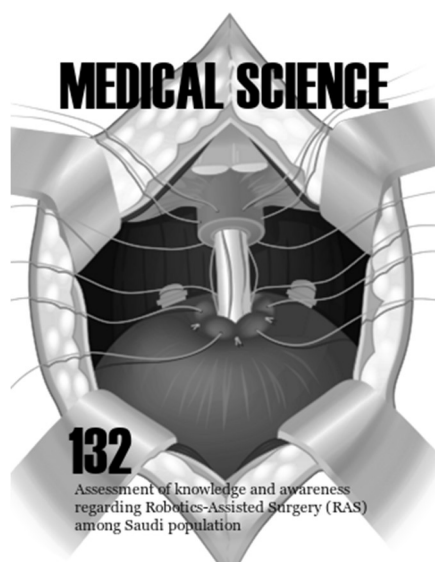


MEDICAL SCIENCE

About the Cover



Introduction: An increasing number of surgeries are being performed with the assistance of robots and this new technology necessitates a strong commitment on the part of healthcare providers and patients alike. The purpose of this study was to investigate the public's awareness, knowledge and perceptions of Robotic-Assisted Surgery (RAS) in Saudi Arabia. *Materials and Methods:* An online pretested questionnaire was used to collect responses from participants from different provinces of Saudi Arabia. Participants' self-reported knowledge and perceptions were recorded and based on the correct responses, knowledge levels were calculated. Data were analyzed using appropriate statistical tests by an independent biostatistician. *Results:* The knowledge level regarding RAS was found to be poor in the majority of the participants (88.8%), although 74.5% had heard about RAS. Only 33.5% knew that RAS is available in Saudi Arabia and 44.8% knew that it is similar to Laparoscopic or minimally invasive surgery. Knowledge level was significantly higher among participants with higher educational qualifications ($p < 0.05$). About 41.7% believed that robots could be so accurate they would help the surgeon do a better job and approximately 9.3% had the view that robotic surgeons are less skilled than non-robotic surgeons. *Conclusion:* Knowledge and perceptions about RAS are limited among the public in Saudi Arabia. Efforts should be made to increase awareness by utilizing various virtual media platforms. (Ref: Algethami RF, Alotbi MF, Alsulaimani AI, Alkhalidi LM, Alhossaini ZA, Alzahrani KM. Assessment of knowledge and awareness regarding Robotics-Assisted Surgery (RAS) among Saudi population: A cross sectional study. *Medical Science* 2023; 27: e73ms2853).

Assessment of knowledge, awareness and vaccination compliance of hepatitis B among students of health colleges of Al-Baha University

Turki H Alkully, Saleem A Algamdi, Bandar A Alomari, Basil S Alghamdi, Rayan A Alghamdi, Mohannad S Alghamdi, Turki A Alzahrani

Background: Viral hepatitis is a blood-borne liver infection that is caused by the Hepatitis B virus (HBV). It is preventable disease through immunization. Medical students are at higher risk of HBV contraction due to occupational exposure. *Objective:* The aim of the study is to assess the knowledge and awareness of Hepatitis B (Hep B) vaccination and vaccination compliance among the students of health colleges of Al-Baha University. *Methods:* A cross-sectional quantitative study was carried out using a close-ended survey of 394 medical students at Al-Baha University and the collected data was statistically analyzed using the SPSS tool. *Results:* The descriptive analysis revealed that more of the participants were males (73%) than females (26.9%). Most of the participants (92%) were not infected with HBV. About 50% reported not receiving HBV vaccination. In terms of awareness among respondents, 43.60% were not aware of the length of doses that they need to achieve full immunity while 57.11% were aware of the protection of vaccine against HBV infection. About, 71.07% of the respondents think of Hep B as liver disease and are aware of its immunization as a preventive measure. However, some participants (44%) were not aware of symptomless HBV. *Conclusion:* HBV is a complicated viral infection. The knowledge of vaccination was not enough among students of Al-Baha University and therefore, it is recommended to increase the awareness and knowledge of medical students as they are at higher risk of contracting HBV infection.

Medical Science, 2023, 27, e71ms2698

Assessment of awareness of ultrasound artifacts among Saudi interns and radiologic technologists in Al Madinah hospitals

Moawia Gameraddin, Ali Abdullah Alqarni, Bandr Jumayan Aljabri, Fares Rabah Alradaddi, Abdulrahman Alrhili, Awadia Gareeballah, Muna Ahmed M Ali, Mariam Khogaly Elamin

Aim: The study aims to identify the knowledge of ultrasound artifacts among internship students and radiographers and compare the knowledge according to their discipline, institute and educational level. *Material and method:* A cross-sectional survey study included 82 participants in the radiography field-the data was obtained from Al Madinah general hospitals from October 2020 to January 2022. A questionnaire was designed and surveyed the target population (radiographers and interns). The data were analysed using the SPSS program. Chi-square and ANOVA statistical tests were used to analyse the data. *Results:* The total mean knowledge score was 0.73, considered good knowledge of identifying US artifacts. There was no different significance in mean knowledge scores between private and governmental institutions (P-values > 0.05). The participants who have radiographic fellowship have a high knowledge score (100%) and there was a different significance among the groups (p-value < 0.001). Participants with diplomas have a low mean knowledge score (29%). The mean knowledge of radiographic technologists was significantly higher than the interns (p-value = 0.018). The participants who specialized in sonography had a mean score of knowledge of 0.77±23, which was higher than those of other disciplines. *Conclusions:* The study concluded that US artifacts' overall knowledge score was good. There was a significant difference between internship students and radiographic technologists regarding the awareness of US artifacts. Participants from public institutions and hospitals had a higher average knowledge score.

Medical Science, 2023, 27, e72ms2737

Assessment of knowledge and awareness regarding Robotics-Assisted Surgery (RAS) among Saudi population: A cross sectional study

Rami Faleh Algethami, Moayyad Fateh Alotbi, Abeer Ibrahim Alsulaimani, Layla Mudeef Alkhaldi, Zouhor Atallah Alhossaini, Khalid Mohammed Alzahrani

Introduction: An increasing number of surgeries are being performed with the assistance of robots and this new technology necessitates a strong commitment on the part of healthcare providers and patients alike. The purpose of this study was to investigate the public's awareness, knowledge and perceptions of Robotic-Assisted Surgery (RAS) in Saudi Arabia. *Materials and Methods:* An online pretested questionnaire was used to collect responses from participants from different provinces of Saudi Arabia. Participants' self-reported knowledge and perceptions were recorded and based on the correct responses, knowledge levels were calculated. Data were analyzed using appropriate statistical tests by an independent biostatistician. *Results:* The knowledge level regarding RAS was found to be poor in the majority of the participants (88.8%), although 74.5% had heard about RAS. Only 33.5% knew that RAS is available in Saudi Arabia and 44.8% knew that it is similar to Laparoscopic or minimally invasive surgery. Knowledge level was significantly higher among participants with higher educational qualifications (p<0.05). About 41.7% believed that robots could be so accurate they would help the surgeon do a better job and approximately 9.3% had the view that robotic surgeons are less skilled than non-robotic surgeons. *Conclusion:* Knowledge and perceptions about RAS are limited among the public in Saudi Arabia. Efforts should be made to increase awareness by utilizing various virtual media platforms.

Medical Science, 2023, 27, e73ms2853

Facial nerve injury following temporomandibular joint reconstruction, parotidectomy and mastoidectomy: a systematic review and meta-analysis

Fahad Maki, Rakan Alghammas, Saud Albraik, Faisal Aswad, Khaled Alshehri, Adeem Alofi

Maxillofacial surgeries carry a risk of facial nerve injury (FNI) in the form of nerve paralysis. These injuries can be classified according to the onset of facial paralysis and the nature of the injury. The current literature shows several oral and maxillofacial surgeries associated with facial nerve injuries, such as parotid gland related procedures, temporomandibular joint (TMJ) replacement and mastoidectomy. Reporting of the incidence of facial injury following these procedures varied across studies. Therefore, our aim is to provide a review of the current literature reporting FNI following TMJ reconstruction and parotidectomy and report its distribution across different demographic characteristics. A systematic review and a meta-analysis were done following preferred reporting items for systematic review and meta-analysis (PRISMA) guidelines. Our findings indicate that females were more likely to develop FNI following the selected surgeries when compared to males. Out of 2013 patients who underwent parotidectomy procedures, 286 developed FNI with an incidence of 21.97% (95%CI: 10.39-36.41) and the most affected branch was the marginal mandibular branch. Among 154 patients who had TMJ-related procedures, 55 developed FNI with an incidence proportion of 29.99% (95%CI: 12.97-50.53) the temporal branch was the most affected.

