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**Abstracts Booklet** 





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### Coronoid Process Osteokondroma (Jacob's Disease): A Case Report

Yusuf Tamer

#### **Abstract**

Jacob's disease is a rare condition characterized by elongation or enlargement of the coronoid process of the mandible, leading to the formation of a pseudoarticulation with the zygomatic arch. It typically results in a restricted range of jaw movement due to impingement between the inner side of the zygoma and the coronoid process of the mandible.

The standard treatment involves surgical removal of the enlarged coronoid process, either through an intraoral or extraoral approach. Postoperative mouth-opening exercises are strongly recommended to help preserve mandibular function.

A 30-year-old female presented with a painless restriction in mouth opening and right-sided facial swelling, which had been progressively worsening over the past two to four years. A CT evaluation was performed, revealing a bulbous enlargement at the distal end of the coronoid process. This enlarged segment extended adjacent to the inner cortex of the anterior aspect of the zygomatic arch, causing thinning and outward convexity of the arch.

The patient underwent an extraoral coronoidectomy. Under general anesthesia, a modified Blair incision was made along the preauricular skin crease. The skin flap was elevated anteriorly in the superficial fascial layer. By further blunt and sharp dissection through the deep lobe of the parotid gland, the periosteum of the right mandible and right zygoma was exposed. Following complete removal of the mass via osteotomy, the maximum mouth opening increased to 40 mm immediately post-resection.

Jacob's disease is a rare but important cause of restricted mouth opening, resulting from abnormal pseudoarticulation between the coronoid process and the zygomatic bone. It should be considered as a differential diagnosis in the evaluation of limited mouth opening and unilateral facial swelling. Accurate diagnosis relies on CT imaging and histopathological confirmation. Surgical removal of the coronoid process is highly effective, offering a good prognosis when appropriately managed.

**Keywords:** coronoid process, jacob's disease, osteochondroma

Manual versus sonic-powered toothbrushing for plaque reduction in patients with peri-implant mucositis: randomised controlled trial

Selcen ÖZCAN BULUT<sup>1</sup> Deniz NOYUN<sup>2</sup>

#### **Abstract**

Peri-implant mucositis is the presence of inflammation in peri-implant tissues without loss of bone surrounding the implant. Peri-implant mucositis returns to a healthy state by ensuring and supporting oral hygiene This study aimed to compare the effectiveness of manual versus sonic-powered toothbrushing in controlling biofilm in patients with peri-implant mucositis.

A total of 41 patients participated in the study, with 21 assigned to the sonic powered toothbrush (SPT) group and 20 to the manual toothbrush (MT) group. Participants were instructed to brush their teeth twice daily for two minutes using the same toothpaste. Before full-mouth scaling and at 3, 6, and 9 months after treatment, periodontal parameters were recorded, including Modified Gingival Index (MGI), Modified Plaque Index (MPI), Bleeding on Probing Index (BOP), Pocket Depth (PD), Gingival Recession (GR), and Gingival Biotype (GB).

Both tooth brushing techniques were found to be effective in the treatment of peri-implant mucositis when data from baseline, 3rd, 6th, and 9th months were compared. The reductions in MPI, MGI, and BOP scores from baseline to the 9th month were significantly greater in the sonic-powered toothbrush group compared to the manual brushing group. (p<0.05) There was no significant difference between the techniques with respect to gingival biotype. (p>0.05)

Both brushing techniques are effective in reducing plaque accumulation around implants. Sonic-powered toothbrushing may be more effective than manual brushing in reducing peri-implant plaque and improving soft tissue health over time in patients with peri-implant mucositis.

Keywords: Biofilm, Dental İmplant, Dental Plaque, Peri-implant mucositis, Toothbrushing

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Treatment of a Unicystic Ameloblastoma: A Case Report

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ISBN: 978-625-372-658-4

#### Abstract

Ameloblastoma is a benign but locally aggressive odontogenic tumor that most commonly affects the mandible. It typically occurs in the mandibular molar and ramus regions and is characterized by locally invasive behavior. Genetic and environmental factors are considered potential etiologic factors. Although it is more common in males, it is generally diagnosed between the ages of 30 and 50. According to the most recent World Health Organization (WHO) classification, ameloblastomas are divided into five subtypes: conventional (solid/multicystic), unicystic, metastatic, adenoid, and peripheral. Among these subtypes, unicystic ameloblastoma is considered a less common variant with a less aggressive clinical course. In this case report, we present the data of a 13-year-old female patient who complained with swelling in the mandibular region. Clinical and radiographic examinations revealed a unilocular radiolucent lesion with well-defined borders in the canine-premolar region of the mandible. The lesion was surgically excised and histopathologically diagnosed as a unicystic ameloblastoma. The aim of this case report is to highlight that unicystic ameloblastoma can occur outside its typical anatomical localization and should therefore be considered in the differential diagnosis of well-defined radiolucent lesions of the mandible. In addition, we describe the clinical and radiological symptoms of ameloblastoma, the treatment approach, and the importance of histopathological evaluation.

Keywords: Odontogenic tumor, Enucleation, Unicystic ameloblastoma, Histopathologically diagnosis

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# MANDIBULAR RAMUS BONE GRAFT HARVESTED BY PIEZOELECTRIC SURGICAL METHOD FOR ANTERIOR MAXILLA RECONSTRUCTION: A CASE REPORT

Abdurrahman DEMİR<sup>1</sup> Ahmet Can HASKAN<sup>2</sup>

#### Abstract

Before implant procedures, iatrogenic and congenital alveolar bone defects often require reconstruction using block grafts obtained from donor sites such as the ramus or symphysis regions. In this case report, insufficient bone support in the anterior maxilla was reconstructed with a ramus graft harvested from the patient and followed by implant surgery. A 20-year-old female patient experienced tooth loss in the anterior maxilla due to trauma. Clinical and radiographic evaluation revealed insufficient alveolar bone volume for implant placement. To address the deficiency, autogenous bone graft was obtained from the mandibular ramus region. The defect in the anterior maxilla was reconstructed with the harvested graft material. After the healing period, dental implants were placed into the regenerated site, and prosthetic rehabilitation was planned. In cases of traumatic anterior maxillary tooth loss, achieving adequate bone volume is crucial for implant success. Autogenous ramus grafts provide a reliable and biocompatible source for reconstruction, promoting primary stability of implants and long-term treatment success. Although various graft materials are available, autogenous grafts remain the gold standard due to their osteogenic potential and high success rates. In this case, graft harvesting with the piezoelectric surgical method allowed precise bone removal with minimal trauma, contributing to a successful clinical outcome.

**Keywords:** Autogenous graft, Ramus, Implant, Piezoelectric surgery

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## **Complications and Management Strategies in Sinus Lift Procedures**

Alperen YILMAZ<sup>1</sup> Meryem Taş REYHANİOĞLU<sup>2</sup>

#### Abstract

The sinus lift procedure has become a widely accepted and routinely performed surgical technique to increase vertical bone height in the posterior maxilla for successful dental implant placement. This procedure is particularly indicated when alveolar bone resorption or maxillary sinus pneumatization results in inadequate bone volume for implant stability. Despite its clinical benefits, the sinus lift carries a risk of various intraoperative and postoperative complications that may compromise the outcome of implant therapy if not managed properly.

The most frequently encountered complication is the perforation of the Schneiderian membrane, with reported incidence rates ranging from 10% to 35%. Minor perforations can often be repaired using resorbable collagen membranes, whereas larger defects may necessitate advanced techniques or procedure postponement. Postoperative sinusitis, infection, hemorrhage, graft displacement, and oroantral communications are other complications that require timely diagnosis and management. Risk factors include surgical inexperience, anatomical variations, and patient-specific conditions such as smoking or pre-existing sinus pathology.

Effective management of these complications relies on meticulous surgical technique, preoperative radiographic evaluation (e.g., CBCT), proper patient selection, and the use of biocompatible grafting materials. Preventive measures, such as careful elevation of the sinus membrane and maintaining aseptic conditions, are also crucial.

This presentation aims to provide a comprehensive overview of the potential complications associated with sinus lift procedures and to highlight evidence-based strategies for their prevention and management, ultimately improving the prognosis of implant therapy in the posterior maxillary region. **Keywords:** Sinus lift, Schneiderian membrane, dental implant complications, maxillary sinus, bone graft, sinusitis management

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# 3<sup>rd</sup>International Congress of Multidisciplinary Medical and Health Sciences Studies

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## Axenfeld-Rieger Syndrome Based on a Case: Current Literature Review

Hatice HATİPOĞLU<sup>1</sup> Burcu GÜÇYETMEZ TOPAL<sup>2</sup> Özgür DOĞAN<sup>3</sup> Özge DOĞAN<sup>4</sup>

#### Abstract

Axenfeld-Rieger Syndrome (ARS), which shows autosomal dominant inheritance, is a rare syndrome with a prevalence of 1:200,000. It is characterized by ocular, craniofacial, and dental abnormalities. The exact pathogenesis of ARS remains unclear; however, it is thought to result from an ectodermal tissue defect caused by impaired development and migration of neural crest cells. These cells play a crucial role in the proper formation of teeth, eyes, and facial structures.

Although various genes have been associated with ARS, the most frequently implicated mutations occur in the forkhead box C1 (FOXC1) and pituitary homeobox 2 (PITX2) genes. Mutations in PITX2 can lead to not only dental anomalies and hypodontia but also to hypoplasia of the maxilla and mandible. FOXC1 mutations, on the other hand, are associated with congenital heart defects, thyroid dysfunction, and hearing-related systemic effects.

A seven-year-old male patient presented to our clinic with complaints of dental caries and toothache. Clinical examination revealed the congenital absence of permanent upper lateral incisors, upper second premolars, and upper primary lateral incisors; microdontia was observed in all teeth, and widespread caries were detected in the primary molars. Systemic evaluation showed that the patient was being followed by ophthalmology due to bilateral glaucoma and by pediatric endocrinology due to developmental delay. Genetic testing identified a PITX2 gene mutation, and the patient was diagnosed with ARS Type 1.

The dental treatment plan was created using a local anesthetic without vasoconstrictor, considering the glaucoma diagnosis, and is being carried out with a multidisciplinary approach based on the patient's systemic condition.

This case report underscores the importance of identifying the dental and systemic features of ARS in pediatric dentistry, highlighting the value of early diagnosis in preventing complications. It also includes a current literature review to provide an overview of clinical management.

**Keywords:** Axenfeld-Rieger Syndrome (ARS), PITX2 mutation, congenital tooth agenesis, microdontia, dental anomalies, pediatric glaucoma, developmental delay, craniofacial abnormalities, genetic syndromes in dentistry, pediatric dentistry.

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## Professional Health Problems Reported By Dentists: Survey Study

Öznur KÜÇÜK KELEŞ

#### **Abstract**

The aim of this study is to investigate the prevalence of occupational health problems among dentists in Turkey.

The study is a cross-sectional study. It was conducted with a total of 181 dentists, 77.9% of whom were female and 22.1% were male. A questionnaire including questions about sociodemographic characteristics, working conditions, musculoskeletal system disorders, carpal tunnel syndrome, hearing loss, vertigo and migraine were applied to dentists. The survey data were obtained by uploading the questions to Google-Docs, creating a link and sending them to the participants via the internet.

In the study, in testing the relationship between categorical variables of the data, Pearson Chi Square test was used when the sample size assumption (expected value>5) was met, and Fisher's Exact test was used when it was not met. The analyses were performed in the IBM SPSS 25 program. As a result of Fisher's Exact test, no statistically significant relationship was found between the duration of active dentistry and patient care during the day and the presence of musculoskeletal complaints during the working period (p<0.05), but a statistically significant relationship was found between the duration of active dentistry and the presence of hearing loss complaints during the working period (p>0.05). As a result of Pearson Chi Square test, a statistically significant relationship was found between the status of receiving treatment for occupational diseases and the institutions where they work (p<0.05). As a result of the Pearson Chi Square test, no statistically significant relationship was found between migraine status and the duration of active dentistry (p>0.05).

More studies are needed to reduce the causes and prevalence of musculoskeletal pain and to identify appropriate interventions. Awareness of occupational health problems should be emphasized in all clinical and research symposia.

**Keywords:** Dentist, occupational health problems, survey, working conditions, musculoskeletal system disorders

# Dental Treatments for a Patient with Limb-Girdle Muscular Distrophy: A Case Report

Fatma Ayça BAKIR <sup>1</sup> Öykü PEKER GÖNÜLAL <sup>2</sup>

#### Abstract

Limb girdle muscular dystrophy is a genetic muscle disease characterized by weakness of skeletal muscles. It can be inherited in an autosomal dominant, autosomal recessive, or X-linked manner. It is progressive, and as it advances, movement restrictions occur, and walking ability may be lost. It can manifest in childhood or adulthood, and patients often require a wheelchair before reaching the age of 20. Despite all this muscle atrophy, intelligence is generally unaffected. There is currently no developed treatment, although gene therapy is being explored in preclinical stages. The importance of this condition in dentistry includes limitations in mouth opening, the risk of malocclusion, restrictions in mouth opening due to muscle atrophy, swallowing difficulties, and oral hygiene deficiencies arising from the inability to brush teeth and difficulties in saliva swallowing.

13 years old male patient who referres to our clinic with pain from his lower first molar tooth, has this disease and exhibited significant oral hygiene deficiencies. Additionally, there was one tooth with a cavity in the mouth. In the planned treatment, the first step was to perform dental cleaning. Subsequently, we planned to restore the cavity in the lower left first molar tooth.

Dental scaling was performed over two sessions and the cavity was restored during the third session. The patient continues to attend follow-up appointments in the subsequent process.

**Keywords:** Limb Girdle Muscular Distrophy, Pediatric Dentistry

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**Use of Three-Dimensional Printing Technology in Pediatric Dentistry** 

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ISBN: 978-625-372-658-4

#### Abstract

Three-dimensional (3D) printers are innovative manufacturing devices that convert a digital design into a physical object. Chuck Hull's stereolithography method, developed in the 1980s, laid the foundation for 3D printing technology. With the advancement of computer-aided design (CAD) software and reduced costs, this technology has become increasingly accessible.

Based on the principle of additive manufacturing, 3D printing technology transforms digital designs into physical products by layering fine slices on top of each other. Various materials can be used in this process, including polymers, metals, ceramics, and biocompatible materials. Different printing technologies, such as stereolithography, fused deposition modeling, selective laser sintering and digital light processing, are available. 3D printers in dentistry are standard today, as they provide personalized treatment solutions and time advantages. Particularly in pediatric dentistry, 3D printing technology is used to produce orthodontic appliances, simulation and training models, space maintainers, prosthetic restorations, surgical guides, obturators, and splints.

This study comprehensively investigates the applications of 3D printing technology in pediatric dentistry based on information obtained through a search in databases such as PubMed/MEDLINE, Scopus, Web of Science, Scielo, and the Cochrane Library. The search strategy employed a combination of keywords including "Digital Dentistry and 3D Printing," "3D Printing Technology in Dentistry," "3D Printing in Pediatric Dentistry," and "3D Printing in Pediatric Dental Procedures."

Keywords: Three-dimensional Printers; Additive Manufacturing; Digital Dentistry; Pediatric Dentistry

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# Influence of Oxygen Inhibition Layer-Reducing Pre-Polymerization Treatments on **Surface Roughness of Single- and Multi-Shade Composite Resins**

Ruhsan MÜDÜROĞLU ADIGÜZEL 1\* Leyla KERİMOVA KÖSE<sup>2</sup> Neslihan ARHUN<sup>3</sup>

#### Abstract

This study aimed to evaluate the effect of different pre-polymerization surface treatments—Mylar strip, modeling resin, and glycerin—on the surface roughness of two single-shade and one multi-shade composite resins.

A total of 90 disk-shaped specimens (6 mm×2 mm) were prepared using two single-shade composites (OMNI; Omnichroma, Tokuyama Dental, Japan and ZEN; Zenchroma, President Dental, Germany) and one multi-shade composite (FILT; Filtek Z250, 3M ESPE, USA) n = 30 per material. Specimens were assigned to one of three pre-polymerization surface treatment groups: (1) Mylar strip (MS), (2) modeling resin liquid (MR), and (3) glycerin (GL). All specimens were light-cured for 20 seconds using an LED curing unit (1000–1200 mW/cm<sup>2</sup>). After storage in distilled water at 37°C for 24 hours, baseline surface roughness (T0) values (Ra, Rz, Rmax) were recorded using a profilometer. Final surface roughness (T1) was measured after finishing and polishing with abrasive discs (Sof-Lex, 3M ESPE, USA). The difference between initial and final values ( $\Delta T1-T0$ ) was calculated. Data were analyzed using the Kruskal-Wallis test and Mann-Whitney U post hoc tests (p < 0.05).

The lowest surface roughness values in T1 for all parameters (Ra, Rz, Rmax) were observed in MR groups of all materials (OMNI, ZEN, and FILT). Moreover, the MR groups demonstrated the lowest  $\Delta$ T1-T0 values indicating reduced roughness after polishing (p<0.05). MS groups exhibited the highest surface roughness values in T1, particularly for OMNI for Rz and Rmax values (p<0.05, Rz $=2.81\pm1.65$ , Rmax=5.45±4.93). In GL, no statistically significant differences were observed among the materials in terms of T1 surface roughness and  $\Delta$ T1-T0 values (p>0.005).

The selection of surface application methods significantly affects surface roughness of composite restorations. The modelling resin method provided the smoothest surfaces and could be recommended for clinical use to enhance surface polishability.

Keywords: Glycerin Application, Modelling Resin, Oxygen Inhibition Layer, Single-shade Composite Resin, Surface Roughness

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# URINARY INCONTINENCE AND HEALTH BELIEFS AMONG HEALTHCARE **PROFESSIONALS**

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ISBN: 978-625-372-658-4

#### **Abstract**

Urinary incontinence (UI) is a significant and common public health issue that negatively affects quality of life through psychosocial, medical, and hygienic consequences. While it becomes more prevalent with age and affects women more than men, studies show that it also occurs in younger age groups. Risk factors contributing to early onset include lifting heavy loads, stressful work conditions, exposure to extreme temperatures, and wearing restrictive uniforms that limit access to toilet facilities especially common among healthcare professionals. Many individuals perceive urinary incontinence as a normal consequence of aging or childbirth and thus do not seek medical care, often due to embarrassment. Among healthcare workers, physicians have been found to have higher levels of knowledge and awareness about UI compared to other professionals. However, studies specifically examining the prevalence of UI in healthcare professionals remain limited. Given the long working hours, high stress, and specific clothing requirements, healthcare workers are considered a high-risk group. In a study conducted among female healthcare professionals in Türkiye, the prevalence of UI was reported as 7.5%, with higher rates observed among nurses. Despite experiencing symptoms, the rate of seeking medical treatment remains low; however, more severe symptoms were associated with higher rates of medical consultation. Variations in prevalence across studies point to a lack of knowledge and awareness, as well as the influence of health beliefs. Urinary incontinence should not only be seen as a condition but also as a potential symptom or indicator. It is crucial to raise awareness about this issue among all genders, especially in high-risk groups like healthcare workers. This review aims to compile existing data on the prevalence of UI among healthcare professionals and explore their health beliefs related to this condition

Keywords: healthcare professionals, urinary incontinence, health beliefs, knowledge, awareness

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# HEALTH POLICIES AND PUBLIC HEALTH NURSING IN TURKEY

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#### Abstract

Health is a fundamental value that must be preserved for the survival of all living species. Providing healthcare services to individuals is among the primary responsibilities of states. To enhance the quality of healthcare services and ensure consistency in service delivery, health policies are continually updated. The nursing profession, like other professions, is affected by these changes in various ways. To minimize negative impacts, it is essential for nurses to be involved in the formulation of health policies. The nursing profession has played a significant role in the development and implementation of health policies, thereby contributing to the improvement of healthcare services. With a long and rich history, nurses have been pivotal in shaping health policies. In Turkey, the evolution of healthcare services can be categorized into several periods: Health Services during the Grand National Assembly of Turkey (1920-1923), Health Services in the Early Republican Period (1923-1938), Post-Republic Health Services (1939-1960), Socialization of Health Services (1961-1982), Health Reform Efforts (1983-2002), Health Transformation (2003), and the Period from Health Transformation to the Present. From the Health Transformation process to the present, many regulations and changes have been made regarding the nursing profession. While existing literature extensively covers health policies up to the Health Transformation period, this review aims to examine the impact of health policy changes, particularly the Health Transformation Program, on the nursing profession and public health nursing in Turkey.

Keywords: health policies, public health nursing, health transformation, nursing, public health

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Management of Incontience in Geriatric Individuals with Home-Based Physiotherapy

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#### Abstract

Incontinence is a condition that is commonly seen in geriatric individuals and negatively affects the quality of life. In addition to pharmacological interventions, physical activity-based approaches are gaining importance, especially in geriatric individuals who need home care. Physiotherapy methods such as pelvic floor muscle training, bladder training and functional exercises offer effective alternatives in reducing incontinence symptoms. This study, which was conducted to examine the effects of physiotherapy methods applied at home on incontinence in geriatric individuals, was conducted using the literature review method. In the studies examined, it was observed that pelvic floor exercises applied regularly at home, when done at least 3 days a week, provided a 30%-70% reduction in stress and mixed-type incontinence symptoms in geriatric individuals. Bladder training and breathingcoordination techniques added to exercise programs increased treatment compliance and pelvic muscle control. It was also reported that individuals' social isolation decreased and their quality of life increased with the decrease in incontinence symptoms. Home-based physiotherapy methods are an effective, costeffective and safe approach to incontinence management in geriatric individuals. Regular application of pelvic floor exercises plays an important role in both reducing symptoms and maintaining the individual's independence. It is recommended that health professionals increase awareness in this area and offer home-based programs for geriatric individuals.

