

# 2<sup>nd</sup> International Congress of Multidisciplinary Medical and Health Sciences Studies

Abstracts Booklet



Ali Bilgili  
Büşra Yürük  
Çiğsem Yağmur Yüksel





**2<sup>nd</sup> International Congress of  
Multidisciplinary Medical and Health  
Sciences Studies**

**Abstracts Booklet**

**27-28 May 2024**

**Ankara/Turkey**

## **BIDGE Publications**

2<sup>nd</sup>International Congress of Multidisciplinary Medical and Health Sciences Studies Abstracts Booklet

ISBN: 978-625-372-171-8

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Page Layout: Gözde YÜCEL

1st Edition: BIDGE Publications, 2024

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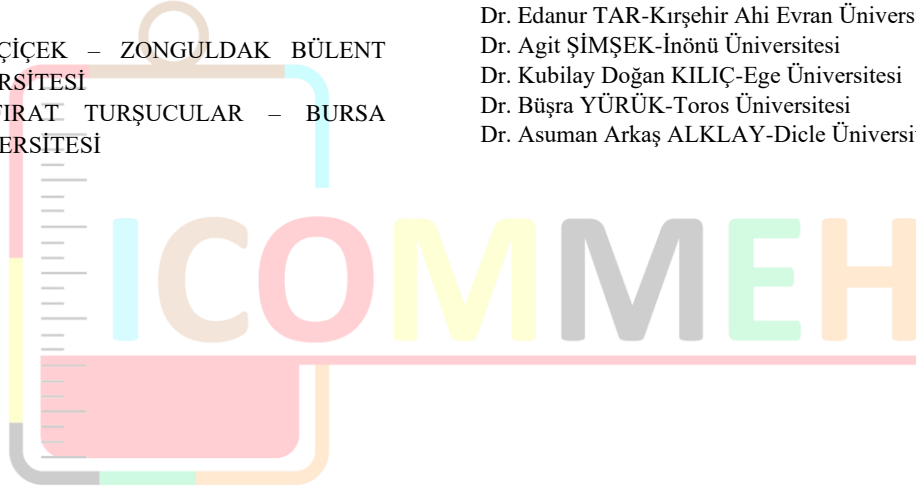
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**ABSTRACTS**  
ICOMMEH



# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## The Relationship Between Pregnant People's Attitudes Towards Complementary, Alternative, and Modern Medicine, and Complaints During Pregnancy and Its Effects on Quality Of Life

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### Abstract

This study aimed to examine the relationship between pregnant women's attitudes towards complementary, alternative, and modern medicine, their complaints, and their quality of life.

This cross-sectional study was conducted on 402 pregnant women who volunteered to participate in the research through social media (Facebook, Instagram, Twitter, Telegram, etc.) forum pages from 12.12.2023 to 15.04.2024. The Personal Data Collection Form prepared by reviewing the literature, the Attitude Scale to Complementary, Alternative, and Modern Medicine (CACMAS), and the Scale for Complaints during Pregnancy and its Effects on Quality of Life (SCPEQL) were used. The data were analyzed using descriptive statistics, the Mann Whitney-U test, the Kruskal-Wallis test, and Pearson correlation.

It was found that the pregnant women's SCPEQL total score average was  $52.60 \pm 37.46$  and CACMAS total score average was  $74.02 \pm 16.73$ . While a statistically significant positive strong relationship was found between the holistic balance sub-dimension of pregnant women and SCPEQL ( $p < 0.001$ ;  $r = 0.941$ ), dissatisfaction with modern medicine sub-dimension ( $p < 0.001$ ;  $r = 0.949$ ), and having a philosophical orientation compatible with CAM sub-dimension ( $p < 0.001$ ;  $r = 0.925$ ), a statistically significant strong negative relationship was found between CACMAS ( $p \leq 0.001$ ;  $r = -0.167$ ).

In our study, it was found that complaints during pregnancy are low, quality of life is high, and attitudes towards complementary, alternative, and modern medicine are moderate. As pregnant women's attitudes towards complementary, alternative, and modern medicine increase, the impact of complaints during pregnancy and quality of life decreases. In line with these results, it is recommended that women's health and obstetrics nurses question and evaluate pregnant women's attitudes towards complementary, alternative, and modern medicine, as well as the impact of these complaints on quality of life, and carry out the nursing process with individual approaches to pregnant women based on the evaluation.

**Keywords:** Pregnant, Complementary and alternative medicine, Modern medicine, Attitude, Complaint, Quality of life

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Emergency Care For A Patient With A Scorpion Sting: A Case Report

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### Abstract

Scorpion stings create a significant health problem in Turkey, as well as all over the world, and are mostly seen in the summer months<sup>1</sup>. Scorpion stings affect approximately 1.2 million people worldwide every year and more than 3250 cases cause their deaths (0.3%). is a major health problem<sup>2</sup>. Most stings are harmless and follow a benign clinical course, but some present with acute and serious life-threatening complications in the respiratory, neurological and cardiovascular systems. The most serious clinical symptoms are as follows: neurotoxic effects, pulmonary edema and myocardial infarction, cardiogenic shock, myocarditis and cardiovascular disease, and even death can be observed<sup>3</sup>. Nursing Model Based on Daily Living Activities provides nursing care because it forms the basis of the nursing process and can be applied to both patients and healthy individuals<sup>4</sup>. In this study, the case of scorpion sting was evaluated according to the Nursing Model Based on Daily Living Activities in the light of the current literature, and the nursing diagnoses were made with the "North American Association of Nursing Diagnoses (NANDA-I)" and the "Classification of Nursing Interventions (NIC)". Nursing care is examined by evaluating nursing interventions.

ZB is 43 years old, in the young stage of his life span. Considering the life expectancy and risk factors, the fact that the patient is young, does not have a chronic disease, does not have any harmful habits, the venom of the local scorpion species is not lethal, and the care and treatment is applied appropriately and correctly affects the clinical situation positively. It was concluded that it does not carry a high risk.

**Key words:** patient, scorpion sting, emergency care.

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Nursing Students' Knowledge, Attitudes And Concerns About The Current Covid-19 Epidemic In Turkey

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### Abstract

**Purpose:** This research was conducted to determine the knowledge, attitudes and concerns of nursing students about the current covid-19 epidemic in Turkey during the pandemic period.

**Method:** The research is cross-sectional and descriptive and was conducted with 633 nursing students. The data was collected with a survey form that included students' personal characteristics, questions about the pandemic process, and the Perception and Attitudes Evaluation Scale towards the Coronavirus (COVID-19) Epidemic. Data was collected between October 1 and November 30, 2021. The obtained data were evaluated in the SPSS 24 package program. Number, percentage, mean, standard deviation, minimum and maximum values, correlation test were used to evaluate the data. In this study, the findings were considered statistically significant at a 95% confidence interval and a significance level of  $p < 0.05$ .

**Results:** The average age of nursing students is  $20.31 \pm 1.51$ , 63.8% are female, 27.8% are first year students, 30.7% say that the pandemic process affects their education life, 64.5% are worried about getting COVID-19, 36.5% are in our country. It was determined that they follow the death rates from COVID-19 on a daily basis, 52% of them were informed about COVID-19 from the official website of the Ministry of Health, and 7.9% of them lost a family member due to COVID-19. It has been determined that the education and psychological lives of nursing students, women, students in the 18-19 age group and 20-21 age group are more affected by the COVID-19 pandemic process.

**Conclusion:** A positive and statistically significant relationship was found between the nursing students' General, Causal, Control and Avoidance Behaviors subscale total score averages ( $p < 0.05$ ).

**Keywords:** Nursing students, COVID-19, Pandemic. Perception, Attitude, Scale

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Examination of the Level of Breast Cancer Worry and Related Factors Among University Students

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*Ümmü Sena BİLGİÇ<sup>4</sup>*

### Abstract

The study aimed to examine of worry level in breast cancer and the factors that might be related to university students. This cross-sectional research was conducted on 347 female university students. The data was collected using the Descriptive Characteristic Form and Breast Cancer Worry Scale and evaluated with descriptive statistics and binary logistic regression analysis. The mean age of participants is  $20.65 \pm 2.18$  (min-max =18-37) and the mean score of the breast cancer worry scale is  $8.24 \pm 4.7$  (min-max=0-20). Among the factors affecting breast cancer worry include age (OR = 0.84,  $p = 0.040$ ), class (OR = 3.85,  $p = 0.049$ ), social security status (OR = 4.13,  $p = 0.042$ ), knowing the breast cancer risk factors (OR = 2.24,  $p = 0.036$ ) and have had a clinical breast examination before (OR = 3.05,  $p = 0.014$ ). It was determined that those who know breast cancer risk factors are 2.24 times more and those who have had clinical breast examinations are 3.05 times more worried about breast cancer. Examining the research findings reveal level of breast cancer worry is low among university students. Additionally it is seen that 26.5% of students have worries. Also, it was found that breast cancer worry is affected by situations like age, social security, knowing the breast cancer risk factors, and having had a clinical breast examination before.

**Keywords:** Breast cancer, worry, anxiety, student.

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Effects of Primary Care Family Medicine Practice on Nursing Services: Literature Review

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*Nurcan AKGÜL GÜNDOĞDU<sup>2</sup>*

### Abstract

Within the scope of the Health Transformation Program, the decision to implement Family Medicine was made with the decision published in the Official Gazette dated 09.12.2004 and numbered 25665, and nurses, midwives, and health officers started to work in family health centers under the name of family health personnel in 2005. The purpose of this review is to reveal the current situation by examining the work done by nurses in family health centers and to examine their duties, powers, and responsibilities in line with laws and regulations.

The literature review was carried out by examining all studies published since January 2007 in Google Scholar and Science Direct databases with the keywords "nurse, family medicine, family health personnel, nursing law, nursing regulation". In the literature review, 35 articles were included in the review.

Nurses; In cases where there is no medical secretary, authorized to ensure coordination of referred patients with the institution to which they are referred, and to perform other duties assigned by the institution and the family physician; It states that there is a passive, dependent role definition. In addition, the duties and responsibilities of the nurse specified in the Law on Socialization of Health Services are carried out entirely within the family health center.

Nurses in family health services; It has positive social roles in improving health monitoring by registering all members of the society, protecting maternal and child health by increasing the frequency of monitoring pregnant women, babies and children, and providing better communication with the public. However, there are negative situations such as increased workload, deficiencies in the patient registration system, inadequate implementation of preventive health services, and contracted working conditions.

**Keywords:** Nurse, family medicine, family health personnel, nursing law, nursing regulation

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## The Role of Nurses' Professional Commitment on Attitudes Towards Scientific Research

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Cevriye ÖZDEMİR<sup>2</sup>  
Necmi BAYKAN<sup>3</sup>*

### Abstract

Nurses' commitment to their profession may contribute to their willingness to learn new information and research. The aim of this study was to evaluate the potential of professional commitment to affect nurses' attitudes towards scientific research.

This study was conducted as a cross-sectional descriptive study. Institutional permission was obtained from the local university ethics committee and the hospital where the study was conducted. The data were collected face-to-face in a city hospital in a province in the Central Anatolia Region of Turkey. The data were collected between December 2023 and April 2024 and 105 nurses working in the hospital were included in the study. Post-hoc power analysis was performed for the adequacy of the sample size. The data were collected using the Descriptive Characteristics Information Form, Nursing Professional Commitment Scale and Attitudes Toward Scientific Research Scale. Parametric and nonparametric tests and linear regression analysis were used to analyze the data.

As a result of the analyzes, it was proved that nurses' professional commitment is an effective factor on their attitudes towards scientific research. Nurses' professional commitment is affected by gender, educational status and satisfaction with working in their department. The personal factors affecting their attitudes towards scientific research are educational status and satisfaction with working in their department.

These results indicate that higher levels of professional commitment of nursing professionals may support their positive attitudes towards scientific research. As a result, educational and management strategies should be determined and implemented to increase nurses' professional commitment and improve their attitudes towards scientific research.

**Keywords:** Attitude, nursing, nurse, professional commitment, scientific research

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Use Of Artificial Intelligence In Surgical Nursing

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Elif GEZGİNÇİ<sup>2</sup>*

### Abstract

With the advancement and widespread use of artificial intelligence (AI) worldwide, its effects and importance in the healthcare sector are increasingly significant. The impact of AI utilization in healthcare on the diagnosis and treatment process of diseases is clearly evident. AI applications are employed in various areas such as radiological imaging, medication tracking, education of healthcare professionals and students, early diagnosis, detection of complications, improvement in treatment and care practices, among others. Surgical units, which encompass many of these areas, are the most commonly utilized fields of AI in the healthcare sector and its impact on surgical nurses can be observed due to its easier integration compared to other areas. This impact has both positive aspects as well as negative effects on nurses such as stress, anxiety, and concerns. This article provides a literature review on the use of AI-based technologies in clinical practice for surgical nurses. Through this review, it has been observed that AI facilitates preoperative diagnosis, ensures correct intervention during surgery, and contributes to patient monitoring and treatment process planning post-surgery. All these processes are closely related to surgical nursing, and nurses should be supportive and dedicated to integrating their experiences into AI for the development of AI and new technologies. Additionally, it is believed that more research is needed on the reliability and effectiveness of AI systems.

**Keywords:** Surgery; surgical nursing; nursing; technology; artificial intelligence.

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## The Effect of Sleep Hygiene Training Given To Epilepsy Patients on Seizure Frequency and Sleep Quality: An Experimental Study Protocol with A Pre-test Post-test Control Group Trial Model.

*Dilek GELİN<sup>1</sup>  
Sıdıka OĞUZ<sup>2</sup>*

### Abstract

### Keywords:



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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Evaluation of Operating Room Nurses' Attitudes and Knowledge To Prevent Pressure Injuries

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Eda KURAL<sup>2</sup>

Hatice AYHAN<sup>3</sup>

### Abstract

This study aimed to evaluate the attitudes and knowledge level of operating room nurses to prevent pressure injuries (PIs) in this study.

This descriptive and cross-sectional study was conducted by 50 operating room nurses, who worked in a research and training hospital between 01.01.2024- 01.05.2024. "Personel Information Form", the Turkish version of "Attitude Towards Pressure Ulcer Prevention Instrument (APuP)" and "Pressure Ulcer Prevention Knowledge Assessment Instrument "(PUPKAI-T) were used as data collection tools. The mean age of the participants was 37.40±6.24, and the mean of total professional year and operating room professional year respectively 14.24±7.74 and 10.90±27.99. The average score on APuP was 30.24 ±4.95 (out of 52 points %58.15) and score on PUPKAI-T was 12.86±3.89 (out of 26 points % 49.46). As nurses' total professional year and operating room professional year increased, their APuP scores increased and their PUPKAI-T scores decreased. There was a weak negative relationship between nurses' previous care for patients with PI and APuP (rs= -0.334; p= 0.018).

It was determined that the operating room nurses' knowledge about preventing pressure injuries was not an acceptable level and their attitudes were not at a satisfactory level. Training strategies and intervention's purpose to increase the knowledge of nurses and develop positive attitudes should be developed to improve practices to prevent PIs.

**Keywords:** Operating room nurse, pressure injury, prevention, attitude, knowledge

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## A Qualitative Study on Obese Individuals: What Do They Experience? How Do They Feel? What Are Their Expectations?

*Rukiye BURUCU<sup>1</sup>*

*Melike DURMAZ<sup>2</sup>*

### Abstract

Obesity is a significant health issue that profoundly affects an individual's overall well-being. Individuals with obesity often engage in various initiatives to both enhance their health and achieve weight loss. However, these efforts can, for various reasons, culminate in unsuccessful outcomes.

The aim of this research is to identify the experiences of individuals with obesity, their efforts to overcome obesity, and their recommendations for the field.

In this qualitative study, research data were collected through in-depth individual interviews conducted face-to-face between May and July 2022. The sample consisted of 12 individuals. Traditional qualitative data analysis and Collaizi's phenomenological interpretation method were employed. Ethical approval was obtained from the ethics committee, and written consent was obtained from the participants. The research was reported in accordance with the 'Consolidated Criteria for Reporting Qualitative Research' criteria.

The average age of the individuals was  $56.58 \pm 7.07$ , with a Body Mass Index (BMI) of  $48.69 \pm 10.41$ , and the majority (83.3%) were female. It was identified that obese individuals have had some negative experiences and predominantly employed methods such as increased physical activity and dietary modifications for weight loss. The experiences of the patients were grouped into a total of 370 codes, 14 categories, and 5 themes.

It is recommended to enhance nurses' awareness of the sensitivities of obese individuals and encourage them to provide considerate care. Health service institutions should also make physical adjustments with obese individuals in mind. Planning initiatives aimed at the prevention and reduction of obesity could further contribute to addressing this issue.

**Keywords:** Obesity, experience, nurse, difficulty, qualitative

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Examination of Person-Centered Perioperative Nursing Approaches of Nurses Working in Surgical Clinics

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*Altun BAKSİ<sup>2</sup>*  
*Şeyma Nur AKBAŞ<sup>3</sup>*  
*Havva Nur AKYÜREK<sup>4</sup>*

### Abstract

Person-centered care is a holistic health care approach that evaluates the individual and the patient's condition together. The role of surgical nurses is of significant importance in the process of providing holistic care to patients. The objective of this study is to investigate the person-centered perioperative nursing approaches of nurses working in surgical clinics and the factors that influence them. The study was conducted with 120 nurses working in surgical clinics of a public and a state hospital in a central province in Turkey. Data were collected using a demographic information form and the Person-Centered Perioperative Nursing Scale. The statistical analysis employed T-test/Mann-Whitney U test, one-way ANOVA/Kruskal-Wallis, and Pearson correlation analysis. The research was conducted with ethical approval, institutional permissions, and voluntary consent forms. A total of 90% of the nurses participating in the study were female. Furthermore, 75.8% had graduated from university. In terms of their perception of person-centered perioperative care, 64.2% of nurses stated that they provide this care, allocating a mean of  $1.33 \pm 0.68$  hours (0-4) for care during an eight-hour working period. The results indicate that there are statistically significant differences in nurses' approaches to person-centered perioperative nursing, with respect to age, educational background, duration of professional and surgical clinic experience, clinic of employment, time allocated for care, provision of preoperative and post-discharge education to patients, belief in delivering person-centered perioperative care, and membership in a surgical nursing association. The nurses demonstrated a high level of performance on the Person-Centered Perioperative Nursing Scale. It is recommended that nurses' knowledge be enhanced through education in order to improve person-centered perioperative care. Furthermore, participation in surgical nursing associations may facilitate enhanced awareness of patient care.

**Keywords:** Person-centered care, Perioperative nursing, nursing care, surgical nursing

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Entire Papilla Preservation Technique: A Case Report

Özgür ÖZGÖREN<sup>1</sup>  
İsmail TAŞDEMİR<sup>2</sup>

### Abstract

**Objective:** One of the most important goals of periodontal treatments is the regeneration of periodontal tissue loss due to various reasons. For this purpose, various materials and techniques have been developed until today. One of the most important issues in regenerative surgical techniques is to preserve the existing tissues in the most atraumatic and minimally invasive way, thus maximizing healing. For this purpose, one of the current techniques developed by Dr. Serhat Aslan, the entire papilla preservation technique, preserves the papillary in the defect area, prevents postoperative exposure of the biomaterial placed in the area and minimizes postoperative tissue loss by providing better tissue blood supply, supporting healing.

**Case Presentation:** A 43-year-old female patient was admitted to our clinic with the complaint of diastema between teeth. In the anamnesis, it was learned that she did not have any systemic disease and did not smoke. In the clinical examination, it was determined that the patient had chronic periodontitis, advanced attachment loss in the region of teeth 11-12, which the patient especially complained about, and Miller class I mobility in tooth 12. Radiographically, advanced bone loss and bone defects were seen in the region. Following the initial treatment, it was decided to apply a xenogenic biomaterial (Osteobiol) to the bone defect in the relevant area with the entire papilla preservation technique.

**Results:** Measurements 1 month after the sutures were removed showed that the pocket depths, which were 6-7mm at the initial examination, decreased to 2mm, reaching normal healthy limits, and an attachment gain of about 4mm was observed.

**Conclusion:** The entire papilla preservation technique offers good advantages in the regenerative treatment of intrabony defects, both in terms of providing a protected area for the biomaterial, ensuring good nutrition of the tissues in the defect area, and preventing postoperative papillary loss.

**Keywords:** Entire Papilla Preservation, Regenerative Therapies, Biomaterials, Bone defects, GTR

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Aesthetic Rehabilitation with Composite Resin in Anterior Teeth: A Case Report

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### Abstract

The aesthetic presentation of anterior teeth significantly impacts an individual's self-esteem, social interactions, and overall oral function. Discoloration and interproximal caries affecting these teeth are common aesthetic concerns often caused by factors like poor oral hygiene, crowding, and dental anomalies. This case report demonstrates the effective aesthetic rehabilitation of carious lesions in various locations using direct composite resin restorations.

Two cases are presented: a 24-year-old female patient with blackish discoloration on the mesial surfaces of teeth #11 and #21 affecting the midline, and a 47-year-old male patient with caries on tooth #21 impacting his upper anterior aesthetics. Following comprehensive clinical and radiographic examinations, direct composite resin restorations were chosen for both cases due to their minimally invasive nature, cost-effectiveness, and ability to be completed in a single appointment.

In the first case, after caries removal and etching with 37% phosphoric acid, a two-step self-etch adhesive system (3M Single Bond Universal) was applied, followed by restoration of the affected areas using a direct composite resin material (GC G-aenial Anterior) with a free-hand technique. The second case involved similar caries removal and etching procedures, followed by the application of the same adhesive system and composite material to restore the mesial and distal surfaces of tooth #21. Both cases utilized sectional matrices for proper contouring and isolation. Finishing and polishing procedures were performed for optimal aesthetics, and both patients were scheduled for a follow-up appointment one week later.

Direct composite resin restorations provide an efficient and aesthetically pleasing solution for managing anterior tooth discoloration and caries. This technique allows for conservative tooth preparation, natural-looking results, and improved patient satisfaction and oral health-related quality of life.

**Keywords:** Aesthetics, anterior teeth, composite resin, minimally invasive dentistry

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Evaluation of Salivary MicroRNA-142-3p and MicroRNA-21 Gene Expression Before and After Periodontal Treatment in Individuals with and without Type 2 Diabetes Mellitus Diagnosed with Periodontitis

Aslı ŞENER<sup>1</sup>

Figen ÖNGÖZ DEDE<sup>2</sup>

İpek ALAZCIOĞLU<sup>3</sup>

### Abstract

Periodontitis is a chronic inflammatory disease that begins with the interaction between the dysbiosis of the oral microbiota and innate and adaptive immunity, causing destruction of periodontal tissues. Diabetes mellitus, a metabolic disorder marked by hyperglycemia and insulin resistance, increases the risk of periodontitis. MicroRNAs (miRNAs) play roles in diabetes aetiology and complications, suggesting their involvement in regulating inflammation. This study investigates miR-142-3p and miR-21 levels in salivary of patients with periodontitis and type 2 diabetes mellitus before and after non-surgical periodontal treatment (NSPT).

Forty-five individuals (23 females, 22 males, mean age: 39.86±7.49) aged 25-55 were categorized into periodontitis with type 2 diabetes mellitus (Group 1), systemically healthy periodontitis (Group 2), and systemic and periodontal health groups (Group 3). Non-surgical periodontal treatment (NSPT) was administered to periodontitis patients. Saliva samples and clinical parameters were collected at baseline and 6 weeks post-NSPT.

