to determine which additional diseases may be inconvenient in certain patient groups and to take necessary measures in the direction of the results of these diseases. Prevention of diseases or early diagnosis of existing diseases is intended.

**Methods:** Our study is a retrospective study conducted on the screening of the information recorded on the files of 150 patients (150 women, 150 men) between the ages of 20-70, who underwent polysomnography between 01.01.2017 and 31.12.2017 in Bezmialem Vakıf University Hospital Sleep Laboratory.

**Results:** The samples were collected but aren't analysed yet.

**Conclusion:** In the light of the results of the file search, the accompanying clinical conditions of patients who underwent polysomnography can be evaluated and measures can be taken for the risks.

**Keywords:** Polysomnography, sleep, clinical conditions

PP-25

## Two Different Ways of Approaching on Tibbî Nebevi as A Poet or A Physician

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**Objective:** Tibbî nebevi means medicine of prophet. It consists of health tips ascribed to Prophet of Islam, Hz. Muhammed (sav). Many books had written about tibbî nebevi by various people for ages. The aim of this study is to determine how did a 19<sup>th</sup> century physician approach tibbî nebevi, what are the differences and similarities between a physician's and a poet's approach to tibbî nebevi.

**Methods:** Two books were used as main sources. These are tibbî nebevi translated by Doctor Huseyin Remzi who lived in 19<sup>th</sup> century and tibbî nebevi translated by Ahmed-i Dai who is a poet lived in 15<sup>th</sup> century. The books were analyzed and the two author's ways of approaching tibbî nebevi were examined.

**Results:** Two books were examined in two topics which are purpose and contents. Purposes were got from prologues of the books. Examining the prologue of the books, it showed that Ahmed-i Dai has translated and rearranged the book because Umur bin Timurtas wanted it to be translated for Sultan Hudavendigâr. And Doctor Huseyin Remzi says he penned his book because there was no book written in Turkish about tibbî nebevi. Ahmed-i Dai's book consists of 10 articles which have 10 parts in each. Hadiths and rivayets are given under these parts serially. There are 799 hadiths and rivayets in total. Besides, there are 49 quotes from the author of the main book among related hadiths. In this book, there are very little description from Ahmed-i Dai, which makes some of the hadiths difficult to associate with medicine. Thus, this book is more a hadith book than a medical book. There are hadiths and rivayets about importance of health, science of medicine, diagnose, causes of illnesses, air, scents, oils, nutrition, waters, sexuality, sleeping, hygiene, movements, clothings, treatments, pains, skin diseases, hemorrhoids, other diseases, wounds, pyrexia, cauterization, poisons, antidotes, magic, anxiety, palpation, nutrition of patients, plague, prayers, animal and herbal foods and herbal treatments. At the end of the book, Ahmed-i Dai says tibbî nebevi is a ledüni science which means a special and hidden science that comes by inspiration by God and unlike other sciences, it is not experimental. That's why it mustn't be compared with experimental sciences, he says. Doctor Huseyin Remzi's book consists of the author's text essentially and there are 123 hadiths, rivayets, quotes from scientists and happenings in total amongst them. This book's topics are integrated like a textbook which makes it easier to read. Hadiths are more understandable in this book, as they are less in number than texts and are given among the related texts. The quotes are from both eastern and western scientists and Huseyin Remzi mentioned some actual innovations in medicine of that time as well. Topics in this book are natural events, temperaments, body fluids, importance of health, causes of illnesses, nutrition, water, moves, sleeping, hygiene, science of medicine, necessity of treatment, pyrexia, cauterization, rabies, palpation, nutrition of patients, plague, smallpox, measles, chickenpox, prayer,

animal and herbal foods and herbal treatments. At the end of this book, Doctor Huseyin Remzi says that tibbi nebevi is a special science that is superior to other people's science, because it is a prophet's science.