Keywords: Geriatric individuals, incontinence, home-based physiotherapy, non-pharmacological treatment

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Effects of Artificial Meat Consumption on Reproductive Health and the Endocrine System in Women: A Current Assessment

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#### Abstract

Artificial meat (cultured meat produced in a laboratory environment) is an alternative protein source that can contribute to sustainable food systems and has the potential to reduce animal welfare and environmental damage. However, the long-term effects of artificial meat on human health have not yet been sufficiently investigated. Reproductive health and the endocrine system in women are quite sensitive to external factors. In particular, the possible effects of new biological components taken into the body through food on hormone balance and the reproductive system are important. The aim of this study is to examine the effects of artificial meat consumption on reproductive health and the endocrine system in women. The study was conducted using the literature review method. Some of the growth factors, serums and carrier biomaterials used in artificial meat production have the potential to affect the endocrine system. Some studies have stated that isolated protein contents of artificial meat may exhibit estrogen-like effects; however, it is emphasized that these effects may vary depending on dosage, consumption frequency and individual hormonal conditions. It has also been suggested that bioengineering techniques used in the production process may cause hormone-like compounds to pass into the structure at micro levels. The limited number of studies conducted on humans makes it difficult to make definitive judgments. The available data on the effects of artificial meat on reproductive health and the endocrine system in women are limited and long-term clinical studies are needed. However, initial findings indicate that potential endocrine effects should not be ignored. Cautious consumption should be recommended, especially in women of reproductive age and individuals with a history of hormonal disorders. Future studies should examine the compositional safety, biological effects and social acceptance of artificial meat in more detail.

**Keywords:** Artificial meat, cultured meat, women's health, reproductive health, endocrine system, hormonal balance, nursing

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Bibliometric Analysis of Research on Ethics, Burnout, and Job Satisfaction in the Context of Intensive Care Nursing

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#### **Abstract**

This study was conducted to conceptually map the research priorities regarding ethics, burnout, and job satisfaction in intensive care nursing and to reveal the intellectual structure of the field. In the research, scientific trends related to ethical care, burnout, and job satisfaction in the field of intensive care nursing between 2015 and 2025 were examined through a bibliometric approach. A total of 213 articles obtained from the Web of Science database were analyzed using the R-based Biblioshiny tool. The analyses identified annual publication and citation distributions, thematic structures and collaboration networks, as well as the most productive authors, countries, journals, and keywords. The findings indicated that 2019 had the highest citation count, while 2023 stood out in terms of publication productivity. In the post-COVID-19 period, themes such as "burnout," "moral distress," "compassion fatigue," and "empowerment" gained prominence. Thematic map analyses revealed that the core themes centered around burnout and stress were supported by niche clusters associated with nursing students, experience, empowerment, and environmental conditions. Keyword clouds, time series charts, and coword analyses illustrated how these concepts have evolved over time. Country-based evaluations showed that the United States, Iran, and the United Kingdom ranked among the top countries in terms of citations, while Turkey demonstrated increased productivity but maintained moderate visibility. It was also noted that Turkey has the potential to expand its international co-authorship and collaboration networks. In this context, the study provides scientific evidence that may offer strategic guidance for future interdisciplinary research in the field.

Keywords: Intensive Care Nursing, Burnout, Ethical Care, Job Satisfaction, Bibliometric Analysis

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Investigating the Effect of Satisfaction with the Use of Digital Patient Records on Nurses' Job Satisfaction: A Cross-Sectional Study

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#### Abstract

Job satisfaction and contentment are two fundamental concepts that feed each other and affect the quality of work life and employee performance. This descriptive and cross-sectional study aims to examine the relationship between the experiences of nurses working with digital patient record systems in a public hospital in Istanbul and job satisfaction. The study sample consisted of 168 nurses who met the specified participation criteria and actively used the system. Data were collected from nurses working in the emergency department, inpatient department and intensive care unit of the hospital. Ethics committee, institutional and participant approvals were obtained. Data were collected online using the Personal Information Form, Information Form on Nurses' Use of Digital Patient Record System, Digital Hospital Applications Survey and Nurse Job Satisfaction Scale. Mann Whitney U, Kruskal Wallis and Spearman correlation, Dunn-Boenferroni test were used in the analysis of the data. 74% of the participants were female, 82.7% had a bachelor's degree and 52.4% were over the age of 30. It was observed that the satisfaction levels of the participants regarding the digital patient record system were generally high. The satisfaction rates regarding the laboratory and identity management modules were over 60%. The vast majority of the nurses stated that the digital record system facilitated their work processes, allowed them to spend more time on patient care and reduced error rates. The median score in the job satisfaction assessment was found to be 68, and job satisfaction was found to be high. In the analyses according to demographic variables, it was found that the job satisfaction levels of nurses under the age of 30 and female nurses were significantly higher, and both the satisfaction and job satisfaction levels of nurses who had worked in the institution for 1-5 years were found to be high when compared to those who had worked for longer periods. A positive and strong relationship was found between digital patient record satisfaction and job satisfaction (rs~0.72; p<0.001). These results show that satisfaction with digital patient record systems has a decisive effect on the job satisfaction of

Keywords: Digital patient record, Health worker satisfaction, Job satisfaction, Nursing practices, Public Hospital

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# Examination Of Pediatric Nurses' Knowledge Level And Practices About Atraumatic Care

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#### **Abstract**

Atraumatic care is a care approach that focuses on the child and the parent, aiming to minimize the psychosocial and physical stress experienced by pediatric patients during healthcare. The basic components of this approach include actively including parents in the child's care process, providing information before during and after the procedure, establishing effective therapeutic communication with the child and the family, providing emotional support, teaching stress coping strategies, and using techniques to direct the child's attention to different directions. This descriptive and cross-sectional study was conducted to examine the knowledge level and practices of pediatric nurses about atraumatic care. 105 pediatric nurses working in a university hospital participated in the study. Data were collected with a prepared questionnaire form. Ethics committee, institution, and participant approvals were obtained for the study. The data were evaluated with descriptive statistics and chi-square analysis in the SPSS program. 68% of the nurses were between the ages of 26-35, 87.6% were female, 69.5% had a bachelor's degree, and 61% were married. According to the research findings, 61% of the nurses stated that they knew the concept of atraumatic care. During pediatric care, 61% of the nurses stated that they knew the concept of atraumatic care, and 97.1% stated that they used various atraumatic interventions. When the care interventions were examined, 86.5% of the nurses stated that they used atraumatic care when drawing blood, 79.2% when administering intravenous treatments, 72.9% when monitoring vital signs, 77.1% when dressing, 61.5% when inserting a nasogastric tube, and 54.2% when administering oral treatment. It was determined that the atraumatic care methods most frequently used by the nurses were pre-procedure information, ensuring family participation, and pharmacological and nonpharmacological methods aimed at reducing pain. The knowledge level and practices of the nurses showed statistically significant differences according to variables such as the education status of the nurses, professional experience, and the unit they worked in (p<0.05). The majority of nurses think that atraumatic care reduces fear and anxiety in children and anxiety in families. According to the findings, nurses are particularly sensitive in recognizing the emotional needs of pediatric patients and providing psychological support. It is seen that pediatric nurses generally apply atraumatic care, but there is a difference between their knowledge and practices. This study reveals that in-service training is necessary for nurses to use atraumatic care practices more widely.

Keywords: Atraumatic care, pediatric nursing care

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## Nursing Education and Rehabilitation Practices in Stoma Surgery Patients

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#### **Abstract**

Individuals who undergo stoma surgery enter a complex adaptation process that affects many aspects of their lives. In this process, not only physical but also psychological and social needs of individuals come to the fore; a holistic care approach is needed to protect and increase the quality of life of patients. Nursing education plays a fundamental role in the adaptation of individuals with stoma to new lifestyles and in managing their own care. While individuals become more prepared for surgery thanks to the trainings given in the preoperative period, the trainings given in the postoperative period provide guidance on issues such as gaining stoma care skills, preventing complications, coping with body image and restructuring daily life activities. In the rehabilitation process, the role of the nurse is concentrated in areas such as supporting early mobilisation, monitoring nutrition and hydration, providing psychosocial support and planning home care. Literatürde, hemşirelik eğitiminin stomalı bireylerin bağımsızlık dü<mark>z</mark>eyini artırdığı, hasta<mark>ne</mark>de ka<mark>lış</mark> s<u>üresini kısal</u>ttığı ve yaşam kalitesini olumlu etkilediği yönünde güçlü kanıtlar yer almaktadır. Ayrıca, stoma hemşirelerin rehberliğinde yürütülen planlı eğitim ve bakım programlarının, bireyin yaşamla yeniden bütünleşmesini kolaylaştırdığı görülmektedir. Bu bağlamda, stomalı hastalara yönelik hemşirelik eğitiminin standartlaştırılması ve rehabilitasyon süreçlerinin kanıta dayalı yaklaşımlarla desteklenmesi, cerrahi sonrası bakımın niteliğini artırmada önemli bir adımdır. Bu çalışmada güncel rehberler ve bilimsel yayınlar doğrultusunda, stoma cerrahisi geçiren bireylerde hemşirelik eğitiminin kapsamı ve rehabilitasyon uygulamalarının önemi ele alınmaktadır.

Keywords: Stoma surgery, nursing education, rehabilitation, patient education, quality of life

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# Nursing Approach To Neglect And Abuse In Childhood

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#### **Abstract**

Childhood neglect and abuse can seriously affect the physical, emotional and psychological development of children. Nurses play an important role in the early identification and intervention of these situations. The nursing approach involves not only providing medical care, but also understanding and supporting the emotional needs of children. Neglect and abuse often manifests itself in the form of a child's basic needs not being met, physical or emotional harm. When observing the child's condition, nurses may notice obvious injuries to the body, emotional reactions and difficulties in social interactions. These symptoms allow the nurse to assess the situation and notify the relevant institutions when necessary. In the nursing approach, it is essential to establish a safe relationship with the child and provide emotional support. It is important to show an empathic approach and provide a safe environment for children to cope with the traumas they have experienced. In addition, counselling and education for families and informing them about protective measures can be effective in preventing neglect and abuse. Childhood neglect and abuse should be considered as a social problem and nurses should be sensitive to this issue. Nurses play a vital role in ensuring the safety of children, supporting psychological healing processes and contributing to the raising of healthy individuals in the long term. **Keywords:** child, neglect, abuse

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### Nursing Approach for Children with Chronic Diseases and Their Families

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#### **Abstract**

Children with chronic diseases and their families face long-term treatment processes and physical, psychological and social difficulties brought about by the disease. The nursing approach aims to address the needs of these children and their families in a holistic manner. The nurse not only provides physical care, but also guides the family by providing emotional support. One of the main tasks of the nurse in children with chronic illness is to inform the family about the management of the disease and the treatment process. This helps them understand treatment options, medication use and the course of the disease. In addition, by communicating effectively with the child, the nurse can help the child understand the disease in an age-appropriate manner. The family is the greatest source of support in this process, but stress, anxiety and depression may occur in the family due to chronic illness. In order to alleviate the emotional and psychological burden of the family, the nurse shows an empathic attitude, respects the emotional needs of family members and directs them to psychological support resources when necessary. Education and counselling to strengthen the family is another important role of the nurse. In addition, the nurse provides developmental support with the child. By working on the child's education, social interaction and psychological development, the nurse tries to reduce the negative effects of the disease process on the child. Continuous monitoring, empathic approach and holistic care for the child and family facilitate coping with chronic illness. This multidisciplinary approach of the nurse helps the child and family to lead a healthy life.

**Keywords:** child, chronic disease, family

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# INJURY RISK ASSESSMENT OF BODY SYMMETRIES AND SHOULDER STRENGTH IN ADOLESCENT MALE BASKETBALL PLAYERS

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#### **Abstract**

This study aimed to investigate the relationship between extremity length and shoulder strength in terms of injury risk in adolescent male basketball players. 36 adolescent male basketball players affiliated with Sivas Provincial Youth Sports Directorate voluntarily participated in the study. Child consent forms were signed. The athletes were evaluated between July 2024 and December 2024. The assessment was conducted on the basketball court at Sivas Youth Sports Center. After taking limb measurements of the athletes, throwing distance was measured with a unilateral shot put test. There is a positive correlation between both right and left lower extremity length and throwing distance in the athletes included in the study. There is also a positive correlation between upper extremity length and throwing distance (p<0.01). The results of our study are consistent with the existing literature. It is predicted that there is a significant relationship between the presence of asymmetry and shoulder strength in athletes, and there may be a risk of injury.

Keywords: Basketball injury risk, upper extremity injury, asymmetry, shoulder strength

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The Relationship between Pain Beliefs with Pain Catastrophizing and Kinesiophobia in Individuals with Shoulder Pain: Preliminary Results

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#### **Abstract**

The aim of this study was to examine the associations pain beliefs with pain catastrophizing and kinesiophobia in individuals with shoulder pain. A cross-sectional study was conducted with individuals experiencing acute or chronic shoulder pain. Participants completed the Pain Beliefs Questionnaire (PBQ), the Pain Catastrophizing Scale (PCS), and the Tampa Scale for Kinesiophobia (TSK). Pearson correlation coefficients were calculated to explore the associations between subtypes of pain beliefs and psychological responses to pain. A total of 46 participants (30 females, 16 males; mean age  $48.69 \pm$ 10.72 years) were included. There was a positive correlation between organic pain beliefs and both pain catastrophizing (r = 0.30, p < 0.05) and kinesiophobia (r = 0.32, p < 0.05). In contrast, psychological pain beliefs were not significantly correlated with either pain catastrophizing (r = 0.06, p > 0.05) or kinesiophobia (r = 0.04, p > 0.05). The findings suggest that organic pain beliefs are significantly associated with both pain catastrophizing and kinesiophobia in individuals with shoulder pain. These results highlight the potential impact of somatic interpretations of pain on maladaptive psychological responses. In contrast, psychological pain beliefs showed no significant relationship with either outcome. Interventions targeting organic pain beliefs may be beneficial in reducing both catastrophizing and fear of movement in this population.

**Keywords:** Pain beliefs, Catastrophizing, Kinesiophobia, Rotator cuff, Psychological factors

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# Effectiveness of Manual Therapy Applied to the Thoracic Spine in Back Pain

Ahmet Burak BAYIR<sup>1</sup> Kumru ATEŞ<sup>2</sup>

#### Abstract

The aim of this study was to examine the effectiveness of manual therapy applied to the thoracic spine in back pain.

This prospective, quantitative study included 31 participants with back pain. Assessments were made with Visual Analog Scale (VAS) for rest and activity pain, pressure pain threshold (PPT) for trapezius and supraspinatus muscle sensitivity, Pittsburgh Sleep Quality Index (PSQI) for sleep quality, Nottingham Health Profile (NHP) for quality of life. Assessments were made before therapy and after 4 weeks of therapy. Participants received thoracic high-velocity, low-amplitude (HVLA) manual therapy techniques twice weekly for four weeks. Data were analyzed using a pre-/post-treatment design. The study was completed with 31 patients (mean age:  $25.9 \pm 3.7$ ). After 4-weeks statistically significant decrease in rest VAS and activity VAS (p<0.05, p<0.05), increased trapezius PPT and supraspinatus PPT (p<0.05, p<0.05). When pre-treatment and post-treatment were compared, a statistically significant decrease was found in PSQI scores (p<0.05), and in NHP subscales of pain, physical mobility, social isolation, sleep, emotional reactions and energy levels (p<0.05).

Manual therapy applied to the thoracic spine for back pain reduces pain and muscle sensitivity, improves sleep and quality of life. The focus of future studies should be to determine whether the changes produced by these interventions have permanent or long-term effects.

Keywords: Manual therapy, HVLA, Back Pain, Sleep Quality

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The Effect of Hand Rehabilitation Glove Used in Stroke Rehabilitation on Hand Function

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#### Abstract

Objective: This study aimed to evaluate the effect of a 20-session program, in which hand rehabilitation glove and physiotherapy were combined, on hand function after stroke.

Method: The files of 26 patients who were admitted to Sivas Cumhuriyet University Faculty of Medicine Research and Application Hospital between January 2024 and January 2025 with a diagnosis of hemiplegia resulting from stroke and enrolled in a rehabilitation program were examined. 12 patients meeting the inclusion criteria were included in the evaluation. In addition to the routine treatment program, these patients underwent a rehabilitation program using the Syrebo™ (Pudong New Area, Shanghai) hand rehabilitation glove for 15-20 minutes daily, 5 sessions per week, for a total of 20 sessions. Patients' hand functions were evaluated at the beginning and end of treatment using the Box and Block Test, Nine Hole Peg Test, and Brunnstrom Hand Motor Staging Scale.

Results: Of the patients included in the study, 7 (58%) were male and 5 (42%) were female, with a mean age of 61.6±14.89 years. When the Box and Block Test, Nine Hole Peg Test, and Brunnstrom Hand Motor Staging values were compared with pre-treatment, a statistically significant improvement was observed in the Box and Block Test and Nine Hole Peg Test results (p < 0.05).

Conclusion: The findings obtained with the Syrebo<sup>TM</sup> hand rehabilitation glove used in our study are consistent with the existing literature and support that technology-assisted hand rehabilitation can be an effective complementary intervention method in improving hand functions after stroke.

**Keywords**: Stroke, robotic rehabilitation, upper extremity rehabilitation, hand rehabilitation, motor function

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# Effect of Plantar Vibration on Ankle Proprioception in Stroke Patients: A Randomized Controlled Trial

Ömer DURSUN¹ Ahmet Burak MAVU޲

#### **Abstract**

Plantar vibration (PV) is suggested to improve ankle proprioception in patients with stroke, but direct studies are lacking.

To evaluate the immediate and short-term effects of PV on ankle proprioception in patients with stroke.

A randomized, sham-controlled study included 40 stroke patients, divided into a vibration group (n = 20) and a sham group (n = 20). Both groups received conventional physiotherapy, while the vibration group also received 30 minutes of PV for three days. The sham group did not receive vibration. Ankle proprioception was assessed before, immediately after, and one week after using a passive joint position sense test with a Cybex Isokinetic Dynamometer.

The vibration group showed immediate improvements in ankle proprioception (5° plantar flexion (PF) and 15° dorsiflexion (DF), r = 0.65, p < 0.001, and 10° PF, r = 0.66, p < 0.001). These effects were not sustained (5° PF, r = 0.04, p = 0.780, 10° PF, r = 0.18, p = 0.233, and 15° DF, r = 0.29, p = 0.063). Intragroup comparisons showed immediate improvements (5° PF, r = 0.90, p < 0.001, 10° PF, r = 0.84, p < 0.001, and 15° DF, r = 0.83, p < 0.001), but no sustained effect (5° PF, r = 0.43, p = 0.052, 10° PF, r = 0.43, p = 0.052, and 15° DF, r = 0.37, p = 0.096).

Repetitive PV improves ankle proprioception immediately but does not maintain the effect long-term.

**Keywords:** Stroke; proprioception; vibration; ankle joint; sensory stimulation

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# INVESTIGATION OF SPORTS INJURY ANXIETY LEVELS AND QUALITY OF LIFE OF INDIVIDUALS WHO DO FIGURES ICE SKATING

EBRU ATAŞI<sup>1</sup>

#### **Abstract**

Sports is a branch of science that has become one of the cornerstones of life today. Sports is a phenomenon that keeps life away from anxiety and increases the quality of life. Sports has reached the present day by becoming widespread and has become a positive trend. There are many main branches in sports science. (1) One of the winter sports that we will discuss is figure skating. The emergence of winter sports started with transportation and has reached the present day. Winter sports consist of various sub-branches. This sport branch, which is performed for performance purposes, consists of 15 different branches according to the Turkish National Olympic Committee. 61 of the branches are snow sports, 32 are ice sports and 9 are sled sports, totaling 102 different sub-branches. (2) Ice skating and its sub-branches from ice sports are as follows: Figure skating, short track speed skating, speed skating, ice dancing, synchronized ice skating. (3) Anxiety is the reactions that an individual shows in his/her life against situations of insecurity, indecision and conflict. Sports injury anxiety is the emotional reaction of an athlete in sports situations due to injury. (4) Quality of life is the person feeling good in line with his/her wishes and reaching satisfaction if his/her wishes are sufficient. Quality of life in sports is the satisfaction of the athlete satisfying himself/herself. (5) As a result; sports injury is a situation that occurs as a temporary or permanent damage to the body as a result of injury. (6) Sports injuries are seen in sports branches, but they are inevitable in winter sports. In ice skating, the frequency of injuries varies according to body parts. (7)

Keywords: Ice Skating, Anxiety, Sports

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Developing a Cognitive Model of Cannabis Use Through Qualitative Clinical Interviews

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#### Abstract

Cannabis is widely recognized as the most frequently used psychoactive substance, with its global prevalence increasing each year. It is known to negatively affect cognitive functioning, and individuals may continue its use despite experiencing significant impairments in social and occupational domains. The primary aim of this study is to examine the impact of cannabis use on core cognitive processes from the perspective of users' lived experiences, to construct a cognitive model of cannabis use, and to gain a deeper understanding of users' underlying motivations. This qualitative study was conducted in three districts of İzmir—Buca, Bornova, Konak—using a snowball sampling method. Nine adult participants (1 female, 8 males) with cannabis use experience were interviewed in-depth. Individuals diagnosed with intellectual disabilities, neurocognitive disorders, other substance use disorders, or psychiatric illnesses were excluded. During the interviews, audio recordings were used to ensure the quality of data, followed by transcription and thematic analysis. Participants ranged in age from 22 to 33; eight were single and one was married. Two had completed high school and seven were graduates from university. Among the participants, two reported that their parents were divorced, and one had lost a father. All participants reported using alcohol. Thematic analysis revealed six main themes: the cognitive model, physiological effects, emotional effects, behavioral effects, daily life impacts, and comparisons with alcohol. The cognitive model included subthemes such as perception, attention, thought, memory, judgment, and insight. In conclusion, understanding personal experiences and motivations regarding cannabis use can contribute to a more holistic assessment of users seeking treatment, thereby facilitating a faster and more effective evaluation process. This may also allow for more individualized and targeted intervention planning. Moreover, such an approach can enhance treatment participation and effectiveness, and contribute to the development of more realistic, culturally relevant prevention and public education strategies.