Pre-treatment analysis showed significantly higher salivary miR-142-3p and miR-21 expression in Groups 1 and 2 compared to Group 3 ( $P<0.05$ ). No significant difference was observed between periodontitis groups (Groups 1 and 2) at baseline ( $P>0.05$ ). Salivary miR-142-3p and miR-21 levels significantly decreased compared to baseline in periodontitis groups (Groups 1 and 2) after NSPT ( $P>0.05$ ).

Salivary miR-142-3p and miR-21 expression were upregulated in systemic health and diabetes mellitus-associated periodontitis, decreasing after non-surgical periodontal treatment. Analyzing salivary miRNA levels may help elucidate the periodontitis-diabetes relationship.

**Keywords:** miR-142-3p, miR-21, Type 2 diabetes, Periodontitis, Periodontal Treatment

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Comparison Of The Accuracy Of Two Different Apex Locators For Canal Length Detection In Primary Teeth: An In Vitro Study

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Nilay YILMAZ<sup>3</sup>

Hatice HATIPOĞLU<sup>4</sup>

### Abstract

This study compared the accuracy of the mini apex locator and mini type III in the presence of sodium hypochlorite (NaOCl) in primary molars with and without apical resorption.

Sixty-four lower molar teeth were studied, with 32 exhibiting root resorption and 32 without. To determine the actual working length (AWL), a K-file is inserted into the root canal until the tip is visible at the main foramen or resolution level. The object was moved back by a distance of 1 mm. This distance is noted down as AWL. First, the teeth were divided into subgroups based on whether or not they were treated with NaOCl. Then, the apex locators was used to determine the electronic working length in each group. A K file was inserted into the canal until it reached just beyond the foramen, as indicated by the flashing "APEX" bar. The electronic working length was determined by subtracting 1 mm from this length. The deviation of the apeks locators measurement from the actual working length was recorded. The data was analyzed using the students' t-test.

In teeth without resorption, the accuracy rates of the non-NaOCl and NaOCl groups at +/-0.5 mm were 84.37% and 81.25%, respectively ( $p > 0.05$ ). At +/-1 mm, the rates were 100% and 96.87%, respectively ( $p > 0.05$ ). In teeth with resorption, the accuracy rates at +/-0.5 mm were 81.25% for non-NaOCl and 62.50% for NaOCl ( $p < 0.05$ ). At +/-1 mm, the rates were 96.87% and 84.37%, respectively ( $p < 0.05$ ). The results showed that the accuracy of two apex locators was affected by the presence of NaOCl in teeth with apical resorption but not in teeth without resorption.

**Keywords:** kök ucu, diş rezorbsiyonu, sodyum hipoklorit, apeks bulucu

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Melkersson-Rosenthal Syndrome : A Case Report

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Esra ÖNCÜ<sup>2</sup>*

### Abstract

Melkersson Rosenthal Syndrome (MRS) is a neuro-mucocutaneous granulomatous disease of unknown etiology. It is characterized by a triad of recurrent peripheral facial paralysis, orofacial edema and fissured tongue. In this case report, we present a 32-year-old woman who was admitted to our hospital with the diagnosis.

A 32-year-old female patient was admitted to our hospital with edema in the upper lip, presence of fissured tongue and dental complaints. In the anamnesis, it was learned that the patient had recurrent facial paralysis, was diagnosed with MRS years ago, started the necessary treatments and continued the treatment. Oral and dental examination was performed by us and information was given about the problems and solutions that may occur due to the syndrome.

The first and most common symptom of MRS is orofacial edema, which is present in 80% to 100% of cases. The second of the classical triad is recurrent facial paralysis, which initially develops intermittently and may become permanent over time. In case of spontaneous recurrence of this condition, which may occur after dental treatment in some cases, the patient should be followed up, should not be ignored, should be considered in the differential diagnosis and should be consulted when necessary. Although the presence of fissured tongue has not been reported as an initial finding in any publication, it is a condition that should be considered in routine dental examinations and dentists should support patients to continue their lives in a more comfortable way by making the necessary referrals to the diagnosed patients.

**Keywords:** melkersson rosenthal syndrome, dentistry, orofacial edema, facial paralysis, fissured tongue,

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Warthin's Tumor: A Case Report

*Sümeyye DEMİR<sup>1</sup>*

*Kübra TÖRENEK AĞIRMAN<sup>2</sup>*

*Fatma ÇAĞLAYAN<sup>3</sup>*

### Abstract

Warthin's tumor, a benign neoplasm of the salivary glands, is the second most common tumor after pleomorphic adenoma among other benign tumors. It is found in middle-aged patients and is most commonly found in the parotid gland. It is 26 times more common in men than in women. It is strongly associated with smoking. The aim of our case report is to present the clinical, radiological and histopathological findings of a case in which Warthin's tumor was detected.

56-year-old female patient; she applied to our clinic with the complaint of a hard swelling in the extraoral right buccal region that had been going on for a year. There was no pain or other symptoms on clinical examination. No cervical lymphadenopathy or other abnormal findings were found. Advanced imaging techniques were also used for radiographic examination. In the patient whose cone beam computed tomography (CBCT) was performed, no perforation area or change was observed in the hard tissues adjacent to the lesion. A solid lesion with a heterogeneous appearance and peripheral blood supply was observed on ultrasonography (USG). The patient underwent an extraoral fine needle aspiration biopsy under ultrasonography guidance. The pathology result was evaluated in favor of Warthin's tumor. Based on imaging and biopsy findings, the patient was diagnosed with Warthin's Tumor. Surgical excision was recommended.

While the combined use of ultrasonography and fine needle aspiration biopsy in soft tissue lesions increases the diagnostic success of ultrasonography; It enables fine needle aspiration biopsy performed under ultrasound guidance to be performed more easily and in a shorter time. In this way, a rapid and definitive diagnosis can be made.

**Keywords:** Benign Neoplasm, Fine Needle Aspiration Biopsy, Parotid Gland, USG, Warthin's tumor.

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## The Role and Applications of Large Language Models in Orthodontics

*Gizem BOZTAŞ DEMİR<sup>1</sup>*

### Abstract

Large language models (LLMs) are introducing significant innovations in healthcare through rapid advancements in artificial intelligence and machine learning. In specialized fields like orthodontics, LLMs have various applications and hold considerable potential for orthodontic treatment processes. LLMs can contribute to automating patient records and documentation processes, enhancing the efficiency of orthodontists. This automation reduces errors and saves time. Analyzing digital data and radiographs supports the planning of complex cases and helps in creating more precise treatment plans. In education and training, LLMs can help identify best practices and new treatment methods by analyzing large datasets. This facilitates access to the latest technologies and methods for orthodontic students and professionals. Additionally, LLMs can facilitate more effective and personalized communication with patients through chatbots and interactive tools. Such tools can quickly and accurately answer patient questions, increasing patient satisfaction. By analyzing large datasets, LLMs may positively impact treatment outcomes and patient satisfaction, allowing for continuous improvement of treatment processes. These applications of LLMs have the potential to increase efficiency and effectiveness in orthodontic practice and improve patient care and treatment quality. Furthermore, as the use of LLMs becomes more widespread, clinical decision support systems can further evolve, leading to more personalized treatment options. These technologies can enhance clinical practice and make patient care more effective and efficient.

**Keywords:** Artificial Intelligence, Orthodontics, Large Language Models

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Epulis Fissuratum: A Case Report

*Zeynep TURANLI TOSUN<sup>1</sup>  
Kübra TÖRENEK AĞIRMAN<sup>2</sup>*

### Abstract

Epulis Fissuratum (Inflammatory Fibrous Hyperplasia) is a hyperplastic thickening of the fibrous tissue of the alveolar crest and oral mucosa due to chronic traumatic irritation. The aim of our study is to present the clinical, radiological and histopathological findings of a case in which epulis fissuratum, which is more frequently seen due to poorly fitting dentures, occurred independently of denture use.

In this study, a 23-year-old female patient applied to the clinic with complaints of gum swelling and pain in tooth number 46 for more than 3 months. In the clinical examination, there was a lesion area with a bleeding surface, starting from the distal of tooth 45 and covering the occlusal surface of tooth 46. In the panoramic radiograph taken from the patient, there was a radiolucent lesion area at the apical and between the roots of tooth 46 with deep caries, and cone beam computed tomography (CBCT) During the examination, expansion and perforation areas were determined in the buccal and lingual cortical bones. In the ultrasonography (USG) examination, a solid lesion area with undefined borders, isoechoic structure, and internal blood supply was observed. The lesion area, which was thought to be diagnosed as pyogenic granuloma as a result of clinical and radiological examination, was surgically excised. In the histopathological examination, the diagnosis of epulis fissuratum was made.

Clinical and radiological examination have an important place in the diagnosis of the disease, but histopathological examination is required for the definitive diagnosis of oral lesions. This case of Epulis fissuratum, which occurs independently of the use of prosthesis, is rare in the literature and should be considered in the differential diagnosis of lesions such as pyogenic granuloma and peripheral giant cell granuloma.

**Keywords:** Epulis Fissuratum, Inflammatory Fibrous Hyperplasia, Clinical and radiological findings, Chronic Traumatic Irritation, USG

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## "Beyond Innovation: Modern Treatment Of Tooth Loss With All-On-Four"

*Şenel ÇAVUŞOĞLU<sup>1</sup>*

### Abstract

Implants are biocompatible artificial roots used to replace lost teeth. Tooth loss can lead to issues such as lack of self-confidence, aesthetic concerns, and difficulties in nutrition for individuals. Implants mimic the function of natural teeth, preventing atrophy in the jawbone and preserving bone density. Options for implant-supported prostheses include fixed and removable prostheses. While fixed prostheses offer a sensation similar to natural teeth, removable prostheses may be preferred due to their cost-effectiveness and ease of maintenance. The choice of implants should consider factors such as the patient's jaw structure, bone quality, bone density, the location for implant placement, retrievability of restorations, economic considerations, and aesthetic expectations. The All-on-Four treatment, which does not require bone grafting and can be applied quickly, is ideal for patients with reduced bone density.

The All-on-Four concept represents a revolutionary development in dental implantology. This method offers a promising alternative particularly for patients with advanced bone loss who are not suitable for traditional implants. Clinical and radiographic studies support the long-term success rates of All-on-Four and its positive impact on patients.

The All-on-Four implant system operates on the principle of utilizing bone tissue in the cutting and small molar areas of individuals with bone insufficiency in the posterior regions of the jaws, with angled implants in the back and axially positioned implants in the front to support a fixed prosthesis. If the implants have sufficient primary stability, an immediate loading protocol is applied where the patient's healing process is completed with temporary fixed prostheses immediately after the surgical procedure, and permanent prostheses are placed at the end of the osseointegration process.

All-on-Four continues to be a groundbreaking innovation in the field of dental implantology. With advancements in technology and material science, this treatment method is expected to become widespread in clinical practices.

**Keywords:** All-on-Four, dental implant, complete toothlessness, bone graft, cost-effectiveness, rapid recovery

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Drug (Amlodipine) Induced Gingival Enlargement: A Case Report

Özgür ÖZGÖREN<sup>1</sup>  
İsmail TAŞDEMİR<sup>2</sup>

### Abstract

One of the causes of gingival overgrowth is the active ingredients in the drugs used. Amlodipine is an active ingredient used in calcium channel blocker antihypertensive drugs that can cause gingival enlargement as a side effect. The aim of this case report is to present the healing process of gingival overgrowth due to the use of an amlodipine-containing drug, after changing the drug and non-surgical periodontal treatment with photographs.

A 54-year-old female patient was admitted to our clinic with complaints of bleeding, gingival enlargement and sensitivity. In the anamnesis, it was learned that she had hypertension and had been taking Norvasc 5mg tablets once a day for about 15 years. Clinical examination revealed the presence of dense plaque, extensive gingival enlargement, redness and bleeding. A consultation was requested from her doctor and was asked whether it was possible to change her current amlodipine-containing medication. The doctor responded positively and changed the medication to an ACE inhibitor antihypertensive drug (Coversyl 10mg/2.5mg) with, perindopril-indapamide active ingredient. The patient was given the necessary oral hygiene education and after using the new medication for 1 month, 3 sessions of scaling and root planning procedures were performed under local anesthesia in our clinic. In the 2-month follow-up of this case; it was determined that the gingival growths and signs of inflammation disappeared, and the patient's clinical complaints were relieved.

In such patients, if possible, an alternative drug should be given to the patients in the first place, and then periodontal treatments should be performed to make the tissues healthy. Afterwards, gingival growths that can cause serious problems in terms of both functional and aesthetic should be prevented with good oral hygiene.

**Keywords:** Amlodipine, Drug-induced gingival overgrowth, Antihypertensives, Calcium channel blockers, gingival hyperplasia

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Çocuk Diş Hekimliğinde Yapay Zekâ Uygulamaları

*Esra Nur AKGÜL<sup>1</sup>*

*Burcu GÜÇYETMEZ TOPAL<sup>2</sup>*

### Abstract

Artificial intelligence is defined as the ability of a machine to imitate human behavior to perform complex tasks such as problem solving, decision making and object detection. Recently, with the developments in computer technology, deep learning, and machine learning which are sub-branches of artificial intelligence, have been used in many fields including healthcare. The applications of artificial intelligence in medicine and dentistry have the potential to be a game-changer in terms of diagnostic accuracy and patient care. Artificial intelligence currently serves a variety of purposes in dentistry, such as the identification of normal and abnormal structures, diagnosis of diseases and prediction of treatment outcomes. Furthermore, artificial intelligence is widely used in dental laboratories and plays a significant role in dental education. The use of artificial intelligence in pediatric dentistry has the potential to improve patient care by providing more objective and accurate information to dentists. For child's oral health and general wellbeing, early detection and control of oral diseases is very essential. So far, artificial intelligence has been used in many areas in pediatric dentistry, such as automated detection and numbering of teeth, detection of mesiodens, diagnosis dental caries, detection of dental plaque, detection and categorization of fissure sealants and chronological age estimation. Thus, the aim of this study was to review the various applications of artificial intelligence in pediatric dentistry.

**Keywords:** Artificial Intelligence, Machine Learning, Deep Learning, Neural Networks, Pediatric Dentistry

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## The Impact of Pre-heating on Newly Marketed Dental Composites: A Pilot Study

*Musa Kazım ÜÇÜNCÜ<sup>1</sup>*

### Abstract

The objective was to investigate the effect of pre-heating process on the surface roughness and microhardness of the dental composites before polymerization.

The study was conducted using a total of 40 composite discs, each with a thickness of 2 mm and a diameter of 6, half of which were fabricated with pre-heating, while the other half were prepared without pre-heating. Composite discs of one-shade (Zen Chroma, President Dental) and microhybrid (Pergamon, Dentac) types were prepared using Teflon molds (n=5; each per group). The pre-heating process was carried out in the T1 mode (39°C) of the device (Ena Heat, Micerium). The discs were then kept in an incubator at 37°C for 24 h prior to the measurements. Microhardness measurements were performed using the Vickers test method (VHN), while surface roughness (Ra) measurements were conducted using a contact profilometer.

Pre-heating reduced the VHN in both composites. When comparing the two composites, there was no statistically significant difference in the values before pre-heating; however, a significant difference was observed after pre-heating ( $p < 0.0001$ ). In terms of Ra, Zen Chroma became smoother with pre-heating ( $p > 0.05$ ), while the Ra value of Pergamon increased ( $p > 0.05$ ).

The pre-heating process can significantly influence the mechanical properties of dental composites, potentially having both positive and negative effects.

**Keywords:** Dental composite, Pre-heating, Surface microhardness, Surface roughness, VHN

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Evaluation of the Relationship between Adherence to the MIND Diet, Sleep Quality, and Depression in Adult Individuals

*Neslihan KOÇAK<sup>1</sup>*

*Sevil KARAHAN YILMAZ<sup>2</sup>*

### Abstract

The purpose of the study is to evaluate the relationship between adults' MIND diet adherence, sleep quality, and depression. Individuals aged 18-65 living in Turkey participated in the study voluntarily. Data in the study were obtained using the Descriptive Characteristics Form, "Adult Semi-Quantitative Food Frequency Questionnaire" to determine food consumption frequency, Pittsburgh Sleep Quality Index (PSQI) and Beck Depression Scale. 312 adults, 148 (47.4%) men and 164 (52.6%) women, with an average age of  $31.1 \pm 10.6$  years, participated in their search. The adults' PSQI score was  $7.2 \pm 2.9$ . It was found that 66.9% of the participants, 55.1% of male adults and 77.4% of female adults had poor sleep quality. The average Beck Depression scale score of adults was calculated  $16.4 \pm 12.0$ . Of these, 104 (33.3%) were normal, 99 (31.7%) were mildly depressed, 56 (17.9%) were moderately depressed, and 53 (17.1%) were severely depressed. Participants in the study had an average MIND diet adherence score of  $7.1 \pm 1.2$ . Of them, 33.7% within the range of 4-6, 34.0% within the range of 7, and 32.3% within the range of 8-11. There was a significant correlation ( $p < 0.05$ ) between the average age, PSQI score and classification, and Beck Depression Scale score and MIND diet adherence. It appears that age has a moderate statistically significant relationship with PSQI (0.353) and a weak relationship with adherence to MIND diet (0.243). It was determined that PSQI was weakly correlated with the Beck Depression Scale (0.177) and weakly negatively correlated with adherence to MIND diet (0.178). Beck Depression Scale and MIND diet adherence (0.136) have a weak negative correlation. It is seen that a higher MIND diet adherence score is correlated with lower PSQI and Beck Depression Scale scores, thus sleep quality will be better and the level of depression will decrease.

**Keywords:** MIND diet, sleep quality, depression, adults.

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Investigation of Serum Nitric Oxide Levels in Circadian Rhythm Impaired Experimental Animals

*Zeynep Nur ATASOY<sup>1</sup>*  
*Mehtap ÜNLÜ SÖĞÜT<sup>2</sup>*  
*Sevtap KABALI<sup>3</sup>*

### Abstract

Circadian rhythm, which is regulated by the hypothalamic suprachiasmatic nucleus (SCN), the central clock, is defined as the repetition of biochemical, physiological and behavioural rhythms that occur in living organisms as a result of the 24-hour movement of the earth. Nitric oxide (NO) has been shown to be an extracellular modulator of photic transduction in the SCN. In this study, it was aimed to investigate the effect of circadian rhythm disruption, which was predicted by reversing the light/dark cycle every two weeks, on NO levels in experimental animals. Sixteen 8-10 week old male BALB/c mice were used in the study. Mice were divided into two groups as control (CON, n=8) and circadian rhythm disrupted (SRD, n=8). All mice were fed with standard pellet feed during the experiment. The mice in the KON group were housed in standard environmental conditions without any intervention for 16 weeks. In the SRB group, the light/dark cycle was changed every two weeks throughout the experiment. At the end of the experiment, blood was taken from the mice and serum samples were obtained. NO concentrations were determined using commercially available enzyme-linked immunosorbent assay kits according to the manufacturer's recommendations. Accordingly, the mean serum NO concentrations of the CON and SRB groups were determined as  $23.8 \pm 9.83 \mu\text{mol/L}$  and  $20.8 \pm 7.43 \mu\text{mol/L}$ , respectively. The decrease in NO concentration of the SRB group was not statistically significant ( $p=0.522$ ). It was concluded that the circadian rhythm disruption caused by changing the light/dark cycle caused a decrease in NO levels, although not statistically significant.

**Keywords:** Circadian rhythm, suprachiasmatic nucleus, nitric oxide

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Investigation of Serum Nitric Oxide Levels in Circadian Rhythm Impaired Experimental Animals

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### Abstract

Circadian rhythm, which is regulated by the hypothalamic suprachiasmatic nucleus (SCN), the central clock, is defined as the repetition of biochemical, physiological and behavioural rhythms that occur in living organisms as a result of the 24-hour movement of the earth. Nitric oxide (NO) has been shown to be an extracellular modulator of photic transduction in the SCN. In this study, it was aimed to investigate the effect of circadian rhythm disruption, which was predicted by reversing the light/dark cycle every two weeks, on NO levels in experimental animals. Sixteen 8-10 week old male BALB/c mice were used in the study. Mice were divided into two groups as control (CON, n=8) and circadian rhythm disrupted (SRD, n=8). All mice were fed with standard pellet feed during the experiment. The mice in the KON group were housed in standard environmental conditions without any intervention for 16 weeks. In the SRB group, the light/dark cycle was changed every two weeks throughout the experiment. At the end of the experiment, blood was taken from the mice and serum samples were obtained. NO concentrations were determined using commercially available enzyme-linked immunosorbent assay kits according to the manufacturer's recommendations. Accordingly, the mean serum NO concentrations of the CON and SRB groups were determined as  $23.8 \pm 9.83$   $\mu\text{mol/L}$  and  $20.8 \pm 7.43$   $\mu\text{mol/L}$ , respectively. The decrease in NO concentration of the SRB group was not statistically significant ( $p=0.522$ ). It was concluded that the circadian rhythm disruption caused by changing the light/dark cycle caused a decrease in NO levels, although not statistically significant.

**Keywords:** Circadian rhythm, suprachiasmatic nucleus, nitric oxide

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Nutritional Support in Neurodegenerative Diseases

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### Abstract

Although the etiopathogenesis mechanisms of neurological diseases are not yet fully clear, there is a multifaceted interaction. It is thought that the elements that make up these interactions (social, environmental, physiological, anatomical and genetic) may play a role. Malnutrition is observed in these patients due to decreased food intake (dysphagia, gastrointestinal disorder, depression, etc.) and changes in energy consumption due to medication and disease. For this reason, it is stated that there is a direct relationship between nutrition and neurological diseases. Some nutritional factors play a role in the pathogenesis of neurological diseases. Patients with neurological diseases may be at risk for nutritional disorders due to inadequate and unbalanced nutrition. Especially macro and micronutrient deficiency is associated with protein-energy deficiency. In addition, insufficiency of these nutrients causes a decrease in the functions of the immune system. Adequate and balanced nutrition is thought to have an effect on preventing neurological diseases, reducing disease symptoms and progression, and improving quality of life. Additionally, neuroinflammation is very commonly observed in neurological patients. It is recommended to consume anti-inflammatory and antioxidant nutritional supplements against neuroinflammation. These nutritional supplements may contain micronutrients (such as A, C, E, D and B group vitamins and Se, Fe, Cu, Zn, Mg). In this context, medical nutrition therapy plays an important role in the treatment process of patients with neurological diseases. This review was evaluated to emphasize the importance of medical nutrition therapy and nutritional nutrition support in chronic neurological diseases such as dementia, migraine, Parkinson's disease, epilepsy, Alzheimer's and multiple sclerosis and to draw attention to the subject.

Keywords: Neurodegenerative Diseases, Neuroinflammation, Nutrition, Macronutrient, Micronutrient

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Relationship between Circadian Rhythm and Obesity

Çisener PIÇAK<sup>1</sup>

### Abstract

The daily rhythms that persist for periods of approximately 24 hours under constant conditions are known as circadian rhythm, and it is hypothesized that organisms have developed it as a means of adapting to the day-night cycle. Circadian rhythm irregularities occur when our internal clocks fail to keep up with the conflicting information of the light/dark cycle and our behaviour. Deviation of circadian rhythms of sleep-wake timing has been associated with changes in appetite-regulating hormones and glucose metabolism in human studies. In addition to sleep-wake timing, there is a growing body of literature demonstrating the importance of eating timing in weight regulation. Nutrient-sensitive hormones, namely insulin, leptin, ghrelin and adiponectin, are released in a circadian rhythm and their oscillation is regulated by environmental stimuli such as eating timing and light-dark cycle. New evidence suggests that the gut microbiota also influences circadian rhythms and thus the metabolic homeostasis of the host. Studies have demonstrated that partial sleep deprivation or sleep fragmentation significantly reduces insulin sensitivity and that there are notable changes in microbial populations associated with obesity in these individuals. The concentration and composition of polyphenols in our diet may also influence host circadian rhythms by modulating the growth of intestinal commensals that produce bioactive short-chain fatty acids or polyphenolic metabolites. Given the important role of circadian timing in regulating many of the body's functions, it is not surprising that disturbances in the temporal relationship between nutrition and other central and peripheral circadian rhythms may contribute to obesity. A good understanding of circadian clock metabolism and targeted approaches such as light therapy and chronotherapy may help to cope with the growing obesity pandemic.