Medical Science, 2023, 27, e74ms2736

CASE REPORT

Crestal Approach Sinus (CAS) kit: A novel technique for posterior maxillary rehabilitation: A case series of 10 prospective patients

Himanshu Shende, Bhushan Mundada, Nitin Bhola

Rehabilitation of the posterior edentulous maxilla presents maxillofacial surgeons with many challenges. Sinus floor elevation is considered the milestone in the implant dentistry; however, it is associated with numerous complications. To overcome the complications, CAS kit (Crestal Approach Sinus) has been used in the following study. Ten subjects we enrolled in this pilot study using the CAS kit. The study sought to investigate incidence of sinus membrane perforation, implant stability, marginal bone loss and the area of bone regeneration. Each patient experienced satisfactory results with minimal complications. The invention of the CAS kit has the potential to prove suitability in overcoming the complications and disadvantages of conventional sinus floor elevation techniques.

Medical Science, 2023, 27, e75ms2694

Monochorionic monoamniotic twin in Rh negative pregnancy: A case report

Rahul Agola, Tanvi Chaurasia, Geeta Chaurasia

Although monoamniotic twin pregnancies are uncommon, early detection is critical because complications are much more common than in diamniotic or dichorionic twin pregnancies. Only approximately 70% of monoamniotic twins survive. Furthermore, the high prevalence of foetal anomalies (15%-25%), such as twin reversed arterial perfusion sequence and conjoined twinning, accounts for roughly half of all foetal deaths in these pregnancies. As a result, early anatomy screening during pregnancy's first trimester is advised. We present a case of a primigravida female with 35.3 weeks of gestation and a Rh-negative pregnancy who presented to the labour room with a fully dilated cervix and delivered twins, one foetus by breech presentation and another macerated twin. As a result, early detection, screening for foetal anomalies, monitoring for twin-twin transfusion syndrome, decisions about monitoring after viability and delivery timing and route are all critical and increased awareness is necessary, particularly in rural areas.

Medical Science, 2023, 27, e76ms2801

Bladder exstrophy with pubic symphysis diastasis in a male toddler: A case report

Rahul Agola, Tanvi Chaurasia

Bladder exstrophy is a rare birth defect in which the anterior wall of the abdomen over the bladder does not close during the intrauterine period, leaving the child with an exposed bladder. Bladder exstrophy affects one out of every 50,000 births. Possible complaints include exposed bladder, incontinence or urine leakage, genital and pelvic bone defects, as well as intestine and reproductive organ defects. The majority of patients have their bladder exstrophy repaired as infants. If it is not addressed, as it was in this case, staged surgery will be required. A three-year-old male child with congenital bladder exstrophy was admitted to the Paediatric Surgeon's Outpatient Department in this case. Orthopaedic surgeons were consulted due to the pubic diastasis. At the age of three, an acetabulo-pelvic surgeon recommends using an external fixator on the pelvic wings to reduce tension on the reconstructed bladder wall and inter-pubic ligament. The patient was treated for undiagnosed bladder exstrophy. The reconstruction of the abdominal wall and urethra, as well as the use of an external fixator, was completed.

Medical Science, 2023, 27, e77ms2805

Revision surgery in comminuted distal one-third femur fracture using retrograde intramedullary nail: A case report

Rushikesh Shukla, Sonali G Choudhari

Fractures of the distal one-third of the Femur bone are quite common nowadays due to the increase in the incidence of road traffic accidents, falls, sports and outdoor activity, etc. Retrograde intramedullary nailing has been considered a good surgical intervention for the management of such cases. Cement augmentation and shape memory alloy is also preferred to provide mechanical stability at the site of fracture. However, in the case of comminuted fracture, this modality of surgery cannot be used as the first option of

choice. The present case report of 18 years old male who sustained a comminuted fracture of the distal one-third of the femur reviews the progression of the case after the first surgery using open reduction and internal fixation and plating and postoperative complication of nonunion after dynamization. It also describes the outcome of revision surgery using the retrograde intramedullary nail.

Medical Science, 2023, 27, e78ms2697

Anaesthetic challenges in a case of psoas abscess with discovertebral destruction at lumbar vertebral level with severe mitral regurgitation, severe aortic regurgitation and extrapulmonary tuberculosis

Sambit Dash, Roshan Nisal, Vivek Chakole, Aruna Chandak

It is recommended to take a cautious approach when vertebral lesions are discovered in one or two vertebrae but there is no significant disruption in the vertebral stability. We describe a 38-year-old male with Pott's disease of the lumbar spine with extensive psoas abscesses. The patient also had multiple ground glass opacities in right lungs, along with severe aortic regurgitation and mitral regurgitation. The patient was started on anti-tubercular therapy. On the day of surgery, he was induced under general anaesthesia with central venous catheterization and arterial canulation for better haemodynamic management. The abscess was drained in a prone position followed by fixation of the spine. The anaesthetic management was a challenge because of multiple issues the patient had, be it the psoas abscess, extrapulmonary tuberculosis, bad lung mechanics and cardiac changes. An appropriate pre-operative assessment and judicious intraoperative planning and management could help us handle the case smoothly. Postoperatively the patient was extubated on the table and shifted to intensive care for observation and further management.

Medical Science, 2023, 27, e79ms2818

ANALYSIS

Quality of life among women working in health care services in Tabuk city, Saudi Arabia

Nada Saleh Albalawi

Objective: Working in health care centres is associated with a high level of stress that increases the risk of low quality of life (QoL). This study was conducted among women working in health care services to explore their QoL and its association with socio-demographic and work-related factors. *Methods:* A web-based, questionnaire was delivered to women working at the ministry of health facilities in Tabuk, Saudi Arabia. The questionnaire consisted of two sections. The first section inquired about the socio-demographic data of the respondents and the second section consisted of the World Health Organization Quality of Life-BREF (WHOQOL-BREF) assessment instrument. *Results:* The response rate was 50.5%. Nurses accounted for 48.5% of the respondents, while doctors and technicians represented 26.7% and 20.8%, respectively. The social relations domain showed the lowest mean score. Multivariate analysis showed that increasing the number of children was significantly associated with lower scores in all QoL domains. Having night shifts or on-calls negatively impacted the physical, psychological and environmental domains. Working for 12 hours negatively impacted the psychological, social relations and environmental domains. Being single and having a higher salary positively impacted the environmental domain. *Conclusions:* Several factors seem to affect the QoL of female healthcare workers. Some of the work-related factors can be modified to alleviate stress and improve the QoL, such as reducing the working hours and frequency of night shifts and improving the salary.

Medical Science, 2023, 27, e80ms2850

Pattern of dominance in coronary artery among Saudi population; coronary angiography study

Ali Hassan A Ali, Fayeze E A Elshaer, Abdulmajeed Mazroua Almazroua, Faris Abdullah Alselmi, Salem Abdulhadi Aldosari, Mubarak Hussain Aldossari, Abdullah Mohammed Alqahtani, Meshari Khalid Alhumaydani, Ziad Awadh Almutairi, Abdulrahman Abdullah Aldaghfag

Most common causes of death and morbidity worldwide, particularly in developed countries, are coronary heart diseases. This study used coronary angiography to identify the dominant coronary artery in the Saudi population and assess the arterial supply to the atrioventricular node and bundle in relation to the degree of coronary artery stenosis. Retrospective research was done on patients who visited the King Fahad Cardiac Center, Riyadh between January, 2022 and December, 2022. The records of 310 patients, aged 18 years or older, of both sexes, whose coronary artery angiography revealed disease in coronary arteries, were included as a sample in the study. The results revealed that the right coronary artery predominated in both male and female Saudi patients (56.1%) and that both the right coronary artery and anterior descending artery were equally susceptible to stenosis. There was no connection between sex and the stenosis site. The results also revealed a weak relationship between the dominant coronary artery and the degree of right coronary artery stenosis and anterior descending artery stenosis reduction.