**Conclusion:** Considering the number of hadiths and topics he included in his book, the poet Ahmed-i Dai approaches to tibbi nebevi more comprehensive than the physician, but in a more religious, theoretical and a superficial way. Whereas the physician, Hüseyin Remzi approaches tibbi nebevi more scientifically, informatively and practically. Both of them respect tibbi nebevi and think it is superior to ordinary sciences, because it is a prophet's science.

**Keywords:** Prophet medicine, old medicine, hadith, poet

PP-26

## Comparison of Open Versus Laparoscopic Techniques Used for Surgical Treatment of Acute Appendicitis, Single Center Experience

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**Objective:** Despite the fact that it has been more than 100 years since all its qualities and surgical treatment were determined, appendicitis is still the most frequently misdiagnosed urgent surgical condition. In 1894 McBurney designated open appendectomy for the first time and his technique has been accepted as the standard treatment for almost a century. As for laparoscopic appendectomy, it was identified by Semm in 1983 for the first time. Since then, superiority and effectiveness of laparoscopic appendectomy in comparison to open appendectomy has been part of several arguments. In this study, we aimed to compare the two techniques and present weak and strong sides of both.

**Methods:** In this study, the patients who applied to emergency department, general surgery and operated for Acute Appendicitis were receive into the work. Data were collected from the hospital's information and archive system. According to the establishment made through Power analyze, more than 170 patients were receive into the work. Among these patients, 85 of them were operated in compliance with open technique and 85 of them were operated in compliance with laparoscopic technique. Demographic findings of the patients such as age, sex, additional diseases and physical examination, biochemistry results, abdomen sonography and/or abdomen CT results were collected. Surgical findings in operation of the patients who were operated was evaluated. Afterwards, post-operated complications, additional treatment circumstances and hospitalization duration was also evaluated. Later on, pathology findings of the patients was obtained.

**Results:** Essential data was obtained but statistical analyze was not performed yet.

**Conclusion:** With regards to post-surgery indication, it is expected that the operation period of laparoscopic surgery to be superior.

**Keywords:** Acute appendicitis, appendicectomy, laparoscopy

PP-27

## The Factors that Affect Compliance to Physical Therapy Home Exercise on Patient with Chronic Pain

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**Objective:** The pathophysiology of chronic pain syndrome is complex and multifactorial. Millions of people are disabled partially or totally due to chronic pain every year. Chronic pain, defined as an uncomfortable condition and pain that lasts longer than six months. It can be mild or excruciating, episodic or continuous, inconvenient. Effective management is significantly different from acute musculoskeletal pain. Understanding the physiology of pain transmission and modulation is crucial for effective management. Pharmacological and non-pharmacological treatments such as psychotherapy and biofeedback exercises can be used to manage chronic pain. The aim of the study is to see what are the factors that are not able to perform regular and continuous home exercises for patients with chronic pain.

**Methods:** Between May 2018-January 2019, 70 patients between 18-80 years of age who applied to Bezmialem Vakıf University Hospital Polyclinic of Physical Therapy and Rehabilitation, who came to hospital sessions and gave home exercise programs were considered suitable for the study of chronic pain. Participants were selected in accordance with the exclusion and inclusion criteria. Within the framework of the study, a special questionnaire, which consists of fifteen questions, aimed to learn what are the factors affecting the compliance to home exercises, was conducted.

**Results:** There were 70 participants in this study; 50 of them were women, 20 of them were men. Participation in exercise was found to be average according to the results of the survey (66.285%). Every reason to influence compliance is sufficient, safe, and valid ( $\alpha=0.834$ ), the most effective reasons are the fear of applying the exercises wrong and self-harm ( $r=0.701$ ), the lack of the desire to do the exercises ( $r=0.664$ ), avoid doing exercises because it looks hard ( $r=0.634$ ) and the exercise is seen as the idea of hurting the patient more ( $r=0.613$ ).



**Conclusion:** As a result of our study, there are many factors that affect the compliance of the patients to their home exercise. Based on these data, patients should be given necessary explanations and special exercise programs should be prepared in order to obtain more efficient results from the treatment of patients.