**Keywords:** circadian rhythms, timing, appetite, hormones, obesity

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Effects of Nutrition Education on Dietary Habits and Dietary Fat Quality in University Students

*Şule ERHAN<sup>1</sup>*

*Sevtap KABALI<sup>2</sup>*

*Mehtap ÜNLÜ SÖĞÜT<sup>3</sup>*

*Yaren Sabah GÜL<sup>4</sup>*

*Nazlıcan BÜYÜKGÖKCE<sup>5</sup>*

### Abstract

In this study, it was aimed to investigate the nutritional habits and dietary fat quality of university students with and without nutrition education. This cross-sectional study was conducted between September 2023 and February 2024 with Ondokuz Mayıs University students, 40 of whom were studying in the Department of Nutrition and Dietetics and 37 of whom were studying in other departments (Nursing, Midwifery, Social Services, Audiology, Orthotics and Prosthetics, Language and Speech Therapy). The data of the students were collected with a face-to-face questionnaire form and anthropometric measurements and food consumption records were taken. The mean age of the individuals participating in the study was found to be 21.2±2.72 years. No significant difference was found between the body weight, height and BMI values of the students ( $p>0.05$ ). It was observed that those who did not have nutrition education skipped more main meals than those who have nutrition education. The daily energy, total fat and saturated fatty acid intakes of those who have nutrition education were statistically lower and dietary fat quality (FQI) was found to be statistically higher ( $p<0.05$ ). As a result, it was observed that nutrition education was associated with daily energy, total fat and saturated fatty acid intake. When the FQI values of the students were analysed, it was concluded that nutrition education had a significant effect on FQI. It is important for students to acquire correct eating habits in order to protect their health in the future periods of their lives, and for this purpose, it is thought that inadequacies in nutritional knowledge and behaviours should be eliminated with effective and planned nutrition education.

**Keywords:** Nutrition education, food consumption, dietary fat quality.

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## In vitro cytotoxicity of Peganum harmala extract on DLD-1 cell line

*Aybüke Afra BABACAN<sup>1</sup>  
Mehmet Arif İÇER<sup>2</sup>*

### Abstract

Peganum harmala is a cosmopolitan plant belonging to the wild caraway family. This plant that has been used in various periods of history, especially in the treatment of diseases. The smoke produced by burning the seeds has been experimentally shown to inhibit the growth of algae, bacteria, parasites and moulds. The main alkaloids of P. Harmala, play a role in the antibacterial and antidepressant effects of this plant. There is a strong bidirectional communication between the brain and the intestine through neural connections and hormones. Any alteration in this axis can lead to functional disorders in the bi-interactive system. The importance of signalling in the brain-gut axis for the effects of nutrition on mood, behaviour and cognition is now better understood. Therefore, the main aim of this study was to investigate the cytotoxic activity of the extract obtained from Peganum harmala plant on colon cells. For this purpose, cells were grown at 37°C with 5% CO<sub>2</sub> using RPMI medium for DLD-1 cell line and EMEM medium for CCD18-Co cell line. Cells were treated with Hibiscus Sabdariffa L. at different concentrations (100-50-25-12.5-6.25-3.125-1.56 µg/mL) for 24 hours. Percent cell viability (%) values and IC<sub>50</sub> values were calculated according to concentrations. The results showed that P. harmala had no cytotoxic effect on DLD-1 cancer cell line used in a concentration-dependent manner. Accordingly, the percentage of viability value of DLD-1 cell line ranged between 84.9-117.9% and did not show cytotoxic effect. IC<sub>50</sub> value could not be determined due to high concentration values. In this study, healthy cells and carcinomatous cells were investigated if they would be affected by the extract of P. harmala. Shows the CCD-18Co ve DLD-1 cell lines, it is clear that the plant extract didn't affect the healthy cells. The effects on human health need to be investigated with large-scale studies.

**Keywords:** Peganum harmala, nutrition, harmala, cancer, MTT analysis

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Bioactive Compounds in Sustainable Nutrition

*Fatma Elif EROĞLU<sup>1</sup>*

### Abstract

The concept of sustainability was defined in the report published by the World Commission on Environment and Development (WCED) by the United Nations in 1987 as ‘development that can meet today's needs and the needs of future generations and is not dangerous’. The sustainability approach aims to value people, ensure correct intergenerational transfer, support ecological and economic efficiency, and increase the level of welfare. It embraces the teachings of living in harmony with the environment, protecting natural balance and resources, replacing what we take from nature, and leaving a more livable world to future generations. The nutrition-sustainability relationship is in the process of consuming water, plant and animal resources as food in order to sustain life; In addition to the impact of processes in the supply chain such as production methods, harvesting, transportation, storage and packaging on climate change and the planet, the destruction of agricultural lands due to climate change, the decrease in marine organisms, the decrease in biodiversity and therefore food diversity, the decrease in productivity, It is a complex set of relationships that includes the increase in the frequency and severity of health problems as a result of malnutrition, especially in special groups, due to reasons such as the decrease in the content of the nutrition element, the increase in poverty and hunger, and gender inequality. There is a need to research and develop practical nutrient-based solutions to some of the most pressing challenges facing the environment and people today. In this context, bioactive compounds (BC) found in edible plants and functional foods play an important role in human health and protection of the planet. BC's are natural or synthetic compounds that have antioxidant, anti-microbial and anti-inflammatory properties in living tissue components and can show biological activity. This review comprehensively examines sustainable nutrition and evaluates its relationship with bioactive components.

**Keywords:** Sustainability, Sustainable nutrition, Bioactive compounds, Nutrition, Functional foods.

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Does Health Anxiety Affect Hedonic Eating Behavior in People with Diabetes?

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*Pınar SÖKÜLMEZ KAYA<sup>2</sup>*

*Aliye ÖZENOĞLU<sup>3</sup>*

### Abstract

To examine the effect of health anxiety on hedonistic eating behaviors and glycemic control of individuals with type 2 diabetes.

In this study, a survey was administered to patients with diabetes, aged 18-65, who applied to the Endocrine Polyclinic of Ondokuzmayıs University Health Application and Research Center between February 2024 and May 2024, and the effect of individuals' health anxiety on hedonistic eating behaviors and glycemic control was examined. The questionnaire includes some demographic and anthropometric information, some routine biochemical findings taken from the patient file (HbA1c, Fasting Blood Glucose, Total Cholesterol, LDL, HDL, BUN, Creatine), disease-related data, Health Anxiety Inventory (SAE-Short Version) and Hedonistic Eating Scale. In statistical evaluation, Independent Sample Test, Pearson Correlation, ANOVA tests were used to analyze data that were suitable for normal distribution, and Mann Whitney U Test and Kruskal Wallis tests were used for data that were not suitable for normal distribution. Statistical analyzes include 95% confidence. Those with any chronic disease other than diabetes, those who were pregnant or breastfeeding, and patients using supplements were not included.

In our study, 91 patients with diabetes (61% men, 39% women) were evaluated and 65% of the patients had diabetes with less than 1 letter of protection and 63% did not receive any medical treatment. The ages to be included in the study are between 37 and 68 years old. There was no significant relationship between their age and hedonic nutrition scores. ( $p = 0.59$ ) Female gender had higher scores than men in hedonic nutrition. ( $p = 0.00$ ) There was no significant difference between genders for health anxiety. ( $p = 0.87$ ) When HbA1c values and glycemic control are evaluated, it is seen that this has a weak connection with health anxiety and hedonic eating behavior. ( $r = 0.014$ ) While there were health and anxiety hedonic treatment problems in women, no connection was found in men.

In our study, the effect of diabetic magnetic health anxiety on hedonic treatment was detected, but not in men. A performance in which the open tendency towards hedonism is examined on the basis of gender; Hedonistic openness is triggered as a way of starting with negative emotions and anxiety, as a result of hormonal differences, perceptions of beauty created by society, and the effort to be in the ideal process. (Opwis, 2017).

Keywords: Diabetes, Hedonic Eating, Health Anxiety

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Evaluation Of Ovarian Telocytes In Polycystic Ovary Syndrome

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*Yurdun KUYUCU<sup>4</sup>*

### Abstract

Polycystic Ovary Syndrome (PCOS) is a multifactorial reproductive problem and one of the leading causes of female infertility worldwide. Pathophysiological abnormalities in gonadotropin secretion, folliculogenesis, and steroidogenesis have also been described in PCOS. Telocytes (TCs) are interstitial cells found in the stroma of many organs. They have functions in intercellular signalling, maintenance of the local microenvironment, immune surveillance, and regulation of hormone-related processes. In our study, the existence, organization and possible roles of TCs in PCOS were investigated. TCs in the ovary were examined in the PCOS model created with dehydroepiandrosterone (DHEA). PKOS and control groups of ovaries were stained with haematoxylin and eosin, Bielschowsky's silver and toluidine blue. Zeiss Axioscan as digital slides scanners and Zen 3.18 program were used for imaging. TCs were detected in both groups with their long and thin cytoplasmic extensions called telopodes (TPs). Generally, TCs with 2-3 TPs were seen in the immediate vicinity of developing follicles, in stromal areas far from the follicles, and near blood vessels. TCs surrounded the stromal cells and were in close contact with them. According to our result, in the PCOS, TCs did not disappear, they continued to exist. TCs may also protect and maintain the local microenvironment in the PCOS ovary and regulate hormone-dependent processes. With the paracrine effects they secrete, the 3D networks they establish through their TPs, and their heterocellular contacts, TCs may cooperate with other cells in the stroma in the process of developing follicles turning into cystic structures. Although it does not appear to have a direct effect, the formation and development of PCOS may indirectly result from TC function deficiency. Evaluation of PCOS as a multifactorial disease, by considering TCs will add different perspectives to PCOS-related infertile approaches. The detection, presence and organization of TCs in PCOS are pioneers for future studies.

**Keywords:** telocyte, telopode, polycystic ovary syndrome, ovary, infertility

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Exploring Autophagy in the Uterus of Goats During and Outside the Breeding Season

*Sema USLU<sup>1</sup>*  
*Elif Nur TAŞ<sup>2</sup>*

### Abstract

Autophagy is a biological process that protects eukaryotic cells. It is a system that modulates cell activity in response to hypoxia, starvation, and pH changes. Autophagy is usually referred to as macroautophagy, which targets particular proteins, organelles, or cytoplasmic components. Autophagy is molecularly regulated by autophagy-related genes (ATG) and proteins. The ATG group contains 34 proteins. Beclin 1 belongs to the phagophore-forming group. Beclin 1 is a 60 kDa protein of 450 amino acids that is the human equivalent of ATG6 in yeast. It plays an important role in autophagy. Beclin-1 resides in cytoplasmic structures, the endoplasmic reticulum, mitochondria, and nuclear membranes. The uterus is made up of three layers: endometrium, myometrium, and perimetrium, each of which has various amounts of autophagy. In humans and other animals, the functionalis and basalis layers of the endometrium are constantly renewed during the reproductive cycle. Autophagy study in the uterine layers of goats with abnormal reproductive traits was found to be restricted within and outside of the breeding season, with no investigations on the immunohistochemistry distribution of Beclin 1 in the uterus. This study will use immunohistochemistry methods to investigate the localization and distribution of Beclin 1 in the uterus. The Animal Experiments Ethics Committee of Yüzüncü Yıl University approved the study design. Uterine tissue samples were collected from six adult goats during the reproductive season and six adult goats outside the breeding season. The samples were fixed, histologically processed, and cut into 5µ thick slices. The Streptavidin Biotin Complex (Strept ABC) immunoperoxidase method was used to assess Beclin 1 expression and localization in the tissue samples collected. Two distinct researchers analyzed and rated the presence and location of this protein in the uterus based on the staining results. The glandulae uterinae and endometrial epithelium in the uterine endometrium showed varied degrees of positive throughout the breeding season and off-season, but weak positivity was discovered in the myometrial layer and stratum vascular layers in both groups. In the perimetrium layer, no favorable reactivity to Beclin 1 was seen.

**Keywords:** Autophagy, Beclin 1, Goat, Uterus

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Immunohistochemical Expression of Beclin 1 in the Canine Ovary

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Sema USLU<sup>2</sup>*

### Abstract

Recently, the rate of infertility in dogs has been increasing due to the increasing interest in pet animals, their care and feeding outside their natural environment and the pressure of fertility in some breeds. The ovaries are the primary reproductive organs in female dogs and are associated with infertility. The main functions of the ovary are steroidogenesis and ovulation, which are closely related to the process of folliculogenesis. The ovaries fulfil exocrine functions by producing oocytes and delivering them to the female genital tract and endocrine functions by secreting female sex hormones. In addition, it is an important organ for the maintenance of pregnancy while forming secondary sex characteristics with the estrogen and progesterone it secretes. All these functions make the ovary an organ to be investigated in infertility. Autophagy indirectly plays an important role in many biological cellular processes such as development, endocytosis, adaptation to stress, pregnancy, hormonal regulation, aging and cell death. Beclin 1 is one of the main members involved in the regulation of autophagy mechanism. Beclin 1 contains three basic domains, each with a different function. The BH3 domain contains 125 amino acids and has the ability to bind members of the anti-apoptotic protein family. The central double-pleated domain is UV irradiation resistance-associated and binds to class III PI3 kinase. The third domain binds to class III PI3 kinase and participates in the binding of lipid membranes of cell organelles. No study on the localisation of Beclin 1 in the ovary of the dog was found in the literature. The aim of this study was to determine the localisation and distribution of Beclin 1 in the ovary by immunohistochemical techniques. This study was performed with the approval of Cumhuriyet University Animal Experiments Ethics Committee. 6 adult, breed indiscriminate canine ovarian tissues were taken and Streptavidin Biotin Complex -ABC- technique was applied to determine the expression and localisation of Beclin 1 after routine histological steps. As a result of the staining, the localisation of this protein in the ovary was evaluated. The ovarian cortex showed more intense immunopositivity than the medulla.

**Keywords:** Autophagy, Beclin 1, dog, ovary

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Immunohistochemical Profile of Some Intermediate Filaments in Hair Follicles of Rats

*Bayram BAYRAM<sup>1</sup>*

### Abstract

The skin is a complex structure consisting of the outer epidermis, dermis and hypodermis, and includes nerves, blood vessels, glands and hair follicles. Hair growth in adult mammals consists of continuous interaction of the hair with the dermal-epidermal layer across the follicular basement membrane and repeated cellular proliferation of the sub-follicle structure during the hair growth cycle. Intermediary filaments can be found in healthy tissues as well as in diseased tissues. Especially in tumoral formations, the density of some intermediate filaments increases. It is known that intermediary filaments play a role in regulating cellular activities in hair follicles. The aim of this study is to detect the presence of cytokeratin8 and cytokeratin19 in hair follicles and try to understand their possible roles there. In this context, hair follicles were placed on slides along with the layers of the skin, and the presence of these filaments was investigated using immunohistological methods. In this study, tissues taken from 35 adult rats were blocked in paraffin and then analyzed by applying routine histological procedures. Epidermis, dermis, hair follicles and muscle layer were examined using histological and immunochemical methods. As a result of the examinations, it was observed that cytokeratin8 did not react in the vascular endothelial cells and in the muscle tissue of the skin and the retractor muscles, but gave weak reactions in the medulla of the hair follicles and moderate reactions in some cells in the epithelial layer of the hair. It was observed that cytokeratin19 did not react in the muscles, gave weak reactions in the medullary layer of hair follicles, but did not give any reaction in the epithelial layer of the hairs. Based on these data, we can say that these cytokines we examined participate in the structure of hair follicles and undertake supportive and regulatory functions.

**Keywords:** Rat, Skin, Hair, Intermediate Filament, Immunohistochemistry

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Investigation of the Role of Brain Extracellular Matrix Age in Cellular Aging in Alzheimer's Disease

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*Gökhan DURUKSU<sup>3</sup>*

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*Canan ÖZTÜRK<sup>6</sup>*

### Abstract

Alzheimer's disease is a neurodegenerative disease characterized by a decrease in daily vital activities and impaired cognitive abilities, accompanied by neuropsychiatric symptoms and behavioral changes. It is the most common type of dementia. Age is the most effective risk factor affecting the prevalence of Alzheimer's disease. The main pathological findings in this disease are the accumulation of abnormally amyloid beta (A $\beta$ ) plaques outside the cell and the formation of neurofibrillary tangles with the phosphorylation of tau proteins accumulated inside the cell. These pathologies lead to disconnection of neuron connections, neuronal death and ultimately brain atrophy. Alzheimer's disease can develop by being affected by many factors, both genetic and environmental. In studies on genetically inherited Alzheimer's, mutations were frequently found in genes encoding amyloid precursor protein (APP) and presenilin-1 (PSEN1). Alzheimer's disease, which occurs with advancing age, is one of the diseases that are frequently studied. Studies usually involve cellular approaches.

This proposal we have prepared divides the concept of aging into two as the cellular level and the extracellular matrix (ECM) level. This designed study is about the investigation of the roles of brain extracellular matrix (ECM) age in Alzheimer's disease, independent of cellular aging. Our study is a 3D cell culture model created to understand how brain ECM age changes Alzheimer's pathogenesis. This study, in which rejuvenation at ECM age causes changes in the pathogenesis of the disease, provides a model that can be used for new drug designs related to the matrix structure.

**Keywords:** Alzheimer, Stem Cell, Brain Matrix, Tissue Engineering

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Effects of COVID19 on histopathology of placental Wharton's Jelly

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*Enis DURAN<sup>2</sup>*

*Fırat AŞIR<sup>3</sup>*

### Abstract

SARS-CoV-2 can infect many organs through ACE2 receptor, especially in lungs. However, vertical transmission of SARS-CoV-2 through placenta remains unclear. In this study, we aim to investigate histopathological alterations in Wharton's jelly of umbilical cords from pregnant patients diagnosed with COVID-19.

The umbilical cord samples were collected from 20 pregnant individuals who tested positive for COVID-19 and 20 patients who tested negative after labour. These patients were hospitalized at the Gynecology and Obstetrics Clinic at Dicle University Faculty of Medicine. Those with chronic or systemic illnesses were not included in the study. Placental tissues were preserved in 10% formaldehyde for 24 hours, dehydrated in increasing alcohol concentrations, and then embedded in paraffin wax. Subsequently, the tissues were sectioned into 5-µm slices using a microtome (catalog no: Leica RM2265, Wetzlar, Germany). Tissue sections were stained with Hematoxylin-Eosin staining. Images were graphed under light microscope (Leica, A2 Zeiss Imager).

In the umbilical cord of healthy patients, mucopolysaccharide matrix was normal. The collagen fibers were regular. Fibroblasts, myofibroblasts and stellate cells were normal in appearance without pathology. In patients with Covid-19 infection, gelatinous matrix was dispersed and scattered. Collagen fibers were degenerated and thinned. The fibroblast, myofibroblasts were hyperplastic and had pyknotic nuclei.

These findings suggest that COVID-19 infection may impact the structural integrity and cellular composition of Wharton's jelly within the umbilical cord. Further research is needed to elucidate the underlying mechanisms and potential implications for fetal development and pregnancy outcomes in individuals affected by COVID-19 during pregnancy.

**Keywords:** umbilical cord, SARS-CoV-2, COVID-19, Wharton's jelly, myofibroblast

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## MAPK signaling on granulosa cells in IVF patients with PCOS

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*Enis DURAN<sup>2</sup>*

*Fırat AŞIR<sup>3</sup>*

### Abstract

Granulosa cells (GCs) are vital for ovarian follicle development and oocyte maturation. The MAPK pathway is a pivotal regulator in many cellular events including differentiation, migration, proliferation, growth, survival, metabolism. This study aimed to investigate MAPK pathway activity in granulosa cells of patients undergoing in vitro fertilization (IVF) with infertility problems due to polycystic ovary syndrome (PCOS).

20 infertile women (control) and 20 infertile women with PCOS who admitted the Buhara Hospital Obstetrics and Gynecology Clinic IVF center for infertility complaints were included. Granulosa cell-containing fluid was centrifuged at 2000 rpm for 10 minutes. Supernatant was discarded and pellet were processed for histopathological evaluation. Samples were fixed with %10 formaldehyde and %70 ethanol solution. A drop of eosin dye dipped onto section to colorize the samples. Following fixation, samples were passed through ascending ethanol series and washed in xylene, then embedded in paraffin blocks. Sections from the paraffin blocks were stained with Hematoxylin Eosin and immunostained with MAPK (catalog no: A39611, AFG Scientific, US).

In the infertile women of control group, granulosa cells were normal and oval in shape. Their cells were spherical and centric. They were clustered in some areas. In the PCOS group, granulosa cells were degenerated and had pyknotic nuclei. They were scattered and had pale cytoplasm with hyalinized structures. MAPK expression was relatively higher in PCOS group compared to control group. Histological examination of granulosa cells from infertile women in the control group revealed normal morphology characterized by oval-shaped cells with spherical and centric nuclei, often clustered in localized areas. In contrast, granulosa cells from women with polycystic ovary syndrome (PCOS) displayed degenerative changes, including pyknotic nuclei, scattered distribution, and pale cytoplasm with hyalinized structures indicative of cellular stress or damage. Furthermore, analysis of MAPK expression showed relatively higher levels in the PCOS group compared to the control group, suggesting dysregulation of the MAPK pathway in association with PCOS pathophysiology.

These findings highlight significant cellular alterations in granulosa cells and aberrant MAPK signaling in PCOS, underscoring potential molecular mechanisms underlying ovarian dysfunction and infertility in women with this condition.

**Keywords:** granulosa cells, histology, PCOS, MAPK, ivf

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## The Effects of Testicular IRI on Distant Organ Epididymal Tissues

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*Enis DURAN<sup>2</sup>*

*Fırat AŞIR<sup>3</sup>*

### Abstract

Testicular ischemia-reperfusion injury (IRI) refers to tissue damage that occurs when blood flow to the testicles is temporarily interrupted (ischemia) and then restored (reperfusion). This injury can have significant consequences for testicular function and fertility. In this study, we aimed to show effects of testicular IRI on epididymal tissues and effects of carvedilol treatment.

14 male rats were subjected to testicular IRI in Dicle University Animal Experiments center (DÜSAM). 14 rats were categorized into divided two groups as control and IRI groups. No surgical intervention was performed to rats in control group. 30 minutes of ischemia and then 30 minutes of reperfusion were performed for IRI group. At the end of the experiment, rats were sacrificed and epididymal tissues were fixed in %10 formaldehyde solution, passed through ethanol series, cleared in xylene and embedded in paraffin blocks. Sections were cut with a microtome and stained with hematoxylin eosin staining.

In the control group, lumen of epididymis was full of sperms and secretions from Sertoli cells. Epithelium of epididymis was pseudostratified columnar epithelial cells with stereocilia. Basal cells were at the bottom and long principal epithelial cells were close to lumen. No pathology was observed. In the IRI group, sperm and secretions were dramatically lessened. Sperms were degenerated. The structural integrity of epididymal organ was disrupted. In some area, epididymal epithelium was ruptured and thinned. Number of basal and principal cells were decreased. Hemorrhage and vascular dilatation and congestion was observed. Number of halo cells were increased. Disruption of epididymal function and inflammation and inflammatory response was observed in IRI group.