Medical Science, 2023, 27, e81ms2867

Are we neglecting port-site complications in laparoscopic surgeries: A single centre study

Kaushika Hubballi, Manoj D Togale, B G Hubballi

Introduction: Port site complications are troublesome problems which weaken the aids of minimally invasive surgery, not only does it add to the morbidity of the patient but also haul the reputation of the specialist. The study aims to determine the morbidities associated in laparoscopic surgeries at the port sites and to identify risk factors for complications at the port sites and how we can prevent them. *Patients and Methods:* In our present prospective study, 120 patients underwent laparoscopic surgeries during the period of 1st January 2021 to 31st December 2021 at our hospital were observed for complications at their port sites and statistically analysed for significance using SPSS ver. 20.0. *Results:* From a total of 120 patients the mean age was 37.84 ± 15.76 years. A total of 10 (8.19%) port site complications were observed in this study. Comparison of various procedures by the number of ports used was recorded to be significant $p < 0.0142$. Comparison of various procedures with the presence of co-morbidities was observed $p < 0.4069$. The association of obesity with the number of ports used is found to be statistically significant with $p < 0.0001$ in our study. *Conclusion:* The study showed that port site complications were least observed in elective laparoscopic surgeries. Complications were associated with the total number of ports; umbilical port involvement is the most common. Most complications were practicable with minimum morbidity and can be further minimalized with careful surgical technique during entry and exit.

Medical Science, 2023, 27, e82ms2626

The use of azithromycin and fusidic acid in the treatment of mild to moderate forms of hidradenitis suppurativa

Anas Fathuldeen, Fauwaz Fahad Alrashid, Fahaad Saad Alenazi, Fawwaz Freih Alshammrie, Wael Saleh Alanazi, Salem Fayez Alshaghdaali, Mohammed Abdulkarim Alduheim, Rasheed Marzouq Abutaimah, Bayan Redwan, Halima Mustafa Elagib, Saadeldin Ahmed Idris

Background: Hidradenitis suppurativa is a chronic disease with universal spread and it has a major influence on the kind of patients' life. Management should rely on the disease severity. *Objective:* We aimed to explore our experience with the use of topical fusidic acid and systemic azithromycin in mild to moderate forms of hidradenitis suppurativa (Hurley stage I and II). *Materials and methods:* A cohort study (June 2016 to June 2022) included all patients with mild or moderate forms of hidradenitis suppurativa (Hurley stage I and II). Patients with severe disease (stage III) were excluded. The outcome was measured by recurrence rate and patient satisfaction. *Results:* A-113 patients, whose mean age was 32.4 ± 12.1 years, were included. There was female predominance. Disease prevalence was 0.032 per 100,000 of the clinic population. The mean disease duration was 4.1 ± 1.5 days, not affected by gender ($p = 0.3$). In stage I, 18 (38.3%) patients excellently responded and 22 (46.8%) had a good response. Whereas, in stage II, 21 (31.8%) patients excellently responded and 29 (43.9%) had a good response. The overall response was excellent and good in 39 (34.5%) and 51 (45.1%) patients, respectively. The differences between subgroups (stages I and II) in the efficacy was statistically significant (p -value 0.001). The disease recurred in 3 (2.7%) of patients with HS, whereas it was higher in those with stage II disease. Patient satisfaction with those treated by nonsurgical means was very good / excellent in 98% of patients. *Conclusion:* The treatment regimen used was shown to be effective. Thus, they can be a first-line option for the treatment of mild to moderate conditions of hidradenitis suppurativa.

Medical Science, 2023, 27, e83ms2813

Assessment of the prevalence of temporomandibular joint disorder among vocalists and musicians using a questionnaire study

Jaishankar HP, Karthikeya Patil, Sanjay CJ, Shiny A, Sharath N, Barsha Bharadwaj

Objective: To evaluate the risk for symptoms of temporomandibular joint disorders (TMD) prevalent among the vocalists and musicians in Indian population. *Materials and Methods:* A total of 367 musicians filled an online questionnaire to participate in the study, 9 of whom were excluded. *Results:* The prevalence of TMJ pain was highest among the wind instrument players (50.8%) followed by the violinists (28.6%). The musicians who noticed joint sounds were highest among the wind instrumentalists (68.3%). Incidence of difficulty in mouth opening was more in wind instrumentalists (41.3%) and violinists (23.2%). The participants who reported having jaw, cheek, temple or headache pain was highest (68.3%) among players of wind instruments. The number of participants who reported to be suffering from pain in the shoulder or neck region was predominant in wind instrumentalists (73%). *Conclusion:* The results imply that playing musical instruments increases the possibility of developing TMD, with wind instrumentalists being at a higher risk.

Medical Science, 2023, 27, e84ms2825

CASE REPORT

A rare case report of isolated medial patellofemoral ligament reconstruction using autogenous grafting

J Jafer Sareef, Syed Nihal A, Vijay Narasimman Reddy

Following a patellar dislocation, medial patellofemoral ligament injury is frequently observed. This report describes a case of a female patient, age 31 years experiencing recurrent patellofemoral instability and a post-traumatic tear of the medial patellofemoral ligament (MPFL) without any pathoanatomical risk factors. After her primary patellar dislocation, she was initially given conservative treatment with concentric exercises to bolster the vastus medialis and quadriceps. Even after initial conservative treatment, the patient now presented with a history of repeated occurrences of recurrent dislocations during the previous five years. For isolated medial patellofemoral ligament reconstruction, an autogenous gracilis graft was inserted using suture anchors and an

interference screw in a double bundle L shaped fashion. Following a post-operative rehabilitation plan for at least a year revealed outstanding clinical results, as shown by a comparison of the Kujala, Lysholm and Tegner scores post operatively.

Medical Science, 2023, 27, e85ms2700

Delayed onset of Duchenne muscular dystrophy in a case of 22-year male with normal developmental milestone

Sameer Dhabalia, Shivani Malpani, Sandeep Shrivastav

Duchenne muscular dystrophy (DMD) presents more commonly in males which is inherited as an X linked recessive trait. It is very uncommon to see DMD in females. It occurs when there is mutation in a dystrophin gene present on X chromosome. The common time of appearance of clinical feature of this disease is in early childhood. These patients are normal at the time of birth but by the time patient is one year of age they present with delay in attaining developmental milestones. They clinically present with frequent history of falls, difficulty to raise themselves from ground this is because of weakness in proximal group of muscle. On examination calf hypertrophy, deltoid hypertrophy is a very common finding. This patient dies before the age of 30. The cause of premature death in these cases is commonly due to cardiomyopathy. This case report of male aged 22-years, who clinically started developing the symptoms of DMD when he reached 14 years of age, is a very uncommon finding. The main highlight of this case is normal development at the time of childhood. Patient had presented with weakness in bilateral lower limb which progressed to weakness in bilateral upper limbs also. Currently he is wheelchair bound. Patient currently has fewer episodes of breathlessness. On examination levoscoliosis and foot deformity that is equinovarus was seen. At this point the main aim is to enhance the wellbeing of the patient, henceforth management is symptomatic treatment and by providing physiotherapy for the purpose of muscle strengthening to improve the muscle power and tone.

Medical Science, 2023, 27, e86ms2822

A rare presentation of neurological scrub typhus with hydrocephalus: Case report

Yarraiahgari Maheswara, Revat Meshram, Jayant Vagha, Amar Taksande

Scrub typhus is zoonotic disease caused by *Orientia tsutsugamushi*. Scrub typhus transmits to human beings by arthropod vector of the Trombiculidae family (*Leptotrombidium deliense* and *L. akamushi*). The incidence of this disease is rising in various parts of India. Clinical manifestations could range from constitutional symptoms like fever, weakness, anorexia and headache to dermatological manifestations like eschar, lymphadenopathy and maculopapular rash. Eschar is considered pathognomic in suspecting scrub typhus. Complications of the disease include myocarditis, acute respiratory distress, jaundice, atypical meningitis and kidney failure amongst others. Here, this case report is about a 5-year-old boy who presented with rare complication of scrub typhus which is multiple cranial nerve palsies, meningitis and hydrocephalus. The presence of the characteristic eschar over the abdomen raised the suspicion of Scrub typhus. Diagnosis was confirmed by a positive serology and the patient responded well to medical management with injectable doxycycline.

Medical Science, 2023, 27, e87ms2725

Interdisciplinary management of hemimandibular hyperplasia in skeletal and dentoalveolar class II malocclusion: A case report

Smita Kumari, Nitin Bhola, Priyanka Niranjane, Ranjit Kamble

Hemimandibular hyperplasia (HH) is a facial asymmetry characterized by 3-dimensional unusual growth of half of the mandible which may develop in any age group. Treatment includes primarily surgical, but various treatment options are given in the literature, like partial or high condylectomy with orthognathic surgery and inferior border osteotomy of body of the mandible. This case report of 23-year-old female patient with a history of left-side facial asymmetry. After clinical and radiological examinations standard surgical-orthodontic treatment plan was proposed to the patient. The patient had undergone surgical procedure of high condylectomy and mandibular inferior border recontouring followed by orthodontic treatment which includes initial levelling and alignment. After alignment, patient had undergone mandibular advancement with BSSO (bilateral sagittal split osteotomy). Orthodontic treatment was continued with deep bite correction and final settling of occlusion. The final result obtained with interdisciplinary management by oral surgery and orthodontist was aesthetic for the patient, although slight asymmetry of the chin persisted.