**Keywords:** Cannabis, intoxication, memory, perception, attention

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# Pan-Immune Inflammation Value and Inflammatory Burden Index in First-Episode **Schizophrenia Patients**

Elif ÖZCAN TOZOĞLU<sup>1</sup>

#### **Abstract**

Schizophrenia is a complex neuropsychiatric disorder influenced by genetic predispositions and neurodevelopmental abnormalities. Recent research has highlighted the potential role of immune system dysregulation and inflammation in its pathophysiology. Biomarkers such as Pan-Immune Inflammation Value (PIV) and Inflammatory Burden Index (IBI) have emerged as indicators of systemic immune response and may reflect inflammatory activity relevant to psychiatric conditions. This retrospective study included 36 patients diagnosed with first-episode schizophrenia and 30 healthy controls who applied to the Erzurum City Hospital Psychiatry Outpatient Clinic between December 2023 and December 2024. Approval for the study was received from the Scientific Research Ethics Committee of Erzurum Faculty of Medicine. Laboratory data including complete blood count and biochemical parameters were analyzed. PIV was calculated using the formula neutrophils × platelets × monocytes / lymphocytes, and IBI was calculated as CRP × neutrophils / lymphocytes. Statistical comparisons were performed to determine differences between groups. Statistical analyses were performed using IBM SPSS 26 software. When comparing two independent groups, an independent t-test was performed since the data met the normality assumption. The results indicated that both PIV and IBI levels were significantly higher in the schizophrenia group compared to controls (p = 0.002 for both). These findings support the hypothesis that inflammatory mechanisms may contribute to schizophrenia pathogenesis. In conclusion, PIV and IBI could serve as accessible and costeffective biomarkers for identifying early inflammatory changes in schizophrenia. Further longitudinal studies are warranted to validate their utility in clinical practice.

Keywords: Schizophrenia, inflammation, biomarker, pan-immune inflammation value, inflammatory burden index, first-episode

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# Investigation of Sociodemographic and Clinical Characteristics of Geriatric Patients Applying to the Psychiatry Outpatient Clinic

Nefise DEMİR<sup>1</sup>

#### **Abstract**

Due to the aging human population worldwide, it is important to identify priority diseases to take preventive measures and reduce the psychiatric burden. Therefore, our study aimed to examine the psychiatric applications of elderly patients retrospectively and to define their sociodemographic and clinical characteristics.

320 people, 160 women and 160 men, who applied to our hospital's psychiatry outpatient clinic between July 1, 2024, and December 31, 2024, were retrospectively included in our study. The participant's age, gender, how long they have had the disease, whether disease started before age 65, their diagnosis, and the treatment method they used were recorded. Ethics committee approval was obtained from Karabük University with the decision number 2025/2257.

The participants' mean age (SD) was 74.4 (6.80). While anxiety disorder and dementia diagnoses were prominent in patients over the age of 75, anxiety disorder was again the most common, followed by depression and anxious depression diagnoses under the age of 75. 59.7% (n=191) of the participants applied to psychiatry for the first time after age 65.

Depression is a dominant component in psychiatric pathology in the elderly; it has been reported that the prevalence of depression is up to 28.3%. Although it has been said that new cases of anxiety disorder are rare among elderly people, our study shows that elderly people report anxiety complaints as new cases. Reactions to processes such as psychosocial and economic problems, physical losses, and the death of relatives may cause depression, adjustment disorder, and mourning, where anxiety symptoms are at the forefront, to come as the first application. In addition, it has been observed that the rates of Alzheimer's disease increase with advanced age, and this is consistent with the literature.

Uncovering nature and prevalence of mental disorders in the elderly will contribute to improving the functioning of health systems.

**Keywords:** Geriatric patients, Psychiatric disorders, Anxiety disorders, Depression

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Association of DSM-5 'Anxious Distress' Specifier with Affective Temperaments and Clinical Characteristics in Newly Diagnosed Major Depressive Disorder Patients Without Comorbid Psychiatric Disorders

Onur GökçenI<sup>1</sup>

#### **Abstract**

Several studies have supported the validity of the DSM-5 anxious distress specifier. It has been reported to be commonly observed in major depressive disorder (MDD) and is associated with poor clinical outcomes. Additionally, some studies have found that anxious distress is related to certain temperamental traits.

This study aimed to evaluate the association between anxious distress and affective temperaments, as well as clinical characteristics, in newly diagnosed MDD patients without comorbid psychiatric disorders. Participants were recruited from an observational study conducted between February 25, 2023, and July 25, 2023, among patients admitted to the psychiatric outpatient clinic of Kütahya Health Sciences University.

Patients over the age of 18 diagnosed with MDD according to DSM-5 criteria were included. Exclusion criteria were the presence of comorbid psychiatric disorders and current use of psychiatric medication. The DSM-5 Anxious Distress Specifier Interview (DADSI), the Hamilton Depression Rating Scale (HDRS), the Hamilton Anxiety Rating Scale (HARS), and a sociodemographic interview form were administered. Patients also completed the Temperament Evaluation of Memphis, Pisa, Paris, and San Diego-Autoquestionnaire (TEMPS-A). The DADSI evaluates the five symptoms of the anxious distress specifier. According to DADSI criteria, anxious distress is considered present when two or more symptoms have a severity score of at least 1.

The DSM-5 anxious distress specifier was identified in 65 patients (60.7%). Univariate analysis showed that anxious distress was significantly associated with female gender, higher HDRS total scores, higher HARS scores, and higher cyclothymic, depressive, and anxious temperament scores on the TEMPS-A Anxious distress according to DSM-5 criteria was common among newly diagnosed MDD patients without comorbid psychiatric disorders. Patients with anxious distress had higher levels of depressive and anxiety symptoms, and more prominent cyclothymic, depressive, and anxious temperamental traits. Keywords: Major Depressive Disorder, Anxious Distress, Temperament, Anxiety

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# The Prevalence of Anxiety and Depression Among Physicians Working in a University Hospital

Zuhal KOÇ APAYDIN<sup>1</sup>

#### **Abstract**

This study aims to determine the prevalence of anxiety and depression among physicians working in a university hospital and to examine the contributing factors. The study was conducted between October 2024 and January 2025 with the participation of 54 physicians. The Hospital Anxiety and Depression Scale (HADS) was used to assess the participants' anxiety and depression levels. The results showed that 33.4% of the physicians had mild to moderate anxiety, while 24.1% had mild to moderate depression. Severe anxiety was observed in 7.4% of participants, and severe depression in 1.9%. Female physicians had significantly higher anxiety levels compared to male physicians (p = 0.002), whereas no significant difference was found in depression scores (p = 0.332). A negative correlation was found between years of service and depression (p = 0.011). However, marital status, number of children, and weekly working hours were not found to have a significant effect on anxiety and depression scores. The study highlights the high prevalence of anxiety and depression among physicians and emphasizes the necessity of systematic mental health screenings. Regular mental health assessments for physicians are crucial for enhancing their professional performance and improving healthcare service delivery.

Keywords: Physicians, anxiety, depression, mental health, Hospital Anxiety and Depression Scale, healthcare professionals

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# Navigating Burnout in Aviation Medicine: Insights into the Challenges Faced by Flight Surgeons

Daniel Ogun<sup>1</sup>

#### **Abstract**

Burnout syndrome, defined by emotional exhaustion, depersonalization, and diminished personal accomplishment, presents profound challenges for flight surgeons. Occupying dual roles as medical practitioners and military officers, these professionals face unique stressors, including shift work, operational pressures, and demanding responsibilities. This study explores the prevalence, characteristics, and implications of burnout within this specialized community using the Maslach Burnout Inventory framework. A thematic analysis of existing literature reveals key contributors such as work-life imbalance, disrupted circadian rhythms, and chronic occupational stress. The study highlights the adverse effects of burnout, including impaired cognitive function, diminished decisionmaking capacity, and health complications, all of which threaten operational readiness and aviation safety. Organizational support emerges as a critical factor in mitigating burnout and fostering resilience. Tailored interventions such as fatigue risk management systems, flexible scheduling, and mental health resources are essential to enhance the well-being and performance of flight surgeons. This study underscores the importance of systemic reforms and interdisciplinary collaboration between healthcare and military organizations to address the multifaceted nature of burnout effectively. By providing actionable insights, the findings aim to improve the lives of flight surgeons while safeguarding the broader mission objectives of aviation medicine.

**Keywords:** Burnout Syndrome, Flight Surgeons, Aviation Medicine, Maslach Burnout Inventory.

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# Anthemis cotula, A. tomentosa, and A. austriaca species' Chloroform Subfractions Cytotoxic Effects on Various Cell Lines

Dilan AŞKIN ÖZEK<sup>1</sup> Aybeniz YILDIRIM<sup>2</sup> Hande YÜCE<sup>3</sup> Leyla BİTİŞ<sup>4</sup> Songül ÜNÜVAR<sup>5</sup>

#### **Abstract**

The incidence of cancer-related deaths is increasing worldwide. Although current treatment approaches contribute to average survival rates, they often have significant side effects. Consequently, there is an urgent need for new agents that exhibit selective cytotoxicity against cancer cells. Limited studies have investigated the cytotoxic properties of *Anthemis* species, which have been traditionally used for anticancer purposes. This study aimed to evaluate the cytotoxicity of chloroform subfractions obtained from various *Anthemis* species on both healthy and cancer cell lines.

Anthemis cotula, A. tomentosa and A. austriaca were collected, dried and chloroform subfractions were obtained. Various concentrations of the obtained extracts (3.125–200 µg/ml) were applied to healthy fibroblast L929, colon cancer HCT116, lung cancer A549 and breast cancer MCF-7 cell lines for 24 and 48 h. Cell viability was assessed using the 3-(4.5-dimethylthiazol-2-yl)-2.5-diphenyltetrazolium bromide (MTS) test. IC50 values were calculated using GraphPad Prism 10.

After 48 hours, the IC50 value of *A. tomentosa* extract was 251.1  $\mu$ g/mL in the L929 cell line, while it was 387.8  $\mu$ g/mL, 403.5  $\mu$ g/mL, and 301.7  $\mu$ g/mL in the HCT116, A549, and MCF-7 cell lines, respectively. The IC50 values for *A. cotula* were 652.5  $\mu$ g/mL and 365.3  $\mu$ g/mL in L929 cells at 24 and 48 h, respectively, and 420.4  $\mu$ g/mL and 266.9  $\mu$ g/mL in MCF-7 cells, respectively. Similarly, the IC50 values of *A. austriaca* extract were 1071  $\mu$ g/mL and 320.8  $\mu$ g/mL in L929 cell line at 24 and 48 h, respectively, and 254.1 and 184.1  $\mu$ g/mL in MCF-7 cell line.

Chloroform subfractions of *A. cotula* and *A. austriaca* species showed cytotoxic effects at lower concentrations in MCF-7 cell line compared to L929. Further research is needed to clarify the potential cytotoxic effects of these species especially on breast cancer.

**Keywords:** Anthemis species, cytotoxicity, A549, HCT-116, MCF-7

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## NF-kB Expression in Rat Uterus Treated with Capsaicin at Puberty and Adult Periods

Feyza KESKİN<sup>1</sup> Serife TÜTÜNCÜ<sup>2</sup>

#### **Abstract**

Capsaicin is the active compound of red hot pepper, known as Capsicum annuum, which belongs to the Solanaceae family and is mostly cultivated in Mexico. Studies have shown that capsaicin has very strong antioxidant, anti-inflammatory, antimicrobial, antimutagenic, and anticancer properties. The nuclear factor-κB (NF-κB) transcription factor family is considered a central regulator of the inflammatory process and plays a fundamental role in both innate and adaptive immune responses. It also has a key role in inflammation, immune response, tumor development, and defense against apoptosis. A total of 40 female Sprague Dawley rats, each 21 days old, were used as experimental subjects. The rats were divided into two main groups based on developmental stages: Puberty (42 days old) and adulthood (70 days old). Each main group was further divided into two subgroups: experimental and control. Rats in the experimental subgroups received daily subcutaneous injections of Capsaicin (Sigma M2028) at a dose of 1 mg/kg starting from day 21. No treatment was administered to the control groups. At the end of the study, the uteri of the sacrificed rats were collected and placed in a fixative solution. Following routine histological tissue processing procedures, 5–7 µm thick sections were obtained and stained using Crossmon's trichrome staining method to examine the histological structure. Additionally, sections were stained using the streptavidin-biotin-peroxidase technique, an immunohistochemical method, to detect potential NF-κB expression. Histological examinations revealed that the uterus consists of three distinct layers: the endometrium, myometrium, and perimetrium. In both control and experimental groups, all three layers of the uterus were found to have normal histological structure. Detailed comparisons between the groups revealed no significant differences in terms of tissue structure. Immunohistochemical staining demonstrated the presence of NF-κB expression at varying intensities in all three uterine layers. Although no significant differences were observed between the groups upon microscopic evaluation, the strongest immunoreactivity was detected in the control groups during the pubertal period. In conclusion, prolonged administration of low-dose capsaicin does not inactivate NF-κB expression. The observed decrease in immunoreactivity in the experimental groups suggests that capsaicin may have a favorable effect on cyclic changes in the uterus and potentially on implantation processes.

Keywords: Capsaicin, NF-kB, Uterus

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# Pathophysiology of Nutritional Disorders in Rehabilitated Wild Animals and Their **Effects on Rehabilitation Success**

Paria İSFENDİYAROĞLU<sup>1</sup> Cevat NİSBET<sup>2</sup>

#### Abstract

In wildlife rehabilitation centers, care and nutrition management should be planned in accordance with the species, age, health status and natural eating habits of the animals, imitating the conditions in the wild. The foods consumed by each wild animal in its natural environment are different. In particular, rehabilitation is important in supporting the animal's recovery process and ensuring that it does not lose its ability to find its own food when it returns to nature. Wildlife rehabilitation centres dealing with insectivorous species are challenged by the limited number of commercially available insects. Mealworms (Tenebrio molitor) are a common source of protein in the diets of insectivorous birds during wildlife rehabilitation. However, they present an unbalanced mineral profile due to their low calcium (Ca) and high phosphorus (P) content, and are also deficient in the essential amino acid methionine, which is vital for feather, beak and skin health. In the presented case study, when the birds were fed only mealworms for more than a week during rehabilitation, clinical symptoms associated with hypocalcemia and creatinopathy were observed. In this study, the clinical effects of nutritional imbalance are evaluated through case presentations on a total of 22 swallows (Delichon urbicum) and pale swifts (Apus pallidus) and the applied treatment protocol and preventive feeding strategies are discussed.

Keywords: Veterinary Biochemistry, Biochemistry, Wildlife, Wildlife Rehabilitation, Ornithology, Animal Nutrition, Insectivorous Birds, Mealworm

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The Effect of Antibiotic Usage on Spermatogenesis and Liver Functions in Rams

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#### **Abstract**

Antibiotics, widely used in both human and veterinary medicine, can have detrimental effects on metabolic and biochemical processes when used inappropriately or for extended periods. In rams, the investigation of the biochemical effects of antibiotic use on spermatogenesis and liver function is of particular importance due to the direct impact on reproductive health and animal welfare. Antibiotics have been shown to negatively affect on spermatogenesis, which is regulated by hormonal and genetic factors. Several mechanisms are involved in this adverse effect: Leydig cells, crucial for testosterone biosynthesis, are highly susceptible to the toxic effects of antibiotics. A decrease in testosterone levels can lead to a slowdown or cessation of spermatogenesis. Oxidative stress by antibiotic administration can compromise the integrity of the sperm membrane, negatively affecting sperm morphology and motility. The liver, which plays a central role in the metabolism and detoxification of antibiotics, as with all drugs, can also experience biochemical changes due to antibiotic use: Prolonged exposure to antibiotics can lead to the accumulation of toxic substances in liver cells, resulting in increased enzyme levels, which are indicative of hepatocellular damage. Some antibiotics can increase lipid peroxidation in the liver cell membranes, disrupting cellular structure and reducing hepatocyte function. Elevated liver enzyme activities, indicate liver dysfunction. Increased production of free radicals leads to increased total oxidative stress, insufficient antioxidant response, and consequently, inevitable damage to testicular and liver cells. The effects of antibiotics on spermatogenesis and liver function in rams, particularly with prolonged and uncontrolled use, inevitably have negative impacts on reproductive health and metabolic balance. This paper addresses the importance and monitoring of metabolic and biochemical markers that reveal the changes caused by antibiotic use, providing a valuable resource for veterinarians and livestock farmers.

Keywords: Antibiotics, Liver Enzymes, Oxidative Stress, Ram, Spermatogenesis

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# Evaluation Of Evidence-Based Occupational Therapy Interventions In 3-5 Years Old Children With Disintegrative Disorder

Büşranur EROL<sup>4</sup> Sevda ASQAROVA <sup>5</sup>

#### **Abstract**

Childhood disintegrative disorder is a rare neuropsychiatric disorder characterized by a sudden or gradual loss of previously acquired skills such as communication, social interaction, play, and motor abilities after a period of normal development during the first two years of life. These children experience significant difficulties in language skills, social relationships, motor movements, and personal care. The disorder manifests as reduced social interaction, lack of interest in environmental stimuli, and repetitive behavioral patterns, all of which can severely decrease the quality of life for both the child and the family.

Occupational therapy is a person-centered health profession that focuses on supporting children's meaningful and independent participation in daily life activities. For children with disintegrative disorder, occupational therapy aims to enhance functionality through individualized interventions that support sensory, motor, cognitive, and social skills. Occupational therapists conduct comprehensive assessments based on the child's interests, strengths, and weaknesses and shape the therapy plan accordingly.

Key goals of occupational therapy include sensory integration, improvement of motor skills, support of social communication abilities, and promotion of independence in activities of daily living. Active participation of the family in the therapy process is encouraged; parents are informed about their child's needs and are guided to provide supportive practices at home. Furthermore, environmental modifications and adaptations are made to ensure the child can function more comfortably and effectively in their living spaces.

Early and individualized occupational therapy interventions play a crucial role in improving the quality of life of these children, facilitating social participation, and fostering self-confidence. Occupational therapy aims not only to enhance the child's current abilities but also to reveal their potential. In this respect, occupational therapy is an indispensable intervention method for individuals with childhood disintegrative disorder to lead a more independent and meaningful life.

**Keywords:** Childhood Disintegrative Disorder, Occupational Therapy, Social Function, Motor Skills

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# Evaluation of Mothers' Attitudes and Beliefs Toward Human Papillomavirus Vaccination and Examination of Their Relationship with Health Literacy

Nuriye PEKCAN<sup>1</sup> Hacer ATAMAN<sup>2</sup> *Ubeydullah KORKMAZ*<sup>3</sup>

#### Abstract

This study was conducted as a descriptive and correlational research aiming to evaluate mothers' attitudes and beliefs toward Human Papillomavirus (HPV) vaccination and to examine their association with health literacy levels.

The sample of the study consisted of 235 mothers with daughters aged between 10 and 18 years who attended the pediatric outpatient clinics of a Training and Research Hospital located in eastern Turkey. Data were collected through face-to-face interviews using a Personal Information Form, the Health Literacy Scale (HLS), and the Carolina HPV Immunization Attitudes and Beliefs Scale (CHIAS). To compare scale scores, Independent Samples t-test and One-Way Analysis of Variance (ANOVA) were employed. The Tukey test was used to determine differences between groups. Pearson correlation coefficients were calculated to assess relationships among continuous variables.