These findings highlight the detrimental effects of testicular ischemia-reperfusion injury on the epididymal structure and function, underscoring the importance of preserving vascular integrity and minimizing ischemic injury to maintain male reproductive health.

**Keywords:** testis, ischemia, reperfusion, epididymis,

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Investigation of acrylamide exposure ER stress formation in AGC cells

Didem ORAL<sup>1</sup>  
Ceyhan HACIOĞLU<sup>2</sup>

### Abstract

Gastric cancers are a multifactorial disease and risk factors include diet, environmental factors, genetic factors and pathogen-host relationship. In addition, multiple factors that all these parameters together can lead to disease. Acrylamide (AA) is a chemical substance with a low molecular weight (which is easily soluble in water and polymerizes quickly). Acrylamide, which can rapidly dissipate and accumulate in soil and water, is used in industry to produce polyacrylamide or copolymers. Acrylamide can also occur in foods containing starch, such as chips, bread, and French fries, as a result of the reaction and reduction between sugar (fructose, glucose) or reactive carbonyls and asparagines. Acrylamide was categorized as a probable human carcinogen (Group 2A) by IARC in 1994 after laboratory studies. Physiological or pathological stresses can create an imbalance between the demand for protein folding and the ER's capacity for protein folding, leading to ER stress. There are a limited number of studies on the effects of acrylamide on ER stress, which is thought to have a trigger role in the development of gastric adenocarcinoma. This study aims to investigate effects of acrylamide exposure on ER stress in AGS cells. LC50 levels as determined using the MTT assay, and levels of ER stress-related biomarkers including X-box-binding protein 1 (XBP1), phospho-eIF2 $\alpha$ , activating transcription factor 4 (ATF4), and C/EBP homologous protein (CHOP) in acrylamide-treated AGS cells were determined by using ELISA technique. The 24-hour IC50 concentration of acrylamide was determined to be 15 mM by MTT analysis using ELISA technique. Compared to control cells, there is a significant elevation in the levels of XBP1, phospho-eIF2<unk>, ATF4, and CHOP in HepG2 cells due to acrylamide-induced ER stress. (p <0.05). The conclusion is that acrylamide can cause ER stress in AGC(Gastric adenocarcinoma) cells.

**Keywords:** Acrylamide, Endoplasmic reticulum stress, Gastric adenocarcinoma

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Determination of the Caffeic Acid and Quercetin Concentrations in Propolis Supplements by HPLC-DAD.

*Meltem ÇAYCI<sup>1</sup>\*  
Hikmet Aysin USTA<sup>2</sup>*

### Abstract

Propolis is a bee product that has become popular due to its healing properties such as antibacterial, antiviral, antifungal, anti-inflammatory, antitumoral, antioxidant, immunomodulatory, tissue regeneration, and anti-ulcer effects. Especially the concerns about health has directed people to alternative uses to protect themselves from diseases and to increase immunity. Therefore, the use of propolis has become more common for human consumption and even for medicinal purposes. The present study aims to analyse caffeic acid and quercetin phenolic compounds that have biological effects and determine their concentrations in local raw propolis and supplements consumed in Turkey. In this context, total 138 propolis samples were collected from commercially sold and used in Turkey between 2022 and 2023. Caffeic acid and quercetin analysis were carried out by high performance liquid chromatography-diode-array detection (HPLC-DAD). The results indicated that the concentrations of individual phenolic compounds varied mostly propolis samples analysed. There were significant differences among the different commercial forms of propolis ( $p < 0.05$ ). Due to differences in amounts of phenolic components in propolis supplements may need to standardize and quality control by qualitative and quantitative analysis.

**Keywords:** Propolis supplements, caffeic acid, quercetin, quality, HPLC-DAD.

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## The Effect of Milk Thistle (Silymarin) Extract and Ginkgo Biloba Extract (Ginkgolides – Bilobalides) Supplementation on the Growth Performance of Broiler Chickens Diets

*Tarkan ŞAHİN<sup>1</sup>*

*Özlem KARADAĞOĞLU<sup>2</sup>*

*Mükremin ÖLMEZ<sup>3</sup>*

*Tuğçe Merve BERBEROĞLU<sup>4</sup>*

### Abstract

This study was conducted to determine the effects of feeding herbal extract mixture (SGE) containing Silymarin and Ginkgo Biloba as natural feed additives on the growth performance of broiler chickens. A total of 320 one-day-old mixed-sex Ross 308 chickens were used in the study and were randomly divided into 4 experimental groups, each containing 4 subgroups of 20 chicks. While no additives were added to the control group (C) in the diets of the experimental groups, herbal extract mixture was added to the other trial groups at the levels of 150mg/kg (SGE 1), 300mg/kg (SGE 2) and 600mg/kg (SGE 3), respectively. At the end of the study, it was determined that SGE affected live weight (LW), live weight gain (LWG), feed consumption (FC), and feed conversion ratio (FCR) ( $p<0.05$ ). At the end of the study, the highest LW and LWG values were obtained in the SGE 2 and SGE 3 trial groups ( $p<0.05$ ).

In terms of end-of-trial feed consumption values, the lowest feed intake was observed in analogous groups ( $p<0.05$ ). In terms of feed utilization rate values, the most favorable findings were sequentially obtained from experimental groups SGE 2 (1.49) and SGE 3 (1.54) ( $p<0.05$ ). The best findings in terms of feed conversion ratio values were obtained from the SGE 2 trial group.

As a result, it was determined that adding different doses of SGE to broiler rations could positively affect growth performance and the best performance result was obtained with the addition of 300 mg/kg SGE to broiler rations. It was concluded that the addition of Ginkgo Biloba and Silymarin extract to broiler diets can be used as a natural feed additive to increase performance.

**Key Words:** Broiler, Herbal Extract, Performance

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## The Relationship Between Workload And Quality Of Life Of Health Personnel Providing Pre-Hospital Emergency Health Services

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*İbrahim UYSAL<sup>2</sup>*

### Abstract

The healthcare personnel providing pre-hospital emergency medical services (PHEMS) are faced with high workload and job stress due to environmental stress factors, time pressure, and critical decision-making in emergency cases. The research is descriptive cross-sectional in nature, aiming to evaluate the relationship between workload and quality of life among healthcare personnel providing PHEMS in Turkey, using demographic variables, the Swedish Demand-Control-Support Questionnaire, and the Health-Related Quality of Life Scale for Healthcare Workers. Data obtained from 413 healthcare personnel, sampled from the population of 35,000 healthcare personnel providing PHEMS in Turkey, were analyzed using the JAMOVI (v.2.4.11) statistical program. A positive and moderate relationship was found between workload and job stress ( $r: 0.355, p < 0.001$ ), and a positive and low-level relationship was found between job stress and burnout ( $r: 0.243, p < 0.001$ ) among PHEMS providers. According to gender, it was found that female participants had higher workload ( $U: 2.939, p: 0.003$ ). However, it was observed that first aid technicians/paramedics scored higher on workload control support scores compared to other groups ( $X^2: 9.886, p: 0.042$ ). These findings demonstrate the relationship between quality of life and workload among healthcare personnel providing pre-hospital emergency medical services, suggesting that planned activities to increase healthcare personnel's quality of life and efforts to reduce workload would be effective in improving service quality.

**Acknowledgment:** This text is prepared with the data collected within the scope of the research, covering a part of the master's thesis titled 'The Relationship Between Workload and Quality of Life of Healthcare Personnel Providing Pre-Hospital Emergency Medical Services,' conducted at the Graduate School of Health Sciences, Department of Health Services, Çanakkale Onsekiz Mart University

**Keywords:** PHEMS, Workload, Quality of Life

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Effects of Dietary Supplementation of *Ferula Communis L.* on Production Performance and Egg Quality Parameters of Japanese quail (*Coturnix coturnix Japonica*)

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*Tarkan ŞAHİN*<sup>2</sup>

*Benian YILMAZ*<sup>3</sup>

*Roshan RIAZ*<sup>4</sup>

*Özlem KARADAĞOĞLU*<sup>5</sup>

### Abstract

This study aimed to examine the effects of dietary supplementation with *Ferula communis L.* on growth performance, egg production, and egg quality parameters of Japanese quails. A total of 180 eight-week-old Japanese quails during the laying period were randomly assigned to three groups, each comprising four replicates (15 quails per replicate) with a similar average body weight ( $186.35 \pm 2.13$ ). The control group was fed a basal diet without any supplementation, whereas the other groups were fed diets containing 0.1% and 0.2% *Ferula communis L.* root powder for eight week. The results showed statistically non-significant differences ( $P > 0.05$ ) in the initial and final body weight and body weight changes among the groups. Egg production varied significantly ( $P < 0.05$ ), whereas feed intake, egg weight, and feed conversion ratio remained statistically similar ( $P > 0.05$ ) among the groups. Egg quality parameters, including yolk color, shell percentage, and albumin index, showed significant differences ( $P < 0.05$ ). Notably, supplementation with 0.1% *Ferula communis L.* improved yolk color and albumin index but decreased egg production and shell percentage, whereas 0.2% supplementation increased egg production and shell percentage while decreasing yolk color and albumin index. In conclusion, *Ferula communis L.* is a suitable natural feed additive for laying quails, however, production goal-specific dosage considerations are recommended.

**Key Words:** Egg quality, *Ferula communis*, giant fennel, production performance, quail

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Levamisole Toxicity

*Rahmi CANBAR<sup>1</sup>*

### Abstract

Cattle, sheep, turkey, ducks and chickens have been defined as target species in the use of levamisole, which is an anthelmintic especially effective against imidathiazole group nematodes (roundworms). The drug is available alone or in combination with oxcyclazone or triclabendazole. Levamisole is not recommended for use in horses, dairy cattle and laying hens. It is reported that the drug has an immunostimulating effect in addition to its anthelmintic effect at doses of 1/3 or 1/4 of the recommended dose. The drug is defined as one of the anthelmintics used in the veterinary field with limited therapeutic safety. It has been stated that the therapeutic safety of the drug is around 4-12, depending on the animal species. Depending on the type of animal used, the drug can have side effects that can lead to death at doses four times the recommended dose. It is thought that the undesirable effects of levamisole, such as lowering of the convulsion threshold, paralysis of respiratory muscles and asphyxia, are due to the drug's stimulation of nicotinic acetylcholine receptors. The main side effects of the drug are related to neurotoxicity. It is understood that even at recommended doses, deaths may occur in exotic animals. In this review, we tried to provide information about the toxicity of levamisole.

**Key words:** Levamisole, toxicity, antiparasitic, safety

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Determination of The Embryotoxic Effect of *Tarantula Cubensis* Alcoholic Extract on Cadmium Toxicity

*Rahmi CANBAR*<sup>1</sup>

*Gökhan AKÇAKAVAK*<sup>2</sup>

*Muhittin USLU*<sup>3</sup>

*Mustafa Sedat ARSLAN*<sup>4</sup>

*Harun KIZILAY*<sup>5</sup>

### Abstract

Alcoholic extract of *Tarantula cubensis* (TCAE) is a homeopathic product used in the veterinary field. Information about its use during pregnancy or its effect on the embryo is lacking. This study aimed to determine the effects of TCAE on cadmium toxicity in the embryo. The study used 220 fertile, incubated chicken eggs divided into 11 equal groups on the 7th day of incubation. These groups comprised untreated and physiological saline control groups, a group with TCAE alone, four groups with varying doses of cadmium alone (0.01, 0.02, 0.04, or 0.08 mg/egg), and four groups with the same doses of cadmium plus TCAE (50 µL/egg). At the end of the incubation period, the eggs were opened, tissue samples were taken for histopathology, and the number of dead and living embryos was recorded. In the study, the LD<sub>50</sub> of cadmium was determined as 0.029 mg/egg, and the LD<sub>50</sub> of cadmium plus TCAE was determined as 0.020 mg/egg. The histopathological examination determined that kidney and liver damage increased when TCAE and cadmium were administered together, over that when cadmium was given alone. Thus, TCAE, which has no toxic effect on the embryo when used alone, may increase the embryotoxic activity of cadmium. However, more detailed studies are needed.

**Keywords:** Cadmium, TCAE, in ovo method, embryotoxic, drug toxicity

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Approach To Aromatherapy In Veterinary Physiology

*Alkan GÖKÇEOĞLU<sup>1</sup>*  
*Mehmet KAYA<sup>2</sup>*

### Abstract

Aromatherapy is a modern form of herbal medicine where highly concentrated plant extracts and essential oils are used as therapeutic agents alone or in blends. Aromatherapy has gained importance as a complementary treatment in healthcare in recent years. The term "essential oil" was first coined by Paracelsus von Hohenheim in the 16th century as "*quinta essentia*". Essential oils are distillation products of the volatile components of plants. The essential oils used in aromatherapy are obtained from various parts of plants through steam distillation or mechanical methods. These oils are derived from the flowers, bark, stems, leaves, roots, fruits, and other parts of plants. Unlike fixed oils, essential oils are unique in their chemical and physical properties. In aromatherapy, essential oils are commonly used with fixed oils and hydrosols in dilution. Essential oils have various applications in various industries, including cosmetics, pharmaceuticals, and food. They are also frequently used in alternative medicine, such as aromatherapy and phytotherapy. Essential oils have been used for scientific and commercial purposes for many years and have recently attracted attention in the scientific community, leading to numerous research studies. Essential oils in veterinary medicine have been increasingly recognized in recent years. Despite the widespread use of complementary and alternative treatment methods in veterinary medicine, scientific data regarding the physiological effects and applications of essential oils derived from aromatic plants in animals are limited. There has recently been a surge in associations, certification programs, and books dedicated to veterinary aromatherapy. Therefore, there is a need for more scientific data regarding their applications in veterinary medicine. This study aims to provide updated information on the general characteristics, botanical sources, chemical compositions, classifications, mechanisms of action, therapeutic effects, physiological impacts, and applications of aromatherapeutic oils in veterinary medicine.

**Keywords:** Veterinary medicine, Veterinary Physiology, Essential oils, Aromatherapy

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## The Role of the Nurse in Care for the Self-Care Ability of Patients with Gynecological Cancer

*Burcu KÜÇÜKKAYA<sup>1</sup>  
Esra YALÇIN<sup>2</sup>*

### Abstract

Gynecological cancers are defined as highly malignant formations or malignant tumors that are very common in female genital organs. According to GLOBOCAN 2020 data; In both men and women combined, the top 10 cancer types account for 60% of newly diagnosed cancer cases and >70% of cancer deaths. When cancer statistics in our country are examined, gynecological cancers are among the top 10 causes of death for women. According to Global Cancer Observatory (GLOBACON) 2020 data, 6.5% of 9.2 million newly diagnosed women with cancer were diagnosed with cervix, 4.5% with uterine corpus and 3.4% with ovarian cancer. Self-care power is defined as the roles and responsibilities undertaken to ensure the management of medical, basic health and psychosocial situations of individuals. Primary, secondary and tertiary protection symptoms experienced by gynecological cancer patients negatively affect their self-care ability. In this context, it is seen that the self-care ability of gynecological cancer patients is low or medium level and the nurses' ability to evaluate gynecological cancer patients in terms of their self-care ability is weak. Therefore, nurses, especially nurses who specialize in obstetrics and gynecology nursing, should evaluate individuals with gynecological cancer holistically, identify physical and psychosocial problems and plan care. Within the scope of holistic health, it supports self-care of gynecological cancer patients according to their addiction status, with the awareness that the individual is a mental, physical and psychosocial being and that each individual's needs are different. In this review, it is aimed to examine the role of the nurse in the self-care of patients with gynecological cancer.

**Keywords:** Gynecological Cancer, Patient, Self-Care, Care, Nurse Role

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Case Report: Management of Giant Dermoid Ovarian Cyst with Laporoscopic Surgery Technique

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Nurdan YURT<sup>2</sup>*

### Abstract

Ovarian masses are a common clinical problem affecting women of all ages and are the fourth most common cause of gynecological surgery in the United States (US). Dermoid cyst is the most common ovarian tumor. It is usually benign and asymptomatic. It rarely causes clinical symptoms. The most common complication is torsion. Treatment of dermoid cysts is surgery. The approach can be laparoscopic or laparotomy. Since patients are usually young, conservative treatments should be chosen. Cystectomy or oophorectomy may be performed. The other ovary should be examined carefully. It is necessary to be careful not to rupture the cyst during the operation. In our case, a 30-year-old female patient with G3P2A1Y2 was admitted to our clinic with right lower quadrant pain. Transvaginal and pelvic ultrasonography revealed a possible dermoid cyst originating from the right ovary with dimensions of 120x100 mm.

Laparoscopic surgery is considered the gold standard treatment method for benign ovarian tumors. The most important factor in deciding on laparotomy for ovarian masses is the diameter of the mass. However, there is no consensus in the literature about the limit of mass diameter. According to some researchers, a mass measuring 10 cm in size, and according to others, a mass extending to the umbilicus is considered a large ovarian mass. Laparoscopic surgery has advantages such as less postoperative analgesic need, earlier mobilization, reduced risk of deep vein thrombosis, good cosmetic appearance, earlier discharge from the hospital and earlier return to previous life. In this case, we preferred the laparoscopic technique. After exploring the 120 mm dermoid ovarian cyst in the abdomen without rupture, a unilateral cystectomy was performed, and the laparoscopic cystectomy operation was successfully managed without complications.

**Keywords:** dermoid cyst, laparoscopy

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## Case Report: Approach to a Late Diagnosed Ruptured Ectopic Pregnancy Case

*Nurdan YURT<sup>1</sup>  
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### Abstract

Ectopic pregnancy is defined as the implantation of the fertilized ovum outside the endometrial cavity. In ectopic pregnancy, 98% of the fertilized ovum's location outside the endometrium occurs in the fallopian tubes. Location is rarely seen in cervical, ovarian and abdominal, interstitial and intraligamentous areas. There has been an increase in the incidence of ectopic pregnancy in recent years. Ectopic pregnancy is one of the most important causes of first trimester maternal deaths in developed countries. It accounts for 4-10% of all pregnancy-related deaths. The most common clinical findings in ectopic pregnancies are abdominal pain and vaginal bleeding that occur in the first trimester. In ruptured ectopic pregnancies, shoulder and back pain, abdominal tenderness, defense and rebound may occur due to diaphragmatic irritation of intraperitoneal bleeding. In late diagnosed ruptured ectopic pregnancies, an advanced condition accompanied by hypovolemic shock and syncope may occur, which may even result in maternal mortality. In our case, at the age of 34, G2P2A1Y2, betaHcg was measured as 3800, endometrial cavity was empty and endometrial ring was measured as 8 mm. When the patient was admitted to the obstetrics and gynecology emergency department, his hemoglobin value was measured as 5.3, hematocrit as 15.3, blood pressure as 6/3, and pulse as 124. The patient's general condition was poor and accompanied by hypovolemic shock and syncope. The patient was urgently taken for laparotomy. Afterwards, the patient was taken to the intensive care unit. After 24 hours in the intensive care unit, the patient was taken to the service, and on the 3rd day of the operation, the patient was discharged in full recovery. Before coming to the gynecology and obstetrics emergency department, the patient was admitted to the adult emergency department with the complaint of abdominal pain for 3 consecutive days, but since the emergency physicians did not request betaHCG from the patient, the patient could not be diagnosed with ectopic pregnancy and the diagnosis of the patient was delayed. Emergency physicians should be a little more careful about this issue and request betaHCG from these patient groups, whether they have menstrual delay, abdominal pain, vaginal bleeding or not, and refer the patient to gynecology.

**Keywords:** Ectopic pregnancy, hypovolemic shock, profound anemia

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Case Report: Internal Jugular Vein Thrombosis in a 35-Year-Old Woman Developing Ovarian Hyperstimulation Syndrome During IVF Treatment

*Mesut ALÇI*

### Abstract

This report presents the case of a 35-year-old woman who developed ovarian hyperstimulation syndrome (OHSS) and internal jugular vein (IJV) thrombosis during in vitro fertilization (IVF) treatment. Despite ongoing anticoagulation therapy with enoxaparin, the patient developed a thrombus. This case highlights the importance of careful monitoring and management strategies in patients undergoing IVF treatment, especially those at risk for OHSS and thrombosis.

**Key Words:** *Ovarian Hyperstimulation Syndrome, Internal Jugular Vein, Thrombosis, IVF, Pregnancy*





# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Co-Occurrence of Dravet Syndrome and Dysgerminoma in a 19-Year-Old Adolescent: A Comprehensive Case Study and Literature Review

*Haydar KAYA<sup>1</sup>*

*Ahmet GÖÇMEN<sup>2</sup>*

*Kemal SANDAL<sup>3</sup>*

*Pınar ENGİN ZERK<sup>4</sup>*

### Abstract

This case presentation aims to highlight a rare and intriguing association between Dravet Syndrome (DS), a severe form of epilepsy, and dysgerminoma, an ovarian germ cell tumor, in a 19-year-old adolescent. The objective is to contribute to the existing medical literature by providing insights into the clinical management of these two distinct conditions when they coexist.

We present a detailed case report of a 19-year-old female diagnosed with DS who subsequently developed dysgerminoma. The clinical, radiological, and pathological aspects of both conditions are discussed. A comprehensive review of the relevant literature on the co-occurrence of DS and dysgerminoma is also conducted to provide a broader understanding of this rare association.

The presented case underscores the importance of vigilant monitoring and multidisciplinary collaboration in adolescents with DS, as they may be at a heightened risk for developing secondary conditions. The simultaneous presence of DS and dysgerminoma poses diagnostic and management challenges, necessitating a thorough evaluation and individualized treatment plan. The literature review reveals limited documented cases of such co-occurrence, emphasizing the rarity of this association.

This case contributes to the evolving understanding of the potential interplay between genetic epileptic disorders and neoplastic conditions, specifically DS and dysgerminoma. Clinicians should be aware of the possibility of multiple morbidities in patients with DS, necessitating regular screenings and early detection of associated complications. Further research and reporting of similar cases are essential for advancing our knowledge and refining clinical strategies for the holistic care of individuals facing the unique challenges posed by the coexistence of Dravet Syndrome and dysgerminoma.

**Keywords:** Dravet syndrome; Dysgerminoma; Epilepsy; Germ cell tumor; Co-Occurrence

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Brachial Plexus Posterior Branch Damage After Clavicle Open Surgery In Hiv + Patient

Ömer ESMEZ<sup>1</sup>  
Murat GÜRGER<sup>2</sup>

### Abstract

Brachial plexus damage after clavicle fractures is less than 1% and can rarely be damaged due to iatrogenic reasons. There are many cases of radial nerve damage after humerus fractures in the literature, but cases of radial nerve damage alone after clavicle fractures are rare. In this article, we present the radial nerve damage that occurred after open surgical fixation with a plate in an HIV + patient with a 2-month-old displaced nonunion clavicle fracture and its prognosis without plate removal.

A 32-year-old HIV+ male patient was followed up with a diagnosis of left clavicle fracture after a fall. Open surgical fixation surgery was planned for the young patient who had pain and no union at the 9th week. Under general anesthesia, nonunion bone tissue and abnormal granulation tissue were removed. After the autograft was placed and the length was achieved, it was fixed with an anatomical locking plate. After the operation, the patient developed symptoms of posterior branch injury of the brachial plexus. Cobalamin and early physical therapy were administered. On the 70th day, the patient's symptoms began to disappear. At the end of the 6th month, engine power returned completely to normal. Brachial plexus injury may be due to regional anesthesia, or it may be due to intraoperative cleaning of abnormal granulation tissue with bone structures, during reduction maneuvers, during the drilling and screwing phase, due to acute lengthening, or due to thermal necrosis with cautery. In patients with blood-borne infectious diseases, if the displacement is high, we recommend that surgery be performed in the early period before abnormal granulation tissue is formed. However, when performing clavicle surgery, we recommend the use of bipolar cautery, if possible, considering the close proximity of the vascular nerve structures to the bone. Additionally, acute lengthening performed in these patients may cause nerve tension in delayed patients. If symptoms of brachial plexus injury occur after surgery, we recommend early nerve nourishing treatments and physical therapy.