Medical Science, 2023, 27, e88ms2743

ANALYSIS

Prevalence of the aberrant mode of double ilioinguinal nerve

Moaath Abdulaziz Alamir, Mohammed Saeed Alharbi, Sager Holy Alruwaili, Ahmed Onayzan Alshammari, Mohammed Alharbi, Fares Almarek, Saadeldin Ahmed Idris, Abdalla Ahmed Eldaw Elamin

Background: An ilioinguinal nerve branches off the lumbar plexus' branches. Due to its anatomic variations, it can contribute to neuropathies accompanying lower abdominal procedures. **Aim:** The study's objective was to illustrate the double ilioinguinal nerve variation through the dissection of human cadavers. **Material and methods:** Following clearance from Alzaieem Alazhari University's ethics committee, a cross-sectional analysis of corpses conserved in formalin was conducted (January 2021–May 2022). Using the internal and external inguinal rings as well as established bone markers, the IINs were exposed and mapped on both sides during

the cadaveric dissection from their lateral appearance on the anterior abdominal wall to their midline ending. SPSS edition 21.0 had being utilized to manage the gathered information. *Results:* In 77 cadavers, ilioinguinal nerves were recognized bilaterally. All IINs originated from L1 on the left side, while on the right 3 IINs abnormally originated from L3 or L1-3. The difference was not significant ($P=0.22$). Double ilioinguinal nerve was observed in 8.4%. This variability had been noticed on the left and right sides in 8 (5.2%) and 5 (3.2%) corpses, respectively ($P=0.56$). *Conclusion:* It is essential to be aware of the double ilioinguinal nerve variant to prevent its damage during lower abdominal procedures such as inguinal hernia and low transverse incisions for orthopedics, gynecology and anesthetic procedures.

Medical Science, 2023, 27, e89ms2820

Awareness of amblyopia among the adult population in Arar city of Saudi Arabia

Mujeeb Ur Rehman Parrey, Maha M Abdul-Latif, Dhari Atallah S Alshammari, Talal Ahmed A Albalawi, Hussam Mohammed M Alanazi, Mohamed M Abd El-Mawgod

Purpose: To assess the amblyopia awareness among Saudi adults in Arar, Saudi Arabia. *Methods:* A total number of 368 participants aged between 18-59 years were involved in this questionnaire-based survey. *Results:* Nearly two thirds (63.3%) of all participants belonged to the age group 18 to 29 years. Male participants made up more than half of the study population (57.3%) and 56.8% were related to the health sector. Nearly one third (31%) of the participants had a wrong opinion that amblyopia could be detected with the naked eye while as 47.8% thought that proper eye checkup was not necessary. Around 61% participants had no idea about the treatment, 34.2% had chosen the incorrect option that amblyopia can be treated in any age and 49.5% the incorrect option of covering the healthy eye. However, more than forty percent participants had correctly acknowledged the risk factors as squint and decreased vision in one eye. Regarding the complications 66.3% reported decreased vision, 32.9% blindness and 40% loss of 3D perception. Eye screening and public awareness were stated as main preventive measures and Ministry of Health was suggested as the most effective platform to raise the amblyopia awareness. The participants' main source of information pertaining to amblyopia was the internet. *Conclusion:* This study shows that the amblyopia awareness is unsatisfactory among Saudi adults living in Arar city and highlights the need for raising this awareness through reliable platforms to overcome the unwanted consequences associated with this health issue.

Medical Science, 2023, 27, e90ms2826

Factors related to choosing family medicine as future career among senior medical students. An experience of different universities in Saudi Arabia

Sulten Alzahrani, Salah Bakry, Mohammed Althubaiti, Shumukh Alsharif, Abdulaziz H Almogbel, Azzam Hanif, Turki Alessa, Reem Alharthi, Aous Alattas, Saad Albagami, Waleed Alnemari, Muhammad Irfanullah Siddiqui

Background: Family medicine has various difficulties; most doctors who practice in other specialties presumably have no need for family medicine and find it irrelevant. This study aimed to explore the students' related factors in choosing family medicine as a future career. *Methodology:* During March to June 2022, an online-based survey was distributed to students among varieties of universities in Saudi Arabia. *Results:* Overall, 319 students were included in this survey. Most of them are from UQU, followed by TU and BU. Most students show interest in choosing family medicine. Simultaneously, students from UQU significantly showed no interest in choosing family medicine (P -value, <0.001). In contrast, students from TU and BU showed a significant association in interest in choosing family medicine (P -value, <0.001). *Conclusion:* The family medicine speciality provides medical practitioners with particular experience and these specialists have a significantly more significant opportunity to serve diverse populations. Family practitioners must be present in the healthcare system to provide comprehensive care services.

Medical Science, 2023, 27, e91ms2881

RESEARCH

Socio-demographic predictors of knowledge, attitude and practice of antenatal exercise among pregnant women

Wael Alghamdi

Background and Aims: Physical exercises during the period of pregnancy have proved to be valuable to many pregnant women. This study aims to explore the knowledge, attitude and practice of exercise during pregnancy among antenatal mothers in Al Baha region. *Methods:* A cross-sectional research design was conducted in over sixteen months of pregnant women across two hospitals (i.e., King Fahad Hospital and Prince Mishari bin Saud Hospital) in the region of Al-Baha, Saudi Arabia. A total of 118 participants (pregnant women) were approached with a structured interview questionnaire administered by trained health personal. The study questionnaire was designed with 98 items. In this study, the analysis of the data was performed using R Studio software; this involved calculating descriptive statistics in order to highlight certain demographic details of the participants and the application of inferential statistics to verify the research hypotheses. Multiple logistic regression analysis was employed to evaluate the effect of the participants' knowledge, behaviour and attitude on their engagement with antenatal exercises during their pregnancy. *Results:* A multiple logistic regression analysis showed the knowledge about the antenatal exercises was approaching the significance regarding participants' employment status and BMI classification. The results indicated that the participants' employment status, age and Body Mass Index played a statistically significant role in predicting their attitudes towards and practice of antenatal

exercises during their pregnancy. Results showed that overweight participants seemed to have inadequate practice of antenatal exercises during pregnancy than others. *Conclusions:* A majority of Saudi pregnant women demonstrate inadequate knowledge, but the practice and attitude of pregnant women were favourable.

Medical Science, 2023, 27, e92ms2886

ANALYSIS

Factors affecting patients' compliance to endodontic clinics in Qassim University KSA

Amer Naif Naefa Alharbi, Muhammad Atif Saleem Agwan, Syed Fareed Mohsin, Sameer Shaikh

Background: Failure to maintain an appointment at a university dental clinic impairs students' learning by occupying health resources that could be used by other patients, thereby impairing the quality of healthcare services. *Objective:* This study aimed to explore the factors of missed and cancelled appointments in endodontic clinic at Qassim University Saudi Arabia. *Methods:* A cross-sectional study was planned to collect data from patients visiting Al-Rass dental hospital. Data from patients who visited Al-Rass Dental Hospital was collected in this cross-sectional study. A self-administered questionnaire was distributed to participants using non-probability convenient sampling. The survey was designed to evaluate the factors responsible for cancelled or missed dental appointments. Data was analyzed using SPSS version 23. Percentage and frequencies were used to display the descriptive data. The Chi square was used to assess the relationship between the variables. *Results:* Among 249 patients, 218 were males and 31 were females. Data revealed that 75.1 percent of participants missed appointments, whereas 67.1 percent had canceled their dental appointments. A significant association was found between cancelled and missed appointment ($p \leq 0.00$) which showed that patient who cancelled their appointment are more likely to miss their appointment as compared to patient always attend their appointments on time. *Conclusion:* The appointment schedules at inconvenient time were the main reason to cancel or missed an appointment. Hence to reduce no-shows, patient education, convenient appointment time and frequent reminder is necessary.