Participants' mean scores on the CHIAS subscales were as follows: Harms: 15.74±3.01, Barriers: 6.93±2.22, Effects: 5.67±1.58, and Uncertainty: 6.48±1.43. The mean scores for the HLS were: Total: 52.57±11.86, Functional Literacy: 16.92±6.75, Interactive Literacy: 19.81±4.27, and Critical Literacy: 15.85±3.12. Statistically significant differences (p<0.05) were identified in CHIAS subscale scores based on participants' income level, family type, number of daughters, completion of vaccinations for the youngest child, sources of information regarding the HPV vaccine, and willingness to receive education about HPV and the HPV vaccine. Pearson correlation analysis revealed weak but statistically significant negative correlations (p<0.005) between: Functional Health Literacy and the CHIAS Barriers and Effects subscales; Interactive Health Literacy and the CHIAS Harms and Barriers subscales; Critical Health Literacy and the CHIAS Effects and Uncertainty subscales; and Total Health Literacy and the CHIAS Barriers and Effects subscales.

As the level of health literacy among mothers increases, their attitudes and beliefs regarding HPV vaccination tend to become more positive.

Keywords: Vaccines, Child, Attitude, Health Literacy, Human Papillomavirus

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# Determinants of Perceived Spousal Support in The Early Postpartum Period in Women Who Had a Caesarean Birth

Nuriye PEKCAN<sup>1</sup> Hacer ATAMAN<sup>2</sup> Esra KAYHAN<sup>3</sup> Derva DENİZ<sup>4</sup>

#### **Abstract**

This descriptive study aimed to examine the factors influencing the level of spouse support perceived by women in the early postpartum period who underwent caesarean delivery.

The study was conducted with 202 women who had caesarean sections at a public hospital located in Istanbul. Data were collected using the "Postpartum Descriptive Information Form" and the "Scale of Spouse Support Perceived by Women in the Early Postpartum Period-SSSPWEPP" when the women returned for their infants' one-month hip ultrasound check-up following discharge. Statistical analyses were performed using the SPSS-27 software package. Descriptive statistics and frequency distributions were utilized for data interpretation. Non-parametric methods were employed for variables not conforming to normal distribution.

The mean total score of SSSPWEPP was 63.83±12.10. Subscale mean scores were 11.29±2.78 for physical support, 22.23±5.69 for social support, and 30.31±5.74 for emotional support. A statistically significant difference was found between perceived spousal support and women's individual characteristics, including age, their own and their spouse's educational level, and income level (p<0.05). Furthermore, a significant difference was observed between perceived spousal support and pregnancy-and postpartum-related characteristics such as receiving counseling during pregnancy, planned pregnancy, participation in prenatal education classes, receiving postpartum care education during pregnancy, and receiving support in infant care and household chores after childbirth (p<0.05). Additionally, a weak negative correlation was found between the total SSSPWEPP scores and all subdimensions with duration of marriage (in years), number of pregnancies, and number of living children.

Younger maternal age, higher educational attainment (both maternal and paternal), and higher household income were associated with greater perceived spousal support. Women who received counselling during pregnancy, had planned pregnancies, participated in prenatal education, received postpartum care training, and received support in infant care and domestic responsibilities reported significantly higher levels of perceived spousal support.

**Keywords:** Caesarean section, Postpartum period, Social support, Spouses

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# Fibroepithelial Polyp of the Vulva: A Two-Case Report and Review of the Literature

Halis Doğukan Özkan<sup>1</sup>

#### Abstract

Fibroepithelial polyps (FEPs) are typically benign mesenchymal lesions that may occur in the skin and genital areas. Vulvar localization is rare and may clinically mimic malignancies. This study presents two cases of vulvar FEPs developing after pregnancy and discusses them in the context of current literature.

The first case involved a 28-year-old woman with a prior history of a similar lesion, presenting with a 4 cm pedunculated mass on the right labium majus. A residual stalk from a previously excised lesion was noted during examination. The second case was a 35-year-old woman presenting with a 5 cm soft, pedunculated mass on the left labium majus. Neither patient had a history of obesity, diabetes mellitus, or other endocrine disorders. Both lesions were completely excised. Histopathological analysis confirmed benign fibroepithelial polyps, with no signs of malignancy.

Hormonal changes, especially during pregnancy, are considered contributory factors in FEP development. The postpartum emergence of lesions has been associated with elevated estrogen and progesterone levels. The literature includes cases of giant FEPs reaching up to 25 cm in size. Differential diagnoses should include malignant mesenchymal tumors such as rhabdomyosarcoma and aggressive angiomyxoma. Therefore, complete excision and histopathological evaluation are essential for both diagnosis and treatment. In the first case, recurrence was attributed to incomplete prior excision.

Although vulvar FEPs are rare, they should be considered in the differential diagnosis of vulvar masses, particularly those arising postpartum. Malignancy must be ruled out, and total excision is crucial for accurate diagnosis and minimizing recurrence risk.

Keywords: Fibroepithelial Polyp, Vulva, Benign Neoplasms, Polyp

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# DUAL TRIGGERING WITH HCG+GNRH AGONIST INCREASES OOCYTE MATURATION RATES IN PATIENTS UNDER 35 YEARS OF AGE COMPARED TO GNRH AGONIST ALONE

Levent DİKBAŞ<sup>1</sup>

#### **Abstract**

The aim of this study was to compare the oocyte maturation rates of a GnRH agonist alone and as a dual trigger for final oocyte maturation in IVF cycles in young (<35 years) and elderly (≥35 years) patients. Our retrospective cohort study included 88 patients treated in a single overseas centre between April 2024 and September 2024. GnRH agonist was used alone for final oocyte maturation in hyperresponder patients (PCOS patients with  $\geq 15$  follicles before OPU to avoid OHSS risk) or in combination with HCG (Dual Trigger) in normo-hyporesponder patients. After the collected COCs were denuded, MH, MI and GV were counted and oocyte maturation rate (OMR = MII / number of oocytes) was calculated. OMRs were compared according to age groups (<35 and ≥35 years of age). BMI, duration of infertility and mean duration of treatment were similar. Data were analysed with IBM SPSS V23 and R software. The conformity of the data to normal distribution was analysed by Kolmogorov-Smirnov test. Non-parametric values were analysed for two age groups by Mann Whitney U test. Mean ± standard deviation and median (minimum - maximum) were used in the presentation of quantitative data. Significance level was taken as p<0.05. In the group of <35 years old patients in whom agonist alone was used as oocyte trigger, the mean OMR was 0.589±0.151, median 0.587 (0.115-0.8), while the mean for dual trigger was 0.691±0.141, median 0.667 (0.441-1). The difference was statistically significant (p=0.028). In the  $\geq$ 35 age group, the mean OMR was 0.694±0.189, median 0.615 (0.542-1) in agonist users alone and 0.648±0.183, median 0.6 (0.429-1) in dual users. The difference between the agonist group and the dual group was not significant. Dual trigger provides more mature oocytes in younger patients (<35 years) than in older patients ( $\ge35$  years), whereas single or dual use of GnRH agonist does not make a difference in the older age.

**Keywords:** GnRH agonist, oocyte maturation, IVF cycles

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# ÇALIŞANLARIN GÜNLÜK ÇALIŞMA SAATLERİNİN YAŞANAN BEL AĞRISINA ETKİSİ

Özgü Burak ÖZDEN<sup>1</sup>
Ahmet Uzun <sup>2</sup>

#### Abstract

Low back pain is a common health problem worldwide and can cause significant consequences such as loss of work capacity and decreased quality of life. Working hours are thought to be an important factor in the emergence and aggravation of low back pain. Factors such as prolonged sitting, incorrect posture, physical stress and muscle imbalances in the body can contribute to the development of low back pain when working hours increase. In order to understand the relationship between working hours and low back pain, daily sitting hours and how body position during work creates pressure on the low back should be examined. Especially in individuals who work at a desk for long periods of time, such as office workers, prolonged static positions and low physical activity can create serious pressure on the low back muscles. High stress levels during long working hours can also trigger low back pain. Reducing daily working hours can be an important strategy in managing low back pain. Research shows that back pain can be reduced with regular short breaks and active activities at work. Purpose: We aimed to determine the proportion between daily working hours of working individuals and back pain and to develop a perspective on working hours and conditions. Method: A total of 60 individuals (30 males, 30 females; mean age male: 40.5, mean age female: 41.6) with back pain of 3 months or more and aged 20-60 (20-30 years: 15, 30-40 years: 17, 40-50 years: 16, 50-60 years: 12) were included in the study. In this study, we used the Numerical Ratio Scale to define the severity of pain of the individual. Daily working hours and working style were evaluated in the evaluation of the individual's findings. Findings: While no significant relationship was found between daily working hours and back pain (p>0.05), a significant relationship was found between the individual's working style and pain (p<0.05). Conclusion: The relationship between daily working hours and back pain is a complex situation shaped by both physical and psychological factors. While prolonged sitting, low physical activity and incorrect posture are conditions that increase back pain, we believe that shortening the working hours of individuals working in poor conditions and posture, ergonomic arrangements and regular breaks are effective methods to prevent back pain and alleviate existing pain.

Keywords:Low Back Pain, Daily Working Hours

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Analysis Of The Relationship Between The Anomalous Canals In The Skull Base Region, Including The Sella Turciça And Clivus, And The Surgical Approach Angles In Computed Tomography Images With Different Sinus Sphenoidalis Pneumatization Types

> Gülay AÇAR<sup>1</sup> Sümeyye ÖZDEMİR<sup>2</sup> Demet AYDOĞDU<sup>3</sup>

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#### **Abstract**

Variations in sphenoid sinus pneumatisation (SSP), canalis basillaris medianus (CBM), fossa navicularis magna (FNM), craniopharyngeal canal (CPC) and sella turcica (ST) dimensions and their associations interrelationships are important for the radiological evaluation of the skull base and for surgical intervention. In this study, we aimed to perform morphometric and morphological analyses of the sphenoid sinus (SS) and the sella turcica (ST) and to determine how these findings vary according to gender and age. Computed tomography scans of 425 individuals (222 females, 203 males) were analysed to assess the dimensions of the ST and FNM and the prevalence of CBM, FNM, CPC and SSP types. Statistical analysis of the data in relation to sex, age and sagittal SSP (SSSP) types was performed using SPSS version 25. Among the SSSP types, the postsellar type was more common in females (80.2%), whereas the presellar and sellar types were more common in males (9.9% and 19.2%, respectively) with a significant difference. The incidence of CPC, ST variants and the hyperplastic SSP type was higher in males than in females. The incidence of ST bridging, ST variants and hyperplastic SSP was significantly higher in the postsellar type compared to other SSSP types. In the older age group, the incidence of ST bridge, ST variant and hyperplastic SSP was significantly lower than in other groups. SS volume (SSV) and FNM length were higher in males, whereas Welcher basal angle and ST height and depth were higher in females. Despite an increase in ST dimensions with increasing age, a decrease in SSV was observed. As SSP increased, SSV increased, whereas ST and FNM dimensions decreased. Understanding the variations in the SSP and adjacent structures in relation to gender and age prior to transsphenoidal endoscopic surgery is crucial for surgeons to avoid iatrogenic complications.

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Evaluation of Skin and Subcutaneous Fat Tissue Thickness at Gluteal Intramuscular Injection Sites

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#### Abstract

More than 12 billion intramuscular injections are made each year for therapeutic purposes. The dorsogluteal and ventrogluteal regions, which are intramuscular injection sites, are frequently used for intramuscular injection because they contain large muscle groups. The success of gluteal intramuscular injections depends on the syringe needle passing through the skin and subcutaneous fat tissue to reach the muscle. Therefore, the needle length for intramuscular injection should be longer than the skin and subcutaneous length. Our aim is to determine the length of skin and subcutaneous fat tissue that the needle tip must pass through until it reaches the muscle in the gluteal region where intramuscular injection is applied, using computer tomography images. Computed tomography images of 200 individuals over the age of 18 without pelvic pathology and located in the archives of the Department of Radiology of Gaziantep University Sahinbey Research and Training Hospital were retrospectively examined. Measurements were made using the sectra Workstation IDS7 program. Before the study, approval was obtained from the Gaziantep University Non-Interventional Clinical Research Ethics Committee. (Decision no: 2024/446, date: 04.12.2024). Skin and subcutaneous fat tissue thickness in the dorsogluteal and ventrogluteal regions were measured in transverse sections. The measured parameters were correlated with age, gender, height, weight and body mass index. Statistical analysis of the available data was performed. In our study, it was observed that the total length of the skin and subcutaneous fat tissue was statistically higher in the dorsogluteal region than in the ventrogluteal region. We believe that our findings will contribute to healthcare professionals in determining the appropriate needle length for gluteal intramuscular injections in adults.

**Keywords:** Intramuscular Injection, Dorsogluteal Region, Ventrogluteal Region, Subcutaneous Fat Tissue

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**Stafne Bone Cavity: A Case Report** 

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#### Abstract

Stafne bone cavity (SBC) is an asymptomatic, radiolucent, pseudocystic lesion typically located unilaterally in the posterior mandible, below the mandibular canal and above the mandibular base. SBC frequently appears cyst-like radiographically but lacks a true epithelial lining, distinguishing it from true cysts. Although usually incidental and benign, accurate identification is essential to differentiate it from more aggressive lesions. SBC predominantly affects males aged 50-70 years. This report aims to describe and discuss clinical and radiological findings in a relatively rare female case of SBC, emphasizing the diagnostic importance of panoramic radiography and Cone Beam Computed Tomography (CBCT) imaging.

A 62-year-old female patient underwent detailed extraoral and intraoral examinations during a routine dental visit. A panoramic radiograph was obtained, revealing a radiolucent lesion suggestive of SBC. CBCT imaging was subsequently performed to evaluate lesion characteristics and confirm diagnosis. Clinical examinations showed no pathological findings. Panoramic radiography identified a welldefined, oval-shaped radiolucency inferior to the roots of the right mandibular second molar, positioned between the mandibular canal and the inferior border of the mandible. CBCT imaging revealed a clearly demarcated lesion (approximately 15 × 13 mm) with corticated margins. Thinning of the buccal cortical bone and slight lingual cortical expansion without disruption were observed. The mandibular canal was slightly displaced superiorly. Radiological findings supported a diagnosis of SBC.

SBC is usually diagnosed incidentally, predominantly in males, making this female case relatively rare. Differential diagnosis should consider accessory mental foramina, odontogenic cysts, and tumors. Although panoramic radiography typically provides sufficient preliminary diagnosis, CBCT imaging is useful for detailed assessment. Treatment is generally unnecessary; periodic monitoring is sufficient.

Keywords: Stafne bone cavity, mandible, benign cyst, panoramic radiograph, CBCT

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### Fever Management and Pharmacological Approaches in Children

Hadice TUNCER<sup>1</sup> Fahri AŞKAN<sup>2</sup> Yılmaz KOÇAK<sup>3</sup>

#### Abstract

Fever is a protective physiological response of the body against pathogens, regulated by the hypothalamic thermoregulatory centre. Clinically, a body temperature of 38.3°C and above is defined as fever. Although antipyretic treatments are widely used in the management of fever associated with infectious etiologies, parents' fear of febrile convulsions and misperceptions that fever is harmful increase the unnecessary use of these drugs. However, fever may play a role in strengthening the immune response as long as it is controlled. Potential adverse effects of overuse of antipyretics, such as hepatotoxicity and nephrotoxicity, constitute an important problem, especially in the paediatric population, which differs from adults in terms of pharmacokinetics and pharmacodynamics. Therefore, in addition to pharmacological approaches in fever management, it is of great importance to raise awareness of parents about the natural course of fever and appropriate management strategies. Individualised treatment plans supported by physicians' diagnostic approaches and parental education may prevent unnecessary drug consumption by ensuring rational use of antipyretics. This review aims to increase parental awareness by emphasising evidence-based approaches in the management of fever in children, to protect child health and to improve child health by considering the cost-benefit mechanism of pharmacological approaches.

Keywords: Fever, Antipyretic, Medicine, Dosage, Children.

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# Evaluating the Effectiveness and Clinical Reliability of ChatGPT in Pediatric **Management of Primary Nocturnal Enuresis**

Belen ATES<sup>1</sup> Eren GÜZELOĞLU<sup>2</sup> Büsra Nükhet PEHLİVANOĞLU<sup>3</sup>

#### Abstract

To evaluate the effectiveness, reliability, and clinical accuracy of ChatGPT version 4.5 in providing information and recommendations regarding pediatric primary nocturnal enuresis (PNE).

This study assessed ChatGPT version 4.5 using 15 frequently asked questions (FAQs) about PNE, identified by analyzing popular web sources and patient inquiries. Each question was presented twice to assess reproducibility. Responses were evaluated independently by three pediatricians using the Global Quality Score (GQS), assessing accuracy, comprehensiveness, clarity, and consistency. Data collection occurred between January and March 2025.

ChatGPT-4.5 demonstrated complete reproducibility, consistently providing identical responses across repeated tests. All responses received the highest GQS score (5), indicating high-quality, accurate, and evidence-based information. ChatGPT successfully addressed clinical definitions, diagnostic approaches, epidemiological data, management strategies, including behavioral interventions, alarm therapy, pharmacotherapy and psychosocial impacts of PNE. Recommendations were consistent with current clinical guidelines.

ChatGPT-4.5 provided highly reliable, accurate, and reproducible information regarding primary nocturnal enuresis. Although the AI model effectively supported patient education and general clinical guidance, limitations included the inability to tailor personalized treatment plans or incorporate realtime emerging research. Future studies should directly compare AI-generated recommendations with pediatrician advice and evaluate patient and caregiver satisfaction, potentially facilitating broader integration into clinical practice as a supplementary educational resource.

Keywords: Primary nocturnal enuresis, Artificial intelligence, ChatGPT

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# **Methanol Intoxication: A Case Report**

Yavuz SAYGILI<sup>1</sup>

#### **Abstract**

Methanol intoxication is a clinical condition that can cause severe clinical and death. Although methanol itself is not toxic, its metabolites are toxic. Methanol is converted to formaldehyde and then to formic acid by the action of the alcohol dehydrogenase enzyme. Formic acid causes high anion gap metabolic acidosis, optic neuropathy and central nervous system damage. A 24-year-old male patient was admitted to our emergency department with nausea, abdominal pain and visual disturbances. In the history, it was learned that he had consumed alcoholic beverages from an unreliable source 12 hours ago. On examination, consciousness was confused, blood pressure was 130/80 mmHg, pulse was 92/min, respiratory rate was 16/min, and epigastric tenderness was detected in the abdomen. Laboratory findings; arterial blood gas pH 7.06, HCO3 5.8 mEq/dL, increased anion gap, base deficit -26, urea 48 mg/dL, creatinine 1.4 mg/dL, white blood cell 23,200/mm³, hemoglobin 15.5 g/dL. Blood methanol level could not be studied. With the diagnosis of methanol poisoning, 10% ethanol 10 ml/kg intravenous loading, 1.5 ml/kg/hour maintenance dose was applied. 1 mEq/kg NaHCO3 was given for severe acidosis. Fomepizole 15 mg/kg loading, 10 mg/kg maintenance dose every 12 hours was started. Single session hemodialysis and folate 50 mg IV were applied. The patient, who was followed up in the intensive care unit, was discharged with recovery after 4 days.

Keywords: methanol intoxication, fomepizole, central nervous system

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# Metformin-Associated Lactic Acidosis (MALA): A Case Report

Yavuz SAYGILI<sup>1</sup>

#### **Abstract**

Metformin is a drug from the biguanide group that is frequently used in the treatment of Type 2 DM. Although the incidence of metformin-associated lactic acidosis (MALA) is low, it is associated with high mortality rates. Metformin is eliminated unchanged by the kidneys. In cases of chronic renal failure or excessive intake for suicidal purposes, the amount of drug in circulation exceeds renal clearance and reduces drug excretion. This leads to high anion gap metabolic acidosis. This case is presented to draw attention to the effectiveness of hemodialysis treatment in MILA treatment. A 20-year-old female patient was brought to the emergency room with excessive metformin intake for suicidal purposes. The patient, who was observed to have confusion, hypoglycemia, hypotension and deep lactic acidosis during follow-up, was taken to hemodialysis under vasopressor treatment. Dextrose treatment was started due to hypoglycemia. The patient's acidosis regressed with hemodialysis treatment and the vasopressor agent requirement continued for 3 days. The patient was discharged from the intensive care unit with recovery on the 5th day of treatment. In conclusion, hemodialysis should be the first treatment option to be considered in patients diagnosed with metformin-related lactic acidosis. Renal replacement therapy that is started rapidly and continued for a sufficient period of time is promising in this situation with high mortality rates.

Keywords: metformin intoxication, hemodialysis, lactic acidosis.