**Keywords:** Clavicle fractures, Open reduction and internal plate fixation, Brachial plexus injury, Abnormal granulation

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Reconstruction of Proximal Scaphoid Pole Fracture Using Hamatum Autograft

*Muhammed Enes KARATAŞ<sup>1</sup>*

### Abstract

Proximal pole fractures of the scaphoid are more difficult to heal due to poor vascular supply. Nonunion with avascular necrosis is a complication of such fractures. Various techniques have been described in the literature for such nonunion cases. One of the limitations of most of these techniques is how to reconstruct the scapholunate ligament. We present a case in which we reconstructed the dorsal scapholunate ligament using ipsilateral hamate autograft and achieved union of the fracture.

A 28-year-old male patient first complained of wrist pain after a dominant wrist trauma in the military 10 years ago. The patient was first placed in a circular plaster cast and then underwent surgery in an outside center 2 years ago when no union was observed and the patient's complaints did not improve. Despite the operation, the patient's complaints did not improve and even increased, so we decided to reoperate the patient. The patient was entered through the old dorsal incision scar and the old screws were removed. The avascular part was excised and a graft of appropriate size was taken from hamatum. one k wire was fixed with a screw. Afterwards, the capitolunate joint was stabilized with one k-wire and the scapholunate ligament was repaired.

The patient was followed post operatively with a thumb supported short arm splint. After approximately 7 weeks, the K-wire was removed and the splint was terminated. Four years after reconstruction, the patient had no complaints and wrist movements were almost complete. The patient's Mayo wrist score was 90, which is excellent.

Treatment of scaphoid proximal pole nonunion challenges surgeons at many points. In this case, we applied an alternative treatment modality in our patient and obtained a successful result. Although larger scale studies are needed to evaluate the efficacy of the procedure, we recommend the application of this technique described in this patient group.



# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Brachial Artery Dissection after Supracondylar Humerus Fracture. Case Report.

*Muhammed Enes KARATAŞ<sup>1</sup>*

### Abstract

Supracondylar humeral fractures (SHF) are one of the major pediatric fractures, accounting for 55 to 80% of all upper extremity fractures. It has been reported that 14-18% of these fractures may be accompanied by arterial injury and these injuries usually present as arterial thrombosis. In this report, we aimed to share a case report of brachial artery dissection following a fracture of the SHF.

An 11-year-old male patient was admitted to the emergency department after a fall. The investigations revealed a displaced closed Gartland type 3 SHF. Neurologic examination revealed no motor and sensory deficit. Capillary refill was prolonged, fingertips became cyanosed, and brachial and radial artery pulses could not be obtained. CT angiography was performed when the same clinical findings persisted after temporary stabilization with a long arm splint and because Doppler USG could not be performed. CT angiography revealed a suspicious segment of laceration in the antecubital region distal to the brachial artery and minimal collateral circulation in the ulnar and radial arteries. The patient was urgently taken to the operating room in the presence of a pediatric cardiovascular surgeon. After reduction, distal pulses could not be obtained and capillary refill was still long. S incision was made on the anterior aspect of the elbow. Brachial artery and vein were accessed. Dissection of the tunica intima was found in the artery. The basilic vein was harvested as a graft and the brachial artery was repaired. The procedure was terminated when distal pulses were observed and saturation returned. The long arm was splinted.

The splint was kept for 3 weeks in the postoperative follow-up and the K-wires were removed at the 6th week after the union was completed. At 3 months, the patient's range of motion reached normal limits and there was no functional deficit.

Accurate neuro-vascular examination is very important in patients with displaced SHF fractures. Pulseless but well perfused fractures should be followed up for 24 hours and if pulses are normal, no vascular intervention is required. However, in cases where pulses are absent and collateral circulation is inadequate, vascular intervention is absolutely necessary. CT angiograms of patients with such injuries should also be evaluated for the presence of dissection. In our case, the fact that the dissection occurred in a relatively short segment made the intervention relatively easy.



# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Clinical and Radiologic Outcomes of Percutaneous Vertebroplasty in Osteoporotic Vertebral Fractures: A Retrospective Clinical Study

*Muhammed Enes KARATAŞ<sup>1</sup>*

### Abstract

Osteoporosis is an increasing public problem and associated vertebral fractures have recently become increasingly common. Percutaneous vertebroplasty (PV) is a very common procedure for painful osteoporotic vertebral fractures.<sup>1</sup> Although it is a common procedure, it is associated with some complications and chronic persistent pain. We analyzed the results of patients who underwent PV in our clinic

Our study included patients operated between 2013 and 2020. We included 34 patients aged 60-90 years with painful osteoporotic fractures with a dexa T score of -2.0 or less.

The study included 34 patients, of which 26 were female and 8 were male. A total of 190 vertebrae, 94 thoracic and 96 lumbar, underwent PV. The mean follow-up period was 4.4 years. The mean age of the patients was 71.7 years (60-88). The mean DEXA T score of the patients was 2.8. The mean preop local kyphosis angle was 14.3 and post op was 8.8. There was a significant difference between the two values ( $p < 0.05$ ). While the preop VAS was 7.8, it was 2.9 on post op day 1 and 1.88 on post op month 3. There was a significant difference between preop VAS and postop day 1 VAS. ( $p < 0,05$ ) In 18 of 34 patients, it was observed that the PMMA administered escaped into the disc or disc anterior. However, no clinical symptoms were observed in these patients.

In symptomatic osteoporotic vertebral fractures, PV seems to be a minimally invasive procedure that can be applied in patients with high VAS scores. One of the advantages of this procedure is that it provides relief in the early period and the pain does not increase in the following periods. Considering the rapidly increasing number of osteoporotic vertebral fractures today, this procedure has become much more important.



## Is the Use of Split Patellar Entry in Tibia Intramedullary Nailing Radiologically and Clinically Advantageous over Paramedian Patellar Entry?

*Necati DOĞAN<sup>1</sup>*

### Abstract

Tibia shaft fractures are the most common long bone fractures and today the gold standard treatment is intramedullary nailing. When determining the entry point of the nail during nailing, the most commonly used entry method is patellar split incision and patellar paramedian incision. Studies comparing both entry points are quite limited. This study aimed to compare these entry points radiologically and clinically.

Between May 2020 and October 2023, 113 patients who underwent intramedullary nailing for tibial shaft fractures were retrospectively examined. The patients were divided into two groups: those who underwent split patellar incision and those who underwent paramedian patellar incision. For the purpose of clinical and radiological evaluation (x-ray) as well as demographic data such as age, gender, etiology, fracture side, fracture classification, follow-up period; reduction type, anteroposterior and lateral angulations, rotation defect, shortness, anterior knee pain and Johner-Wrush evaluation criteria were used. Additionally, complications were evaluated.

Both groups are similar distribution in terms of age, gender, etiology, fracture side, fracture type (AO-Gustillo Anderson), follow-up period, reduction type, Ap-Lateral angulations, rotation defect, shortness, anterior knee pain and Johner-Wrush evaluation criteria. ( $p>0.05$ ) Although anterior knee pain had a similar distribution in both groups, it resulted in 49% in the split patellar group and 55% in the paramedian patellar group. In all patients, fracture union was completely achieved in the final period, and no serious infection or osteomyelitis development was observed.

The change in the patellar entry point did not change the clinical and radiological outcome of the patient. Based on current results, anterior knee pain remains a serious problem in both groups. There is a need to search for new solutions for anterior knee pain.

**Keywords:** Tibia shaft fracture, Intramedullary nailing, Split patellar, Paramedian patellar, Entry points

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Examining the Effect of Dual Task Balance Training Combined with Backward Walking on Gait in a Case with Unilateral Cerebral Palsy: Case Report

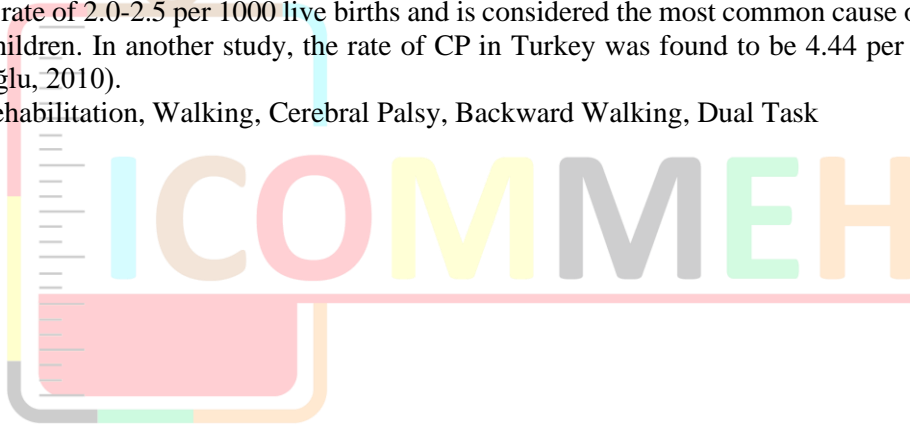
*Fatma CEYHAN<sup>1</sup>*

*Murat Ali ÇINAR<sup>2</sup>*

### Abstract

Cerebral Palsy (CP) is defined as a developmental disorder that occurs in the developing fetal or newborn brain during the prenatal, perinatal and postnatal periods, but causes dysfunction in children (Gözaçan Karabulut, 2020). In other words, SP; It is seen as a result of a lesion in the central nervous system that has not completed its development; It is a disorder that occurs in movement, posture and motor functions, and this lesion is permanent but not progressive. Despite a wide variety of etiologies, SP is seen at a rate of 2.0-2.5 per 1000 live births and is considered the most common cause of physical disability in children. In another study, the rate of CP in Turkey was found to be 4.44 per 1,000 live births. (Aknoğlu, 2010).

**Keywords:** Rehabilitation, Walking, Cerebral Palsy, Backward Walking, Dual Task



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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Review Of Projects In The Field Of Physiotherapy And Rehabilitation Within The Scope Of Tübitak Scientific Support Programs

*Şeyda ERCAN YÜCEER<sup>1</sup>*

*Gizem MURAT<sup>1</sup>*

*Mehmet Gürhan KARAKAYA<sup>2</sup>*

### Abstract

The purpose of this study was to examine the projects supported by the Scientific and Technological Research Council of Turkey (TÜBİTAK) in the field of physiotherapy and rehabilitation. Our study was carried out on 39 (3.1%) projects, which were accessed through the "TÜBİTAK Projects Database" open-access website, from a total of 12102 projects supported between January 2010-April 2024, which remained after the elimination criteria. These projects belonged to different research groups: Engineering Research Support Group (30.8%), Health Sciences Research Support Group(28.2%), Electrical, Electronics, and Informatics Research Support Group(30.8%), and Social and Human Sciences Research Support Group(10.3%). Physiotherapy and rehabilitation fields are included in 17 of 39 projects (43.5%). In projects involving physiotherapy and rehabilitation fields, it is notable that partnerships with the fields of engineering (30%) and medicine/health sciences (24%) are formed. Engineering sciences are involved in 86.3% of other 22 projects (56,5%) that do not have a physiotherapy and rehabilitation field. The projects focused more on rehabilitative treatment (28.2%), robotic product development (25.6%), and assessment (23.1%). Excluding scholarship holders, there were 158 individuals involved in all projects, with only 24% (n=38) being physiotherapists. Physiotherapists were involved in 25.6% (n=10) of the 39 projects. When we look at the findings of our study, it is noticeable that the projects belonging to the field of physiotherapy and rehabilitation and the number of physiotherapists involved in these projects are low compared to the all projects supported by TÜBİTAK. It is thought that innovative projects should be increased in order to adapt to the rapid changes and developments seen in the age of science and technology we live in, within our field. We also believe that it is important to increase the number of physiotherapists participating in these projects for health protection and rehabilitation and to complete the projects with a holistic perspective.

**Keywords:** Physiotherapy, rehabilitation, research project, collaboration, health sciences

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Evaluation of Pain and Quality of Life in Women with Constipation Problems: Controlled Study

*Havvanur SÖNMEZ<sup>1</sup>*

*Ayşegül ATLI<sup>2</sup>*

### Abstract

Constipation is characterized by a persistent difficulty in evacuating, a feeling of incomplete evacuation, and some symptoms, the presence of infrequent bowel movements every 3-4 days a week or less frequently. The aim of this study is to evaluate pain and quality of life in women with constipation problems by comparing them with the healthy control group.

A total of 334 female individuals between the ages of 18-65 with constipation problems (n=179, 53.6%) and without constipation problems (n=155, 46.4%) participated in this study. The data collection tools to be used in the study were sociodemographic form, ROMA III criteria to evaluate constipation, Constipation Quality of Life Scale to evaluate quality of life, and Visual Analogue Scale to evaluate pain. The study was carried out within the scope of TÜBİTAK 2209-A.

The average score of physical discomfort, psychosocial discomfort, worry/anxiety, satisfaction and total score from the subgroups of the Constipation Quality of Life Scale was found to be 58.90±20.91 in patients in the constipation group and 61.29±19.46 in patients in the control group, and no statistically significant difference was found between them (p>0.05). A significant difference was found between the two groups in pain assessment before (p=0.020), during (p=0.002) and after (p=0.000) toilet habit. It was found that female individuals with constipation had more pain assessment at 3 stages than the control group. Although we could not find results showing that constipation negatively affects female individuals in terms of quality of life, we believe that it should be evaluated together with pain in clinical evaluations.

**Keywords:** Constipation, Female, Quality of Life, Pain.

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Evaluation of Hot Flashes and Quality of Life in Female Individuals in the Postmenopausal Period: Controlled Study

Aleyna POLAT<sup>1</sup>  
Ayşegül ATLI<sup>2</sup>

### Abstract

Menopausal symptoms can be associated with poor health in many ways, which can negatively impact a woman's quality of life. Among vasomotor symptoms, hot flashes can be seen at a high rate in menopausal women. Therefore, our aim with our study is to evaluate women in the postmenopausal period in terms of hot flashes and quality of life by comparing them with the control group.

Women (n=111) who were between the ages of 45-65 and who had passed one year since their last menstrual cycle and women who had not entered menopause (n=121) between the ages of 35-65 were included in this study. Sociodemographic characteristics of the participants were obtained with the data collection form, data about hot flashes were obtained with the 'Menopause-Specific Hot Flashes Scale', and data about quality of life were obtained with the 'Menopause-Specific Quality of Life Scale'. The study was carried out within the scope of TÜBİTAK 2209-A.

The average age of the menopause group was  $54.21 \pm 6.93$  ( $X \pm SS$ ) and the control group was  $38.83 \pm 5.27$ . It was concluded that the menopause group received higher scores in terms of quality of life ( $X \pm SS = 78.41 \pm 19.46$ ) and that there was a significant difference between the control group ( $X \pm SS = 63.11 \pm 22.38$ ). The menopause group received higher scores in terms of hot flashes. It was found that there was a significant difference between ( $X \pm SS = 44.50 \pm 21.71$ ) and the control group ( $X \pm SS = 26.24 \pm 25.41$ ).

It has been found that women who have gone through menopause are more affected by hot flashes and quality of life than women who have not gone through menopause.

**Keywords:** Female, Hot Flashes, Postmenopausal, Quality of Life, Menopause.

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Variations And Clinical Significance Of The Palmaris Longus In Cadaver Specimens

*Gulnihal DENIZ<sup>1</sup>*

*Rukiye CIFTCI<sup>2</sup>*

*Rabia TASDEMIR<sup>3</sup>*

### Abstract

The anatomical structure and evolutionary development of the superficial forearm flexor, known as the palmaris longus, have garnered significant interest among kinesiologists, physical anthropologists, and anatomists. This muscle's anomalies, agenesis, variations, and polymorphic presentations, along with its role in flexion and supination of the distal upper limb, have been extensively studied. It holds particular importance in orthopedic practice and hand surgery, especially in muscle transfers. In light of this information, four cadaveric dissections were performed to evaluate the presence and course of the palmaris longus muscle. One male and one female cadaver exhibited an absence of the palmaris longus muscle in the right extremity. The palmaris longus muscle was present in both extremities of the first male cadaver. On the right, it originated from the medial epicondyle of the humerus and was inserted into the palmar aponeurosis. On the left, it originated from the ulna and inserted into the palmar aponeurosis. In the second male cadaver, the palmaris longus muscle was present only on the left side, originating from the medial epicondyle of the humerus and inserted into the palmar aponeurosis. In both female cadavers, the palmaris longus muscle originated from the medial epicondyle of the humerus and was inserted into the palmar aponeurosis on the left side. In one female cadaver, it was absent on the right side. On the other, it originated between the radius and ulna on the right side and was inserted into the palmar aponeurosis. The functional dynamics of the muscle and the clinical implications of its variations in humans are explored. It is posited that surgeons should be aware of these variations, as despite being considered otherwise inconsequential, this muscle offers a valuable graft option in tendon surgery.

**Keywords:** palmaris longus, cadaver, variations

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Comparative examination of ulnar variance according to age and gender

*Zeynep AKÇA ANDI*

*Ahmet UZUN*

### Abstract

Ulnar variance is defined as the length relationship between the distal joint surfaces of the radius and ulna. In healthy people, ulnar variance is expected to be neutral, and it is known that positive and negative ulnar variance may be associated with various diseases of the wrist. The aim of the study was to examine the ulnar variance according to age and gender through wrist posteroanterior (PA) radiography images. Standard PA radiographs were taken with the elbow in 90 degrees of flexion and the wrist in full pronation. Ulnar variance was measured using the perpendicular method on standardized posteroanterior wrist radiographs of 181 individuals and 362 wrist (86 males; 95 females). The type of ulnar variance was recorded. Differences according to age and gender were evaluated. According to the data obtained, over all the ulnar variance distribution was 58% neutral, 24.9% positive and 17.1% negative type. No statistically significant differences were found within the males and females ( $p>0.05$ ). Among the age groups, there was a statistically significant difference between the 20-39 age group and the 60 and over age group ( $p<0.05$ ). No significant difference was found between other age groups ( $p>0.05$ ). We believe that since ulnar variance is a helpful measurement for predicting some wrist pathologies, and we also think that our study will shed light on future studies on this subject.

**Keywords:** ulnar variance, age, gender, wrist radiography



# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Obtaining Bone Tissue from Embalmed Cadavers: A Preliminary Study

*Latif SAGLAM<sup>1</sup>*

### Abstract

Human bones are indispensable in anatomy education because they form the basis of the human body and are used in surgical applications, and studies and research in the anatomy department. Therefore, it is very important to continue the use of end-of-life cadavers that have completed their useful life in education and scientific research. In this context, this study aimed to obtain bone tissue from said cadavers. The 4th and 5th fingers of the left hand were removed from the cadaver and the soft tissues on the fingers were peeled off the bones as much as possible. The 4th finger bones were placed in 200 ml of 10% KOH solution and the 5th finger bones were placed in 150 ml of 30-32% H<sub>2</sub>O<sub>2</sub> solution. Both samples were kept in a 60° heating oven for 17.5 hours continuously. When the bones of both fingers were examined, it was observed that the method using 10% KOH solution (For the 4th finger) gave results closer to the natural bone appearance. However, micro deformities were found to occur in both methods. In this study, the preliminary data of samples obtained from embalmed cadavers, to which two different solutions were applied to two different finger samples, was obtained. The study is planned to be extended with a larger sample and different solution types.

**Keywords:** Solution, embalmed cadaver, bone.

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Age-Related Changes in Anatomical Variables of the Cerebellum in Healthy Adults Using MR Imaging: A Preliminary Study

*Gülçin RAYI<sup>1</sup>*  
*İbrahim KÜRTÜL<sup>2</sup>*  
*Abdullah RAY<sup>3</sup>*  
*Saadet ERDEM<sup>4</sup>*  
*Basel MALAYSHEH<sup>5</sup>*

### Abstract

The cerebellum, which plays a role in functions such as motor and cognitive control, perception and working memory, has been reported to be affected by the aging process and neurodegenerative diseases. In this context, this study aims to observe age-related changes in the morphometry of the cerebellum, an anatomically and functionally vital component of the brain, using variables determined by MRIs of healthy adult individuals.

The sample group of the study consisted of 23 female and 23 male healthy individuals aged 25-55 years, randomly selected from the PACS archive system of Bolu Abant İzzet Baysal University Training and Research Hospital. Participants were divided into groups according to the age-based grouping as 25-34, 35-44, and 45-55, and gender. The variables used in the study were as follows: diameter of the posterior cranial fossa (FCPC), height of the posterior cranial fossa (FCPY), lateral diameter of the cerebellum (CLC), the cerebellum height (CY), anteroposterior diameter of the right cerebellar hemisphere (RAPC), and anteroposterior diameter of the left cerebellar hemisphere (LAPC).

Statistical analyses revealed that the difference between the genders of the individuals forming the first group for FCPY, CLC, CY, RAPC, LAPC variables; the difference between the genders of the individuals forming the second group for CLC variable; and the difference between the genders of the individuals forming the third group for FCPY, CLC, CY variables were statistically significant.

The results of the study are in parallel with the literature. It is thought that these results will be useful for clinical sciences in making diagnosis, providing basic data for the healthy Turkish population and guiding future studies on this subject.

**Keywords:** Anatomy; cerebellum, MRI, morphometry, aging.

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Investigation of the Effects of *Mesobuthus gibbosus* Crude Venom on Epithelial Mesenchymal Transition (EMT) in HT-29 Colorectal Cancer Cell Line

Seçilay ERGÜL<sup>1</sup>  
Ayşegül KARATAŞ<sup>2</sup>  
Burçin ÖZÇELİK<sup>3</sup>

### Abstract

Colorectal cancer (CRC) ranks as the second leading cause of cancer-related death globally. Therapeutics used in CRC treatment have serious side effects. The effectiveness of these therapeutics is frequently hampered by the development of metastasis and drug resistance. The studies showed the relationship between the resistance and metastatic feature in CRC and epithelial-mesenchymal transition (EMT). Despite the studies demonstrating that scorpion venoms exhibit cytotoxic effects on CRC, there is a notable lack of research exploring its impact on EMT. This study aimed to investigate the inhibition effect of *Mesobuthus gibbosus* venom on EMT and to sensitize the EMT-induced CRC cells to adjuvant therapy, to slow down metastatic development. The scorpions were collected from Niğde province. Venom extraction was carried out using the electrostimulation method. EMT model was induced by TGF- $\beta$  in the HT-29 cells and validated by qRT-PCR. FOLFOX regimen was applied to epithelial (E) and mesenchymal (M) forms and the resistance profile of the M form was determined. Invasion abilities of both forms were determined by wound healing assay. It was evaluated whether there was a transformation from the M form to the E form, whether it broke the resistance of the M form against adjuvant therapy and whether it prevented invasion by applying different concentrations of venom to both forms. As a result, the expression of E-cadherin decreased (1.2 fold) and the expression of N-cadherin (2 fold) and vimentin (3.1 fold) increased in cells treated with TGF- $\beta$ . Resistance to adjuvant therapy developed in the M form and the M form gained the ability to invade. Venom triggered a transformation from M form to E form, thus preventing resistance to adjuvant therapy and invasion. In the light of these preliminary data, further studies will be conducted to investigate the mechanism of venom triggering mesenchymal-epithelial transition (MET).