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Study of renal disease using computed tomography in Taif, Saudi Arabia

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Background: Wide variable modalities and imaging techniques are used in the diagnosis of several urinary tract diseases. The availability, ease of acquisition, and diagnostic capability of CT are such that it remains the modality of choice when it comes to evaluate urinary tract diseases. *Aims:* To study renal disease using computed tomography at Taif, Saudi Arabia, and to determine the relationship between the CT finding and the patient's gender, age, and clinical finding. *Methods:* This is a retrospective study that was conducted at King Abdul Aziz Specialist Hospital in Taif from January 2022 to April 2022. Targeting patients who are presenting with flank pain, hematuria, polyuria, oliguria, and fever who were evaluated by MDCT scan. Statistics are analyzed using the statistical package for social science (SPSS). *Results:* A total of 50 participants were included in the current study, 25 (50%) of them were males, and most of them (22%) were within the age group of (29-38) years old. CT scan revealed stones in 21 (42%) of the participants, and cysts in 8 (16%). The most reported site of the pathology was found to be the left side as it dominates in about 15 (40.5%) of participants. *Conclusion:* The most abnormal findings reported on the CT scan were renal stones and renal cysts. The most common presenting symptom of renal stones was found to be flank pain and the most reported site of the pathology was in the kidney. The left side was to be found the most reported site of the pathology. Age was found to be significantly associated with pathology found in CT with stones. Males are more affected by stones than females. Researchers recommended that CT scan is better for renal pathology.

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CASE REPORT

Myocardial bridging associated with biventricular hypertrophic obstructive cardiomyopathy in the young adult patient: A case report

Van Hung Dung, Bui Minh Trang, Nguyen Ngoc Hanh

Hypertrophic obstructive cardiomyopathy is a rare cardiac disease occurring in approximately 0.2% of the population and is usually left ventricular hypertrophy associated with or without mitral regurgitation due to SAM syndrome. Medical treatment, first septal ablation with absolute alcohol or septal left ventricular myectomy is the treatment methods for this disease. We report here the surgical results of a case of obstructive bilateral ventricular hypertrophy associated with a myocardial bridging of the left anterior descending artery. Surgical unroofing on the left anterior descending artery and septal myectomy were performed.

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An unusual case of organophosphate poisoning presenting Wellens or Pseudo-Wellens pattern: A diagnostic dilemma

Jeenat Khan, Akhilesh Singh Parihar, Gajanan Umalkar, Charuta Gadkari

Organophosphate compounds such as Malathion, parathion, dimethoate, chlorpyrifos, tabun etc. Block the acetylcholinesterase enzyme, due to which acetylcholine levels increases. Organophosphate poisoning can occur after dermal, respiratory or oral exposure to organophosphate compounds. Respiratory symptoms are presented frequently in cases of organophosphate poisoning. Salivation, rhinorrhea along with bronchorrhea and bronchospasm are the muscarinic effects contributing to hypoxemia and increase in respiratory rate. Nicotinic effect causes muscular fragility and paralysis which may lead to respiratory failure. In Wellens syndrome, the ECG reveals biphasic T waves or deep inverted T waves in leads V2-V3, indicating LAD stenosis, whereas Pseudo-Wellens have a Wellens ECG pattern but normal coronary architecture. In this case a 29-year-old male patient was brought from outside hospital with alleged history binge alcohol consumption and was found in unconscious state in his farm 2 days back.

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Esthetic treatment of severe dental fluorosis using porcelain veneers: A case report

Sultan Binalrimal

Dental fluorosis is a disorder that causes tooth deformity due to excessive fluoride ingestion during tooth development. Bleaching and micro abrasion have been previously suggested as a treatment for those cases. Though studies now show its ineffectiveness, these options can be used as a transient or temporary enhancement. On the contrary, Porcelain veneers are an excellent candidate to treat these discolorations by their effectiveness in retaining the teeth's color, shape, function and biocompatibility. In this case, a 26-year-old male patient from Yemen presented to Riyadh Elm University Dental Hospital with a chief complaint of generalized teeth discoloration since childhood. This case highlights the use of porcelain veneer to treat the generalized teeth discoloration causing by dental fluorosis. The patient was delighted with the final esthetic outcomes.

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ANALYSIS

The perception of stress and coping styles toward stress among medical students

Mohamed Abd Elwahab Eltanahy, Matthew Ooi Shu Syuen, Syafiqah Nadirah Haimey, Tay Seng Key, Tong Wai Chin, Muhammad Hairi Padzil, Sherreen Elhariri

Introduction: Mental health problems are considered one of the common causes of disability in young people between the ages of 15 to 44 years. Studying medicine is well established to be not easy, as medical students are subjected to greater academic and professional stress for a longer duration compared to the general population. *Objective:* Our study aims to assess the primary coping styles and their association with the levels of perceived stress among medical students. *Methods:* It is a cross-sectional study, conducted via a self-administered online questionnaire on 341 medical students at the International Medical University in Malaysia. Perceived stress levels were assessed by the Perceived Stress Scale questionnaire while the primary coping styles were determined by the Coping Orientation to Problems Experienced Inventory. *Results:* The emotion-focused coping style exhibited 17.99% increased utilization from low to high perceived stress levels. The avoidant focused coping style exhibited 38.80% increased utilization from low to high perceived stress levels. *Conclusion:* Emotion and avoidant focused coping styles are associated with higher perceived stress levels.

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Incidence and risk factors associated with surgical site infection among patients that underwent stoma reversal at a Saudi tertiary hospital

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Background: Stoma reversal is used to reconnect the area after a colostomy or ileostomy. There are multiple post-operative complications associated with stoma reversal, most commonly surgical site infection (SSI). *Aim:* The aim is to determine the incidence rate of SSI in stoma reversal and to assess possible risk factors associated with SSI in stoma reversal patients by analyzing operative and non-operative variables. *Methods:* This retrospective cohort study was done at the surgery department of King Abdulaziz Medical City (KAMC) in Riyadh. All stoma reversal surgeries were either emergent or elective, open or laparoscopic and ileostomy or colostomy. Malignant and benign diseases were included. *Results:* Out of the 123 patients, 14 developed SSI representing 11.4%. The time to reversal was longer among patients with SSI compared to those without SSI. Significance was related to patients undergoing primary vs. secondary skin closure. *Conclusion:* There was no significance of the patient's primary disease and comorbidities and development of SSI. However, a longer time period between the stoma creation and stoma reversal and primary skin closure were associated with higher risk of SSI.

Medical Science, 2023, 27, e99ms2817

Efficacy of cognitive pragmatic treatment in adults with schizophrenia

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Objectives: The study aimed to evaluate the efficiency of cognitive-pragmatic treatment (CPT) in improving cognitive functions and pragmatic language abilities in adults with schizophrenia. *Methods:* 100 individuals with schizophrenia who fulfilled the inclusion

criteria were assigned to control (n = 25) and experimental groups (n = 75). Experimental groups received CPT for 3 months, while the control group obtained only routine care. Individuals were tested both before and after the intervention to gauge their progress also 3 months post-intervention, a follow-up evaluation was carried out. Analyses employed parametric and non-parametric statistics. *Results:* The findings revealed significant variations among groups and tests ($p < 0.001$), & interaction of groups with tests ($p < 0.001$) on two-way Repeated Measures ANOVA. Both the post-test and the follow-up assessment indicated that the experimental group had significantly higher levels of pragmatic language skills and cognitive functioning than the control group. There has been no major influence of age, gender and illness duration on the treatment outcomes by three-way ANOVA. *Conclusions:* The present study showed that CPT improved pragmatic language communication skills & cognitive functioning in adults with schizophrenia.

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Breast cancer in Saudi Arabia, clinical aspects, risk factors, awareness and preventive practices

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Background: Breast cancer is the most common form of the disease in women and the leading cause of cancer death in Western countries the most common malignancy among Saudi females. We aim to evaluate the level of awareness of Breast Cancer among females in KSA in 2021. *Methods:* Adult females at Saudi Arabia's Riyadh city's primary health centers were the focus of this cross-sectional study. The data was collected from 370 participants out of 500 who completed the questionnaire, through an online self-administered questionnaire in English and Arabic language, data collected between January 2022 and March 2022. All data was cleared, coded and entered using SPSS. P value 0.05% or less considered significant. *Result:* Out of 370 respondents, 62.2% showed a good level of awareness, while 30% showed a moderate level of awareness and 7.8% showed low awareness. The majority had a good level of awareness regarding preventive practices of breast cancer (67.6%), moderate level of awareness (22.2%) and low level (10.3%). In terms of the relationship between awareness and age, there were 230 respondents with a good level of awareness, with a moderate level of 111 respondents and 29 of respondents had a low level. Regarding the relationship between awareness and level of education (62.20%) with a good level of awareness, with moderate level (30%) and (7.80%) had a low level. *Conclusion:* Majority of participants had a good level of awareness regarding breast cancer. There is a relationship between education and level of awareness, as university education level tends to have better awareness.