**Keywords:** Exercise, home exercise, patient adherence, patient compliance

PP-28

## Investigation of the Causes of Application to Pediatrics Allergy Outpatient Clinics and the Effects of Treatment on the Behaviors of Families

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**Objective:** Allergic diseases are complex diseases associated with genetic, environmental and socio-economic factors and they represent one of the most common types of diseases worldwide. The fact that skin prick test is used as the first step in diagnosis because it is less expensive in children or infants, it is cheaper compared to serum specific IgE antibody test and its results are ready to support the possible diagnosis. For this purpose; this study was planned to determine the reasons of the patients arrivals who were admitted to our allergy outpatient clinics and have a skin prick test, to compare the positive and negative test results, and to understand the behavioral changes in the families after the referral of the physician.

**Methods:** A total of 103 patients with positive allergic skin test were included in the study. 53.4% (n=55) of the patients with positive test results and 51.5% (n=53) of those with negative results were male. The mean age of the test subjects was  $7.70 \pm 4.17$  and the negative ones were  $8.26 \pm 3.86$ . A questionnaire was applied to patients and their families to examine their socio-economic status, smoking habits, frequency of antibiotic use, animal feeding status, fragrant and woolen goods, familial atopy and the frequency of junk food consumption. After 3 months, another questionnaire was applied which included the questions of the first questionnaire. Mean, standard deviation and percentage ratios were used for descriptive statistics of the features.

**Results:** There were no statistically significant differences between the 2 groups in terms of age ( $p=0.78$ ) and gender ( $p=0.39$ ). Eighty four (81.6%) of the patients with skin test positivity were found to have house dust and house mite, 18 (17.5%) to weed mixture, 12 (11.7%) to cat feather, 9 (8.7%) to olive tree and 5 (4.9%) to mold fungus (4.9%). At the beginning of the study, 60 (58.3%) of parents of the patients in the skin prick test positive group and 54 (52.4%) of parents of the patients in the negative group were smoking. At this stage, there was no significant difference between the groups in the smoking frequency of the parents ( $p=0.4$ ). In the 3<sup>th</sup> month

control questionnaire, 14 (23.3%) of the parents who came test positive, and 4 (7.4%) of the parents who came test negative are quit smoking. These data were statistically significant ( $p=0.020$ ). At the beginning of the study, the number of skin prick test positive patients and their families was 39 (37.9%) and the number of skin prick test negative patients and their families was 38 (36.9%). At this stage, there was no significant difference between the groups ( $p=0.88$ ). In the 3. month questionnaire 25 (64.1%) of the positive test results and 13 (34.2%) of the negative test results are left the use of fragrant goods. These data were statistically significant ( $p=0.009$ ).

**Conclusion:** The results of this study show that the patients who receiving allergy polyclinics and treatment contribute to their medical improvement. We also observe that the frequency of exposure to environmental allergen factors such as cigarettes and fragrant items that they are exposed to due to the use of their parents has decreased. As a result of this data, it has been determined that patient education given in pediatrics allergy polyclinics increases awareness of environmental allergens in families and leads to behavioral changes.

**Keywords:** Allergy, skin prick test, pediatric allergy

PP-29

## Assessment of Depression of the Patients with HPV

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**Objective:** Human papillomavirus (HPV) is one of the most common sexually transmitted diseases (male and female is the cause of many different diseases. Cervical, vagina, vulva, penis, oral cavity, head neck and anal canal cancers are the most frequently observed form of anogenital wart, although it is related to HPV infection). Seventy percent of cervical cancers in women HPV 16 and 18 HPV 6 and 11 are responsible for 90% of genital warts in both sexes. Depression and anxiety are common in patients with chronic disease, but are not treated, despite significant negative consequences on patient health. Psychology is considered as a key variable in predicting compliance with treatment and health service behavior in patients with chronic diseases. Patients with HPV should be considered and evaluated for depression because they may affect the psychological state of the person and affect the treatment.

