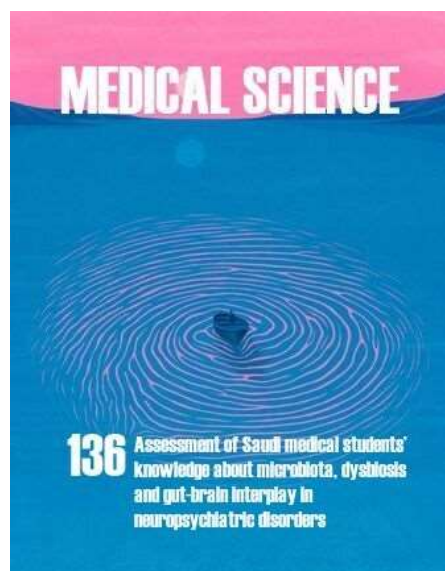


MEDICAL SCIENCE

About the Cover



Background: Gut microbiome is a vast microorganism's ecosystem that resides in the human gastrointestinal tract. Microbiota can have a complex crosstalk with the central nervous system, creating "gut-brain axis", playing a crucial role in neuropsychiatric disorders pathogenesis. *Aim:* This study aimed to assess knowledge about human gut microbiota, dysbiosis and gut-brain interplay in neuropsychiatric disorders among Saudi medical students. *Methods:* This is a descriptive cross-sectional study using questionnaires to collect the data, targeting senior medical students and interns in Saudi Arabia from November 2022 to January 2023. *Results:* Overall, our study shows that our students possess adequate general knowledge about microbiota, dysbiosis and probiotics; however, they lack sufficient knowledge regarding gut-brain axis and dysbiosis role in the context of neuropsychiatric diseases pathogenesis and management. *Conclusion:* Developing the medical curricula and adopting more modalities of learning strategies to discuss the most recent scientific advances in different medical topics are crucial to enhance medical students' knowledge acquisition, thus providing adequate recommendation to their future patients and community (Ref: El-Horany HE, Alenezi RS, Alshammari HT, Elghazally NM. Assessment of Saudi medical students' knowledge about microbiota, dysbiosis and gut-brain interplay in neuropsychiatric disorders. Medical Science 2023; 27: e242ms3050).

Compassion fatigue, burnout and compassion satisfaction among physicians in Makkah region, Saudi Arabia: A cross sectional study

Ibrahim HM Alharbi, Nawras Ali Alyamani, Dai Osama Zafer, Sarah Ahmed Munshi, Hala Tariq Jawa

Background: Burnout (BO) is a syndrome of emotional depletion, cynicism and lack of personal achievement that occurs among individuals who work continuously with people. Compassion Fatigue (CF) is a type of burnout that results of helping a suffering individual. Otherwise, Compassion Satisfaction (CS) is the professional satisfaction gained from providing care to patients. **Aim:** This study aims to determine the prevalence of Compassion Fatigue, Burnout and Compassion Satisfaction among Physicians in Makkah region, Saudi Arabia. **Methods:** An online questionnaire was distributed to evaluate the prevalence of CF, BO and CS among all physicians (Residents, Specialists and Consultants) who work in different specialties in Makkah region, Saudi Arabia. **Results:** Results showed that the physical environment at work and the clinical situation were the most common sources of distress. The prevalence of CF was 18.5%; BO was prevalent among 15.6% of physicians. And the prevalence of CS was 17.7%. **Conclusion:** This study showed an increase rate of CF, BO and reduced levels of CS among physicians. Therefore, the focus should be directed at causes, risk factors and try to minimize them.

Medical Science, 2023, 27, e241ms3020

Assessment of Saudi medical students' knowledge about microbiota, dysbiosis and gut-brain interplay in neuropsychiatric disorders

Hemat El-Sayed El-Horany, Rahaf Saleh Alenezi, Hadeel Talal Alshammari, Noha M Elghazally

Background: Gut microbiome is a vast microorganism's ecosystem that resides in the human gastrointestinal tract. Microbiota can have a complex crosstalk with the central nervous system, creating "gut-brain axis", playing a crucial role in neuropsychiatric disorders pathogenesis. **Aim:** This study aimed to assess knowledge about human gut microbiota, dysbiosis and gut-brain interplay in neuropsychiatric disorders among Saudi medical students. **Methods:** This is a descriptive cross-sectional study using questionnaires to collect the data, targeting senior medical students and interns in Saudi Arabia from November 2022 to January 2023. **Results:** Overall, our study shows that our students possess adequate general knowledge about microbiota, dysbiosis and probiotics; however, they lack sufficient knowledge regarding gut-brain axis and dysbiosis role in the context of neuropsychiatric diseases pathogenesis and management. **Conclusion:** Developing the medical curricula and adopting more modalities of learning strategies to discuss the most recent scientific advances in different medical topics are crucial to enhance medical students' knowledge acquisition, thus providing adequate recommendation to their future patients and community.