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Influence of antenatal prevention on the state of the oral cavity of pregnant women

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The use of an antenatal preventive complex, which includes mineral-vitamin and probiotic preparations, during pregnancy leads to a decrease in the intensity of dental caries and an improvement in the condition of periodontal tissues in women already during the last trimester of pregnancy and after childbirth. In particular, 2.22-10.58% lower indicators of dental caries intensity according to the data of the DMF index and 68.55-74.33% lower values of the PMA index are recorded, compared to women who did not take preventive measures. The study of the oral fluid of women in the dynamics of monitoring them during the implementation of antenatal prevention measures showed an increase in its mineralizing potential, which was characterized by an increase in the total level of calcium by 17.21-39.17% ($p < 0.05$), free calcium by – 20.00-45.76% ($p < 0.05$), phosphate ions by – 8.49-12.15% and preservation of protective properties at the stage of completion of the preventive course and a year after childbirth.

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Effect of self-care module among chronic obstructive pulmonary disease (COPD) regarding home care management: A cross sectional study in Central Rural India

Pragati Alnewar, Seema Singh, Mayur B Wanjari, Amruta Kothe, Ruchira Ankar

Disease awareness is an essential factor and has been defined as knowing about disease and being aware of preventive measures and the outcome as well as lifespan; all the informatics about the condition has to be provided. Evaluating the understanding of home care management among COPD patients and examining the impact of the self-care module on their knowledge, taking into account demographic factors. The research design used in the study is one group pretest-posttest research design—a hundred COPD patients, including fifty males and fifty females. Quantitative variables were described as percentage and frequency. A structured demographic sheet revealing age, gender, residence, occupation, nutritional patterns, habits, allergies, living near an industrial area and exposure to biogas, along with a self-care module on home care management, was given to the patients with COPD as an intervention. The analysis was done using inferential and descriptive statistics. A significant improvement in knowledge of home care management was observed from the pretest to the posttest scores, indicating the effectiveness of the self-care module for COPD patients. The calculated t-value, i.e., 39.83 and the p-value was 0.001. Therefore, it can be concluded that the self-care module had a statistically significant impact on increasing the knowledge of home care management among COPD patients. A considerable number of COPD patients had a deficiency in knowledge regarding the home care management of COPD. The self-care module on home care management for COPD showed remarkable effectiveness. As a result, promoting continuous health education programs can help enhance knowledge of home care management.

Awareness and perceptions of migraine headache in Saudi Arabia

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Introduction: A migraine is a moderate or severe headache that is commonly characterized by a recurrent episode of one-sided throbbing pain. It is the second-most impairing condition in the world; nevertheless, it remains underdiagnosed. Migraine may affect approximately half of the adult population in the world. *Objective:* This study aimed to determine the level of awareness and perception of migraine headaches in both Saudi and non-Saudi individuals living in Saudi Arabia. *Subjects and methods:* This is cross-sectional study was conducted among patients with migraines or a family history of migraine headache in Saudi Arabia. A self-administered questionnaire was distributed among the targeted participants. The questionnaire includes socio-demographic data (i.e., age, gender, education, etc.), previous history of migraine headaches, treatment patterns and a questionnaire that assesses awareness about migraine headaches. *Results:* Overall, 1927 patients were involved (female 64.6% vs. male 35.4%). The most likely age range between was 18 to 25 years (39.8%). Only 6.9% of participants had a good degree of awareness, while 24.3% of respondents had moderate levels and 68.8% of respondents were defined as having poor awareness levels. High scores of awareness were found among young age groups, participants of high educational level, students, Southern residents, migraineurs and participants with a family history of migraine. *Conclusion:* The general population in Saudi Arabia lack enough awareness regarding migraine. However, better awareness can be seen more frequently among younger groups of age, educated females and people who had suffered from migraine headaches. Awareness campaigns are vital to increasing the population's understanding of this neurological disease.

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Teachers' knowledge about first aid epilepsy and seizures in Al-Qunfudah, Saudi Arabia

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Background: Epilepsy is the commonest neurological disorders and one of the oldest diseases affecting humans. Epilepsy affects 6.54 out of 1,000 people, most of them are adolescents in Saudi Arabia. Children with epilepsy live under the estimate that at any time they may not be able to function normally or participate in their normal daily activities and they also have a risk of experiencing seizure attacks at school. Thus, Teachers' knowledge about epilepsy and first aid in seizures can have a major impact on a child's health and the goal of this research is to assess the awareness, knowledge and attitudes of teachers toward the disease in Al-Qunfudah region, Saudi Arabia. *Method:* A self-administered questionnaire was distributed electronically among school teachers in Alqunfudah region, to assess primary demographic data about their knowledge regarding epilepsy, seizure first aid and post-seizure care. *Result:* Our sample included 1171 school teachers, the contributed male teachers were 32.54% and female teachers were 67.46%. The most of contributor had moderate knowledge of epilepsy and be deficient in first aid training. 88.98% recognized epilepsy as neurological disease. Our study showed marked relationship between knowledge score and qualification (P-value= 0.05). *Conclusion:* The teachers in Al-qunfudah region have moderate knowledge of epilepsy and be deficient in first aid training. We recommend more health education about epilepsy and awareness campaigns, adequate training for first aid of epileptic seizures.

Medical Science, 2023, 27, e105ms2865

Preference and attitude towards refractive errors correction methods among Qassim University students

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Background: The prevalence of refractive error is considered to be a significant health issue. It can lead to lifelong negative consequences such as unstable emotional developments and poor academic performance. It can also affect people's quality of life. This research aims to assess the knowledge and preference towards refractive error correction methods among the students at Qassim University. *Methodology:* The study is cross-sectional, online questionnaire-based study. Sample was collected from Qassim University students in Qassim region in Saudi Arabia. Data was collected from the online questionnaire platform. Questionnaire was designed by Google forms. Data was collected in excel sheet then was transferred into SPSS software for statistical analysis. *Results:* A total of 1310 students responded to the survey tool. 861 of the participants had refractive error, 722 of them had myopia and spectacles were the most preferred method of correction (72.3%). Refractive surgery was known to 660 of the participants and 454 of them were willing to undergo it. Fear of complications is the most common reason for not having the procedure (57.1%). *Conclusion:* Refractive surgery is a frequently performed procedure, but knowledge about the complications of this procedure is poor among students at Qassim University. We recommend that refractive surgical methods be introduced by physicians in order to educate students on the safety and effectiveness of this procedure.

Medical Science, 2023, 27, e106ms2874

Self-medication for acne among medical students on different academic levels in Riyadh, KSA 2022-2023 Sami Fathi Abdullah, Rasheed AM, Majed Marshad Alanazi, Yazan Jaber, Abdulrazaq Mohammed Alshammari, Khalid Issam Alhoms

The choice and application of medications by individuals to treat diseases or symptoms that they have recognized or diagnosed for themselves are self-medication. Due to the nature of medical education about acne treatment and the easy availability of acne medication, medical students are the most variable for self-medication. *Objectives:* Our study aims to demonstrate self-medication for acne among medical students on different academic level. *Methods:* A cross-sectional study was conducted among medical students at Al-Maarefa University, Riyadh Saudi Arabia. After obtaining permission from the college authority, participants were given revalidated questionnaires about self-medication knowledge, attitude and practice and were distributed to 300 medical students. The Chi-square test and one-way analysis of variance were used to evaluate the data. *Result:* The study included 301 medical students who completed the study questionnaire in which majority of the participants in the survey were between the ages of 21-23 (64.1%). 62.5% of participants were in pre-clinical studies. According to the survey data, most participants (62.8%) reported acne. In terms of self-medication, the majority of participants (56.8%) reported that they had self-medicated for their acne. *Conclusion:* Our study concluded from the study that most individuals prefer to use topical preparation rather than oral preparations to treat acne. The results of the current survey also revealed that, despite the fact that the majority of students possess information, there is a need to raise awareness among medical students about efficient methods so that they may better assist the general people.