**Methods:** Our study will be carried out between December 2018 and March 2019 in Bezmiâlem Vakıf University Hospital with 60 HPV patients and 40 healthy individuals who have consented to the exclusion-inclusion criteria. Beck Depression Scale will be applied to each patient.

**Results:** The samples were collected but arent analysed yet.

**Conclusion:** In HPV (+) individuals, it is thought that there is a relationship between disease and depression.

**Keywords:** Genital wart, depression, sexually transmitted diseases

PP-30

## Predictive Role of Serum Biomarkers in Early Diagnosis of Ectopic Pregnancy

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**Objective:** Ectopic pregnancy is a high-risk condition that occurs in approximately 2% percent of pregnancies. The condition is the leading cause of pregnancy-related death in the first trimester. Diagnosis of ectopic pregnancy relies on both ultrasound findings and human chorionic gonadotropin measurements but due to the need for serial tests, tubal rupture and death represent major maternal and fetal risks. Early diagnosis of ectopic pregnancy is important and thus a noninvasive diagnostic tool seems crucial for possible early interventions. The aim of this study was to determine whether serum concentrations of progesterone, creatinine kinase, hyperglycosylated human chorionic gonadotropin, C-reactive protein can be used to predict outcome in women with tubal ectopic pregnancy.

**Methods:** We selected 30 patients divided into 2 groups. Group A consisted of 15 patients with asymptomatic tubal pregnancy, group B consisted of 15 patients with normal or threatened intrauterine pregnancy. Biochemical assays were performed involving progesterone, creatinine kinase, hyperglycosylated human chorionic gonadotropin, C-reactive protein serum concentration with ELISA and radioimmunoassay methods.

**Results:** Serum sample and patient collection process continues. All analyzes, statistical analyzes and data will be completed after the patient collection process is completed.

**Conclusion:** Evidence from multiple studies is necessary to appreciate the discriminating ability of these prognostic factors.

**Keywords:** Ectopic pregnancy, serum biomarkers, progesterone, creatinine kinase

PP-31

## A Comparative Study of the Depression Symptom Levels Among Students in the Faculty of Medicine and Two-year Degree of Medical Field

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**Objective:** Depression is a common psychiatric disorder in the society. Since the term was used to define a psychiatric disorder, it has become the name of disease. In general, the point prevalence of the depression symptoms in the society varies between 13%-20%. It is a crucial health problem, resulting in the loss of workforce in society. The ratio of mortality risk due to a suicide (completed suicide risk) is approximately 15% among the untreated depression cases. The aim of this study is to compare the rate of depressive symptoms among the students of Bezmialem Vakıf University, the Faculty of Medicine (FM) and Vocational School of Health Services (VSHS).

**Methods:** In our study, volunteering and being a student of the FM/VSHS were determines as the inclusion criteria. A Beck Depression Scale was applied to 90 students in the FM of Bezmialem Vakıf University and 90 student in VSHS of Bezmialem Vakıf University, taken a consent and complied with exclusion/inclusion criteria. This 22-item scale involved 4 sub-groups. The results of rating ranged from 0 to 63 and sub-groups were indicated as normal between 0-9 score; mild between 0-18; moderate between 19-29; and severe between 30-63.

**Results:** A significant difference was found between the depressive symptoms of the students of VSHS and FM. The significance level was accepted as  $p < 0.001$ . It was concluded that the depressive symptoms of VSHS students were more frequent than of FM students. Regarding the gender, grade-point averages, the reason of choosing school, age range, place of birth, accompanying person to live, the care and control during childhood, there was no significant difference between VSHS and FM students. In terms of the level of income, no significant difference was found between VSHS students; however, the severity of depressive symptoms was detected to decrease by increasing level of income in FM students. No difference was found between groups in terms of alcohol usage; cigarette smoking did not affect VSHS students but more smoking resulted in less severe depressive symptoms in FM students.