Medical Science, 2023, 27, e242ms3050

Prevalence and impact of medication overuse headache on quality of life among health college's students in Jazan University, Jazan, Saudi Arabia

Amal H Mohamed, Abuobaida Yassin, Hussain Khalid Shaykhayn, Hadeel Mohammed Y Albeishy, Ruwaym Jaber Mohammed Alharbi, Hana Mohammad Ali Homadi, Azhar Mohammed Qasem Moafa, Atheer Ibrahim Darraj

Background: Headache is one of the major health problems worldwide that impacted the quality of life. The aim of this study is to identify the prevalence and impact of medication overuse headache on quality of life among Jazan university health colleges' students. **Method of the study:** A cross-sectional study was conducted to collect data from 420 students at health colleges' in Jazan University. The study used a semi-structured questionnaire to attain the objective of the study. T-test and Chi Square were used for analysis. **Results:** A total of 614 students were enrolled in the study with mean age of 23.06 ± 3.92 years, most of them were female (63.5 %). Among the students, 57.1% of the participants reported having tension headache, while 30.5% had migraine type and 7.8% had cluster headache. The study reported that that 64.3% of the students used at least one pill daily to treat headache. The most common used medication was paracetamol (78.2%) this trend commonly seen among females (70.3%) ($P=0.00001$). There is a significant relation between medication overuse headache and satisfaction with overall quality of life ($P=0.002$, 0.003) and no significant relation with satisfaction to personal relationships and social life or with academic achievement ($P=0.073$, 0.627). **Conclusion:** The current study showed high prevalence of using analgesics for treatment of headache among health colleges' students especially females' students. Satisfaction with overall health and own energy was negatively impacted.

Medical Science, 2023, 27, e243ms3053

CASE REPORT

Hepatic hydatidosis complicating pregnancy: A clinical challenge

Nidhi Avinash Patel, Neema Acharya, Kiran Borkar, Twisha Patel

Pregnancy is an immunologically vulnerable state. Due to various physiological and metabolic changes that take place during pregnancy, female body is more prone to pathogenic infections or precipitation of already established infection. Human hydatidosis is caused by Echinococcus, Echinococcus granulosus causes cystic echinococcosis in various organs of the body and Echinococcus multilocularis causes alveolar echinococcosis. Due to decreased cellular immunity and release of corticosteroids during pregnancy the asymptomatic hepatic hydatid cyst may enlarge in size and cause complications. Therefore, early diagnosis of hepatic hydatidosis and proper management plays a vital role in obtaining good fetal/maternal outcome.

Effect of early physiotherapeutic interventions as an adjunct to surgical approach in a case of chronic femoral osteomyelitis: A case report

Tushara Nair, Kumar GP

Chronic osteomyelitis is identified as long-run infection of the bone, characterized by the sequestration, fistula and necrotic bone formation. A 27-year-old male diagnosed with chronic right femoral osteomyelitis and intramedullary abscess formation was treated with debridement and saucerization. Following surgery, he had complaints of pain over his right knee and thigh, difficulty in activities of daily living and transfers, fatigue, a lack of strength and restricted knee movements. A personalized physiotherapy protocol was formed based on the needs of the patient. The Numerical Pain Rating Scale, Functional Independence Measure and Fatigue Severity Scale were taken as the primary outcome measures. Following physiotherapy, there was definitive improvement in all the primary outcomes, including range of motion and muscle strength. Thus, early physiotherapy rehabilitation after surgery plays a major role in a successful recovery.

Medical Science, 2023, 27, e245ms3041

REPORT

Cytoreductive nephrectomy plus targeted therapy in patients with metastatic renal cell carcinoma: Our experience

Vishal Kadeli, Mahesh Kalloli, Shridhar C Ghagane, Nerli RB, Rangrez Shadab, Murigendra B Hiremath

Introduction: Renal cell carcinoma presents with metastatic disease in approximately 30% of cases. Since the introduction of targeted therapies, they have demonstrated impressive gains in overall survival, progression-free survival and response rates over the previously utilized immunotherapies in cases with mRCC. The rates of cytoreductive nephrectomy have declined since the introduction of targeted therapy. We report our experience with cytoreductive nephrectomy plus targeted therapy. *Materials & Methods:* We retrospectively collected the hospital inpatient and outpatient records of mRCC who had undergone cytoreductive nephrectomy trailed by targeted treatment. Data included demographic, clinical, imaging and laboratory data and those that were found to have prognostic value. Measured outcomes included OS. *Results:* 78 patients (61 males and 17 females) 60.17± 8.76 years was mean age who underwent cytoreductive nephrectomy for mRCC of clear cell type. 43 (55.1%) patients had comorbidity. 78 patients had huge renal masses (mean 10.167±2.756 cms) on CT imaging. All patients were introduced on target therapy four to eight weeks after surgery. The mean overall survival of the patients was 27.98±1.47 months. *Conclusions:* Presently the important role of cytoreductive nephrectomy is not well defined in the era of targeted therapy. However, in our study patient with good performance statuses do better than patients with existing health risks.