**Keywords:** Colorectal cancer, epithelial-mesenchymal transition, *Mesobuthus gibbosus*, venom, drug resistance

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Hippo pathway suppressed by Odoroside A causes suppression of MyD88- independent TLR signaling

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Canan EROĞLU GÜNEŞ<sup>2</sup>

### Abstract

Cell proliferation and organ size are regulated by the Hippo pathway. The core kinase cascade, which includes MST1/2 and LATS1/2, controls YAP nuclear translocation and the formation of the YAP/TEAD transcription factor complex. It has been recently shown that TLRs can drive the growth and spread of tumors by controlling cellular signaling pathways. The discovery of new regulators with the ability to block TLR signals may offer new perspectives on the development of therapeutic targets for the treatment of lung cancer. *Nerium oleander*, a traditional folk remedy, contains an active cardenolide called odoroside A. The aim of this study is to investigate the relationship of Odoroside A and Hippo pathway via TLRs and MYD88 proteins in lung cancer.

Odosoride A was applied to A549 cells at different doses. As a result of CCK-8 analysis, the IC<sub>50</sub> dose was determined to be 183.53 nM at the 48 h. cDNA was synthesized from RNA obtained from cells administered IC<sub>50</sub> dose. Expression analysis of Hippo pathway-related genes and TLR 2,4,10 and MYD88 genes was performed by qRT-PCR analysis. According to the results, YAP, TAZ and MST genes were significantly reduced. The Hippo pathway is suppressed. MYD88 increased significantly, while TLR2 and TLR4 decreased significantly.

The Hippo pathway, which is suppressed in cancer cells by Odoroside A, enabled the suppression of TLR2 and TLR4, which stimulate general inflammatory cytokines. However, excessive increase in MYD88 showed that Odoroside A suppressed the inflammatory pathway independently of MYD88.

**Keywords:** Lung Cancer, Odoroside A, Hippo Pathway, MYD88, TLRs

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## The Relationship between Health Literacy and Digital Literacy: A Meta-Analysis

Cuma FİDAN<sup>1</sup>

### Abstract

The aim of the study is to investigate the relationship between health literacy and digital literacy. This study used a meta-analysis method. It sought to answer the research question "Is there a relationship between health literacy and digital literacy?". The literature was searched through the YÖK Thesis Center database between 1 February and 21 March 2024 using the keywords "sağlık okuryazarlığı/health literacy, dijital okuryazarlık/digital literacy". The inclusion criteria were (1) to be written in Turkish and/or English, (2) to be a thesis, (3) to have full-text access, and (4) to be a quantitative study addressing the relationship between health literacy and digital literacy in Türkiye. While correlation effect size method was used to calculate effect sizes, the random effect model was used to calculate the common effect size ( $Q=378.48$ ,  $df=2$ ,  $p<0.001$ ,  $I^2>0.75$ ). The literature review yielded 120 studies. 117 studies with different research topics were excluded. The sample consisted of three master's theses published between 2018 and 2023, and using cross-sectional research designs. In the study, the relationship between health literacy and digital literacy levels of 1.070 people was investigated. The Begg and Mazumdar rank correlation test method did not detect publication bias ( $z=1.57$ ,  $p=0.12$ ). The meta-analysis findings showed that there was a positive relationship between health literacy and digital literacy. However, this result was statistically insignificant ( $M=0.24$ , 95%  $CI=-0.44-0.74$ ,  $p>0.05$ ). Overall, the results indicate that more research is needed to better understand the relationship between health literacy and digital literacy.

**Keywords:** Digital literacy, Health literacy, Meta-analysis.

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Examining the Relationships Between Organizational Justice, Organizational Citizenship Behavior and Job Satisfaction: A Study on Nurses

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Fedayi YAĞAR<sup>2</sup>*

### Abstract

The main goal of this study is to measure the organizational justice and organizational citizenship behaviors of employees in the health sector and to investigate the effect of these behaviors on professional job satisfaction. The population of the research consisted of nurses working in Erzurum City Hospital. Convenience sampling method was used in the study and 241 nurses who agreed to participate in the study constituted the sample. A survey was used as a data collection tool. SPSS (v.26) program was used to evaluate the data. Data were analyzed using descriptive statistics, independent sample t-test, ANOVA, correlation and regression techniques. The findings revealed that there are positive relationships between organizational justice, organizational citizenship behavior and job satisfaction. Likewise, it was determined that both organizational justice and organizational citizenship behavior perception had a significant effect on job satisfaction. Additionally, it has been determined that the perception of organizational justice, organizational citizenship behavior and job satisfaction varies according to some socio-demographic variables. The study revealed that men, singles and nurses with high income levels have high perceptions of organizational justice. In terms of job satisfaction, it has been determined that the satisfaction levels of single nurses and nurses who think they have high incomes are higher. Finally, it was determined that the perception of organizational citizenship behavior was higher in individuals with high professional experience, who were single and male. These results showed that organizational justice and organizational citizenship are critical elements in explaining job satisfaction. It is believed that these results will guide policy makers and hospital managers in terms of increasing efficiency in healthcare institutions.

**Keywords:** Organizational justice, organizational citizenship behaviors, job satisfaction, nurses, socio-demographic factors

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Determining Near Miss Events (Risks) Using Risk Analysis method in Drug Management: Balıkesir Private Sevgi Hospital Central Pharmacy Unit Example

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*Vahide BAYRAKAL<sup>2</sup>*  
*A. Hüseyin BASKIN<sup>3</sup>*

### Abstract

Drug management target in Health Quality Standards Hospital Set Version 6.1 is defined as “Ensuring effective management of all processes involving medicine in the hospital is minimizing risks to the patients and employees.” and it has been stated that regulations should be made for the safe administration of drugs.

It is extremely critical to take care of patient safety in the hospital, to create a medication management system by prioritizing ensuring drug safety in the hospital pharmacy, and to take an active role of pharmacists and pharmacy unit employees in determining the risks related to medication management processes, in minimizing all risks of errors that may reach the patient.

Two separate meetings were held consecutively with Balıkesir Private Sevgi Hospital Central Pharmacy Unit staff in March 2024 for risk management in health, interactive information synchronization and identification of near miss events. In the meetings recorded with meeting minutes, near-miss events in pharmaceutical management were identified and evaluated together with the employees of the pharmacy unit.

In this research, which is a part of the master's degree thesis, suggestions are presented for the development of preventive measures by collecting near-miss events that may occur in drug management at Balıkesir Private Sevgi Hospital from the pharmacy, analyzing them and presenting the analysis results comprehensively.

**Keywords:** Patient safety, Drug Safety, Risk Management, Quality in Healthcare

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Identification of IGFL2 Protein as a Potential Prognostic Biomarker in Head and Neck Cancer using Bioinformatical Approaches

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Salih Yabalak<sup>2</sup>

### Abstract

Insulin-like growth factor-like family member 2 (IGFL2) belongs to the IGFL family, predominantly expressed in fetal skin, cerebellum, heart, placenta, spleen, stomach, testis, and thymus. The IGFL family shares structural homology with the IGF family, which plays crucial roles in cancer development and metastasis. Although increased expression of IGFL family members has been detected in colon, squamous cell carcinoma, and ovarian cancer, the molecular effects of IGFL in cancer remain unclear. The well-defined structure of IGFL2 and its similarity to the IGF family underscore the importance of elucidating its role in cancer. Therefore, this study aimed to explore the potential role of IGFL2 in Head and Neck cancer (HNSC).

Gepia was utilized to analyze the expression profile of IGFL2 in HNSC based on the match TCGA normal and GTEx data. Additionally, UALCAN was performed to evaluate the functional status of IGFL2, such as nodal metastasis, stages, and tumor grades in HNSC. The Kaplan–Meier plotter was used to examine the relationships between overall survival (OS) and IGFL2 expression.

Our findings reveal that IGFL2 is upregulated in HNSC tissues, and its overexpression is associated with the transition from normal cells to tumor cells. Moreover, IGFL2 upregulation is positively correlated with well-differentiated tumors, while a decreased expression profile is observed from well-differentiated tumors to undifferentiated tumors. However, no significant association was detected between overall survival and IGFL2 expression in HNSC patients.

The strong correlation between IGFL2 expression and HNSC development suggests its potential as a prognostic factor in HNSC.

**Keywords:** HNSC, IGFL2, IGF, Growth Factors, IGFL family

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## t(8;21) and FLT3 Mutation Frequency in Patients with Acute Myeloid Leukemia (AML)

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Haktan Bağış ERDEM<sup>3</sup>*

### Abstract

Acute Myeloid Leukemia (AML) is a heterogeneous malignancy characterized by recurrent genetic, epigenetic, and metabolic abnormalities in hematopoietic blast cells. Among the most common genetic alterations in AML are t(15;17), t(8;21), and inv16, which frequently recur. One of the most frequent molecular changes accompanying these translocation changes is the FLT3 mutation. This retrospective study aimed to investigate the frequency of t(8;21) and FLT3 mutations in patients diagnosed with AML.

The study included 424 patients with a preliminary diagnosis of AML who applied to the Medical Genetics and Hematology outpatient clinics of Ankara Etlik City Hospital between 2022 and 2023 and were referred to the Medical Genetics laboratory. Sanger sequencing was used for FLT3 mutation analysis, and RT-PCR was used for t(8;21) analysis. The results were retrospectively reviewed, and statistical evaluations were made regarding the frequency of mutations.

In the retrospective study, FLT3 mutations were analyzed in 309 (72.9%) of the 424 patients with a preliminary diagnosis of AML, and t(8;21) was analyzed in 325 (76.7%). The t(8;21) mutation was detected in 20 (4.7%) patients using RT-PCR, while the FLT3 mutation was detected in 32 (7.5%) patients using Sanger sequencing. Among the 32 patients with FLT3 mutations, FLT3-ITD was observed in 22 (5.1%) patients, and FLT3-TKD/D835 point mutation was observed in 10 (2.4%) patients. Among the total of 52 (12.3%) patients with detected mutations, 26 (50%) were female, and 26 (50%) were male.

The results of our study indicate that the 12.3% positivity rate found is significant and cannot be ignored in patients diagnosed with leukemia. It was observed that the FLT3 mutation, associated with poor prognosis, appeared more frequently in positive results compared to the t(8;21) mutation, which is associated with good prognosis. Due to the treatment target in newly diagnosed AML patients, using Sanger sequencing for FLT3 testing compared to other molecular and cytogenetic methods can provide the clinician with the fastest and most specific result necessary for the 72-hour intervention target.

**Keywords:** Acute Myeloid Leukemia (AML), FLT3-ITD, FLT3-TKD, RT-PCR, Sanger Sequencing, t(8;21)

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Long Non-Coding Rna In Melanoma Cancer From Biomarkers To Therapeutic Targets

Berna ÖZDEM<sup>1</sup>  
Gülşah EVYAPAN<sup>2</sup>

### Abstract

lncRNAs (Long non-coding RNAs) are essential regulators of intracellular processes including differentiation, proliferation, invasion, migration, and apoptosis through various mechanisms. Melanoma, a type of most lethal skin cancer, is affected in many ways by lncRNA. However, relapse, high drug resistance, and adverse effects of immunotherapies remain a major challenge in melanoma treatment. Understanding the role of lncRNAs in melanoma may provide important information to elucidate the biology of this aggressive cancer and potentially revolutionize its diagnosis, prognosis, and treatment. Various lncRNAs, such as LINC00520, AS5, HSD11B1-AS1, TUG1, LINC00173, promote the growth and metastasis of malignant melanoma and can be used as both diagnostic potential and therapeutic targets. Further research and collaboration are needed to fully exploit the clinical potential of lncRNAs in melanoma treatment. understanding the functions and dysregulation of lncRNAs in melanoma may help develop new diagnostic and therapeutic methods. Additionally, Personalized treatments that effectively inhibit melanom growth, invasion, and metastasis can be developed by targeting specific lncRNAs. Consequently, lncRNAs can be used as therapeutic targets and diagnostic markers for melanomas because of they affect the spread, invasion, migration, and phenotype changes of cancer cells in melanoma. Studying lncRNAs in melanoma will elucidate the biology of this aggressive cancer, bringing new avenues for cancer diagnosis, prognosis and treatment. The ongoing research and collaboration in this area will be crucial to exploiting the real potential of lncRNAs in the treatment of melanoma.

**Keywords:** lncRNAs, Melanoma, Therapeutic targets

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## How Should We Design Pathology Education for Dentistry, Pharmacy and Health Sciences Students?

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*Elife KIMILOĞLU<sup>3</sup>*  
*Nusret ERDOĞAN<sup>4</sup>*

### Abstract

Medical pathology forms the bridge between basic sciences and clinical sciences in medical education. Medical pathology or physiopathology/pathophysiology topics are included in the curricula of dentistry, pharmacy, physiotherapy, nursing and midwifery faculties as well as in the pre-clinical period in the medical school curriculum. However, it is observed that there are different practices regarding the content and duration of medical pathology courses needed in these fields other than medicine.

It is important for dentistry, pharmacy, physiotherapy, nursing and midwifery students to understand the scope of medical pathology and its role in diagnosis, treatment and follow-up. It would be beneficial for the students of these disciplines, who should be in close cooperation with medical pathology throughout their professional life, to have information about the functioning of the pathology laboratory, acceptance of the surgical materials to the lab and technical processing steps, and even to see the functioning on site with laboratory visits.

Dentistry, pharmacy, physiotherapy, nursing and midwifery students should have an understanding of general pathology topics and terminology such as cell damage, cell adaptation, inflammation, hemodynamic disorders, immunity and neoplasia. This terminology, which they will use in interdisciplinary communication throughout their professional life, will contribute to their understanding of the causes, mechanisms and consequences of diseases.

Although general pathology topics can be prepared and given in joint lectures, since each discipline will be more intensively involved with different patient groups, discipline-specific systemic pathology topics such as oral pathology in dentistry may be necessary and useful. In medical school pathology education, it is aimed to integrate etiopathogenesis with macroscopic and microscopic morphology to make it more understandable and long-lasting since it will be easier for the medical student who comprehends etiopathogenesis to reach a clinical diagnosis. As well, in the above mentioned disciplines, it is required to question the need and how this need will be met. If the aim is only for students to learn about the clinical features of diseases, this need can be met by clinical disciplines other than medical pathology.

It would be useful for these disciplines, which work hand in hand for the acquisition and protection of human health, to create and implement curricula with a common mind in line with their common goals.

**Keywords:** Pathology, education, dentistry, pharmacy, health sciences

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Molecular Markers in Head and Neck Squamous Dysplasia and Carcinoma Formation

*Neslihan KAYA TERZİ<sup>1</sup>*

### Abstract

Head and neck squamous cell carcinoma (HNSCC) is one of the most common malignant tumors of this anatomical region. Epithelial dysplasia, ranging from mild to severe based on pathologic criteria, seems to be the true precursor of HNSCC.

The aim of this study was to identify genetic alterations that cause dysplasia or carcinoma in cases of squamous dysplasia (mild, moderate or severe) and squamous cell carcinoma of the head and neck region.

Our retrospective study included patients diagnosed with mild squamous dysplasia (n=20), moderate to severe squamous dysplasia (n=20) and SCC (n=20) between January 1, 2018 and December 31, 2023. Previously immunohistochemically stained slides with p53, p16 and Ki67 stains were re-evaluated. While no mutation was detected with p53 in all cases with mild dysplasia, 14 (70%) cases with moderate to severe dysplasia and 15 (75%) cases with SCC were immunohistochemically mutant (p=0.723). Positive staining with p16 antibody was observed in 7 (35%) cases of mild dysplasia, 9 (45%) cases of moderate to severe dysplasia and 8 (40%) cases of SCC (p=0.811). Ki-67 proliferation index showed full-fold proliferation in the lower 1/3 of the epithelium in 90% of cases with mild dysplasia and in the majority of cases with moderate to severe dysplasia and SCC (60% and 85%, respectively). There was statistical significance between the Ki-67 proliferation index, increased dysplasia grade and invasive malignancy (p<0.001).

There is a lack of data in the literature about the time required to lead to carcinoma or the presence of dysplasia that may lead to carcinoma. Transition from dysplasia to carcinoma has been demonstrated in animal models, but there is a lack of data on the human equivalent. Our study is a preliminary study and gene analysis of the cases will also be investigated.

**Keywords:** head and neck cancer; head and neck squamous cell carcinoma; squamous dysplasia; immunohistochemistry; molecular markers

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Acrylamide suppresses the proliferation of HepG2 cells via endoplasmic reticulum stress regulation

Didem ORAL<sup>1</sup>  
Ceyhan HACIOĞLU<sup>2</sup>

### Abstract

Hepatocellular carcinoma (HCC), recognized as hepatoma, represents a primary hepatic malignancy and ranks as the third leading contributor to cancer-related mortality worldwide. Despite considerable attention directed towards HCC, its underlying pathogenesis remains largely elusive. Acrylamide, predominantly employed as a synthetic agent across diverse industries, constitutes a potential carcinogen present in carbohydrate-rich foods subjected to high-temperature cooking. Acrylamide has been documented to elicit DNA damage and cytotoxic effects. Endoplasmic reticulum (ER) stress denotes a fundamental cellular response to stressors, modulating cellular protein equilibrium in response to endogenous or exogenous triggers, contingent upon stimulus nature, intensity, and duration of exposure. The current investigation aims to elucidate the putative mechanism underlying acrylamide-induced proliferation of human HCC HepG2 cells and assess its impact on ER stress. Cytotoxicity of acrylamide was determined using the MTT assay, while levels of ER stress-related biomarkers including X-box-binding protein 1 (XBP1), phospho-eIF2 $\alpha$ , activating transcription factor 4 (ATF4), and C/EBP homologous protein (CHOP) in acrylamide-treated HepG2 cells were quantified employing the ELISA technique. According to MTT analysis, the 24-hour IC<sub>50</sub> concentration of acrylamide was established as 15 mM. Acrylamide induced ER stress evidenced by significant elevation in the levels of XBP1, phospho-eIF2 $\alpha$ , ATF4, and CHOP in HepG2 cells compared to control counterparts ( $p < 0.05$ ). In summation, acrylamide mediated inhibition of HCC cell proliferation via ER stress signaling in HepG2 cells.

**Keywords:** Acrylamide, Endoplasmic reticulum stress, Hepatocellular carcinoma

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Investigation of Cytotoxic Effects of Reishi Mushroom

Ece MİSER-SALİHOĞLU<sup>1</sup>

### Abstract

Reishi (*Ganoderma lucidum* (Curtis) P. Karst.) has long been known to exhibit a broad spectrum of biological effects. Ganoderma triterpenoids are known to have potential against Alzheimer's Disease by alleviating neuroinflammation and reducing neuronal apoptosis. There is no current study showing the cytotoxic effect of this fungus, which is widely used in Asian countries and our country, in studies conducted with cells. Therefore, in our study, the effects of different doses of Reishi extract on the stimulated SH5Y cell line were examined. For this purpose, Reishi extracts prepared at 5 different concentrations (500–31.25 µg/mL) were applied to the cells and incubated for 24 and 48 hours. At the end of each incubation, MTT levels for cytotoxicity, Annexin-V for apoptosis, and ROS levels for oxidative stress were measured. According to MTT results, it was observed that the highest dose, 500 µg/mL, showed cytotoxic activity in 48 hours, while other doses caused proliferation after 24 and 48 hours of incubation. It can be thought that reishi, an adaptogenic mushroom, shows this effect in low doses and increases proliferation. According to our study results, it was observed that ROS levels decreased compared to control, and apoptosis results were correlated with cytotoxicity results. It has been observed that this fungus, which is used for therapeutic and protective purposes, has a reducing reactive oxygen species and proliferation effect on cells. Dose selection is important and low doses may cause the proliferation of cells that are intended to be directed to apoptosis, thus negatively affecting the treatment.

**Keywords:** Reishi, apoptosis, cytotoxicity, ROS

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This study was supported by the Scientific Research Project Foundation of Gazi University, Türkiye. (Project No.: TCD-2023-8811, Project ID: 881).



# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Feeding Problems in Children with Autism Spectrum Disorder

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### Abstract

Autism spectrum disorder (ASD), is a neurodevelopmental condition associated with restricted, repetitive, or stereotyped behaviors as well as impairments in social communication. Although the etiology of autism is not certainly known, environmental and genetic factors are thought to be important factors. Despite symptoms usually begin to appear after the age of two, obvious delays in the child's development make think autism before the age of one. About 1 in 36 children have been identified with ASD and is nearly four times more common among boys than girls according to estimates from Autism and Developmental Disabilities Monitoring in Centers for Disease Control and Prevention. In general, while feeding problems are observed in 10-20% of children under the age of 3, at least 70% of autistic children have feeding problems reported by their parents. In many studies, it has been determined that autistic children have nutritional problems such as food neophobia, food rejection, food selectivity, and fussy eating more frequently than their typically developing peers. Additionally, avoidant/restrictive food intake disorder (ARFID), which is defined as an eating disorder according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) criteria, is more common in autistic children than in normally developing children. In the reference to DSM-5, the main diagnostic feature of ARFID is avoidance or restriction of food intake that is associated with one or more of the following consequences: significant weight loss, significant nutritional deficiency (or related health impact), dependence on enteral feeding or oral nutritional supplements, or marked interference with psychosocial functioning. In short, autistic children's interest in food often decreases significantly. Understanding and intervening in nutritional problems in these children is vital for their health, development and general well-being.. Therefore, early diagnosis and intervention are thought to be extremely important in managing the nutritional problems of autistic children.

**Keywords:** Autism spectrum disorder, Avoidant/restrictive food intake disorder, Food neophobia, Food rejection, Food selectivity,

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## A case of infantile colic admitted to pediatric emergency: Inappropriate breastfeeding technique

*Mehmet Semih Demirtaş<sup>1</sup>*

### Abstract

Infantile Colic (IC) is an episode of crying and restlessness which has been present more than 3 weeks, at least 3 days a week for more than 3 hours and cannot be explained by any other cause. In infants with IC, conditions such as infections and diseases are considered in foreground, leading to delays in diagnosis. We aimed to present a case of IC who frequently presented to paediatric emergency department due to inappropriate breastfeeding technique. A 32-day-old infant was admitted to paediatric emergency for the 4<sup>th</sup> times in the last 10 days with complaints of restlessness, vomiting and crying. No abnormal examination findings were found in the routine examinations performed on the first day. The hemogram and biochemical values were within normal limits for age. The patient was consulted to breastfeeding counselling. The mother-baby pair was evaluated together, and breastfeeding was actively observed. It was observed that the baby was incorrectly placed on the breast and the baby sucked the nipple. The mother was shown the correct breastfeeding positions and placement of the baby on the breast, and practice was performed. At the 3<sup>rd</sup> follow-up visit, it was observed that the baby was correctly placed on the breast, breastfeeding problems were resolved, and the restlessness of the mother and the baby decreased. As a result of improper breastfeeding techniques, the feeding-sleep-resting pattern of infants may be disrupted and may lead to IC. In the parents of babies with colic, findings such as helplessness, fatigue, exhaustion, loss of self-confidence, anxiety and breastfeeding problems may occur and there may be frequent emergency admissions due to this situation. In such cases presenting to the emergency department, breastfeeding techniques and feeding status should be kept in mind and evaluated in the foreground and breastfeeding counsellors should be consulted.