**Conclusion:** Beck Depression Scale was used to compare the prevalence of depressive symptoms of two groups having 2-year and 6-year undergraduate education in health services. According to the statistical analysis of our data, it is concluded that VSHS students have the depressive symptoms more frequently but whether this is due to the number of female participants of the study or to the distinction in department remains unknown. An inverse correlation between smoking and the prevalence of depressive symptoms in FM may be considered to provide a mental relief among students. Since the depressive symptoms may affect the functionality of

individuals in their family, social, professional and private lives significantly negatively, this issue should be approached and evaluated by larger sampled and multi-grouped studies.

**Keywords:** Depressive symptoms, the faculty of medicine, vocational school of health services

PP-32

## The Effect of Onion Extract on Expiration of The Proteins that Lead to the Carriage of Cholesteroles from Macrophages to HDL

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**Objective:** The aim of this study is to investigate how different concentrations of onion inner-layer extract effect the macrophage cholesterol efflux, and the expressions of ABCA-1, ABCG-1 and SR-B1 proteins in *in vitro* cell culture environment. Cardiovascular system diseases which can be highly mortal, mainly caused by atherosclerosis. Latest researches show that some biochemicals like Quercetin can reduce atherosclerosis by increasing the cholesterol uptake from macrophages to HDL. This information also shows that Onion which is abundant in Quercetine, can indicate the same results. The aim of this study is to investigate how different concentrations of onion inner-layer extract effect the macrophage cholesterol efflux, and the expressions of ABCA-1, ABCG-1 and SR-B1 proteins in *in vitro* cell culture environment.

**Methods:** We analyzed 2 different onions (white and purple) collected in Turkey to determine their total antioxidant capacity, pro-oxidant activity, total phenol and total flavonoid levels. Different concentrations of white onion and purple onion extracts exposed to THP-1 macrophage for 24 hours. Cell proliferation levels were analyzed with ATP cell viability assay. IC<sub>50</sub> values of these onions were calculated. Genotoxic, apoptotic and reactive oxygen species generating effects are analyzed under these IC<sub>50</sub> values. Apoptotic protein expirations analyzed by western blot.

**Results:** It is found that antioxidant and prooxidant capacity and phenol and flavonoid level of the white onion methanol extracts are higher than the purple onion methanol extracts. It is also found that since two onion extracts exhibit a cytotoxic effect after 30 ug/mL, the ABCA-1, ABCG-1 and SR-B1 protein expressions in THP-1 cells increased in doses below the IC<sub>50</sub> dose.

**Conclusion:** As a result of this research; onion extracts have cytotoxic, genotoxic and apoptotic effects on THP-1 macrofage and increase the expressions of ABCA-1, ABCG-1 and SR-B1 proteins which leads to cholesterol efflux. It can be needed to make *in vivo* researches to reach more sensitive results.

**Keywords:** Onion, hyperlipidemia, cholesterol, cholesterol efflux, ABCA1, ABCG1, SR-B1

PP-33

## The Rate of Malignancy as a Result of Biopsy Pathologies of Patients Pre-diagnosed with PNET with EUS

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**Objective:** Pancreatic neuroendocrine tumors (PNETs), also known as islet cell tumors, are rare neoplasms that arise in the endocrine tissues of the pancreas. They can secrete a variety of peptide hormones, including insulin, gastrin, glucagon, and vasoactive intestinal peptide, resulting in myriad clinical syndromes. In modern clinical series, however, between 50 and 75 percent of pancreatic NETs are nonfunctioning (ie, unassociated with a hormonal syndrome). This retrospective report reviews the rate of malignancy as a result of biopsy pathologies of patients pre-diagnosed with PNET with EUS.

**Methods:** In this retrospective study, 81 patients with pre-diagnosis of PNET with EUS in the Gastroenterology Department of Bezmiâlem Vakıf University between 2011-2018, the data in the hospital computer system were used. In addition to data such as age, sex, arrival symptom, location and size of tumor; presence of operation, presence of metastasis, presence of biopsy, pathological outcome of biopsies and survival rates were evaluated.