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### An Alternative Method for Hypoxemia in Pediatric Flexible Bronchoscopy Procedure

Oya Olcay ÖZDEŞ<sup>1</sup> Ömer Faruk BİLİN<sup>2</sup> Aytaç ALTAŞ<sup>2</sup> Zekine BEGEC<sup>2</sup>

#### **Abstract**

Pediatric flexible bronchoscopy (FB) continues to be widely used in the evaluation of airway and lung pathologies. Anesthetic management of flexible bronchoscopy is more complicated in neonates and infants than in adults. In this case, we aim to present an alternative method to facilitate the difficult bronchoscopy procedure in an infant. A 35-day-old infant with persistent atelectasis underwent a flexible bronchoscopy procedure for diagnosis and treatment. A three-way tap was used as an adapter between the airway and the suction cannula to prevent the rapid development of desaturation during the second bronchoscopy, after the first bronchoscopy procedure was interrupted due to the patient developing hypoxemia. The open direction of the three-way tap was switched to the direction of the aspiration cannula when aspiration was needed and ventilation was continued at all other times, reducing the time loss due to equipment change. The most common complication of bronchoscopy is hypoxemia, and patients under two years of age are particularly prone to hypoxemia. This is physiologically due to limited oxygen reserves and high oxygen consumption. Therefore, hypoxemia during pediatric bronchoscopy is a difficult complication to manage even for the most experienced anesthesiologist. An organized teamwork is important in the prevention of complications due to the selection of appropriate equipment and shared use of the airway. With this three-way tap, the time to desaturation in pediatric patients can be prolonged and time can be saved for successful completion of the bronchoscopy procedure. It is an alternative method in centers with limited equipment.

Keywords: Bronchoscopy, Pediatric anesthesia, Hypoxemia, Desaturation, Anesthetic management

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Aging Patients, Changing Substances: Unexpected Demographic Shifts in Türkiye's

Drug Treatment Admissions Over a Decade

Ayça sıla KUMTEPE<sup>1</sup> Levent ÖZDEMİR<sup>2</sup> Serranur SIĞINDERE<sup>3</sup> Derya ÇAĞLAYAN<sup>4</sup>

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#### Abstract

We conducted a retrospective study, analyzing national treatment data from Türkiye between 2013 and 2023, revealing significant demographic and epidemiological changes in substance use patterns. Findings show a 60% increase in treatment admissions and a 39.6% decrease in direct drug-related deaths (DRDs), suggesting the effectiveness of expanded treatment infrastructure and harm reduction strategies.

The age profile of patients shifted upward, with a notable decline in adolescent (15–19) admissions and a rise in older adult participation, reflecting global aging trends in addiction treatment. Female admissions increased from 5.6% to 9.7%, indicating a narrowing of the gender gap. Educational trends indicate a decline in the number of primary school graduates and an increase in the number of individuals with secondary or higher education seeking treatment.

Substance trends dramatically changed: opioid use as a primary drug declined from over 70% to just 4.2%, while methamphetamine surged to 37.1% in 2023. Methamphetamine seizures increased 207-fold, aligning with higher mortality and infection risks. Polydrug use became the dominant pattern in toxicology reports, and methamphetamine-related deaths increased by 8.6 times over the decade.

Infection trends highlight a 6.8-fold rise in HIV seropositivity among people who inject drugs (PWID), far outpacing the general population. HCV rates remain high, while HBV shows a mild decline, reflecting successful vaccination efforts.

These findings underline the need for specialized stimulant treatment programs, gender-responsive services, expanded harm reduction initiatives, and real-time drug surveillance systems. Türkiye's evolving drug landscape requires agile, evidence-based responses that address demographic transitions and emerging synthetic drug threats.

**Keywords:** Methamphetamine, Harm Reduction, Demographic Shift, Substance Use Disorder, Türkiye

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Prevalence of self-reported hearing impairment and depression in adults aged 50 years and above: A community-based cross-sectional study

Mehmet Emin ARAYICI<sup>1,2</sup>

#### Abstract

Self-reported hearing impairment and depression are increasingly recognized as prevalent and debilitating conditions among adults worldwide. However, data on the co-occurrence of these conditions in adults aged 50 years and above in Türkiye remain unclear. We conducted a communitybased study to estimate the prevalence of self-reported hearing impairment and depressive symptoms and to explore their association. A total of 29,787 participants were recruited from the representative sampling frame of the Türkiye Elderly Profile Research micro datasets (Turkish Statistical Institute), yielding a weighted sample of 20,174,792 individuals after excluding records with missing data. Hearing impairment was assessed via a standardized questionnaire item and dichotomized as "no or slight difficulty" versus "moderate to severe difficulty," while depressive symptoms were measured using the validated Geriatric Depression Scale (GDS). Multivariable logistic regression models quantified the association between hearing impairment and depression, adjusting for sociodemographic factors, lifestyle behaviors, and health-related variables. Overall, the weighted prevalence of selfreported hearing impairment was 4.1%, while 9.6% of participants exhibited severe depressive symptoms. In fully adjusted models, participants reporting hearing impairment had significantly increased odds of mild depressive symptoms (aOR 2.07; 95% CI: 2.06–2.08) and severe depressive symptoms (aOR 2.37; 95% CI: 2.35–2.38) compared with those without hearing impairment. Older age is independently associated with higher odds of depressive symptoms. These findings highlight the importance of integrated screening and intervention strategies that address both auditory and mental health in the aging population of Türkiye. Future longitudinal studies warrant elucidation of causal

Keywords: hearing impairment, depression, adults, Türkiye, community-based study

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Metabolic Equivalent-Based Physical Activity Profile in University Youth: A Cross-Sectional Study

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ISBN: 978-625-372-658-4

#### **Abstract**

This study aimed to determine the levels of moderate and vigorous physical activity among university students and to reveal gender-based differences. Data were collected through online platforms from students enrolled at Pamukkale University during the 2024-2025 academic year and were obtained via Google Forms. Participants' physical activity levels were assessed using the self-reported Physical Activity Questionnaire—2. A total of 373 university students participated in the study. The mean age of the participants was  $21.3 \pm 2.1$  years, with ages ranging from 18 to 29. The average weekly total METminutes for the overall sample was calculated as  $1656.8 \pm 1673.6$ . Gender-based analysis showed that male students had a mean of 1930.7 ± 1785.7 MET-min/week, while female students had a mean of  $1398.6 \pm 1520.4$  MET-min/week. This difference was statistically significant according to the Mann-Whitney U test (p < 0.01). The proportion of students meeting the World Health Organization's recommended threshold of ≥500 MET-min/week was 79.2% for males and 62.2% for females, a statistically significant difference ( $\chi^2(1) = 12.32$ ; p = 0.0004). For the higher threshold of  $\geq 1000$  METmin/week, the proportions were 60.7% and 47.4%, respectively, which also showed a significant difference ( $\chi^2(1) = 6.12$ ; p = 0.013). Logistic regression analyses revealed that female students were significantly less likely to meet both the 500 and 1000 MET-min/week thresholds compared to male students (OR = 0.43 and OR = 0.59, respectively). These findings indicate notable gender-based disparities in physical activity levels among university students and highlight the need for targeted intervention programs to enhance physical activity participation, particularly among female students. **Keywords:** Health, Metabolic Equivalent of Task, Physical activity

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# EVALUATION OF HEALTH LITERACY AND HEALTHY LIFE AWARENESS AMONG UNIVERSITY STUDENTS

Oya DEMİRCAN<sup>1</sup> Sevil KARAHAN YILMAZ<sup>2</sup> Günav ESKİCİ<sup>3</sup>

#### **Abstract**

The prerequisite for developing awareness of a healthy lifestyle is having knowledge about health. Especially during adolescence, the level of knowledge acquired plays an important role in developing life awareness and adopting healthy lifestyle behaviors in the future. The aim of this planned study is to determine the levels of health literacy and healthy lifestyle awareness among university students and to evaluate the relationship between them. The study was conducted with students from different universities in Turkey who had internet access and were reached through social media and web platforms. The students completed a questionnaire that included descriptive information, dietary habits, questions related to the "Short Form of the Health Literacy Scale," and the "Healthy Lifestyle Awareness Scale." Participants' body weight and height values were based on self-reports. A total of 125 students, including 33 (26.4%) males and 92 (73.6%) females with an average age of 21.9±2.1 years, participated in the study. The average Body Mass Index (BMI) of the students was calculated as 22.7±3.6 kg/m<sup>2</sup>. Sixteen percent of the students were on a diet, and 25% were attending a course program. The Health Literacy Short Form score of students attending a course program was found to be higher than those who were not (p<0.05). Female students' Health Literacy Short Form score (32.6±7.5) was lower than that of male students (33.7±7.9) (p<0.05). The Healthy Lifestyle Awareness Scale score was 57.1±9.6 for male students and 57.9±8.1 for female students (p>0.05). A positive correlation was found between the scores of the Health Literacy Short Form and the Healthy Lifestyle Awareness Scale (r=0.497; p<0.05). Health literacy and healthy lifestyle awareness levels were found to be high among students. It was determined that as the level of health literacy increases, healthy lifestyle awareness also increases.

Keywords: Health, health literacy, healthy living, student, life awareness

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# Caffeine as an Ergogenic Aid in Athletes: A Review in Light of Current Findings and Meta-Analyses

Seyit Ramazan KARADOĞAN<sup>1</sup> Eren CANBOLAT<sup>2</sup>

# **Abstract**

Ergogenic aids used by athletes include substances, treatments, and strategies designed to improve performance beyond the effects of standard training. Among these aids, caffeine stands out as the most widely consumed psycho-stimulant and is particularly popular among endurance athletes. Caffeine was added to the World Anti-Doping Agency (WADA) banned list in 2000, removed in 2004, yet its use is still monitored. A 2018 statement from the International Olympic Committee identified caffeine as one of five supplements with strong evidence supporting its ability to enhance exercise performance. Caffeine is consumed in various forms, most commonly as capsules or in anhydrous form. It can also be ingested in dissolved form, as well as through coffee, caffeinated gum, energy drinks, nasal sprays, caffeinated gels, and bars. The most common timing for caffeine supplementation is approximately 60 minutes before exercise; however, the optimal timing may vary depending on the source of caffeine. For example, athletes using caffeinated gum are advised to consume it about 15 minutes before starting exercise. Caffeine has been shown to enhance performance in endurance-based activities characterized by supramaximal intensity and repeated explosive power output. In a meta-analysis, it was found that supplementation with 4–6 mg/kg of caffeine significantly improved time trial performance in cyclists. Another meta-analysis focusing on female athletes reported that a caffeine dose of 3–6 mg/kg led to small but meaningful improvements in muscular endurance and strength. Meta-analyses examining team sports have also demonstrated that the same dosage range improves performance metrics such as jump height, sprint speed, and agility. In conclusion, a caffeine dose of 3–6 mg/kg taken 30–60 minutes prior to exercise can be recommended. However, individual variability in response should be taken into account, and potential side effects—such as insomnia, irritability, and heart palpitations—should be monitored closely.

Keywords: Ergogenic aid, Caffeine, Caffeine dose, Athlete, Athletic performance

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Comparison of Lunch Menus Prepared by Dietitians and Artificial Intelligence for University Students in Terms of Energy, Nutrients, and Menu Planning Principles

Betül KOCAADAM BOZKURT<sup>1</sup> Saniye SÖZLÜ<sup>2</sup>

## **Abstract**

This study aimed to comparatively evaluate lunch menus prepared by a dietitian and an artificial intelligence-based system (ChatGPT) for university students aged 18–24, focusing on their compliance with principles of energy, nutrients, and menu planning.

In the study, a 4-cup, set-free, 2-week (weekday) lunch menu prepared by a dietitian was compared with a menu created by ChatGPT according to the same criteria. The command 'Plan a 4-cup, set-free, 2-week (excluding weekends) lunch menu that will support adequate and balanced nutrition by the principles of menu planning for university students aged 18-24' was given to ChatGPT to prepare the menu. A menu checklist consisting of 12 questions was prepared to evaluate the compliance with the principles of menu planning and was requested to be evaluated by 10 expert dietitians in the field. Statistical analyses were performed using the SPSS 24.0 and p<0.05 value was considered statistically significant for all statistical analyses.

No difference was found in average energy, macro, and micronutrients between the menus prepared by dietitians and artificial intelligence (p>0.05). However, when the menus were evaluated by dietitians in line with menu planning principles, it was observed that the menu prepared by artificial intelligence was unbalanced in terms of equipment and staff workload, that there were frequent repetitions in the menu, and that sufficient variety was not provided in terms of color, structure and texture.

In conclusion, it is seen that artificial intelligence can be used to a certain extent in nutrition planning, but human expertise still plays an important role, especially in qualitative assessments such as visual balance, ease of application, and gastronomic diversity. In the future, making artificial intelligence systems more equipped in terms of menu planning principles may make it possible to create more functional and balanced menus under the guidance of dietitians.

Keywords: Artificial Intelligence, Menu Planning, Nutrition

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# Effects of Valsalva Maneuver on Corneal and Anterior Chamber Morphology in Eyes with Keratoconus

İrfan UZUN<sup>1</sup>

## **Abstract**

Objective: The aim of this study was to compare the changes in corneal and anterior chamber parameters in healthy and keratoconus eyes during the Valsalva maneuver. Materials and Methods: This prospective study included 66 eyes of 66 keratoconus patients (39 males, 27 females; age range 12-47 years; mean age  $26.9 \pm 7.64$  years) and 60 eyes of 60 healthy subjects (30 males, 30 females; age range 19-33 years; mean age  $25.1 \pm 5.21$  years). Central corneal thickness (CCT), corneal apex thickness (CAT), thinnest corneal thickness (TCT), corneal volume (CV), flat K, steep K, maximum K and anterior chamber parameters (anterior chamber volume (ACV), anterior chamber depth (ACD), iridocorneal angle (ICA)) were measured for all participants in the resting position and during the Valsalva maneuver using a Pentacam Scheimpflug camera (Oculus, Germany). Corneal and anterior segment parameters were evaluated at rest and during the valsalva maneuver, and the differences between the keratoconus group and the control group were analyzed. The statistical significance of the differences between the parameters was analyzed using paired t-test. Mean differences between the two groups were compared using the independent sample t-test or Mann-Whitney test. Results: Statistically significant decreases in ACV, ACD and ICA were observed in both keratoconus and healthy eyes during Valsalva maneuver (p<0.001). However, there was no statistically significant difference between the mean changes in these parameters between the two groups (p>0.05). No statistically significant changes in other corneal parameters (CCT, CAT, TCT, CV, flat K, steep K, maximum K) were observed during the Valsalva maneuver or any significant difference between the groups. The Valsalva maneuver induces similar changes in anterior chamber parameters in both keratoconus and healthy eyes. These findings suggest that the Valsalva maneuver may constitute an additional risk factor in eyes with keratoconus due to the already weakened corneal structure. Keywords: Valsalva maneuver, Keratoconus, Cornea, Anterior chamber, Corneal topography.

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# Histopathological and Survival Differences Between Mucinous and Non-Mucinous Colorectal Adenocarcinomas: A Single-Centre Retrospective Analysis

Enver YARIKKAYA<sup>1</sup>

#### **Abstract**

Objective: This study aimed to investigate the clinicopathological characteristics and survival outcomes of mucinous adenocarcinoma (mucAC) in comparison to non-mucinous conventional adenocarcinoma (conAC) among colorectal cancer patients who underwent surgical resection.

Methods: We retrospectively analysed 154 patients who underwent colorectal resection between 2017 and 2019, stratified into two groups based on histopathological subtype: mucAC (n=54, 35.1%) and conAC (n=100, 64.9%). Statistical analyses were performed to compare demographic, histopathological, and survival variables. Kaplan-Meier analysis was utilized to assess 60-month overall survival.

Results: The mean age of the patients was 64.9 years, with no significant difference in age distribution observed between the two groups. A statistically significant difference was found in tumour diameter, with the mucAC group exhibiting larger tumours (median 55 mm vs. 45 mm, p=0.002). Although the mean number of metastatic lymph nodes was higher in mucAC patients, this difference did not reach statistical significance (p=0.116), mucACs were more frequently located in the right colon (46.3% vs. 21.0%, p=0.002), and were associated with a higher incidence of high-grade histology (G3: 18.5% vs. 4.0%, p=0.011) and deeper invasion into the visceral peritoneum (48.1% vs. 16.0%, p<0.001). No significant differences were observed between the groups in other pathological parameters, including lymphovascular invasion, perineural invasion, and nodal metastasis. Kaplan-Meier analysis revealed mean survival times of 58.3 months in the conAC group and 52.5 months in the mucAC group. However, the overall survival difference between the groups was not statistically significant (p=0.254). Conclusion: Mucinous adenocarcinomas demonstrated distinct pathological features, including proximal location, larger tumour size, higher histological grade, and deeper invasion. Despite these differences, there was no statistically significant difference in overall survival over five years when compared to conventional adenocarcinoma.

Keywords: mucinous adenocarcinoma, survival, histopatholgy, colon, tumor invasion

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Histopathological and Endoscopic Features of Tumors Metastasizing to the Stomach

Merve CİN<sup>1</sup>

ISBN: 978-625-372-658-4

## Abstract

Gastric metastasis is rare but poses significant diagnostic and therapeutic challenges due to its ability to mimic primary gastric neoplasms. This study aimed to evaluate the clinicopathological and endoscopic characteristics of 17 cases of gastric metastasis diagnosed in our department between 2015 and 2025.

Seventeen patients (9 female, 8 male; mean age 66.0 years, range 48–89) with histologically confirmed gastric metastases were retrospectively reviewed. Data on primary tumor type, endoscopic appearance, multifocality, and Borrmann classification were collected.

Of the cases, 76% (13/17) represented carcinoma metastases and 29.4% (5/17) malignant melanoma. Among the carcinomas, there were 4 squamous cell carcinomas, 2 adenocarcinomas, 2 lobular breast carcinomas, and one each of serous, endometrial, renal cell, and urothelial carcinoma. The most common primary sites were skin and lung (5 cases each), followed by breast, endometrium, ovary, bladder, kidney, and rectum. Endoscopically, 58% of lesions appeared slightly elevated or ulcerated, whereas all melanoma metastases presented as nodular. Borrmann types I and III were the predominant patterns. Multifocal lesions were identified in 5 patients (3 melanoma, 2 lobular carcinoma). Notably, metastases from lobular breast carcinoma and lung adenocarcinoma frequently mimicked primary gastric carcinoma, complicating differential diagnosis.

Although clinical incidence of gastric metastasis is reported between 0.2% and 1.7%, autopsy studies have demonstrated rates as high as 8–35% in breast cancer. Literature identifies invasive lobular breast carcinoma, lung carcinoma, and malignant melanoma as the most common primary sources. The endoscopic Borrmann classifications and multifocality rates observed in our series align with published data. In patients with a history of malignancy presenting with gastric lesions, metastasis must always be considered; immunohistochemistry and thorough clinical history are critical for accurate diagnosis.

Keywords: Stomach, Metastasis, Secondary malignancy, Pathology, Borrmann classification

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# Comparison of Tumour Infiltrating Lymphocyte Status with Prognostic Markers in Curettage and Resection Materials of Patients with Endometrial Carcinoma

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#### Abstract

Endometrial carcinoma is one of the most common gynecological cancers, with prognosis worsening in advanced stages. Recent studies suggest a link between tumor-infiltrating lymphocytes (TILs) and prognosis, though the role of standard diagnostic methods for TILs is unclear. Their role as a predictive marker remains ambiguous, as prior studies primarily analyzed early phase specimens. Slides from 51 patients who underwent resection after an endometrioid cancer diagnosis via curettage biopsy were collected. The sample size was based on the Spearman correlation coefficient (r=0.74, p<0.001). Tissues were counterstained with Hematoxylin and Bluing Reagent. TILs positive for CD103 were assessed using semi-quantitative and quantitative methods, requiring manual counting. Semi-quantitative analysis classified TIL's presence on the invasive front of the tumor into two stages, while quantitative analysis involved manual counting of immunopositive cells in three areas under a Nikon Eclipse microscope at HPF (x400). TIL density was categorized as high (>10), medium (3-10), or low (<3), with corresponding scores of 2, 1, and 0, respectively. The analysis examined the relationship between CD103+ tumor-infiltrating lymphocytes (TILs) counts and clinicopathological variables, including depth of tumor invasion, tumor grade, cervical invasion and lymphovascular invasion of the tumor, lymph node metastasis, distant metastasis, and follow-up periods of patients. Pearson correlation tests revealed no significant association between CD103+ counts and these variables (p=0.187). The ROC curve analysis (AUC = 0.6211) also failed to identify a meaningful cut-off value to distinguish between groups, suggesting that CD103+ TILs in this sample do not exhibit a linear relationship with the examined variables. CD103+ TIL counts may not serve as a reliable biomarker for predicting clinical parameters. Future research could explore alternative immunological markers (e.g., PD-1, CD8+ T cells, or CD4+ T cells) or focus on tumor microenvironmental factors, such as hypoxia or cytokine profiles, that may influence TIL presence and activity.

Keywords: Endometrial Carcinoma, Tumor-Infiltrating Lymphocytes, Immunohistochemical Markers

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# Our experience with perforation due to gastrointestinal lymphoma

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## **Abstract**

Primary gastrointestinal lymphoma (PGIL) arises from submucosal lymphoid tissues, with diffuse large B-cell lymphoma (DLBCL) being the predominant histologic subtype. Despite its rarity, PGIL represents 1-4% of gastrointestinal malignancies. Its nonspecific clinical presentation often leads to diagnostic delays and increases the risk of life-threatening complications such as gastrointestinal perforation. In this study, we evaluated patients diagnosed with lymphoma who developed perforation during follow-up at our hospital.