**Keywords:** Breastfeeding, Infantile Colic, Breastfeeding Technique

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Assessment of Triglyceride/HDL Ratio in Patients with Multiple Diabetic Microvascular Complications: Retrospective Study

*İrfan ALIŞAN<sup>1</sup>*

### Abstract

**Aim:** This study aimed to investigate the association between the triglyceride-to-HDL cholesterol ratio (TG/HDL-C) and the presence and severity of multiple diabetic microvascular complications in patients with type 2 diabetes.

**Materials and Methods:** A retrospective, cross-sectional study was conducted at the outpatient endocrinology clinic of Adana City Education and Training Hospital. Participants included patients with type 2 diabetes and at least two documented microvascular complications (nephropathy, neuropathy, and/or retinopathy). Data on demographics, clinical characteristics, and laboratory parameters, including TG/HDL-C, were collected from electronic medical records. Statistical analyses involved descriptive statistics, group comparisons, and logistic regression to assess the association between TG/HDL-C and the number of microvascular complications.

**Results:** A total of 44 patients were included, with 12 having two complications and 32 having three. Patients with three complications exhibited a significantly higher TG/HDL-C ratio compared to those with two. Additionally, this group showed signs of increased inflammation and impaired renal function, demonstrated by higher white blood cell counts, blood urea nitrogen, and creatinine levels, along with lower hemoglobin and hematocrit levels.

**Conclusion:** The findings suggest that an elevated TG/HDL-C ratio is associated with a higher burden of diabetic microvascular complications. This lipid ratio may serve as a simple and readily available marker for identifying patients at increased risk and may guide further research into interventions targeting TG/HDL-C for the prevention and management of microvascular complications in diabetic patients.

**Keywords:** Microvascular complications, triglyceride/HDL cholesterol ratio, type 2 diabetes

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## The Effect of Web-Based Distance Education and Face-to-Face Practice Training on the Learning Process and Perception of Professional Competence of Paramedic Students in the Covid-19 Pandemic

*Fatma HAKYEMEZ<sup>1</sup>*

*Celal KATI<sup>2</sup>*

### Abstract

In the study, it was planned to examine the effect of web-based distance education and face-to-face practice training on the learning process and professional competence perception of paramedic students during the Covid-19 pandemic process.

The descriptive study was conducted with 79 students studying in the second year of the First and Emergency Aid Program at a university in the spring semester of the 2020-2021 academic year. The data were collected with the "Questionnaire for Examining the Effects of Distance Education and Face-to-Face Practice Education on Paramedic Students' Learning Process (Part I) and Perception of Professional Competence (Part II)". The data were analyzed in IBM SPSS 25.0 package program and  $p < 0.05$  significance level was accepted.

The mean scores of the students were  $4.43 \pm 0.66$  for the impact on learning process questionnaire and  $4.33 \pm 0.63$  for the perception of professional competence questionnaire. It was observed that those who listened to the theoretical course recordings at least twice, watched all scenario-based case recordings, participated in face-to-face practice training and clinical practice in the emergency department had higher total scores in the learning process and perception of professional competence questionnaire, but no statistically significant difference was found between the groups ( $p > 0.05$ ). The total scores of students who graduated from health vocational high schools were statistically significantly higher than those who graduated from other high schools ( $p < 0.05$ ).

It is thought that reinforcing the theoretical knowledge given face-to-face or, when necessary, through distance education in the field of health education, in practice laboratories and clinical practice areas that will provide skill acquisition will contribute to the learning process and perception of professional competence and this will increase the quality of health care.

**Keywords:** Covid-19, paramedic, practice training, web-based education

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Assessment of Basic Life Support Knowledge Levels Among Citizens Who Have Received First Aid Training in Turkey

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İbrahim UYSAL<sup>2</sup>

### Abstract

In emergency situations, it is crucial to activate the chain of survival and apply basic life support by the witness at the scene to reduce mortality and morbidity rates. This study aims to evaluate the basic life support knowledge level of individuals on a national scale using a diagnostic branching tree diagram and to identify learning gaps. The research population consists of individuals in Turkey who have received first aid training, with data collected from 2,302 individuals using a knowledge test designed as a diagnostic branching tree diagram. The average overall basic life support score was calculated to be 70.82 out of 100 points. The lowest average scores were in the use of automated external defibrillators (58.61±21.35) and chest compressions (58.67±19.70). A significant difference was found between the participants' total basic life support scores and the variable of the institution where the training was received ( $X^2=143.549$ ,  $p<0.001$ ,  $\epsilon^2=0.0624$ ); scores were lower for those trained in private security and driving courses compared to those trained at Ministry of Health-affiliated centers, private centers supervised by the Ministry of Health, and universities. Basic life support knowledge scores significantly decreased as the time elapsed since the training increased ( $X^2=137.9$ ,  $p=0.001$ ,  $\epsilon^2=0.0599$ ). Improving first aid knowledge within the community can enhance survival rates. It has been found that the knowledge levels of individuals trained in courses with large numbers of participants, such as driving schools and private security training courses, which provide first aid training but do not issue certificates, are low. Given the high rates of obtaining driving licenses, it is recommended that first aid training in driving schools be conducted under the Ministry of Health's supervision, standardizing the training, issuing certificates to participants, and planning refresher courses.

**Keywords:** Basic Life Support, First Aid, Diagnostic Branching Tree Diagram, Cardiac Compression, Artificial Respiration

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## The Importance of Health Literacy in Stroke Patients

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*Dönmez Öztürk Renginar<sup>2</sup>*

### Abstract

Stroke is a condition that occurs when a part of the brain is temporarily or permanently affected as a result of ischemia or bleeding. Stroke is a significant cause of mortality and morbidity. The frequency and etiologies of stroke in our country are similar to western societies, and a significant portion is of the ischemic type (175/100,000, 72 ischemic, 28% hemorrhagic). Stroke, which is such a common disease and causes high disability, causes dependence on other family members. This is another burden that the disease will bring to society.

Health literacy (HL), which determines the ability to access and use information in order to protect and maintain health, is of great importance. HL can be defined as the individual's ability to understand and interpret this information and act accordingly when asked to give medical information to a patient. Conducted studies emphasize that following medication instructions is a serious problem in patients with low HL levels, that patients do not take their medications at the correct times and use them at incorrect rates, and this has negative health consequences. It has been found that HL is associated with the effective treatment of chronic diseases and protection from their complications, the use of emergency services and hospitalizations to improve medication compliance and control of the disease. Post-stroke complications not only increase stroke mortality but also cause rehabilitation to be delayed and patients to become more disabled and dependent.

In another study, a clear relationship was found between the level of HL and stroke education results. It is stated that studies are needed to better understand the relationship between basic education results for primary and secondary prevention in case of stroke and to improve stroke education for the HL levels of high-risk populations.

Studies have shown that ancestry in stroke patients is important in the treatment and management of the disease. For this reason, it is recommended that nurses who care for stroke patients take into consideration individuals' HL levels in their health education and nursing practices.

**Keywords:** Stroke, health literacy, nurse, health education, disease management

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Examination of Motivation Level for Participating in Physical Activity in Students Attending Physiotherapy Program

Aliye BULUT<sup>1</sup>  
Bengisu TÜFEKÇİ<sup>2</sup>

### Abstract

The aim of this study is to investigate the level of motivation of students attending physiotherapy program for participating in physical activity.

The population of the study consisted of students studying in the Physiotherapy Program at Gaziantep Islamic Science and Technology University Vocational School of Health Services (n=160). The sample of the study consisted of students in the physiotherapy program who were reached between April 2024 and May 2024 and accepted to participate in the study (n=140, response rate: 87.5%). A questionnaire was used as a data collection tool in the study. The participants were asked to fill in the sociodemographic characteristics form and the Motivation Scale for Participation in Physical Activity. The mean age of the participants was 21.12±3.65 years (Min:18, Max:46, Median:20). When the physical characteristics of the participants were examined in the present study, it was observed that the mean height was 165.6±8.0 cm, the mean weight was 61.98±10.35 kg and the mean BMI was 22.59±3.52 kg/m<sup>2</sup>. The motivation of the participants to do physical activity was evaluated with the MSPPA and subheadings, it was determined that the highest mean score observed in the "Individual Reasons" subscale, which expresses the intrinsic motivation of the individual (24.37±3.47). When the total scale score (61.28±7.65) was evaluated, it was found that the participants were in the "high motivation" score range (49-64).

Based on the results of the study, it can be suggested that similar studies should be conducted in provinces other than Gaziantep in order to determine the rates of participation in physical activity in Türkiye and new approaches are needed to motivate participation in physical activity.

**Keywords:** Physical activity, student, motivation, motivation to participate, motivation for participation in physical activity.

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## A Review on Substance Use Disorder as a Common Health Problem in Adolescence

*Büşra GÜRBÜZ<sup>1</sup>*

### Abstract

Substance use disorder is a major public health problem that has always existed in our country and around the world and is increasingly common today. Substance use disorder is known as a social problem that can start at any age, but mostly occurs in adolescence. Adolescence is the transition period from childhood to adulthood and includes many developmental features. In addition to features such as body and physical development, identity development, emotional and social development, mental and cognitive development, behavioral changes such as freedom, independence search and risk taking are important characteristics of adolescence. It is known that individuals are generally prone to risky behavior during this period. Accordingly, adolescence period; It is defined as a period in which risky behaviors such as dangerous behavior, sexual risk-taking, and alcohol and substance use increase. Based on this, the aim of this study is to address the substance use behavior of adolescents who are currently in a high risk group for addiction. The study is a compilation study and in this context, studies that can be accessed in various databases using the keywords of the study were examined. As a result of the investigations; It is observed that individuals in adolescence, who are in a period of search where they are able to evolve into positive or negative behavioral patterns in order to gain their identity, begin to use substances for various reasons. Among these reasons, the most common are; It turns out that there are problems such as peer groups and social pressure, family problems and conflicts in the family, emotional problems and inability to express oneself. In line with these results, some suggestions have been developed.

**Keywords:** Substance use disorder, Addiction, Adolescence, Adolescent, Youth.

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Factors Affecting Psychological Health in the Elderly: Depression and Anxiety

*Büşra GÜRBÜZ<sup>1</sup>*

### Abstract

Turkey is becoming a country whose demographic structure is changing rapidly with the developments in science and technology and life expectancy is increasing. In individuals aged 65 and over, who are defined as elderly, decreases in quality of life and life satisfaction can be observed as a result of changes such as cognitive changes, social isolation, loneliness and economic difficulties that accompany physical health problems that occur with advancing age. The psychological health status of the elderly is of great importance in adapting to all these changes that occur due to advancing age and coping with the problems that arise. As a matter of fact, it is seen that psychologically healthy individuals experience their lives in a positive way during old age and cope with the difficulties that come with old age in a healthy way. On the other hand, some psychological problems may arise in elderly individuals who cannot adapt to the problems and changes they encounter in their lives. The most common of these problems are depression and anxiety. Based on this, the aim of this study is; To address depression and anxiety, which are factors affecting psychological health in the elderly. The study is a theoretical compilation study based on literature review. In this context, studies that could be accessed in various databases using the keywords of the study were examined. As a result of the investigations, it is revealed that in addition to the negative effects of the changes brought by old age on psychological health, the negative effects of psychological health also pave the way for other diseases. Based on the fact that health is a whole, it has been revealed that it is useful to evaluate the elderly as a bio-psycho-social being and the problems brought by old age in a holistic manner, and some suggestions have been developed on the subject.

**Keywords:** Elderly, Health, Psychological Health, Depression, Anxiety.

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## A Rare Complication During Apnea Test-Pneumothorax

*Elif Eygi<sup>1</sup>*

*Celal Bulut İpek<sup>2</sup>*

### Abstract

Brain death (BD) is the irreversible cessation of all functions of the brain, including the brainstem. Apnea test (AT) is an important test for the diagnosis of BD, but clinical problems such as arterial hypotension, acidosis and hypoxemia may develop. A case of pneumothorax, a rare complication during AT, was discussed.

A 70-year-old man with hypertension presented with loss of consciousness after an ischemic cerebrovascular event. After 7 days, all brainstem reflexes were negative. Cerebral CT angiography showed no blood flow and AT was planned. Body temperature was 36.6°C, blood pressure 120/70 mmHg, chest radiography and cardiovascular functions were normal. After preoxygenation with 100% oxygen, arterial oxygen pressure was 400 mmHg. A 14 French catheter was placed 10 cm below the 7.5 millimeter endotracheal tube for 8 L/min oxygen insufflation. After 90 seconds, oxygen saturation dropped to 60% and blood pressure to 80/40, bradycardia occurred, and he was urgently connected to mechanical ventilator. Diffuse skin emphysema, pneumothorax and cardiac arrest developed. Cardiopulmonary resuscitation (CPR) was performed by emergency tube thoracostomy and cardiac rhythm was obtained at 15 minutes. He was defibrillated 3 times due to ventricular fibrillation and sinus rhythm was observed in the 30th minute of CPR. AT could not be completed in the patient who was normotensive with inotropic agent support, and the diagnosis of BD was made and declared by clinical examination and confirmatory test.

In AT, attention should be paid to ETT lumen diameter, outer diameter of the oxygen insufflation catheter and insertion depth. Careful attention to the presence of sufficient residual endotracheal tube lumen to allow ventilation with adjusted oxygen flow rates at physiological minute volumes and preferably review and standardization of these parameters in prospective studies will reduce the risk of pneumothorax during AT.

**Keywords:** apnea test, brain death, pneumothorax

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Our Dosimetric Results With Breath-Hold Technique In Right Breast Cancer Radiotherapy

*Melek YAKAR<sup>1</sup>*

### Abstract

Local +/- regional radiotherapy (RT) is the standard adjuvant treatment in early-stage breast cancer after breast-conserving surgery or in locally advanced breast cancer after mastectomy. Deep inspiration breath hold (DIBH) is a well-established respiratory modality which has been shown to reduce cardiac and pulmonary dose in left-sided breast cancer patients. Despite the widespread implementation of DIBH for left-breast RT, few studies have investigated its benefit in right-breast cancer. We aimed to examine the dosimetric results of our patients diagnosed with right breast cancer and given RT with the breath hold technique. 61 patients who underwent RT with the DIBH technique in the Radiation Oncology department of Eskişehir Osmangazi University Faculty of Medicine between 2019 and 2024 were included in the study. Adjuvant RT was applied only to the breast/chest wall in 22 patients, and elective nodal RT was also performed in 39 patients. The median RT dose is 60 Gy (range: 50-60). Median total mean lung dose (MLD) is median 608 cGy (range: 370-762). The ipsilateral lung MLD median is 1039 (range: 705-1307) cGy. The ipsilateral median V20, V10 and V5 are 17% (range: 9-23), 30% (range: 17-39) and 47% (range: 27-57%), respectively. Heart Dmean median is 153 (range: 42- 471) cGy. While the Dmax median for the Left anterior descending artery (LAD) is 117 (range: 7-734) cGy, the Dmax median for the Right coronary artery (RCA) is 412 (range: 100-2416) cGy. Dosimetric results are given in Table-1.

With the development of treatments in breast cancer, expected survival times and cure rates are quite high. For this reason, it is very important to obtain the best oncological results with the least side effects in these patients. In right breast radiotherapy, the DIBH technique, which will reduce heart, lung and liver doses, should be taken into consideration in treatment planning.

**Keywords:** right breast cancer, adjuvant radiotherapy, breath hold technique, dosimetric results

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Application of Cox Regression and Decision Tree Models to Heart Disease Data.

Zeynep YILMAZ<sup>1</sup>

Özlem GÜRÜNLÜ ALMA<sup>2</sup>

### Abstract

The most important feature that distinguishes survival analysis from other statistical analysis methods is that the data is censored. Among the survival analysis methods used for censored data, the Cox regression model is widely used. In this study, the data set of medical records of 299 patients with heart failure who were admitted to the Institute of Cardiology and Allied Hospital Faisalabad-Pakistan between April 2015 and December 2015 were analyzed and compared using Cox regression and decision tree model.

**Keywords:** Cox regression model, Survival analysis, Decision tree method, Heart failure data.



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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Peer Education on Civil Chemical Biological Radiological Nuclear Threats Awareness among Medical Faculty Students: An Example of Dokuz Eylül University Medical Faculty

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*Sedat SERİN<sup>3</sup>*  
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*Ali Emir SELÇUK<sup>6</sup>*  
*Gülsüm Müge SAĞIM<sup>7</sup>*  
*Berkay DUMANLIDAĞ<sup>8</sup>*  
*Vahide BAYRAKAL<sup>9</sup>*  
*A. Hüseyin BASKIN<sup>10</sup>*

### Abstract

One of the applications of Problem Based Learning in Medical Education Methods is Special Study Modules (STM). In this research, STM application was carried out with Dokuz Eylül University (DEU) Faculty of Medicine 3rd Term students under the title of "Forensic Microbiology and Biological Defense". The subtitle of the application was "Peer Education for Medical Students on the Management of the Concept of Civilian Chemical Biological Radiological Nuclear (CBRN) Hazards". In the first session of STM, consultant academicians synchronized information regarding the CBRN concept. Later, STM members were divided into 3 groups: 1. Soil Health, 2. Water Health, 3. Air Health. Members compiled the information in the literature on these subjects then made presentations in the following sessions and ensured information synchronization among group members. Then, the members prepared a survey covering these 3 topics. The survey was prepared based on the evaluation of peer education and awareness of the students of the Faculty of Medicine, Term 1-2-3-4-5-6 on these three topics. Cronbach's alpha value of the survey was found to be 0.807 (validity-reliability analysis).

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

An online and face-to-face survey was administered to 154 students between 17 April and 16 May 2024, with the necessary permissions obtained from DEU Faculty of Medicine Dean's Office and DEU Ethics Committee. Statistical evaluations were made with the "one-way-ANOVA" method. It was determined that one of the most important findings of our research was that all students at the Faculty of Medicine wanted to receive training on the Management of Civil CBRN Hazards that they may frequently encounter in professional and daily life. Looking at the statistical data we obtained, we may suggest that it may be necessary for Faculty of Medicine students to receive training on "Management of Civil CBRN Hazards" for their managerial and guiding roles in their professional and daily lives.

**Keywords:** Civil Chemical Biological Radiological Nuclear Threats, peer education, Special Study Module, problem based learning





# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Can Artificial Intelligence Pass an Ophthalmology Exam? An Evaluation of ChatGPT-4's Knowledge Level

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*İrfan UZUN*

*Çağrı MUTAF*

*Funda YÜKSEKYAYLA*

### Abstract

To evaluate ChatGPT-4's knowledge of ophthalmology using sequential text-based multiple-choice questions provided by the OphthoQuestions question bank for certification exam preparation.

A total of 120 questions, spanning 12 different sections and covering 3 different difficulty levels, were obtained from the OphthoQuestions ([www.ophthoquestions.com](http://www.ophthoquestions.com)) question bank and were presented to ChatGPT-4 in real-time. The responses and explanations provided by ChatGPT-4 were recorded. Twelve residents were divided into four groups, each consisting of three residents, according to their level of seniority. The overall and seniority-based performances of the residents doctor were compared separately with ChatGPT-4. The readability and complexity of the explanations were analyzed using the Readable program, and the Flesch Reading Ease (FRE) score (ranging from 0 to 100) was calculated. ChatGPT-4 correctly answered 86 out of 120 multiple-choice questions, achieving an accuracy rate of 71.6%. The areas where it performed best were: Fundamentals of Ophthalmology (100%), General Medicine (100%), Glaucoma (100%), Neuro-Ophthalmology (100%), Oculoplastics (100%), and Pathology and Tumors (100%). The weakest areas were Uveitis (40%) and Retina & Vitreous (42.8%). The overall accuracy rate for all residents doctor was 52.3%. The accuracy rates for 1st, 2nd, 3rd, and 4th-year residents doctor were found to be 40.2%, 53.8%, 57.1%, and 62.3%, respectively. According to the review of the OphthoQuestions question bank for the 2023-2024 period, ChatGPT-4's performance in the Refractive Surgery, Retina & Vitreous, and Uveitis sections was below the average scores. Additionally, the average character count for explanations of correctly answered questions was 1077, while for incorrectly answered questions, it was 1279. The average Flesch Reading Ease (FRE) score for responses provided by ChatGPT-4 was found to be 31.8.

The results for ChatGPT-4 show an accuracy rate of 71.6%, indicating that it may possess more knowledge than an average 4th-year resident doctor. This rate suggests that AI can compete with experts in medical exams. The readability of ChatGPT's responses is low and difficult to understand. It was observed that ChatGPT-4 produced shorter explanations for correct answers and longer explanations for incorrect answers. ChatGPT-4 demonstrates superior knowledge in some areas of ophthalmology, while its knowledge is limited in other areas.

**Keywords:** Artificial Intelligence, ChatGPT-4, OphthoQuestions, Ophthalmology Exam Performance





# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Investigation Of Balance, Functional Capacity And Fatigue Level In A Patient With Liver Cirrhosis: A Case Report

*İlker DEMİR<sup>1</sup>*

### Abstract

This study was carried out to measure functional capacity, dynamic balance and fatigue level in patients with liver cirrhosis.

Liver cirrhosis is a diffuse, chronic and progressive disease characterized by widespread fibrosis development, regeneration and necrosis of parenchymal cells in the liver. Symptoms in these patients may differ depending on decompensated and compensated status. The majority of patients are admitted to the hospital after experiencing jaundice in the decompensated stage. Weakness, fatigue, weight change, muscle cramps, tachypnea and dyspnea, cyanosis, flapping tremor and muscle atrophy are some of the common symptoms in patients with cirrhosis.

Personal information of the case, such as age, gender, smoking and alcohol use, employment status, and idle habits, were recorded. The person's dynamic balance measurement was measured with the 'timed up and go test', functional capacity measurement was measured with the '6-minute walk test', and fatigue level was measured with the 'fatigue severity scale'. Before starting the test, the person was informed about the test and was informed verbally that he could rest or end the test if he experienced negative situations such as fatigue or shortness of breath. The tests were carried out so that the individual's fatigue status was between 4 and 6 according to the Modified Borg Scale.

Our case was 45 years old, married, male, and did not consume alcohol or smoke. His height was 1.70 centimeters and his weight was 73 kilograms. He graduated from high school and had not been working for 1 year. The individual stated that he played football once a week until 2 years ago. He did not have a regular exercise habit for the last 2 years. The timed up and go test score was 9.80 seconds, the 6-minute walk test result was 436 meters, and the fatigue severity scale score was 38.

Liver cirrhosis shows symptoms in many systems such as the renal system, gastrointestinal system, pulmonary and neurological system and musculoskeletal system. In this study, our patient's functional capacity level, balance level and fatigue status were examined. We believe that these data will provide insight into the prognosis of the disease and the patients' level of functional independence and quality of life.

**Keywords:** Liver Cirrhosis, Functional Capacity, Fatigue Severity

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Evidence Based Practice and Emergency Nursing

*Pınar Gül AŞIK<sup>1</sup>*  
*Tuğba ÇINARLI<sup>2</sup>*  
*Asuman ŞENER<sup>3</sup>*

### Abstract

Quality health care service is characterized as the level to which health services for persons and communities enhance the likelihood of obtaining intended health results and are viable with present professional information. Nurses' competence to effectively use evidence in application is a vital factor in providing high quality patient care. Evidence-based practice (EBP) for both medicine and nursing is a practical problem-solving approach to practice based on the systematic and deliberate identification and use of the best available evidence when caring for patients. It is well recognized that EBP improves the quality and safety of health care and patient outcomes and encourages the active involvement of clinicians in their practice. Despite this, decades after its initiation, nurses still face challenges in practicing EBP, and although implementation models suggest incremental patterns, factors such as the context of care and its mechanistic character remain obstacles to efficient and viable application. However, the core responsibility of emergency departments is to provide safe care while responding to patients' emergencies. Emergency nurses work independently and interdependently with the multidisciplinary team to provide the most appropriate level of emergency nursing care to all patients with sudden injury or illness, aiming to maximize patient-centered, family-centered, health and social gain, promoting excellence in nursing practice. Like other health professionals, emergency nurses are expected to keep abreast of the latest research and ensure that their practice is evidence-based. However, there are challenges related to the consistent implementation of the EBP in emergency nursing. Given that patients expect to obtain the most effective care based on the best available evidence, the implementation of the best evidence to guide clinical practice in the care of patients in need of emergency care should be the ultimate goal of emergency nurses.