**Results:** Among 79 patients (51 female, 28 male, median age 54 (range:17-88)) underwent fine needle aspiration (FNA) and there were 4 patients who have no data of biopsy pathology. In 75 patients; 31 were (41.3%) diagnosed as PNET, 12 were (16%) adenocarcinoma, 5 were (6.6%) cystic lesions, 2 were (2.6%) tuberculosis (TB), 1 was (1.3%) pancreatic benign neoplasm, 1 was (1.3%) pancreatitis. Renal cell carcinoma (RCC) metastasis was detected in 1 patient (1.3%). In 22 patients (29.3%) cytology was non-yielding. 34 of them have been operated. 11 out of 79 patients are dead; 2 of them were PNET, 7 of them were adeno cancer, one of them was non-diagnostic and 1 of them was no data. There was no significant relationship between mean age, gender and tumor size with malignancy.

**Conclusion:** According to data, 41.3% of 75 patients were diagnosed with NET by EUS. When the FNA biopsy results were evaluated, 65.2% malignancy was detected. Of these, 23.9% are non-NET malignancies.

**Keywords:** Pancreas, neuroendocrine tumor, EUS

PP-34

## A Comparative Study of the Knowledge and Attitudes Towards Complementary and Alternative Medicine Among Students in First and Sixth Grade of the Faculty of Medicine in Bezmialem Vakıf University

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**Objective:** In recent years, the ratio of resorting to an alternative way beyond the modern medicine both for the health protection and solving the health problems has been increasing in the developed countries. These ways are usually called complementary or alternative medicine (CAM). In our country, there is limited number of studies about the knowledge and attitude of medical students towards CAM. The aim of this study is to determine and compare the knowledge and attitudes of students in the first grade of faculty of medicine, who had pre-clinic education, and students in the sixth grade, who took one step forward the profession, towards the methods of CAM.

**Methods:** This study was conducted by 196 individuals who were the first or sixth grade students of Faculty of Medicine in Bezmialem Vakıf University, gave a consent to participate in the study and complied with exclusion/inclusion criteria. Our survey prepared by using the literature consisted of three sections including the socio-demographic characteristics of the participants, their knowledge about CAM and attitudes towards CAM. The data of study were collected by using a questionnaire form developed by the researcher following a literature review. Independent t-test was used for quantitative comparison between groups, and chi-square test was used for categorical comparison. The significance level was accepted as  $p < 0.05$ .

**Results:** The groups were established as 96 first-grade students and 96 sixth-grade student of the faculty of medicine. For the knowledge about CAM and attitudes towards CAM, a statistically significant difference was found between first and sixth grade medical students ( $p < 0.05$ ). Comparing both groups, the level of knowledge about the treatment techniques such as ozone therapy, acupuncture, phytotherapy, mesotherapy, reflexology, hydrotherapy, music therapy, meditation, feng shui, ayurveda, hirudotherapy, cupping, aromatherapy was determined to be better in the sixth grade students ( $p < 0.001$ ); however, there was no significant difference for Tai chi chuan and yoga.

**Conclusion:** According to the results of study, the level of knowledge about the treatment techniques of CAM is higher in the sixth grade medical students. Moreover, the sixth grade medical students less support the ideas of addition of CAM to the curriculum of medical school, the reliability of treatment methods, the knowledge of and application by physician about complementary and alternative therapies. First grade

medical students state that the knowledge of and application by a physician about the complementary and alternative therapies has positive impact, these therapies should be used as a complementary treatment to the conventional medicine. Additionally, both groups state that the treatments whose reliability and efficiency are not supported scientifically should be forbidden, and alternative therapies cannot replace the modern therapies. In fact, both groups consider that some practitioners of CAM methods take the advantage of and make profit from the desperation of patients.