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Cardiovascular disease risk factors among medical students at Tabuk University, Saudi Arabia during COVID-19 quarantine

Tariq Alrasheed, Abdulaziz Alwakeel, Mahmoud Alarki, Amira Alkonani, Raghad Albalawi, Mariam Shaman, Waseem Almalawi, Sumayah Alenezi

Background: The pandemic, brought on by the novel coronavirus disease (COVID-19) has affected the global population, many countries worldwide, including Saudi Arabia, imposed quarantine measures. Living in quarantine limited daily activities and increased sedentary behavior, which could increase coronary disease risk factor. To assess the relationship between quarantine and CVD Risk-Factors Among Medical Students at Tabuk University, Saudi Arabia. *Methods:* This is a cross-sectional observational study to be carried out at Tabuk University, Tabuk city, Saudi Arabia during the year 2022. A total of 255 medical students who were quarantined during the pandemic are considering in this study. A structured questionnaire was used to collect socio-demographic data, dietary patterns, actual work, sleep and smoking. All these were asked twice, once in regard to the period before the pandemic (pre-COVID-19) and the other in regard to the period during lockdown (quarantine) (during COVID-19). The SPSS was used to assess the prevalence of CVD risk-factor during quarantine between medical students. *Results:* The study included 279 participants, 62.7% were females and 37.3% were males. 93.2% of participants aged 18- 25 years old. 97.5% of participants were single. 22.4% were in the fourth academic year, 24.7% in the fifth year and 17.9% were in the sixth year. Health and weight status among participants 22.6% of participants stated their weight was that their weight was decreased during quarantine, 39.4% reported increase in weight and 27.2% reported weight stability. *Conclusion:* COVID-19 Quarantine time raised the risk of CVD in our sampled research participants as physical activity reduced and sedentary behavior rose.

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Awareness of vitamin D deficiency among the general population in Al Qunfudhah, Saudi Arabia

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Background: Vitamin D deficiency is very common globally. Previous researches revealed that both men and women suffer from high rates of vitamin D deficiency. The goal is to evaluate the level of awareness regarding vitamin D deficiency in Al-Qunfudah governorate, Saudi Arabia. *Methodology:* A six months cross-sectional study was carried out. 1228 individuals formulated an electronic questionnaire using question items from previously validated questionnaires. *Result:* The total number of participants in the questionnaire is 1228 from Al Qunfudhah, Saudi Arabia. Approximately 46% agreed fat-free diet may be a cause of vitamin D deficiency followed by 37% they don't know. About 42% they don't know that dark skin is more susceptible vitamin lack than lighter skin. A majority of participants aware that exposure to sun enhances production of vitamin D in the skin and they about 93%. 40% agreed that use of sunscreen creams may be a cause of vitamin D deficiency followed by 36% they do not know 45% aware that vegetarians are more likely to have vitamin D deficiency. Most of participants 81% aware and agree that vitamin D help to strengthen immunity and muscles. *Conclusion:* Although adults in the Al-Qunfudah Governorate had a generally acceptable knowledge about vitamin D depressed level, older participants had less. Knowledge level and educational level had a strong correlation. We advise promoting vitamin D's importance and raising people's awareness of its sources through advertisements and campaigns.

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Knowledge and Awareness about the teratogenic effects of oral Isotretinoin among women in Saudi Arabia

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Background: Isotretinoin, commonly known as 13-cis retinoic acid, is the most effective medication for treating acne. This drug's adverse effects include dry skin and mucous membranes, an elevated lipid profile and regular muscle aches. This study aimed to assess the knowledge and awareness about the teratogenic effects of using oral isotretinoin among childbearing-age women in

Saudi Arabia. *Methodology*: This is an observational cross-sectional study that was conducted between February 2022 to November 2022 in Saudi Arabia, A questionnaire was distributed online and women of childbearing age will fill it out and the sample size was estimated by using the Qualtrics calculator with a confidence level of 95% and a sample size of 384, Statistical analysis was conducted with aid of Statistical package for social sciences. *Results*: The study included 1680 female participants, 51% of study participants aged between 20 - 31 years old. 85.1% heard about isotretinoin. 71.5% know side effects of isotretinoin. Isotretinoin is currently used by 14.6% of participants. Isotretinoin was used by 7.8% of women after marriage. Contraception is recommended for 8.8% of those on Isotretinoin. In the case of a pregnancy while using Isotretinoin, 12.4% of participants were advised about the possibility of fetal congenital abnormalities. After the therapy period, 3.3% of women had a pregnancy test. *Conclusion*: Despite to the report's results, women of reproductive age are frequently unaware of isotretinoin's adverse effects.

Medical Science, 2023, 27, e110ms2901

The prevalence of eating disorders in Makkah, Saudi Arabia

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Background: Eating disorders are prevalent health conditions that affect any age, in particular adolescents. While perceived social pressure to be thin has a significant influence on disordered eating in early and middle adolescence, that in late adolescence is less well understood. Evidence suggests that the prevalence of eating problems has grown. *Methods*: A descriptive cross-sectional study was carried out to examine the prevalence of eating disorders using the EAT-26 and body dysmorphic disorder questionnaires among the general population in Makkah, Saudi Arabia. *Results*: Of the 426 participants, the prevalence of high levels of eating disorder concerns was 34.5%, problematic eating behaviour was 44.6% and the need for referral to a mental health professional was 55.9%. Body dysmorphic disorder affected 2.6% of the participants. Its prevalence differed significantly based on their age and among underweight and obese participants compared with their healthy-weighted and overweight groups. *Conclusion*: The findings underline the need to enhance knowledge of the significance of healthy eating habits and regular physical activity to improve body shape, shape perception and overall happiness.

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The influence of smartphone addiction, social media addiction and sleep quality on satisfaction with life among health care professionals in Saudi Arabia

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Current increased use of digital technology is not only modifying ways of living and communicating but is also changing social life and psychological well-being. In this study we aimed to assess the influence of smartphone addiction, social media addiction and sleep quality on life satisfaction among healthcare professionals in Saudi Arabia. Participants completed anonymous and self-administered electronic questionnaire encompassing five sections: Demographic data, Smartphone (Application-Based Addiction Scale - SABAS), (Bergen Social Media Addiction Scale - BSMAS), (Sleep Quality Scale - SQS) and (Satisfaction with Life Scale - SWLS). Out of 715 healthcare providers, 40.28% were male and 59.72% were female, with a mean age of 26 ($\pm$ 8.56) years. Most participants were working as public healthcare providers (37.48%), dentists (25.31%), physicians (22.52%) and pharmacists (14.69%). Overall, 32.6% of participants were satisfied and/or extremely satisfied and 25.3% were dissatisfied and/or extremely dissatisfied. Although the results showed no strong association with smartphone addiction, social media addiction and sleep quality on satisfaction with life, this study highlights the need to raise awareness about the impact of modern lifestyles on psychological health and mental well-being among healthcare professionals.

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Prevalence and risk factors of dry eye disease and how it is impacted by prolonged reading among senior medical students in Jeddah, Saudi Arabia

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Background: Dry eye disease (DED) is an ocular surface disorder with several causes leading to numerous manifestations. It is common among medical students. *Aim*: This study assesses the associated risk factors and prevalence of DED and how it is impacted by prolonged reading among Saudi undergraduate senior medical students. *Methods*: A descriptive online self-administered questionnaire was distributed among undergraduate senior medical students from the University of Jeddah, Saudi Arabia. Statistical Package for the Social Sciences (SPSS) version 23 was utilized to analyze the data. *Results*: A total of 121 participants completed the questionnaire. They comprised 87 (71.9%) males and 34 (28.1%) females, with a male-to-female ratio of 2.6:1. Their ages ranged from 20 to >25 years, with the majority (54.5%) aged 20–22 years and 63 (52.1%) were fourth-year medical college students. The results showed that 22 (18.2%) had mild DED (OSDI (Ocular Surface Disease Index) score 13–22), 10 (8.3%) moderate DED (score 23–32), 45 (37.2%) severe DED (score 33–100) and 44 (36.3%) had normal (0–12) OSDI scores. The male gender, age (20–22 years) and fourth-year medical college were most common with DED. Age group 23–24 was protective against DED development with relative risk 0.264 (95% CI: 0.100–0.696, $P=0.007$). Smoking and chronic disorders were not associated with DED development. *Conclusion*: DED after prolonged reading is common especially severe degree. The male gender, age group (20–22

years) and fourth-year medical students were the most affected group. Age group 23-24 was protective against DED development. Further studies need to be implemented to establish a comprehensible relationship.