In this retrospective cohort study, 12 patients with biopsy-confirmed PGIL treated surgically at Başakşehir Çam and Sakura Hospitals between 2020 and 2025 were analyzed. The study retrospectively analyzed 12 patients with lymphoma, focusing on clinical and pathological features, perforation sites, and treatment outcomes.

The mean age of patients was 56.9 years, with a male-to-female ratio of 7:5. The most common histologic type was high-grade diffuse B-cell lymphoma, followed by Burkitt lymphoma, maltoma, and mantle cell lymphoma. Perforation sites included the small intestine, cecum, and stomach, with chemotherapy-related perforations occurring in multiple segments.

In conclusion, patients receiving chemotherapy should be more careful in terms of perforation, and each symptom should be examined and evaluated with a multidisciplinary eye in terms of perforation during treatment.

**Keywords:** gastrointestinal lymphoma, complication, perforation, early diagnosis

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## **Abstract**

Breast cancer is the most common type of cancer in women. Surgery is the primary treatment for this disease. Over time, the surgical treatment options have become less invasive. In recent years, oncoplastic surgical approaches, which aim to optimize both aesthetic and oncological outcomes, have gained prominence in breast cancer surgery. Oncoplastic breast-conserving surgery (O-BCS) aims to ensure the safe removal of the tumor with clear surgical margins while preserving and even improving the natural form of the breast. Oncoplastic breast surgery in the setting of BCS consists of various techniques that allow for an excision with a wider margin and a simultaneous enhancement of cosmetic sequelae, making it an ideal breast cancer surgery. The complex approach in oncoplastic surgery requires surgeons to possess both oncological and reconstructive surgical skills, which in turn requires a specialized educational infrastructure. Oncoplastic surgical education is offered in various formats in the worldwide and generally in addition to completing training in plastic surgery after general surgery education, and also it is necessary to acquire aesthetic surgical techniques through advanced training or courses after completing surgical education.

To apply O-BCS techniques, breast surgeons must learn the principles of aesthetic and plastic surgery, be proficient in patient selection, resection planning, symmetry procedures, and actively participate in multidisciplinary decision-making processes. This paper is about the definition, classification, patient selection, surgical techniques, standards, and training topics of O-BCS.

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Osteoid Osteoma of the Finger: A Case Report

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ISBN: 978-625-372-658-4

## **Abstract**

Osteoid osteoma is one of the most frequently encountered benign bone tumors, ranking third in incidence among benign skeletal neoplasms (1). This tumor typically arises in young individuals, especially those between 10 and 30, and is seen more often in males than in females. While the lesion is most commonly located in the long bones of the lower extremities—particularly the femur and tibia—it may develop in any body bone. Although rare, spinal involvement may complicate the diagnostic and therapeutic process (2).

Radiological evaluation plays a crucial role in the diagnosis of osteoid osteoma. On direct radiographs, a typical finding is a dense sclerotic area with a centrally located, well-defined nidus. However, these findings can be challenging to detect, especially in difficult anatomical sites such as the spine. Therefore, computed tomography (CT) is considered the gold standard for visualizing the nidus in detail. On CT, a characteristic central osteolytic nidus surrounded by a dense sclerotic bone ring can be observed (3).

The primary symptom is pain, often worsening at night, which responds dramatically to non-steroidal anti-inflammatory drugs (NSAIDs). This clinical feature is one of the most distinctive signs of osteoid osteoma. The main pathophysiological reason for the pain is increased levels of inflammatory mediators, such as prostaglandin E2, due to the highly vascularized nidus (4).

Treatment strategy is determined by the severity of the symptoms, tumor location, and functional impact. Minimally invasive radiofrequency ablation (RFA) is currently the preferred technique for symptomatic cases. Alternatively, open surgical excision remains a practical option, especially for spinal lesions or when RFA is not anatomically feasible.

A 21-year-old male presented to our clinic with complaints of pain and swelling in the proximal phalanx of the second finger of his right hand. Direct radiography revealed cortical expansion, and his pain responded to NSAIDs, with relief lasting 4–6 hours. Further imaging with MRI and CT confirmed the diagnosis of osteoid osteoma. The patient underwent surgery under general anesthesia. Using the burrdown technique, the lesion was reached and excised. His symptoms improved rapidly in the postoperative period, and at the 3-year follow-up, there were no complaints suggestive of recurrence. Osteoid osteoma is a benign bone tumor that can be easily recognized by its characteristic pain that responds to NSAIDs and typical radiological findings. Although diagnosis is generally straightforward, minimally invasive radiofrequency ablation (RFA) is currently the most preferred treatment. However, open surgical excision may be considered in cases where the location is not suitable for RFA or technical limitations exist. Persistent pain or partial symptomatic improvement after treatment may indicate residual active nidus tissue (4). In such cases, magnetic resonance imaging (MRI) can help evaluate nidus activity and the surrounding inflammatory response. In our case, since the patient's pain was completely resolved, no further postoperative imaging was deemed necessary.

Keywords: osteoid osteoma, benign, radiofrequency ablation, burr down

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# Primary Extraskeletal Myxoid Chondrosarcoma of the Left Thigh in a Young Adult

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## Abstract

Extraskeletal myxoid chondrosarcoma (EMC) is an uncommon soft tissue sarcoma with distinct histopathological features and a typically indolent clinical course. Due to its rarity and nonspecific presentation, EMC poses diagnostic challenges. This report aims to present a case of EMC located in the left thigh of a young adult and to underscore the importance of comprehensive pathological and radiological evaluation in the diagnosis and management of rare soft tissue tumors.

A 29-year-old male presented with localized pain in the lateral aspect of the left thigh. Magnetic resonance imaging (MRI) revealed a solid subcutaneous mass measuring 67x52 mm. An ultrasound-guided Tru-Cut biopsy was performed, which demonstrated a mesenchymal neoplasm with myxoid stroma, but was non-diagnostic in terms of malignancy. Consequently, the patient underwent excisional biopsy. Histopathological and immunohistochemical analyses confirmed the diagnosis of extraskeletal myxoid chondrosarcoma (FNCLCC Grade 1). Postoperative follow-up included PET imaging to evaluate for recurrence or residual disease.

Excisional biopsy revealed a 7.2x5.8x5 cm tumor with negative surgical margins and no necrosis. Histological findings were consistent with EMC. PET scan conducted five weeks postoperatively showed mild, non-homogeneous metabolic activity in the surgical field, interpreted as post-surgical inflammation versus possible malignancy. Clinical surveillance was recommended.

This case emphasizes the necessity of excisional biopsy for accurate diagnosis in soft tissue neoplasms with ambiguous biopsy findings. EMC should be included in the differential diagnosis of myxoid tumors of the extremities. Surgical resection with clear margins remains the cornerstone of treatment. Long-term follow-up is essential due to the risk of late recurrence.

Keywords: Chondrosarcoma, Soft Tissue Neoplasms, Excisional Biopsy, Neoplasm Recurrence

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Evaluation of the Relationship Between Peripheral Arterial Disease and Long-Distance Truck Driving: A Retrospective Analysis

Tarık TAŞTEKİN<sup>1</sup>

ISBN: 978-625-372-658-4

### **Abstract**

Peripheral arterial disease (PAD) is a systemic atherosclerotic condition that impairs functional capacity and increases cardiovascular morbidity and mortality. While traditional risk factors such as smoking, diabetes, and hypertension are well established, occupational influences—particularly sedentary and high-stress professions—have gained attention in recent years. This study aims to evaluate the relationship between long-distance truck driving and PAD.

This retrospective cross-sectional study included 100 patients diagnosed with PAD at the Cardiovascular Surgery Department of Burdur State Hospital between June 1 and December 30, 2024. Demographic, clinical, and occupational data were collected. Patients were categorized into sedentary and active occupational groups; long-distance drivers were analyzed as a distinct subgroup. Data were analyzed using SPSS, and p<0.05 was considered statistically significant.

Among the 100 patients, 34% were employed in sedentary occupations and 18% were long-distance truck drivers. The mean age at PAD diagnosis in the driver group was  $52.3 \pm 7.2$  years, significantly younger than in other groups (p<0.05). This group had higher rates of smoking (78%), abdominal obesity (61%), diabetes (56%), and hypertension (67%). The mean ABI value was 0.69, significantly lower than in other occupational groups (p<0.05). Notably, most drivers exhibited multiple concurrent cardiovascular risk factors. Additionally, 42% of drivers reported rest pain, and 28% experienced functional limitations during daily activities, indicating more severe or advanced disease presentation in this group.

Long-distance truck drivers appear to be a high-risk occupational group for PAD due to their sedentary lifestyle, high burden of modifiable risk factors, and earlier disease onset. Implementation of early screening and preventive health interventions tailored to such high-risk groups may reduce disease burden and improve functional outcomes.

Keywords: Peripheral arterial disease, occupation, long-distance drivers, sedentary lifestyle, ABI

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# Data-Driven Machine Learning Approaches for Cardiovascular Disease Risk Prediction

Seda DEMİR<sup>1</sup> Harun SELVİTOPİ<sup>2</sup>

### Abstract

Cardiovascular diseases (CVD) have consistently been among the leading causes of death, disability, and loss of quality of life across the world. Advances in modern medicine and technology have improved healthcare outcomes; however, the prevalence of CVD continues to rise due to factors such as increasing life expectancy and changes in lifestyle. As a result, early risk prediction and effective management of cardiovascular conditions have been critical for reducing mortality and morbidity rates. In recent years, artificial intelligence-based techniques, particularly machine learning (ML) and deep learning (DL) methods, have emerged as powerful and promising tools for predicting and diagnosing CVD risk at earlier stages. Following this, the present study has aimed to identify machine learning classifiers that achieve the highest predictive accuracy for diagnostic purposes. Heart disease dataset collected from GitHub has been utilized to evaluate and compare the performance of several ML algorithms, including Artificial Neural Network (ANN), Logistic Regression (LR), Support Vector Machine (SVM), Random Forest (RF) and Decision Tree (DT) based on accuracy, precision, recall, and AUC values. During the data preprocessing phase, the Fast Correlation-Based Filter (FCBF) feature selection algorithm has been applied. The findings have shown that the Artificial Neural Network (ANN) algorithm outperformed the other models in predicting heart attack risk, demonstrating the best performance with an accuracy of 92.95%, precision of 92.95%, recall of 92.95%, and an AUC of 95.73%. The results obtained from the proposed method demonstrate potential for application in the diagnosis and treatment of cardiovascular diseases.

Keywords: Machine Learning, Prediction, Data Analysis, Cardiovascular Disease, Classification

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# Physiological Basis of Paternal Behavior

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### **Abstract**

Although father candidates begin preparing for the paternal role during pregnancy, this emotional state is not as strong as that of women. It is observed that women adapt to pregnancy more easily due to hormonal changes.

Estrogen, prolactin and oxytocin bind to receptors in the Medial Preoptic Area (MPOA) of the Hypothalamus and stimulate maternal behaviors such as breastfeeding and nesting. Maternal behavior is completely eliminated in the event of a lesion in this area. In addition, estrogen, prolactin and norepinephrine trigger intracellular transcription factors in the MPOA and Ventral Tegmental Area, initiating maternal behavior.

The neuroendocrine pathways of motherhood are also present and active in fathers. It is thought that these behaviors have actually been present in the brain as package programs since before, but they are activated after taking care of a child.

It has been reported that paternal behavior is associated with prolactin. Prolactin increases in fathers after the baby is born and initiates paternal behavior.

Testosterone and Progesterone generally reduce paternal behavior. In men, testosterone and luteinizing hormone levels usually decrease with birth. This decrease is necessary to reduce the father's aggression towards the newborn and to develop paternal behavior and social bonding towards the newborn.

It is reported that estradiol levels in fathers gradually increase from the first month of pregnancy towards the end of pregnancy. It is thought that estrogen has an effect of increasing paternal behavior

One study reported that Oxytocin levels in fathers are related to the time spent with the baby. As the father continues to establish contact with the baby, he can feel that he belongs to his family and baby with the Oxytocin that continues to be secreted. In other words, the paternal bond is formed with the help of nature as a result of a correct process.

**Keywords:** Paternal Behavior, Oxytocin, Testosterone, Progesterone, Prolactin, Estrogen, Preoptic Area, Ventral Tegmental Area

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# Stress Hormones, Exercise, and the Glucocorticoid Paradox

Feyza Şule CİHAN<sup>1</sup> Ebru Kübra UZDİL<sup>2</sup> Gözde ACAR<sup>3</sup> Avvüce KUMAS<sup>4</sup>

# Abstract

Hormones play a critical role in stress adaptation. ACTH and cortisol are the primary stress hormones, along with epinephrine and norepinephrine. The most important functions of ACTH and cortisol in adaptation to stress are their complex effects on carbohydrate, lipid, and protein metabolism, energy homeostasis, and body fluid balance. Since exercise acts as an acute stress model, the effects of these hormones can be considered part of the neuroendocrine control mechanisms involved in exerciseinduced stress adaptation.

Exercise increases catecholamines, with the extent of this rise depending on exercise intensity. Chronic exercise training can reduce this response over time. The catecholamine surge during exercise mobilizes intracellular and extracellular energy substrates, meeting muscle demands. Elevated catecholamine levels stimulate glycogenolysis in liver and skeletal muscle. For instance, epinephrine administration at rest increases skeletal muscle α-phosphorylase activity, reduces glycogen synthase I activity, and lowers glycogen stores.

Exercise also activates the hypothalamic-pituitary-adrenal (HPA) axis, increasing cortisol (CORT in humans, corticosterone in rodents). Both acute and chronic exercise can elevate basal CORT levels. Many authors have pointed out the existence of the "Exercise-Glucocorticoid Paradox". Exercise-CORT paradox: High CORT levels occurring in acute exercise; make it difficult to cope with stress, trigger depression, inhibit cognition/memory, and damage the structural and functional plasticity of the brain. CORT is thought to mediate many of these negative effects. However, the opposite effects are seen in chronic exercise: coping with stress becomes easier, depression is prevented, cognition/memory improves, and brain structural and functional plasticity increases.

The aim of this presentation is to highlight the relationship between stress hormones, exercise, and the glucocorticoid paradox.

Keywords: Exercise, ACTH, Cortisol, Epinephrine, Norepinephrine

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THE IMPACT OF HEALTHCARE PROFESSIONALS' DIGITAL TECHNOLOGY USAGE LEVEL ON JOB PERFORMANCE: A PRIVATE HOSPITAL CASE STUDY

Hamide Nur KARAKUŞ<sup>1</sup> Özlem ATAN<sup>2</sup>

ISBN: 978-625-372-658-4

# Abstract

This study examines the impact of healthcare professionals' attitudes towards digital technology on their job performance. With the widespread adoption of digital technologies in the healthcare sector, the adaptation processes and work efficiency of healthcare professionals are directly influenced. In this context, the study aims to determine the relationship between healthcare professionals' attitudes toward digital technology and their job performance. Additionally, it investigates whether socio-demographic characteristics lead to differences in these factors.

The study was conducted with 236 healthcare professionals working in a private hospital in Istanbul. The "Attitude Towards Digital Technology Scale" and the "Job Performance Scale" were used, and the collected data were analyzed using SPSS 26 software. Correlation and regression analyses revealed a significant and positive relationship between healthcare professionals' attitudes towards digital technology and their job performance. Employees with a positive attitude towards digital technologies were found to manage their work processes more effectively, reduce errors, and enhance patient satisfaction. Furthermore, younger professionals adapted more quickly to digital technologies, while experienced employees used them more strategically and consciously.

The findings suggest that increasing training programs to enhance healthcare professionals' digital skills and strengthening technological infrastructure can positively impact job performance. Therefore, it is recommended that healthcare institutions develop supportive strategies for digital transformation processes.

**Keywords:** Healthcare Professionals, Digital Technology, Job Performance, Digital Skills, Healthcare Sector.

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# Deep Neural Network Approach with Bayesian PSO Optimization as a New Model for Classifying Patient Satisfaction

Yağmur ŞEN Fuat ÇAĞLAYAN

# Abstract

In this study, a novel method called Bayesian PSO-Optimized Multi-Layer Neural Network (Bayesian PSO-NN) was developed and applied to predict patient satisfaction as a multi-class classification problem. The dataset was preprocessed by eliminating missing values, converting the target variable using one-hot encoding, and normalizing all features for the best possible analysis. The dataset was obtained from survey responses of people who used healthcare facilities in North Macedonia. Eight conventional and ensemble-based machine learning algorithms were used to evaluate the suggested model's performance. These comprised traditional classifiers like Logistic Regression, Support Vector Machine, Decision Tree, and Bagging, as well as strong models like K-Nearest Neighbors (63.7%), Random Forest, Gradient Boosting, and AdaBoost. With the maximum accuracy of 65.9%, the results showed that the suggested Bayesian PSO-NN performed better than the baseline techniques. Additionally, the model produced lower mistake rates even across semantically identical classes, demonstrating greater class balance and decision stability. These results demonstrate the model's strength in both technical accuracy and real-world application, positioning it as a viable substitute for challenging categorization tasks in the healthcare industry.

Keywords: Patient Satisfaction, Classification, Bayesian Method, Artificial Neural Network

# Hemorrhage and Thrombosis Combined; Geriatric Neglect Suspected

Yusuf KANTAR<sup>1</sup>

### **Abstract**

Abuse and neglect in the geriatric population is a common social problem all over the world. It is seen in many different forms, from verbal abuse to sexual abuse, from physical abuse to financial abuse. It is not always easy to determine whether a case we encounter in the clinic has been neglected or abused. However, there may be some clues that we should suspect, especially in patients coming from institutional care centers, such as malnutrition or dehydrated appearance, multiple pressure sores, dirty clothes, lack of self-care. On the other hand, contractures and pressure sores after a previous ischemic cerebrovascular event may also indicate the natural course of the disease. It may not be correct to attribute pathologies detected by laboratory or imaging to abuse or neglect, especially in patients with dementia who cannot express themselves. There may be cases that a concerned and well-intentioned family member may have overlooked. An 87-year-old woman was brought to the emergency department by her family members with complaints of poor general condition. The subdural hemorrhage and pelvic fracture in our case were thought to be traumatic, but the patient's family members said that the patient had not experienced any recent trauma. Thorax tomography revealed thromboembolism extending distally from the right pulmonary artery.

Keywords: Hemorrhage, Thrombosis, Geriatric Neglect, Emergency Medicine, Geriatri

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Nonparametric, Semiparametric and Parametric Survival Analysis on Colon Cancer Data

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#### Abstract

Survival models or failure time models are statistical techniques used to estimate the overall time to certain events and find the related factors or predict the outcome. Parametric, nonparametric and semiparametric methods are used to model and analyze the data in survival analysis. The nonparametric method Kaplan-Meier estimator does not make any assumptions about the shape of the survival function or the risk function and is easy to implement. In the presence of censored data, it estimates the survival function S(t) and makes comparisons between groups with the log-Rank and Wilcoxon (Breslow) tests. The Cox model or proportional hazards model is the most widely used method among semiparametric methods. Semiparametric methods model the relationship between covariates and survival time without assuming a specific distribution for the underlying function. Parametric methods are more powerful than nonparametric methods if the distribution is correctly specified. For a specific distribution of survival times: exponential, Weibull, log-normal, log-logistic or generalized gamma, it models the survival function and the risk function according to different parameters of the data distribution. Parametric methods have a number of advantages: The survival time distribution can be estimated, providing comprehensive information about the survival function and instantaneous risk.

In this study, (Laurie JA, 1989) data set of 929 colon cancer patients, including the time to recurrence and time to death of colon cancer, was used. The aim of this study is to determine the factors affecting the estimated survival time for colorectal cancer patients using parametric, nonparametric and semiparametric models and to select the best model with the prediction error technique.

**Keywords:** Censored Data, Survival Analysis, Kaplan Meier, Cox Regression, Parametric Survival Models.

**Note:** This study is a part of the master's thesis prepared in the Department of Statistics, Institute of Science, Graduate School of Natural and Applied Sciences, Muğla Sıtkı Koçman University.

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Body Perception and Psychosocial Adjustment after Mastectomy: Evidence-Based **Nursing Approaches** 

> Melika YERLİKAYA<sup>1</sup> Aydın NART<sup>2</sup>

ISBN: 978-625-372-658-4

#### Abstract

Breast cancer is the most common malignant disease in women, affecting millions of women worldwide every year. According to World Health Organisation (WHO) data, approximately 2.3 million women are diagnosed with breast cancer every year and this disease is one of the most important causes of cancer-related deaths in women. Mastectomy in the treatment of breast cancer is a very challenging process both physically and psychosocially for patients. Breast loss has profound effects on women's body image, self-esteem and social roles, and may cause problems such as depression, anxiety, social withdrawal and decreased quality of life.

The role of nurses in this process is not only limited to physical care, but also includes a holistic approach that includes the mental and social needs of patients. Evidence-based nursing approaches offer effective methods that support individuals' psychological adaptation and improve their quality of life in the post-mastectomy period. Individualised psychosocial support, cognitive behavioural therapy applications, referral to support groups, trainings to increase body image awareness and empathy-based nursing communication are among these approaches. In addition, effective collaboration of nurses with multidisciplinary teams is of great importance to ensure the sustainability of patient-centred care.