**Keywords:** Complementary and alternative medicine, faculty of medicine, modern medicine

PP-35

## To Investigate the Proper Usage of Vitamin D or Multivitamin Prepares Among Pregnant Women

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**Objective:** Lack of vitamin D is a chronic case seen often which effects infants and pregnant women more than others. It is known that lack of vitamin D during maternity times causes the lack of vitamin D at the new born and infants. Studies shows infantile rickets and non bone related causes to many illnesses like malignancy and autoimmune disease. Because of this the protocol health ministry created regarding the national maternity watch suggests to use 1200 IU from the 12<sup>th</sup> week of pregnancy until 6 months after the birth. We aimed to measure the awareness level of pregnant women applied to our obstetrics and gynecology polyclinic about the recommendations of Ministry of Health on daily usage of 1200 unit vitamin D for pregnant women, and the compliance of their vitamin doses with the guidelines.

**Methods:** One hundred fifty pregnant women who came to Bezmialem Foundation University Medical Faculty Hospital have been asked to fill in questionnaire over watched by doctors and nurses about age, number of pregnancies they had, education level, if they have been to regular check ups, if they have been to, which agency, if they have been taking any vitamin supplements, if they have, names of them and by whom they were recommended etc. and the details of the vitamin D supplements they used noted.

**Results:** According to the results of the questionnaire 135 of 150 people (90%) go to check up regularly 15 (10%) of the pregnant women were not. Out of all pregnant women while 69 (46%) of them have been using multivitamin supplements 81 (54%) haven't been using multivitamins. 39 (56%) of 69 pregnant women who have been taking vitamin supplements consist of 500 IU vitamin D, 30 of them (44%) were saying they were using vitamin supplements but they didn't know the name of it. When they were asked if they knew that they had to use 1200 IU vitamin D 69 of them (46%) said they were informed about it but 81 of them (54%)



said they were not. When they were asked if they knew they had to add 700 units of vitamin D drops over 500 units it was discovered that none of the pregnant women had done so. Out of 69 women who have been taking the vitamins 65 of them said their doctor recommended it, 1 patient said she was informed by nurses and other hospital workers, 3 patients said they found the information over the internet. There were no sensible statistical difference with in the groups of women who used vitamin supplements or not regarding the education level, number of pregnancies they had, if it was a planned pregnancy or if they have been watched over by government hospital or a private one. None of the pregnant women were using recommended routine dose of prophylaxis by the Health Ministry.

**Conclusion:** As a result it was discovered that recommended vitamin D for the health of mother and baby hasn't been used by half of the pregnant women at all and the other half have been using under the recommended dosage. It is discovered that in our country lack of vitamin D is a major health problem and it is recommended this prophylaxis which is easy to use and low cost has to be within the doctor's practice and the patients have to be informed clearly about it and followed on.

**Keywords:** Vitamin D, pregnancy, profilaxy, knowledge level

PP-36

## *Opuntia ficus indica's* Anti-cancer and Anti-inflammatory Effect on Prostate Cancer Cell Line

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**Objective:** Prostate cancer is the second most common malignancy in males and the second most common reason of the death from cancer. Surgery, hormone therapy, and radiotherapy are treatment options, however, incidence is highest between 70-74 ages, which have higher comorbidity. *Opuntia ficus indica*, commonly known as Prickly pear, is known for its anticarcinogenic effects for decades and used in public level. In this study, *Opuntia ficus indica's* methanolic extract's antioxidant and prooxidant effects were examined; then its cytotoxic, genotoxic and apoptotic effects were observed on human healthy cells and human prostate cancer cells in vitro. Existing inflammation is high in cancer, it is aimed to prove that this fruit's extract decreases the inflammation, that fruit has an anti-inflammatory effect and it may also be also effective for prostatitis therapy.