Medical Science, 2023, 27, e113ms2835

Prevalence and determinants of obesity among medical students at Al Maarefa University, Saudi Arabia, 2022

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Background: Our healthcare system's future is in the hands of current medical students, the purpose of this study was to determine the prevalence and risk factors for obesity among Al-Maarefa medical students. This is significant because of society's perception of medical students, because they will be doctors in the future. As a result, we'd like to encourage the university to launch an educational program. *Objective:* Identifying the prevalence and causes of obesity among Saudi medical students at Al-Maarefa University. *Methodology:* A cross-sectional study of med students at Al- Maarefa University in Riyadh, Saudi Arabia, was done. After obtaining permission from the college administration, 450 medical students were given self-administered, pre-coded, pre-tested questionnaires. *Results:* The study included 402 med students who answered to the survey. The mean age was 22 years, with 37.79% in clinical years and 62.21% in preclinical years. 51% of participants were female, while 49% were male. *Conclusions:* 10.20% of participants were underweight, 21.39% were overweight and 13.2% were obese, according to our findings. Obesity was more prevalent among students in clinical years. Male undergraduates were more likely over female students to be obese. Obesity risk factors included age and a family history of the condition. This study discovered a high prevalence of overweight and obese individuals among medical students. This highlighted the importance of educational programs.

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Outcomes of sodium-glucose cotransporter-2 inhibitors in patients with heart failure with or without diabetes in a real-world setting: A retrospective observational study

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Objectives: Sodium-glucose cotransporter 2 (SGLT2) inhibitors demonstrated a reduction in the risk of death and hospitalization for heart failure and major renal complications in recent clinical trials. However, real-world studies are still limited, especially in Saudi Arabia. This study aims to examine the clinical outcomes of SGLT2 inhibitors in heart failure patients regardless of diabetes status. *Materials and methods:* A retrospective study was conducted at a single cardiology center in Saudi Arabia. The study spanned from July 2021 to June 2022. The study included adult patients (≥ 18 years) diagnosed with heart failure with a prior history of using SGLT2 inhibitors for at least 3 months. *Results:* A total of 45 patients were included in the study. A significant difference was detected among the diabetic and non-diabetic patient groups in baseline diastolic blood pressure (DBP), baseline left ventricular ejection fraction (LVEF) and the use of diabetic medications with ($p = 0.008, <0.001, 0.008$), respectively. SGLT2 inhibitors use resulted in a trend toward improvements in HbA1C, LVEF and ED visits however, these findings were non-statically significant. *Conclusions:* This is the first protocol to report outcomes of SGLT2 inhibitors in Saudi heart failure patients regardless of diabetes status. We detected an improvement signal in HbA1C, ED visit frequency and LVEF in both diabetic and non-diabetic groups. Larger studies are warranted to further evaluate outcomes of SGLT2 inhibitors in this patient group regardless of diabetes.

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Assessment of knowledge and practice of Carpal tunnel syndrome among pregnant and non-pregnant women in Hail region, Saudi Arabia

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Background: Carpal tunnel syndrome (CTS) is the most common median nerve compression neuropathy. Its symptoms and clinical presentation are well known Carpal tunnel syndrome (CTS) accounts for approximately 90% of peripheral entrapment neuropathy cases. By this study the level of knowledge and attitude towards carpal tunnel syndrome and treatment methods among the population of Hail in Saudi Arabia is assessed. *Methods:* A well-defined questionnaire was conceded among the general population. The study subjects include both male and female gender involving the age above 18 years. The data was collected and questionnaire was used to assess public knowledge and awareness of sciatica symptoms, causes, risk factors, complications and treatment. Duration of study was six month and after collection of data, it was analyzed using the Statistical Package of Social Science Software (SPSS). *Results:* Among 470 people involved in the study, 40.21% aged between 18 and 30 years old, followed by age group (31-40) with 37.87%, then 21.91% aged more than 40 years old. The majority were Saudi (95.96%). *Conclusion:* Patient education is crucial regarding Carpal Tunnel Syndrome. It can have a variety of reasons. Most instances of CTS are treated most effectively with conservative measures unless there is an immediate compression of the nerves. The awareness of community was less than expectation among adult population in Hail city 49% and the symptom worsen (59%) in pregnant ladies.

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Dubin-Johnson syndrome: A rare case report

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Dubin-Johnson syndrome is an inherited metabolic disorder in which the primary defect is in the MRP2 protein, which leads to an overflow of conjugated bilirubin in the blood leading to hyperbilirubinemia. It is a benign disorder that develops from a genetic defect in bilirubin pigment secretion that causes persistent jaundice and conjugated hyperbilirubinemia. Multiple cases of hyperbilirubinemia disorders similar to Dubin-Johnson syndrome were reported, but each varies in the levels of conjugated bilirubin and its response to the treatment. This syndrome's clinical cases are often misdiagnosed and mistreated as mostly the affected individuals are asymptomatic. In this clinical case report, a 23-year-old female patient was admitted to the hospital with chief complaints of recurrent jaundice and abdominal pain. Additional examination and testing revealed that she had been jaundiced from birth and had a family history of the same. She was managed conservatively and follow-up revealed a good prognosis. This article describes a case of Dubin-Johnson syndrome that is incredibly unusual. However, the patients have an average life expectancy and don't require any therapy.

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Dental and medical management of children with cerebral palsy: Case series with literature review

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Cerebral Palsy is one such condition with high prevalence in India. It is a neuromotor disorder affecting muscle tonicity and posture. Children with cerebral palsy are at high risk in developing dental problems which include high dental caries index, periodontal problems and poor oral hygiene. Providing dental care to these children requires skilled personnel and planned approach. This article presents the case report of two children (five and six years of age) diagnosed with cerebral palsy reporting to the tertiary rural health care center (RDC, Loni) with numerous dental problems. Considering the condition of the children, a full mouth rehabilitation was planned under general anesthesia's case report discusses the treatment strategies with a multidisciplinary approach followed by pre and post operative complications faced while treating the patient under general anesthesia.

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Fruitful case of Eisenmenger syndrome with ventricular septal defect in a case of pregnancy: A case report

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Eisenmenger syndrome (ES) is an absolute contraindication to pregnancy. ES is distinguished by a congenital heart defect that causes a significant anatomical shunt. Hemodynamic forces cause a left-right shunt, resulting in severe pulmonary arterial hypertension (PAH). Because of increased pulmonary vascular resistance, the shunt will eventually become a right-to-left shunt, resulting in significant hypoxemia and cyanosis. The significant maternal morbidity in individuals with Eisenmenger's syndrome, including heart failure, dyspnoea, syncope and abrupt death, is a result of the circulatory alterations that take place during pregnancy. As a result, ES is considered to be completely contraindicated during pregnancy. Appropriate ES management entails assembling a multidisciplinary team to carefully and thoroughly monitor and manage the patient, Oxygen therapy, vigorous pulmonary vasodilator therapy, and care from a specialised multidisciplinary team may reduce mortality if a woman with ES decides to carry the pregnancy to term. We present a case of Eisenmenger syndrome with ventricular septal defects with severe PAH in a 27-year-old woman who had a caesarean section at 35 weeks of pregnancy. She gave birth to a healthy baby girl. She was discharged on the seventh postoperative day with no complications.

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ANALYSIS

Awareness of Saudi diabetic adults about complications of diabetes mellitus in Hail region

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Background: Saudi Arabia has the highest prevalence of type 2 diabetes mellitus which is 32.8% and the anticipated prevalence will be 40.37% in 2025. This study intended to estimate the level of awareness of diabetic adults about complications of diabetes mellitus in the Hail region. **Materials and Methods:** A cross-sectional study was conducted in Hail region, via self-administered questionnaires for 230 participants. Diabetic patients of age 15 years or older were included. The data was analyzed using SPSS version 22. **Results:** Of the total, 20.9% had been diagnosed between 1 to 4 years ago, 27.8% within 5 to 10 years ago; while 37.8% had been diabetics for longer than 10 years. 87.4% of participants believed that diabetes mellitus has serious complications and 11.3% disagreed. 85.7% of participants agreed that high levels of HbA1c for a long time can lead to more serious complications, while 1.7% disagreed and 12.6% expressed a lack of knowledge. Most respondents (93%) thought that there is a relation between retinopathy to diabetes mellitus, 1.3% believed there is none and 5.7% did not know. 89.1% believed that patients should have a follow-up for retinopathy but 0.9% disagreed and 10% were not sure. 87.4% expressed that DM can cause neuropathy while 11.3% expressed a lack of

knowledge. 1.3% denied such a relationship. 95.2 % agreed that controlling blood sugar would decrease the complications, while 3.9% were not sure. Only 0.9% disagreed. *Conclusion:* Patients demonstrated a good level of awareness about diabetes mellitus complications in comparison to other populations.

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