Recent studies show that psychosocial support services provided in the early post-mastectomy period make significant contributions in reducing depression, anxiety and social isolation. Equipping nurses with knowledge and skills is a critical factor in the healthy management of this process.

This study aims to contribute to a patient-oriented nursing care model and to strengthen the well-being of individuals by addressing evidence-based care methods that nurses can apply in the post-mastectomy process. At the same time, it aims to support the standardisation of professional practices by increasing the awareness of nurses about psychosocial care.

Keywords: Mastectomy, breast cancer, body perception, psychosocial adjustment, nursing interventions.

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# Chalcone synthesis, properties and medicinal applications

*Mehtap TUGRAK SAKARYA*<sup>1</sup>

## **Abstract**

Heterocyclic compounds play an important role among pharmaceuticals and they are found in the structure of molecules such as amino acids, carbohydrates and nucleotides, which are vital for the continuation of life¹. Chalcones are intermediates used for the synthesis of pharmaceutical and biologically active substances in the field of medicinal chemistry². In this study, some piperonal-based chalcones (1-12) were synthesized with Claisen-Schmidt Condensation with the reaction between 3,4-methylenedioxybenzaldehyde and several acetophenones. The structures of the synthesized compounds were elucidated by NMR spectroscopy. The compounds inhibitory effects were evaluated toward human carbonic anhydrase I and II enzymes (hCA I and hCA II), and acetylcholinesterase (AChE). The chalcone derivatives had IC₅0 values in the range of 5.11-190.02 μM for hCA I, 17.05-75.69 μM for hCA II, and 23.79-88.22 μM for AChE. As a result, this study includes the synthesis of piperonal bearing chalcones 1-12 and evaluation of them in terms of inhibition potency toward hCA I, hCA II, and AChE. Although, all compounds showed lower inhibition potential than reference drug, compounds 2 (4-methoxy) toward hCA I, and hCA II and 3 (2,4,5-trimethoxy) toward AChE were candidate compounds of the series to develop new more potent compounds at issue.

Keywords: Alzheimer's disease, chalcone, carbonic anhydrase, piperonal, acetylcholinesterase

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# Predictive Factors for Spontaneous Biliary Drainage in Patients with Acute Cholangitis

Mustafa ÇOMOĞLU<sup>1</sup> Enes Seyda ŞAHİNER <sup>2</sup>

# Abstract

The aim of this study was to investigate the factors predicting spontaneous biliary drainage (SBD) in patients with acute cholangitis (AC) secondary to gallstones.

This retrospective study included 1,014 patients who were admitted with gallstone-related AC between February 2019 and January 2025. Patients with AC due to causes other than gallstones were excluded. The cohort was divided into two groups based on the presence or absence of SBD. Demographic and clinical characteristics were compared, and predictors of SBD were analyzed.

SBD was observed in 181 patients (17.8%) in the study population. Female sex was more common in the SBD group (p=0.012). A history of cholecystectomy, concomitant pancreatitis, and concomitant cholecystitis were significantly more frequent in the SBD group (all p < 0.001). The severity of AC was similar between groups (p=0.149). Length of hospital stay was shorter in the SBD group (p=0.021). There were no significant differences in ICU admission rates or ICU length of stay (p=0.992 and p=0.446, respectively). In-hospital mortality was higher in the SBD group (p=0.024). In multivariate logistic regression analysis, total bilirubin [OR (95% CI): 0.84 (0.78-0.89), p < 0.001], procalcitonin [OR (95% CI): 0.98 (0.97-0.99), p=0.017], concomitant pancreatitis [OR (95% CI): 3.46 (2.43-4.93), p < 0.001], and concomitant cholecystitis [OR (95% CI): 2.02 (1.35-3.02), p < 0.001] were identified as independent predictors of SBD. In ROC analysis, the area under the curve (AUC) for total bilirubin and procalcitonin in predicting SBD was 0.636 (p < 0.001) and 0.601 (p < 0.001), respectively.

In conclusion, identifying patients with AC who possess these predictive factors may help recognize those with a higher likelihood of spontaneous biliary drainage, allowing for a more selective and safer approach to intervention.

Keywords: acute cholangitis, gallstones, ERCP, spontaneous biliary drainage, choledocholithiasis

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# Antimicrobial and in vitro Biocompatibility Evaluation of Nanosilver-Coated Polypropylene Implant for Pelvic Organ Prolapse Repair

Esra BOZKAYA 1

### **Abstract**

Pelvic organ prolapse (POP) is a common health issue, particularly among women, with a prevalence of approximately 30-50% in women over the age of 50. POP is primarily associated with aging, childbirth, and connective tissue weakening. Synthetic mesh implants are widely utilized in POP treatment to restore anatomical support. However, mesh implantation, while effective structurally, introduces foreign materials into the body, increasing the risk of postoperative infections. Clinical studies report mesh-related infection rates ranging from 1% to 10%, often necessitating implant removal and revision surgeries. The aim of this study is to evaluate the antimicrobial efficacy and biocompatibility of nano-silver coated polypropylene (PP) meshes developed for use in POP treatment. Nano-silver coatings offer significant advantages, including broad-spectrum antimicrobial activity, prevention of biofilm formation, and reduced bacterial colonization without compromising biocompatibility. In this study, mesh surfaces were coated with nano-silver particles, and surface characterization was performed using Scanning Electron Microscopy (SEM), Energy Dispersive Spectroscopy (EDS), and X-Ray Fluorescence (XRF) analyses. These analyses revealed that silver nanoparticles were successfully immobilized and exhibited a homogenous distribution on the mesh surface. Antimicrobial activity was assessed against Escherichia coli and Staphylococcus aureus, demonstrating that the coated meshes exhibited significant inhibitory effects against both bacterial strains. Biocompatibility evaluations, including MTT cytotoxicity assays, indicated that the nano-silver coated meshes did not exhibit cytotoxic effects. Furthermore, hemolysis testing revealed a low hemolytic index, confirming that the material interacted safely with blood cells. These findings suggest that nano-silver functionalized PP meshes could serve as a biocompatible and infection-resistant alternative implant for pelvic organ prolapse surgery, potentially improving patient outcomes by reducing postoperative complications.

**Keywords:** Pelvic organ prolapse, polypropylene mesh, nano silver coating, medical device, antimicrobial mesh, biocompatibility

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# THE RESULTS OF SKIN PRICK TEST IN ALLERGIC PATIENTS

Kamran Sarı<sup>1</sup>

### **Abstract**

Allergy, is an abnormal immun response of the body to environmental agents. In this study we investigated the results of skin Prick test that was applied in the patients who referred to our clinic with complaints of allergic disorder. This test unit contains twenty seven allergen extracts with a positive and negative control solutions. Skin Prick test was performed to a total of eightyfour patients. 51 women and 33 men. Mean age 35,6. As a result of the test, the number of 1 (+) reaction were found 335, 2 (+) reaction were found 36, 3 (+) reaction were found 30 and 4 (+) reaction were found 13 respectively. No reaction were performed in 11 patients. Skin reactions should be evaluated with story and physical examinations of the patients. A positive skin Prick test does not always show the positive allergen that related with the currently complaints. On the other hand a 3 (+) or 4 (+) reaction can be diagnosed as allergic to the related agent. In our study pollen, house dust mite, birch tree, goose's foot and cat's fur were found the most common allergens. Hazelnut, peach and tomato were found the most common allergic food. Although the number of the patient was small in our study the results showed that external environment allergens were more common in Kayseri and its surroundings. În conclusion skin Prick test is a fast, effective and safe diagnostic test in the diagnosis of allergic disorders.

**Keywords:** Allergy, Skin test, Prick test, food allergy, pollen.

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# **Deviation from Normal: Embryological Errors in Sex Development**

Halime Tozak Yıldız<sup>1</sup>

### **Abstract**

Sex development is a complex and dynamic process consisting of chromosomal, gonadal, and phenotypic stages. The first step of this process begins with the determination of the chromosomal structure of the zygote as either 46,XX or 46,XY. The gonads differentiate into either testes or ovaries following the migration of primordial germ cells, under the influence of determining factors such as the SRY gene. Hormones secreted by the gonads guide the development of internal genital duct systems (Wolffian and Müllerian ducts) and external genital structures, ultimately determining the phenotypic sex.

Any disruption in this developmental process is defined as a Disorder of Sex Development (DSD). DSDs may arise due to chromosomal abnormalities, genetic mutations, or defects in hormone synthesis or responsiveness. DSDs are classified into four main categories:

Gonadal Dysgenesis: This group includes Turner syndrome (45,XO) and Klinefelter syndrome (47,XXY). Although the gonads are structurally present, they are non-functional. Severe hormonal imbalances and insufficient development of secondary sexual characteristics are observed.

Ovotesticular DSD: Both ovarian and testicular tissues are present in the same individual. The genotype is usually 46,XX, and the external genitalia may be ambiguous depending on androgen levels.

46,XX DSD: The most common cause is Congenital Adrenal Hyperplasia (CAH). Elevated fetal androgens lead to masculinization of the external genitalia.

46,XY DSD: This group is associated with defects in testosterone synthesis, androgen receptor mutations, or dihydrotestosterone (DHT) deficiency. In these individuals, the development of internal and external genitalia is incomplete or follows a female pattern.

The diagnosis and management of DSD require a multidisciplinary approach, including genetic, endocrinological, and surgical evaluations.

**Keywords:** disorders of sex development, embryological differentiation, gonadal dysgenesis

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# CYTOLOMORPHOLOGICAL FINDINGS OF TRICHOMONAS VAGINALIS IN **CERVICOVAGINAL PAP SMEARS**

Burcu ÖZCAN<sup>1</sup>

## **Abstract**

More than 1 million treatable sexually transmitted infections (STIs) are acquired every day worldwide in people aged 15-49 years, most of whom are asymptomatic. WHO reported an estimated 374 million new infections in people aged 15-49 years in 2020. Approximately 156 million of these were estimated to be trichomoniasis. Trichomoniasis, a parasitic infection, can usually be treated with antibiotic regimens with a partner. Therefore, the diagnosis of trichomoniasis in PAP smear test, which is a screening test, is very valuable in terms of treatment and follow-up. In this study, we aimed to determine the cytomorphological findings that may increase our diagnostic awareness in trichomonas detected preparations.

In our retrospective study, 32 cases with Trichomonas vaginalis (TV) detected in 26794 cervicovaginal pap smears received in our department between 2021-2024 were included in our retrospective study. Preparations prepared by the sure path method were retrieved from the archive and evaluated for parakeratosis, presence of ghost cells, cannonball, squamous metaplasia, perinuclear halo, coccobacilli predominance, Leptothrix, polymorphic leukocyte (PNL)-rich background, trichomonas aggregation on cells ('trich hotel'), reactive atypia, rhizophilia, cytoplasmic vacuolisation and other microorganisms. The mean age of the patients was 43 years and ranged between 24 and 64 years. Parakeratosis was found in 12 cases, ghost cell in 12 cases, cannonball in 26 cases, squamous metaplasia in 13 cases, perinuclear halo in 18 cases, coccobacilli predominance in 12 cases, PNL rich background in 17 cases, TV aggregation on cells in 21 cases, endocervical cell in 27 cases, reactive atypia in 7 cases. HPV PCR results of 8 cases were obtained and HPV type 66 was detected in 1 of them. 2 cases were classified as atypical squamous cells of undetermined significance (ASCUS) according to Bethesda Classification

Investigation of cervicovaginal smears only for findings related to HPV infection and the workload of pathologists cause other infections requiring treatment such as trichomoniasis to be overlooked. We believe that awareness of cytomorphological changes suggestive of TV will make a difference in diagnosis. Cannonball, diffuse perinuclear halo and the presence of microorganisms forming a group on squamous cells may be highly diagnostic for TV.

Keywords: Servikovaginal cytology, PAP Smear, Trichomonas Vaginalis

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# BAHNAME (SEXUAL HEALTH) TRADITION IN OTTOMAN MEDICINE

Zehra GENÇEL EFE<sup>1</sup>

### **Abstract**

The subject of bâh has been discussed since ancient civilizations, while it was included in medical works or as separate chapters at the beginning, it was written as a book later on. There are many sources of copyright and translation from such works. These have gained voluminous and encyclopedic dimensions due to being associated with many disciplines from time to time. At the same time, they have been discussed with many disciplines such as anatomy, pharmacology, botany, zoology and literature, which are directly or indirectly related to the field.

In addition to the <u>individual</u> works, the subject of bah is included in both the künnaş and cami' type encyclopedic works on medicine, as well as in the medicine books called edviye and kinzin. Geredeli Ishak b. Murad's Edviye-i Müfrede, which was written in the Ottoman period and is among the first Turkish medical works, is one of them.

In the Ottoman period, bahnames continued to be written in the same style, but from the 16th century onwards, their scientific aspects decreased and their more stimulating aspects gained more weight. The most important of the bahname books written independently is Tifâşi's Kitâbu Rucû'i'ş-Şeyh ile's-sıbâh, and most of the bahname works written in the Ottoman period benefited from this book. The books of prominent physicians such as Ibn Kemal and Ali bin Ishak are the most important examples of this.

The Ottoman Period bahnames are more comprehensive and developed than the previous bahname types. Unlike the Indian and Persian bahnames of the period, the Ottoman bahnames are more focused on health.

Keywords: Ottoman Medicine, Bahnâme, Sexual Health.

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Recurrent Self-Penile Amputation in a Patient with Schizophrenia: The Importance of **Psychiatric Treatment Adherence** 

Ekrem BAŞARANI<sup>1</sup>

ISBN: 978-625-372-658-4

## **Abstract**

Total penile amputation (TPA) is a rare and severe form of self-harm, predominantly observed in patients with psychiatric disorders, particularly schizophrenia. According to Greilsheimer and Groves, self-penile amputation (SPA) cases are classified into three groups: psychotic disorders, gender dysphoria, and personality disorders. Approximately half of the cases are associated with schizophrenia. This report discusses a recurrent SPA case resulting from non-compliance with psychiatric treatment. The patient, a 40-year-old male diagnosed with schizophrenia and no other medical comorbidities, experienced the first SPA episode in 2020 despite regular antipsychotic treatment. During an acute psychotic episode, the patient performed total penile amputation. Initial intervention, including hemorrhage control, was performed at Düzce State Hospital. Due to the absence of plastic surgery services, the patient was referred to another center, where successful microsurgical replantation preserved erectile function. A year later, the patient discontinued psychiatric follow-up and, in December 2024, performed a second total penile amputation. Emergency intervention was again conducted at our institution, followed by referral for reconstructive surgery. Postoperative evaluation revealed preserved erectile function, and psychiatric treatment was reinstated.

SPA is a rare but serious complication seen in schizophrenia and other severe mental disorders. Recurrence is common in patients who do not adhere to psychiatric care. Literature highlights that rapid intervention and multidisciplinary management are critical for optimal outcomes. Successful penile replantation within the first 24 hours has a success rate of 80-90%, decreasing to 40% if delayed. Factors influencing success include prompt intervention, microsurgical techniques, and rigorous postoperative care. However, psychiatric follow-up remains essential to reduce the risk of recurrence.

Keywords: Schizophrenia, Penile self-injury, Penile amputation, Microsurgical reconstruction

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# New Approaches and Applications and the Importance of Microbiology in Medicine and Health Sciences

Başak BAYKARA <sup>1</sup>

## **Abstract**

Microbiology is a branch of science that investigates the world of microorganisms and examines the effects of these living things on human health. This study was carried out with the aim of addressing the vital role of microbiology in medicine and health sciences and discussing new approaches within the framework of current research.

Infectious diseases continue to be a major health problem worldwide today. The increase in bacterial and viral infections, especially with the rise of antibiotic resistance, puts serious pressure on health systems. Understanding how antibiotic resistance occurs is a critical step in developing effective control strategies. The need for the development of new antibiotics and treatment methods also increases the importance of microbiological research.

In addition, the positive effects of probiotics and prebiotics on health have become quite interesting in recent years. The balance of the intestinal microbiome affects not only our digestive health, but also our immune system and mood. The use of probiotics offers a new ray of hope in the prevention and treatment of various diseases.

This study aims to provide participants with an inspiring perspective to understand the multifaceted effects of microbiology in the field of health. It comprehensively covers the current developments of microbiology in medicine and health sciences, the challenges we face, and potential future applications. It also discusses how collaboration in this field contributes to health solutions by emphasizing the importance of multidisciplinary approaches.

In conclusion, microbiology continues to be a critical area for developing innovative solutions in health sciences. This study aims to provide new perspectives on how health professionals and researchers can effectively apply microbiological knowledge.

Keywords: Antibiotic Resistance, Health Sciences, Microbiology, Probiotics

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# Machine Learning for Predicting the Risk Factor of the Cardiovascular Disease

Harun SELVİTOPI<sup>1</sup>
Seda DEMİR<sup>2</sup>

# **Abstract**

The early prediction of cardiovascular diseases (CVDs) has emerged as a critical area of research in recent years, given its potential to significantly reduce mortality rates through timely intervention and effective treatment strategies. Early diagnosis allows healthcare providers to initiate preventive measures, manage risk factors more efficiently, and ultimately improve patient outcomes [1].

In this study, we have applied several supervised machine learning algorithms—namely Support Vector Machine (SVM), Random Forest (RF), Decision Tree (DT), and Logistic Regression (LR)—to predict the presence of cardiovascular disease based on clinical and demographic features. The goal was to evaluate and compare the performance of these models in accurately identifying patients at risk of developing CVD.

Our experimental results demonstrate that the SVM and RF models achieved the highest prediction accuracy, each with an accuracy of 84.65%. The DT and LR models, while slightly less effective, also yielded respectable results, both with an accuracy of 80.82%. These findings suggest that ensemble-based and margin-based classifiers may offer superior predictive performance in the context of CVD detection.

To provide a more comprehensive assessment of the models' performance, we have also included additional evaluation metrics such as the Area Under the Receiver Operating Characteristic Curve (AUC), precision, recall, and F1-score. These metrics offer deeper insights into the models' classification abilities beyond accuracy alone. The results of these evaluations have been presented using graphical visualizations through the use of the graphicx package, allowing for clear and concise comparison among the models.

Keywords: Predicting, Risk Factor, Cardiovascular Disease

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# 3<sup>rd</sup>International ME Congress of Multidisciplinary Medical AND HEALTH SCIENCES STUDIES

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# Fostering Peer Awareness on Civil CBRN (Chemical, Biological, Radiological, and **Nuclear) Concepts and Biosafety Regulations**

Alptuğ Doğukan İNAÇ<sup>1</sup> Mustafa Emre ÖZER<sup>2</sup> İrem AY<sup>3</sup> Mert CAN<sup>4</sup> Muhammed Mert OKUTAN<sup>5</sup> Alper USLU<sup>6</sup> Tevfik Mete SELBES<sup>7</sup> Hilal Sevgi GÜRBÜZ<sup>8</sup> Mehmet Kaan KARA 9 Vahide BAYRAKAL 10 A. Hüsevin BASKIN <sup>11</sup>



#### Abstract

Civil CBRN (Chemical, Biological, Radiological, and Nuclear) events in healthcare refer to hazardous situations that occur in daily life. These events can arise in the healthcare sector due to epidemics, occupational accidents, malpractice, incorrect professional practices, or various traumas. CBRN threats pose significant risks to patients, hospital staff, and patient relatives and therefore must be addressed

Healthcare professionals are among the first responders to such situations. Therefore, having knowledge about CBRN and knowing how to intervene is of great importance. Medical students, as future professionals in this field, also need CBRN awareness.

In this study, the awareness levels of Dokuz Eylül University Faculty of Medicine students regarding CBRN threats were measured, and peer education was attempted to address their knowledge gaps.

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The aim of this study is to assess the awareness levels of Dokuz Eylül University Faculty of Medicine students on civil CBRN events and to increase their knowledge levels through peer education.

To evaluate the awareness of Dokuz Eylül Faculty of Medicine students towards CBRN threats, the threat elements were classified into "air," "water," and "soil" groups, and accordingly, an original questionnaire was developed by group members using a 5-point Likert Scale. The questionnaire was administered to 146 students in the 1st, 2nd, 3rd, 4th, 5th, and 6th years of the Faculty of Medicine, following approval from the Dokuz Eylül University Non-Interventional Research Ethics Committee and the Faculty of Medicine Dean's Office.

According to the survey results, students' awareness levels were measured; differences were observed between the responses given and demographic variables such as gender, age, year of education, and the geographical region where they lived before starting medical school.

Based on the data obtained, it was concluded that the awareness levels of Dokuz Eylül Faculty of Medicine students regarding CBRN threats show certain trends and that there is room for improvement in this area.

**Keywords**: Civil CBRN, Awareness, Peer Education, Air-Water-Soil, Health



# Investigation of the Effects of Head-Neck Control Training on Posture, Cognitive Perception and Family in Children with Mental Retardation: A Pilot Study

Dilşat Melek AKSU<sup>1</sup> Murat Ali ÇINAR<sup>2</sup>

## **Abstract**

The aim of this study was to investigate the effects of head and neck control training on posture, cognitive perception and family in children with mental retardation.