**Methods:** After the recruitment of *Opuntia ficus indica* and its confirmation from a botanist, its methanol extract has prepared and its phenolic components are examined by FCR. And all the extract's total flavonoid amount is calculated, then extract's diphenyl picrylhydrazyl free radical activity has measured by inhibition.

Degradation power was calculated by CUPRAC methods and lipid peroxidase inhibition activity was recorded. For the healthy and cancer cell lines; cytotoxicity, genotoxicity, and apoptosis tests were applied. Intracellular calcium and reactive oxygen levels were calculated.

**Results:** Antioxidant levels of the *Opuntia ficus indica* were found to be high. *Opuntia ficus indica* phenol and flavonoid levels are rich. The anti-cancer and anti-inflammatory effects of *Opuntia ficus indica* were examined remarkably high. Increased *Opuntia ficus indica* dose increased the cytotoxic and genotoxic effect. Intracellular ROS and calcium levels increased in a dose-dependent manner.

**Conclusion:** *Opuntia ficus indica* is promised to cure prostate cancer and its symptoms, and also future researches can be done for prostatitis.

**Keywords:** *Opuntia ficus indica*, prickly pear, prostate, prostate cancer, phytotherapy, anticarcinogenic, anti-inflammatory

PP-37

## Effect of Sodium Nitroprusside and L-arginine in Streptozotocin-induced Diabetic Rats

Tahacan Demir<sup>1</sup>, Sadret Mert Çınar<sup>1</sup>, Faruk Özçelik<sup>1</sup>, Sevban Bayırlı<sup>1</sup>, Esra Aydın<sup>1</sup>, Sinem Güler<sup>1</sup>, Savaş Üstünova<sup>2</sup>, Aysu Kılıç<sup>2</sup>, Huri Bulut<sup>3</sup>, Mehmet Üyükü<sup>2</sup>

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**Objective:** Type 1 diabetes is characterized by the progressive loss of pancreatic beta cell function, eventually culminating in patients' dependence upon exogenous insulin to control blood glucose. The amino acid arginine is the main biological precursor of nitric oxide (NO) and has been described to improve insulin sensitivity in diabetes and obesity. Increased levels of NO are associated with an induction of glucose uptake in skeletal muscle. NO donors, such as sodium nitroprusside (SNP) enhance glucose transport by an insulin-independent mechanism in rat skeletal muscle. We hypothesized that treatment of diabetes rats with Arginine and SNP may improve glucose metabolism.

**Methods:** In this study, 18 male Wistar albino rats weighing 350-450 g in adults were divided three groups as diabetes groups and normoglycemia group. A commercially available Streptozotocin (STZ) of 60 mg/kg was given intraperitoneally. L-arginine 1 g/kg was gavage after dissolving in serum physiologic and SNP 5 mg/kg intraperitoneally at the same time six diabetic rats. A blood glucose concentration that exceeded 200 mg/dL was considered diabetic. Body weight and blood glucose were measured daily at the end of the study.

**Results:** Body weight was recorded daily throughout the study period (7 days). The mean body weight gain for nondiabetic rats was 5 g. As expected, significant weight loss was observed in diabetic rats and the same weight loss was observed in L-arginine and SNP treated animals. STZ induced rats at one day after beginning L-arginine and SNP treatment, plasma concentrations of glucose did not differ ( $p>0.05$ ) between nondiabetic rats (121.2 vs 117.6 mg/dL,  $n=6$ ).

**Conclusion:** Arginine is involved in several biochemical processes, including ammonia detoxification, immune modulation, polyamine synthesis, and secretion of hormones such as insulin, glucagon and growth hormone. Furthermore, Arginine is a natural and exclusive physiological substrate of NO synthase and consequently, it is the main biological precursor of NO. In conclusion, L-arginine administration to STZ treated rats after one day provided protection of pancreatic  $\beta$ -cells from STZ. These findings may provide for the beneficial effect of dietary arginine supplementation in preventing in diabetes.

**Keywords:** Diabetes, L-arginine, sodium nitroprusside, nitric oxide

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