**Keywords:** Emergency department, emergency nurse, emergency nursing, evidence based practice, quality health care

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Technological Advances in Non-Invasive Prenatal Testing: High-Resolution Sequencing and Artificial Intelligence Applications

*Ayşe KONAC<sup>1</sup>*

### Abstract

Non-invasive prenatal screening (NIPS), using cell-free fetal DNA (cffDNA) from maternal blood, has transformed prenatal diagnostics since 1997 by offering a safer alternative to traditional invasive methods. Recent advances in next-generation sequencing and artificial intelligence (AI) have significantly enhanced the precision and scope of these screenings.

This study investigates the integration of advanced technologies in NIPS, focusing on high-resolution genetic sequencing and AI in detecting aneuploidies through cffDNA. It assesses how these innovations have improved screening outcomes and their broader implications in prenatal diagnostics.

A thorough literature review was conducted to examine recent advancements in genetic technology and their applications in prenatal screening. The review focused on methodological robustness, technological innovations, and their clinical efficacy, particularly in enhancing the detection and differentiation of fetal DNA.

The use of high-throughput sequencing and AI models has greatly improved the sensitivity and specificity of prenatal aneuploidy screenings, facilitating earlier detection of conditions like trisomies 21, 18, and 13, and reducing false positives and negatives. These technologies also allow for the screening of a wider range of genetic conditions, broadening the scope of prenatal care.

The integration of next-generation sequencing and AI in prenatal screening marks a significant advancement in prenatal care, improving the accuracy and safety of screenings and contributing to less invasive pregnancy management. The ongoing development of these technologies promises to further enhance their affordability and practical application in various clinical settings.

**Keywords:** Prenatal Genetic Screening, Genetic Sequencing, AI in Prenatal Care, cffDNA Analysis, Sequencing Innovations, Non-Invasive Aneuploidy Detection.

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Examining the Relationship between Internet Addiction and Breakfast Eating Attitudes in Secondary School Students

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*Seval ATMACA<sup>2</sup>*

*Başak YAZICI<sup>3</sup>*

*Bahar AYDI<sup>4</sup>*

### Abstract

**Aim:** This study aimed to determine the relationship between internet addiction levels and breakfast eating attitudes of secondary school students.

**Method:** This research, which has a descriptive correlational design, was conducted in a secondary school in Izmir between December 2023 and March 2024. The population of the research consists of 554 students studying at the secondary school where the research will be conducted. In the calculation made with the sampling formula known to the universe, the sample size was determined as 90 students (n = 90). In the study, data were collected from the "Individual Information Form" "Youth Internet Addiction Scale" (YIAS), and "Breakfast Attitude Scale for Children in the 9-11 Age Group" (BAS). Number, percentage and mean, Independent t test, analysis of variance and Pearson correlation analysis were used to analyze the data. Ethics committee permission was obtained to conduct the research.

**Results:** The average age of the students was  $10.77 \pm 0.41$ . 59.6% of the students were female, 41.5% of them had a mother's education level of high school, 76.6% had siblings, and 39.4% used the internet mostly for YouTube or watching videos. 50.0% of the students had breakfast regularly. YIAS total mean score was  $47.80 \pm 14.14$ , 40.4% of the students were potentially addicted and 59.6% were not addicted. Total mean score of BAS was  $37.36 \pm 8.06$ . A moderate, negatively significant relationship was detected between the mean scores of YIAS and BAS. It was determined that students with siblings had higher YIAS scores. It was determined that those who spent most of their time on the internet and social media, whose mothers were primary school graduates, and those who did not have breakfast regularly had a lower mean score on the BAS ( $p < 0.05$ ).

**Result:** While nearly half of the students were moderately addicted to the internet, their attitudes towards breakfast were moderately positive. As the level of internet addiction increased, breakfast attitude was negatively affected.

**Keywords:** Internet addiction; Breakfast attitude; Secondary school student; Nurse; School health.

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Examining nurses' views on climate change and its effects on health

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*Meral ELLİATİ<sup>2</sup>*

*Yunus AKSU<sup>3</sup>*

### Abstract

**Objective:** This study was to determine nurses' views on climate change and its effects on health.

**Method:** The study, which was a descriptive design, was conducted between November 2023 and April 2024 at a university hospital in Izmir. The research sample consisted of 165 nurses. Random route sampling method was used to reach the sample. The data were created by the researchers by examining the literature and were collected with the Individual Information Form and the Nurses' Opinions on Climate Change and the Effects of Climate Change on Health Form. Data were analyzed with numbers, percentages and averages in the SPSS 25.0 package program. Ethics committee permission was obtained to conduct the research.

**Results:** The average age of the nurses was 34.09±8.46 and 81.8% were women. 66.9% of the nurses had a bachelor's degree and 41.2% were working in internal units. 30.9% of the nurses were members of a professional association, and 6.7% were members of an environmental association. 95.2% of nurses thought that climate change was occurring. According to 52.1% of nurses, climate change has occurred due to human-caused reasons. 47.9% of nurses were somewhat concerned about the effects of climate change, and 55.8% thought climate change was very important. 72.7% of nurses have major heat-related health problems, 72.1% major fire-related health problems, 70.9% major vector-borne diseases, 82.9% major water- and food-borne diseases, 74.5% major major health problems. level of anxiety, 77.6% stated that it increased hunger to a great extent, and 78.8% stated that it increased poverty. According to 81.8% of nurses, climate change will be a more important problem in the next 10 years.

**Conclusion:** It was determined that the majority of nurses were aware of the causes of climate change and its effects on health.

**Keywords:** Nurse; Climate Change; Health; Climate Change Effect; Sustainable Development Goals.

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Disasters and Emergency Nursing

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*Tuğba ÇINARLI<sup>3</sup>*

### Abstract

Considering the speed of development, many emergencies occur due to slow developing disasters such as global warming, drought, famine, extreme cold, as well as disasters that develop over a long period of time such as earthquakes, tsunamis, volcanic eruptions, landslides, storms, floods, forest fires. Disasters occurring in the world are now reaching serious dimensions both in terms of their number and their negative effects. Therefore, it is very important to manage disasters appropriately and to know how to live with disasters. Emergency services are one of the most important units where direct applications are made in case of a disaster and health services should be utilized quickly. Considering that patients or victims may be admitted to emergency services in masses, it is inevitable that these units should be prepared for disasters at any time. Although nurses are the largest group faced with disasters in the field of health care, emergency nurses are at the forefront of this service. In the event of a disaster, emergency nurses are the first health care providers to accept, evaluate, care and treat disaster victims. As a result, emergency nurses are at the forefront of health professionals who can provide quality nursing care in preventing/reducing the complications of the patient or injured and minimizing mortality rates in disasters. Therefore, emergency nurses are expected to develop disaster and emergency response strategies at the highest level at all times.

**Keywords:** Disaster, emergency department, emergency, emergency nursing, nurse.

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## A Novel Approach to Acetabular Fracture: Laparoscopic Assisted Minimal Invasive Fixation with Technical Insights and Case Analysis

*Vedat ÖZTÜRK<sup>1</sup>*

### Abstract

Acetabular fractures represent a significant challenge in orthopedic trauma surgery, primarily due to its complex anatomy and the necessity for precise reduction and fixation. Traditional open approaches, while effective, are associated with considerable morbidity. This technical note and case report describe a minimally invasive laparoscopic-assisted technique for the fixation of acetabular fractures, aiming to reduce surgical morbidity and enhance recovery.

This case report details the laparoscopic-assisted minimally invasive fixation of a transverse acetabular fracture in a 30-year-old male sustained during a motor vehicle collision. Key steps include patient positioning, port placement, fracture visualization, reduction techniques, and fixation. Post-operative management and rehabilitation protocols are also discussed.

The laparoscopic approach enabled successful reduction and fixation of the acetabular fracture with minimal soft tissue disruption. The patient's post-operative course was notable for reduced pain, early mobilization, and the absence of complications typically associated with open procedures. Radiographic follow-up at six months confirmed the stability of the fixation and satisfactory fracture healing.

Laparoscopic acetabular fracture fixation is a viable and innovative approach that offers the benefits of minimally invasive surgery while achieving the objectives of traditional open surgery. This technique may be preferred in the treatment of selected acetabular fractures.

**Keywords:** Laparoscopic surgery, Acetabular fractures, Acetabular fracture fixation, Minimally invasive surgery, Orthopedic trauma surgery

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## *In Silico* Analysis of Postbiotic SCFAs as a Therapeutic Candidate for Pan-Cancer via Targeting Inflammatory Mediators

Seda ŞİRİN<sup>1</sup>

### Abstract

The heightened inflammatory response observed in cancer significantly contributes to disease progression, facilitating cancer cell proliferation, metastasis, and resistance to immune-mediated destruction. Consequently, therapeutic interventions aimed at modulating this inflammatory response are crucial in cancer management. In this context, postbiotics, particularly short-chain fatty acids (SCFAs), have emerged as promising compounds with favorable health effects. SCFAs' regulatory influence on the inflammatory response has been implicated in modulating the development of various cancer types. The aim of this study is to evaluate the potential of postbiotic SCFAs as therapeutic candidates for targeting the increased inflammatory response in cancer. To achieve this goal, we assessed the absorption, distribution, metabolism, and excretion (ADME) properties of SCFAs (acetic, propionic, butyric, valeric, and caproic acid) using the SwissADME online tool. Additionally, we evaluated the binding affinity between these SCFAs and specific target proteins [cyclooxygenase-2 (Cox-2), granulocyte-macrophage colony-stimulating factor (GM-CSF), inducible nitric oxide synthase (iNOS), interferon-gamma (IFN- $\gamma$ ), interleukin (IL)-1 $\beta$ , IL-2, IL-6, and tumour necrosis factor (TNF)- $\alpha$ ] via the CB-Dock2 online tool. SwissADME analysis indicated that the physicochemical properties, lipophilicity, water solubility, pharmacokinetics, drug likeness, and medicinal chemistry parameters of SCFAs generally fall within acceptable ranges. Molecular docking studies revealed a significant affinity interaction between SCFAs, particularly caproic acid, and inflammatory mediators. The findings of this study may illuminate future avenues for cancer research and promote the therapeutic utilization of postbiotics. Additionally, considering the immunomodulatory effect of postbiotics, they could be considered as a novel strategy in cancer treatment, thereby enhancing the quality of life and treatment success for cancer patients.

**Keywords:** ADME properties, cancer, inflammatory mediators, molecular docking, short-chain fatty acids.

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Bibliometric Analysis of Postgraduate Theses on Lipedema (2017-2024)

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*Cansu ŞAHBAZ PİRİNÇÇİ<sup>2</sup>*

### Abstract

Lipedema is a chronic and progressive adipose tissue disorder characterized by abnormal increase in bilateral, symmetric subcutaneous fat tissue in the extremities. It is a clinical entity that rarely receives diagnosis, mostly affects women, and is often neglected or misdiagnosed. The aim of this study is to conduct a bibliometric analysis of postgraduate theses focusing on lipedema in Turkey until 2024.

Theses were identified by searching the National Thesis Center database of the Council of Higher Education (YÖK) using the keyword "lipedema" in the title section. A total of 12 theses were analyzed, including 8 medical specialization theses and 4 master's theses. These theses were examined in detail based on parameters such as university, department, institute, number of pages, subject areas, research and application methods.

The first thesis in the field of lipedema was conducted in 2019. Of these theses, 8 were medical specialization theses and 4 were master's theses. One thesis was conducted in the field of family medicine, 1 in the Department of Endocrinology and Metabolic Diseases, 6 in the Department of Physical Medicine and Rehabilitation, 3 in the Department of Physiotherapy and Rehabilitation, and 1 in the Department of Health Care Management. All theses were written in Turkish, with the number of pages ranging from 88 to 144. The highest number of theses in the field of lipedema, 6 theses, were conducted at the Health Sciences University. While one thesis applied a treatment to lipedema patients, evaluation was conducted in 8 theses, validity and reliability in 1 thesis. Pain and quality of life were the most evaluated aspects in this patient group.

This study serves as an important resource for understanding trends and research topics in the field by providing a bibliometric evaluation of academic research conducted on lipedema in Turkey.

**Keywords:** Lipedema, Bibliometric, Evaluation studies

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Squamous Cell Carcinoma: A Case Report

*Nazgol RAVANBAKHSH<sup>1</sup>*

*Kübra TÖRENEK AĞIRMAN<sup>2</sup>*

*Fatma ÇAĞLAYAN<sup>3</sup>*

### Abstract

Salivary gland tumors are described as an abnormal growth of some cells in salivary gland most of them are benign but in some cases they can be malign. The frequency of malignant tumor of submandibular gland is less than 1%. In this article aimed to report on a patient who was diagnosed with malignant tumor in submandibular gland.

A 67-year-old female patient with a hard mass in left submandibular region visited our clinic. According to the patient history, 6 years ago she was diagnosed with breast cancer and had a mastectomy surgery. 5 months ahead she had a lesion in palatal mucosa and according to the result of biopsy she was diagnosed with SCC.

USG revealed a well-defined, anechoic, posterior acoustic shadowing cystic lesion in size 32.7x23x16.1 mm which has peripheral bleeding in doppler ultrasound. At the mesial side of the cyst we noticed a hypoechoic echogenic oval shaped lymphadenopathy (LAP) which lost its hilum and doesn't have any posterior shadowing with 9x9 mm diameter. Facial artery was seen between lesion and LAP. Fine needle aspiration biopsy was performed on the lesion with the guide of USG and the result was evaluated, biopsy samples were examined and the results was metastatic SCC (MSCC). The lesion removed surgically.

USG provides an information about the clinical features of the lesion, but the definitive diagnosis is made by pathology. USG-guided FNAB leads us to diagnosis more quickly and prevents any delay in the treatment of the cases with tendency to malignancy.

**Keywords:** squamous cell carcinoma, submandibular gland, malignant tumor, metastasis, ultrasonography.

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Angiogenesis In Endometriosis

TUĞBA DAĞDEVİREN  
CELAL KALOĞLU

### Abstract

Endometriosis is a female disease in which the endometrial gland and stroma, which are hormonally active, are located outside the uterine cavity. The disease is characterized by an estrogen-dependent chronic inflammatory process that settles on the serosal surface of the ovary and uterus. Uncertainties about the pathogenesis of endometriosis continue today. Sampson (1927) defined endometriosis as the tissue fragments of the menstrual endometrium moving backward from the uterine tubes during menstruation, implanting into the peritoneal surface and continuing to exist there. Endometrial stromal cells are likely to play an important role in the development of the disease. The development and maintenance of endometriotic implants depends on angiogenic potential. Angiogenic dysregulation or overgrowth of new blood vessels can contribute to the development and progression of many diseases. Within this frame of reference, angiogenesis has a critical role in the pathogenesis of endometriosis, as the growth of new blood vessels from pre-existing vessels is necessary for the survival and progression of ectopic endometrial implants. The aim of this study is to correlate angiogenesis, which is thought to play a role in the histopathology of endometriosis, from histological perspectives. In this study, 5 women (5 ectopic and control patients with endometriosis) were included after obtaining a written informed consent form. Tissue samples were stained with acid fucsin-toluidine blue staining method for JB-4 sections. Blood vessels were present in proliferative period control endometrium samples. Numerous lymphocyte infiltrations and histiocytes loaded with hemosiderin pigment were observed in ectopic tissue. In the samples belonging to this group, it was seen that the tissue grew due to implants in different regions, and there were many blood vessels and an increase in number. Density was observed in terms of microvesselization in the ectopic tissues of patients with endometriosis. In the definition of endometriosis, the stromal vascularization density of ectopic lesions of endometriotic tissue in the proliferative period is significantly different from normal endometrial tissue. If the endometrium is to survive outside the uterus, angiogenesis must take place. Since angiogenesis represents a critical step in the formation and pathogenesis of endometriosis, this process has been seen as a potential new target for therapeutic intervention. Studying factors that inhibit angiogenesis factor may be a promising approach in the treatment of the disease.

**Keywords:** Endometriosis, Angiogenesis, JB-4.



# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Prognostic significance of the triglyceride-glucose index for patients with ischemic heart failure

Uğur Köktürk<sup>1</sup>

Fahri Çakan<sup>2</sup>

### Abstract

Previous studies have proven that the triglyceride-glucose index (TyG) is closely related to the prognosis of cardiovascular diseases. However, the impact of the TyG index on the prognosis of ischemic heart failure (HF) patients is still unclear. In this study, we investigated the effect of TyG index on major adverse cardiovascular events (MACE) in ischemic HF patients.

In this study, 138 patients with ischemic HF were examined retrospectively. Patients were divided into two groups: those with and without MACE. TyG index was calculated as  $\ln [\text{fasting triglycerides (mg/dL)} \times \text{fasting plasma glucose (mg/dL)} / 2]$ . Clinical outcomes for MACE were evaluated at 1 year. MACE was defined as all-cause death, target vessel revascularization, and rehospitalization for heart failure.

The group with MACE was older than the group without MACE ( $62 \pm 13$  vs  $56 \pm 12$ ,  $p = 0.001$ ). Although ejection fraction, GFR and hematocrit were significantly lower in the group with MACE compared to the group without MACE, fasting glucose, NT-proBNP and TyG index were significantly higher. (all  $p < 0.05$ ). In multivariate analysis, we found TyG index as an independent predictor of MACE (Odds ratio = 3.803; 95% CI: 1.542–9.378;  $p = 0.004$ ). According to the 'Receiver operating characteristic' curve analysis, TyG index was able to predict the occurrence of MACE in ischemic HF patients (area under the curve value for MACE 0.675; 95% CI: 0.584–0.766;  $p = 0.001$ ).

This study demonstrated that there is an association between high TyG index levels and increased risk of MACE in ischemic HF patients and that the TyG index may be a valid indicator of clinical outcomes in ischemic HF patients. TyG index may contribute to treatment modification in ischemic HF patients to identify high-risk patients and cope with adverse cardiac events.

**Keywords:** triglyceride-glucose index, ischemic heart failure, major adverse cardiovascular events.

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# 2<sup>ND</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## The effect of sleep hygiene training given to epilepsy patients on seizure frequency and sleep quality: An experimental study protocol with a pre-test post-test control group trial model.

*Dilek GELİN<sup>1</sup>*

*Sıdıka OĞUZ<sup>2</sup>*

### Abstract

Epilepsy is a neurological and chronic disease. It can be seen in anyone, including elderly individuals. Patients have a history of two or more seizures. Epileptic seizures develop with hypersynchronization of neuronal networks, causing insomnia, and sleep quality decreases with drug treatment. Insomnia increases seizure discharges, and neurological and systemic complications and serious morbidity and mortality may occur. Sleep disorders can be corrected and sleep quality can be improved with sleep hygiene training.

To determine the effect of sleep hygiene training given to epilepsy patients on seizure frequency and sleep quality.

This research was planned as an experimental non-drug clinical research with a pre-test post-test control group trial model. The sample of the study was determined as a total of 160 patients, 80 patients each in the experimental and control groups, in order to be parametric by power analysis. In simple random selection, patients with even number protocol numbers were included in the experimental group, and those with odd number protocol numbers were included in the control group. Sleep hygiene training was given to the experimental group and a sleep hygiene booklet was given to the patient. Sleep hygiene training was repeated every month for the patients who were followed for three months with monthly interviews. No intervention was given to the control group for three months. In the monthly meetings of both groups, sleep quality was evaluated with the seizure schedule and the Pittsburg sleep quality index.

Research data started to be collected on 27.10.2022 and the data collection process continues.

Conclusion: With sleep hygiene training, good sleep health can be achieved, epileptic discharges can be reduced, symptoms can be eliminated, and sequelae can be prevented.

**Keywords:** Epilepsy, Sleep Hygiene, Sleep Quality, Epileptic seizures, Nursing

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## Associations Between Obesity and Ultra-processed Foods

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### Abstract

Obesity is a chronic, complex disease defined by the World Health Organisation (WHO) as "excessive accumulation of fat mass that significantly impairs health". Worldwide, approximately two billion adults are living with overweight (body mass index (BMI)  $\geq 25$  kg/m<sup>2</sup>) and more than 650 million with obesity ( $\geq 30$  kg/m<sup>2</sup>). The prevalence has increased six-fold in just a few decades from 105 million in 1975. One of the most important recent environmental changes is the increased availability and consumption of ultra-processed foods (UPF). Depending on the degree of food processing, all foods and food products are classified by the NOVA food classification system, a mostly used classification taking into account the nature and purpose of industrial processing. NOVA categorises all foods and food products into four groups: Group 1: unprocessed or minimally processed foods (UMPFs), Group 2: processed culinary ingredients (PCIs), Group 3: processed foods (PFs) and Group 4: UPFs. In many parts of the world, the purchase of UPFs has increased worldwide from 2006 to 2019. Higher UPF and ultra-processed beverage consumption were associated with higher BMI. In an analysis covering 80 countries, researchers found a statistically significant increase in BMI in men and women as per capita sales of UPF and ultra-processed beverages increased. Similarly, a study covering 19 European countries found that national obesity prevalence was positively associated with national household availability of UPF. In the light of all these data, the aim of this report is to examine the relationship between UPF and obesity.

**Keywords:** Obesity, ultra-processed foods, NOVA, body weight, health

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# 2<sup>nd</sup> INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY MEDICAL AND HEALTH SCIENCES STUDIES

ISBN: 978-625-372-171-8

## The Effect of the Milrinone Molecule on vasospasm in the Experimental Subarachnoid Hemorrhage Model

*Utku ADILAY<sup>1</sup>*

### Abstract

Efforts to reverse vasospasm in the brain's blood vessels following subarachnoid hemorrhage (SAH) rely on a limited number of treatments. Calcium channel blockers have proven to be beneficial, but their vasodilating effects on spastic cerebral arteries are relatively limited. Milrinone, a phosphodiesterase inhibitor, combines vasodilating and inotropic properties, but there is limited data to support its use for the treatment of vasospasm. The aim of our study is to observe the changes in arterial wall structures induced by experimental subarachnoid hemorrhage and to investigate the effects of milrinone on the basilar artery and brain tissue to prevent vasospasm. In our study, 18 rats were used. Subjects were randomly divided into three groups: control (C), subarachnoid hemorrhage (SAH), and milrinone (MLN). All subjects underwent cisterna magna puncture. Except for the control group, autologous blood without heparinization was given to induce subarachnoid hemorrhage. The treatment group received 1 mg/kg milrinone intraperitoneally. All subjects were sacrificed after 48 hours. Our expectation was that the arterial lumen area of the SAH group would be smaller than that of the control group. The findings obtained from statistical analyses were consistent with our expectations, showing that the smallest arterial lumen was in the SAH group and the largest in the control group. These differences were found to be statistically significant. The findings indicate that milrinone may prevent vasospasm by inhibiting arterial wall changes induced by subarachnoid hemorrhage (SAH). Milrinone can be considered a clinically beneficial agent for patients combating vasospasm associated with SAH.

**Keywords:** Subarachnoid hemorrhage, milrinone, vasospasm, cerebral ischemia, intracranial aneurysm

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