Ten volunteer individuals aged 3-10 years and diagnosed with mental retardation were included in the study. The head and neck angles of the participants were evaluated by Posture Screen application in the lateral plane. An exercise programme of 55 minutes, two days a week for eight weeks was applied to all individuals. The evaluations were performed twice, before and after treatment. Anxiety and stress levels of the families were measured by IPFAM (Family Impact Scale), and activities of daily living of the children were measured by WeeFIM scale.

IPFAM (family impact scale) and WeeFIM (activity of daily living scale) did not show any change before and after treatment.

The short-term effects of exercise training for head-neck control on posture, cognitive perception and family were found to be limited; this suggests that studies with larger samples and longer duration are needed to understand the effect more clearly.

Keywords: mental retardation, head-neck control, posture, family influence

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# Neurofibromatosis Based on a Case: Current Literature Review

Nilay YILMAZ<sup>1</sup> Burcu GÜÇYETMEZ TOPAL<sup>2</sup> Özgür DOĞAN<sup>3</sup> Özge DOĞAN<sup>4</sup>

## **Abstract**

Neurofibromatosis Type 1 (NF1) is an autosomal dominant inherited genetic disorder with multisystemic involvement. Its clinical features include café-au-lait spots, cutaneous and plexiform neurofibromas, Lisch nodules, optic gliomas, and skeletal anomalies. In rare forms of NF1 that affect the craniofacial region, maxillofacial deformities, mandibular bone resorptions, and facial asymmetry may be observed. This case report presents a pediatric patient who was referred to our clinic with dental complaints and was subsequently diagnosed with NF1 following further investigations. A 13-year-old male patient presented to the Department of Pediatric Dentistry at Afyonkarahisar Health Sciences University Faculty of Dentistry in 2023 with dental complaints. Clinical examination and panoramic radiography revealed prominent bone resorption in the right mandibular ramus and facial asymmetry. Upon further anamnesis, café-au-lait macules were observed on the patient's body, and the patient was referred to the pediatric neurology department. Although not initially reported by the family, consultation revealed that the patient had already been under follow-up with a diagnosis of neurofibromatosis. After completing the necessary dental treatments in our clinic, the patient was referred to the relevant surgical unit for further surgical intervention and mandibular reconstruction. This case report is significant in demonstrating that the first sign of a systemic disease can be identified in the oral and maxillofacial region. In NF1 patients, craniofacial manifestations can lead to both esthetic and functional impairments. Early diagnosis and a multidisciplinary approach can significantly improve the patient's quality of life. It is therefore crucial for dental professionals to be able to recognize oral manifestations of systemic diseases and refer patients to appropriate specialists accordingly. Keywords: Neurofibromatosis Type 1 (NF1), craniofacial abnormalities, mandibular bone resorption, facial asymmetry, café-au-lait macules, oral manifestations, interdisciplinary approach

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# Working in a Training and Research Hospital

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ISBN: 978-625-372-658-4

# **Abstract**

Intention to leave the job; is the decision to leave the current job at a time period determined by the person. Intention to leave the job in the health sector is the conscious desire of an employee to completely leave the current organization and affects the results of the health care services provided under current conditions and may cause disruptions in the operation. The aim of this study is to determine the situation regarding the intention to leave the job in nurses and midwives working in a training and research hospital. The descriptive and cross-sectional study was conducted with 203 nurses and 47 midwives who met the research criteria in a training and research hospital in Istanbul. The questionnaire form including the introductory characteristics of the nurses and the Intention to Leave Scale developed by the researcher were used in the collection of data. Before starting the study, the ethics committee and institution permissions and the written permissions required for the use of the Turkish form of the scale were obtained. SPSS 22 package program was used in the analysis of the data. 38.0% of the participants were between the ages of 26-30, 83.6% were female, 66.0% were undergraduates, and 81.2% were nurses. 76.8% of the participants stated that they chose their profession willingly and 47.2% stated that they were happy to do their profession. 42.8% of the participants stated that they were considering working abroad. The mean score of the intention to leave scale was found to be 2.88±sd1.06. When the intention to leave scale scores were compared with the descriptive characteristics, it was found that the mean scores of the participants between the ages of 26-30, the participants who had worked less than 5 years, and the single participants were higher, and the statistical comparison result was significant (p<0.05). It was found that the mean score of the intention to leave participants who chose their profession willingly and were happy to do their profession was lower, and the statistical comparison result was significant (p<0.05). It is recommended that the professions of nursing and midwifery be chosen consciously during the education process, that the employees be supported in the post-graduation process, and that studies be conducted to ensure professional satisfaction.

**Keywords:** Intention to leave work, nursing, midwifery

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# Production of Functional Pudding Enriched with Spirulina, Cornelian cherry and Persimmon for the Elderly

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Gözde DUMLU BİLGİN<sup>5</sup>

## **Abstract**

The global demographic shift toward an aging population has heightened the need for innovative nutritional strategies to support healthy aging. Older adults are particularly vulnerable to malnutrition due to physiological changes, chronic conditions, and social factors that impair food intake. This study aimed to develop a functional pudding enriched with spirulina, cornelian cherry (Cornus mas L.), and persimmon (Diospyros kaki) to support the energy and micronutrient needs of the elderly in a lowvolume, palatable form. Spirulina was selected for its high protein, vitamin B12, and antioxidant content; cornelian cherry for its anthocyanins, gallic acid, and vitamin C; and persimmon for its betacarotene and natural sugars. The formulation was designed to be prepared with water when milk consumption is not suitable, providing compatibility for individual dietary needs. Physical (texture, color, density), chemical (phenolic content, antioxidant capacity, macronutrient composition), and sensory analyses were conducted. Trials with three different spirulina concentrations (1 g, 4 g, and 8 g) were performed, and the formulation containing 4 g of spirulina received the highest acceptability scores in terms of color, taste, and overall appreciation. The formulation with the highest sensory acceptance provided 5.25 g protein, 12.1 g total sugars, 40 g/100 g invert sugar, and 1.97 g fat per 100 g, along with 0.741 mg gallic acid equivalents per gram (GAE/g) total phenolics and 0.866 mg Trolox equivalents per gram (Trolox/g) antioxidant activity, supporting its potential as a nutrient- and antioxidant-rich snack for older adults. This study demonstrates that combining spirulina, cornelian cherry, and persimmon in a single food matrix can provide a nutritionally dense, culturally familiar, and sensory-acceptable product for older adults. The developed product presents a promising approach to functional food design for geriatric nutrition, with a strategic formulation that ensures its applicability across both home and institutional care environments.

Keywords: Functional food, Spirulina, Aging population, Cornelian cherry, Persimmon

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# Effect of Pomegranate Flower on Plasma and Brain Tissues Oxidant System and Reactive Gliosis in Hyperhomocysteinemic Rat Model

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## Abstract

Hyperhomocysteinemia is an important risk factor in some cardiovascular diseases and brain damage circumstances by inducing free radical production and reactive gliosis. Punica granatum L. (PGL) is known as a powerful antioxidant substance. It is aimed to investigate the effect of homocystein on oxidant-antioxidant systems and reactive gliosis in hyperhomocysteinemic rat in the present study. Additionally, the possible protective effect of PGL against the hyperhomocysteinemia induced oxidative stress was determined.

Totally 21 adult Wistar rats were used in this study. Animals in control group (n=7) were only fed with standard food for six weeks. Hyperhomocysteinemia was constituted in second group (n=7) by applying L-methionine (1.5 g/kg/day) in drinking water in addition to standard feed for the same time period with the control. The rats in third group were received PGL extract (500mg/kg/day) in standard rat feed in addition to L-methionine for six weeks (n=7). All rats were decapitated at the end of experiments and blood samples and brain tissues were collected for analyzing of oxidant parameters.

Some parameters revealing lipid peroxidation increased in hyperhomocysteinemia group whereas PGL treatment significantly decreased these parameters. Additionally, hyperhomocysteinemia caused augmentation on glial fibrillary acidic protein and S100 protein levels and neuron specific enolase activity. PGL treatment prevented these augmentations.

In conclusion, it is revealed that PGL diminished hyperhomocysteinemia induced lipid peroxidation, increased antioxidant activity and decreased reactive gliosis in rat brain tissues. Based on these results, we could express that PGL has neuroprotective effect in rat brain.

**Keywords:** Hyperhomocysteinemia, Punica granatum L., oxydant-antioxydant systems, reactive gliozis, rat

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# The Relationship Between RDW/Albumin Ratio and Clinical Outcomes in Patients with Diverticular Bleeding

Süleyman DOLU<sup>1</sup>

## **Abstract**

Diverticular bleeding is a leading cause of lower gastrointestinal (GI) hemorrhage in elderly patients, often associated with significant morbidity and mortality. The red cell distribution width-to-albumin (RDW/Alb) ratio has emerged as a potential biomarker reflecting systemic inflammation and hypoperfusion. This study aimed to assess the prognostic value of RDW/Alb in patients presenting with diverticular bleeding. This retrospective cross-sectional study included patients aged ≥18 years diagnosed with diverticular bleeding between 2019 and 2024 at two tertiary centers. Demographic, clinical, and laboratory data were collected, including RDW, albumin, hemoglobin, INR, platelet count, Oakland score, and shock index. Outcomes assessed were hospitalization, transfusion, surgical intervention, 1-month rebleeding, and mortality. A total of 181 patients were included (mean age:  $76.3 \pm 10.7$  years; 93 females, 51.4%). Hypertension (71.8%), coronary artery disease (39.8%), and diabetes mellitus (29.3%) were the most common comorbidities. Medication use included clopidogrel (18.2%), DOACs (11.0%), warfarin (5.5%), and NSAIDs (15.5%). Mean hemoglobin was  $9.5 \pm 2.4$ g/dL, RDW 16.4  $\pm$  3.2%, and albumin 3.41  $\pm$  0.53 g/dL. The mean Oakland score was 21.2  $\pm$  5.6, and shock index was  $0.70 \pm 0.21$ . Of all patients, 144 (79.6%) were hospitalized, 10 (5.5%) died, 9 (5.0%) underwent surgery, and 10 (5.5%) experienced rebleeding within one month. RDW/Alb was significantly higher in patients who died (p=0.002) and required transfusion (p<0.001). It showed no significant difference in relation to hospitalization (p=0.06), surgery (p=0.351), or rebleeding (p=0.07). RDW/Alb was moderately correlated with Oakland score (r=0.509, p<0.001) and weakly correlated with shock index (r=0.272, p<0.001). RDW/Alb may serve as a practical and cost-effective prognostic biomarker in diverticular bleeding.

Keywords: RDW, albumin, diverticular bleeding, prognosis, gastrointestinal bleeding

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# Evaluation of Risk Factors in Retinopathy of Prematurity Requiring Treatment That Develops in Prematures Born Before 34 Weeks of Gestation

Mustafa Törehan Aslan<sup>1</sup> Hasan Tolga Çelik<sup>2</sup>

## **Abstract**

Retinopathy of prematurity (ROP) remains a significant cause of preventable childhood blindness, particularly among preterm infants requiring intensive care. This study aimed to identify clinical and demographic risk factors associated with the development and treatment-requiring stages of retinopathy of prematurity (ROP).

A retrospective analysis was conducted on 185 preterm infants admitted to the NICU of Koç University Hospital between January 2019 and December 2022. Demographic data and neonatal outcomes were reviewed. ROP was classified and managed in accordance with standard international guidelines.

ROP was diagnosed in 83 infants (44.9%), with 13 cases (15.7% of ROP group) requiring treatment. Of those treated, 4 had stage 1, 8 had stage 2, and 1 had stage 3 ROP. Univariate logistic regression identified multiple significant risk factors, including need for resuscitation, postnatal steroid exposure, transfusion, IVH, BPD, PDA, sepsis, neonatal hypotension, apnea, propranolol use, and absence of multiple pregnancy. Multivariate analysis revealed maternal hypertension and lower gestational age as independent predictors of ROP development.

Both perinatal and neonatal morbidities significantly influence ROP development and progression to treatment-requiring stages. Maternal hypertension and prematurity were the strongest independent predictors. Early identification and close monitoring of at-risk infants may guide timely intervention strategies.

**Keywords:** Retinopathy of prematurity, premature, newborn, morbidity, treatment.

# Endcannabinoid 2-Arachidonyl Glycerol Blinks in The Analgesic Effect of Bupivacaine

Batuhan BILGIN<sup>1</sup>

#### **Abstract**

Bupivacaine is a potent local anaesthetic used to provide analgesia, especially after surgical procedures. Monoacylglycerol lipase (MAGL) is an important enzyme responsible for the hydrolysis of the endocannabinoid 2-arachidonoylglycerol (2-AG), which is involved in endogenous analgesia. However, the MAGL enzyme-mediated 2-AG mechanism in the pain-relieving effect of bupivacaine remains unclear as a scientific gap. The aim of this study was to investigate the free binding energy of bupivacaine with MAGL enzyme, the types of bonds and the proteins involved.

Potential binding sites of bupivacaine were evaluated on the crystal structure of MAGL enzyme (PDB ID: 6AX1) using AutoDock 4.0 software. Prior to molecular docking, configurations for both bupivacaine ligand and MAGL enzyme were set via AutoDockTools (ADT). A total of 100 different molecular docking studies were performed between bupivacaine and MAGL enzyme. All possible binding modes were clustered according to their Gibss free binding energies. The optimal docking pose was selected for the configuration with the minimum energy. The best docking pose between ligand and enzyme determined by the software was visualised using BIOVIA Discovery Studio Visualizer 2016.

The interaction between bupivacaine and the human MAGL enzyme showed a Gibbs free binding energy of -7.29 kcal/mol. This energy bupivacaine showed a high affinity for the MAGL enzyme as it was more than the threshold energy level of -6.00 kcal/mol. In addition, bupivacaine created a total of 5 different chemical bonds and reacted with 20 different amino acids within the human MAGL enzyme. The results of this in silico study show that bupivacaine binds to the MAGL enzyme with high affinity. Bupivacaine may increase endocannabinoid 2-AG by inhibiting MAGL in its analgesic effect.

Keywords: Bupivacaine; MAGL; Molecular docking; 2-AG; Endocannabinoid

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# Investigation of the Effects of Head-Neck Control Training on Posture, Cognitive Perception and Family in Children with Mental Retardation: A Pilot Study

Dilşat Melek AKSU<sup>1</sup> Murat Ali ÇINAR<sup>2</sup>

# Abstract

The aim of this study was to investigate the effects of head and neck control training on posture, cognitive perception and family in children with mental retardation.

Ten volunteer individuals aged 3-10 years and diagnosed with mental retardation were included in the study. The head and neck angles of the participants were evaluated by Posture Screen application in the lateral plane. An exercise programme of 55 minutes, two days a week for eight weeks was applied to all individuals. The evaluations were performed twice, before and after treatment. Anxiety and stress levels of the families were measured by IPFAM (Family Impact Scale), and activities of daily living of the children were measured by WeeFIM scale.

IPFAM (family impact scale) and WeeFIM (activity of daily living scale) did not show any change before and after treatment.

The short-term effects of exercise training for head-neck control on posture, cognitive perception and family were found to be limited; this suggests that studies with larger samples and longer duration are needed to understand the effect more clearly.

Keywords: mental retardation, head-neck control, posture, family influence

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# A NEW MODEL FOR APPROACHING SLEEP PROBLEMS IN CHILDREN: AN ARTIFICIAL INTELLIGENCE SUPPORTED APPROACH

Eren GÜZELOĞLU<sup>1</sup> Belen ATES<sup>2</sup> Büşra Nükhet PEHLİVANOĞLU<sup>3</sup>

### Abstract

Sleep problems in children are common and range from difficulty falling asleep to frequent nighttime awakenings. Traditionally, diagnosis and management of sleep disorders in children have relied on pediatricians and sleep specialists. However, advances in technology, particularly artificial intelligence (AI), offer a promising new way to address these issues more efficiently and effectively.

In this study, we aimed to examine scenarios developed by our expert team for ten common sleep problems in children and how an AI-powered approach could provide solutions.

The AI was asked 10 general questions and 10 simulated case questions prepared by our expert team about common sleep disorders in children. The AI asked our expert team 10 general questions and 10 simulated case questions prepared by the AI about common sleep disorders in children. OpenAi Chat-Gpt 4.0 was used as the AI.

The AI answered the questions correctly 75% of the time, while our team answered 85% of the time. The AI was better at general sleep questions. Our expert team was better at approaching case questions. As technology continues to advance, AI is likely to play an even greater role in providing more accessible, efficient, and effective solutions to sleep issues in children. However, while AI offers promising advantages, it is important that these systems are used in conjunction with expert medical advice to provide holistic care for the child's health and well-being.

**Keywords:** Artificial intelligence, Sleep disorders, Children, Chat-Gpt 4.0

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# USE OF ROBOTIC MICROSURGERY IN HAND RECONSTRUCTION

Furkan KARABULUT

### **Abstract**

Robotic microsurgery (RAMS) represents a paradigm shift in surgery today, offering greater precision, stability, and dexterity than traditional methods. Previous studies have shown that robotic systems facilitate meticulous dissection and suturing in areas such as urology and gynecology. Applying these technological advances specifically to microsurgical procedures has the potential to improve outcomes by overcoming the inherent limitations of human hands and traditional instruments.

Free flap surgery is one of the most promising applications of robotic surgery in reconstructive microsurgery. Free flaps are require microvascular anastomosis to ensure the viability of the transferred tissue. Robotic microsurgical end-to-end vascular anastomoses are preferred in extremity reconstruction, especially in cases of vessel loss due to trauma or vascular occlusive disease, and in extremity reconstruction of vessel size discrepancies. Functional reconstruction of extremity injuries usually involves repair of nerves and soft tissue; therefore, microvascular anastomoses and epineural coaptations are among the basic surgical techniques.

In parallel with other robotic-based surgical innovations, robot-assisted microsurgery has been developed for vascular and peripheral nerve surgery. Over the last 10 years, studies have shown that robot-assisted soft tissue reconstruction in the upper extremity is feasible. Surgical robots can expand the capabilities of surgeons by reducing fine tremors, increasing manual dexterity, and providing realtime three-dimensional imaging during endoscopic surgery. This provides exact movement in narrow and difficult-to-access areas, opening the door to minimally invasive surgery. In addition to improving surgical skills and ergonomics during surgery, minimally invasive surgery is associated with shorter hospital stays and a reduced risk of adverse complications. Several new teleoperated surgical robotic systems are expected to be introduced in the foreseeable future, while a new generation of partially autonomous surgical robots that can suture skin and create soft tissue anastomoses without direct input from surgeons are currently being tested in research laboratories.

Keywords: Robotic Microsurgery, Anastomosis, Free Flap, Extremity Reconstruction, Autonomous **Surgical Robots** 

# Our Studies on Intraoperative Colonoscopy and Anastomosis Evaluation in Colorectal Surgery

Murat Tan<sup>1</sup>

### **Abstract**

We evaluated the anastomosis using intraoperative colonoscopy in anastomoses performed with stapler in benign or malignant colorectal operations. We aimed to detect anastomotic leakage, which is a serious complication, anastomotic stenosis and bleeding from the anastomosis in the early period and to increase the success of the operation with early intervention.

In this study, patients who were operated for benign or malignant colorectal rectal diseases between January 2021 and December 2024 in the general surgery clinic of Istanbul Ataşehir Florence Nightingale hospital between January 2021 and December 2024, who underwent end-to-end colorectal anastomosis with a circular stapler number 33 and whose anastomosis line was evaluated by intraoperative colonoscopy were included in the study. In the intraoperative colonoscopy procedure, the anastomosis was also evaluated for perforation by water-air leakage test.

Colorectal anastomotic leakage and secondary peritonitis are the most important postoperative complications after colorectal surgery and have been associated with sepsis and death in patients. We recommend intraoperative colonoscopy to evaluate the integrity of the anastomotic line in patients undergoing colorectal surgery in order to assess the integrity of the anastomosis during surgery and to intervene quickly in case of a detected complication.

Keywords: Intraoperative Colonoscopy, Colorectal Surgery, Anastomotic leakage

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# Use of Videongoscopy in Difficult Airway Due to Thyroid Mass: Case Report and Literature Review

Muhammet Emin NALDANI

## Abstract

The use of videolaryngoscopy continues to play a greater role in the management of patients with airway pathology. In particular, when looking at patients with potential difficulties in ventilation and intubation due to thyroid goiter and cancer, videolaryngoscopy may provide a faster and easier technique for securing the airway compared to direct laryngoscopy.

In this article, a case of a 65-year-old female patient diagnosed with anaplastic thyroid carcinoma, with lung metastases, experiencing respiratory distress and a greatly increased work of breathing is presented. The case is evaluated in terms of difficulty in intubation and the effectiveness of videolaryngoscopy. Intubation attempts with a small-size tube(with an inner diameter of 6 millimeters) were unsuccessful in the patient, and a tracheostomy was applied after manual ventilation and a successful airway was established.

In a literature review conducted in PubMed and Web of Science databases regarding the use of videolaryngoscopy in anaplastic thyroid carcinoma, difficult airway, and airway obstruction, it was shown to be superior to direct laryngoscopy. However, it should be kept in mind that intubation may not always be possible in such cases, as the mass may be very hard.

Keywords: Thyroid, Airway, Difficult Airway, Thyroid Mass.