Medical Science, 2023, 27, e246ms2668

Normal reference values of Caton Deschamp ratio in knee joint for patellar height in Indian population

Priya Potdukhe, Sandeep Dhote, Avinash Dhok, Ameen Ansari

Background: The patella, which is located in the quadriceps tendon, is the biggest sesamoid bone in humans. The most essential factor in determining patellar stability is patellar height. Hence, various ratios were created to determine the normal values of height of patella. Squatting position is commonly used practice in Indian population. The aim of our study was to ascertain the normal reference values of the Caton Deschamp ratio in the Indian population and to find if any significant difference exists for Indian population as compared to Caucasian population, which can be used as a baseline for reporting patella alta and patella baja. *Methods:* This was retrospective research that used 200 normal lateral radiographs of Indian knee joints. Visualization of the tibial insertion is better in 30° flexion of knee. The Caton Deschamp ratios were calculated. *Results:* The mean Caton Deschamp ratio for Indian population is 0.80 ± 0.21 which in comparison to the Caucasian values (patella baja: <0.5, normal: 0.8, patella alta: >1.0) were similar (P >0.05). *Conclusion:* No statistically significant difference was found between the normal reference values of Caton Deschamp ratios among different human races and hence these values can be used for restoring knee kinematics in diseased states irrespective of the race.

Medical Science, 2023, 27, e247ms2968

ANALYSIS

Blood transfusion knowledge among nurses in Karima: Teaching hospital experience

Manal A Ahmed, Rasha Sidahmed El Hissiene Hammed, Sara Elsadig Ibrahim Mohamed, Suheir AM Sayed, Nahla Ahmed Alkhalifa Ali, Salwa Ali Mouse Mohamed

Background: Blood transfusion is a crucial and prevalent medical treatment that involves administering transfused blood and its components to save a patient's life. *Objective:* To assess blood transfusion knowledge among nurses at Karema teaching hospital and determine the factors associated with the knowledge level. *Methods:* Across-sectional descriptive study was carried out from January to March 2023, involving 53 participants, the chosen participants by using total sampling method. Data collection using questionnaire was entered into SPSS version. Utilizing frequency tables and graphs, analysis was performed. *Results:* The current study revealed that, most all nurses had diploma degree with 50.9 percent. And that is 38 nurses did not attend a course before about blood transfusion with 71.7. Questions that received high scores were focused, medications that should be given to the

patient when complications occur during blood transfusion 100 percent and solution that can be given with Blood 100 percent, where as those the low scored symptoms indicate an allergic reaction 9.4. Only the association between the nurses' knowledge score and years of experience was statistically significant ($P = .019$). *Conclusion:* Evaluating the general quality of blood transfusion knowledge across different fields was suboptimal and needed to enhance. Therefore, it is advised that through Nurses' knowledge and skills in this area should be increased through in-service training and courses on blood transfusion.

Medical Science, 2023, 27, e248ms3013

Rhomboid muscle spasms among the population of Saudi Arabia

Abdulmalik B Albaker, Daifallah Mohammed Alharbi, Ali A Al Ghufaily, Sultan K Almisfer, Yousef M Alobaysi, Waleed K Alghuyaythat, Marwan S Alshehri

Background: The objective of the study was to study Rhomboid muscle Spasms among the population of Saudi Arabia. *Methods:* This cross-sectional study was conducted in different regions of Saudi Arabia. Individuals aged above 18 years of age were selected by cluster random sampling technique. The data was collected by filling out a pre-designed online questionnaire. *Results:* A total number of 316 participated in the study; among which there were 61% males and 39% were females of age group of 18-30 years. Rhomboid muscle spasm (RMS) was reported among 188 (60%) of the participants. Over a third (36%) had spasms at least once a year and nearly half (42%) had them at least once a month. Wrong sitting posture (cited by 86%), mental or emotional stress (36%), and lifting heavy weights (24%), were cited as the most common causes of these cramps. The general practices for the treatment of spasms reported by the patients were use of topical muscle relaxant 60%, 32% of them used painkillers and 32% applied warm or cold compresses to the area. *Conclusion:* There is a high prevalence of rhomboid muscles spasm among the population of Saudi Arabia. Rhomboid muscle spasm is frequently misdiagnosed among adults due to the subtle medical diagnosis and precise anatomical localization of the rhomboids.

Medical Science, 2023, 27, e249ms3025

Educational program effects on knowledge, attitude and performance of parents of thalassemia children: A quasi-experimental study

Mahla Lotfi, Mozghan Rahnema, Elaheh Asadi-Bidmeshki, Abdolghani Abdollahimohammad, Mahin Naderifar

Objectives: Most of the parents of thalassemia children do not have sufficient knowledge and proper attitude and performance in facing the process of their child's disease. One of the ways to reduce the problems of thalassemia patients is to improve the knowledge, attitude and performance of their parents to manage preventable problems through educational programs. Therefore, this study evaluated the impact of the teach-back care program on the knowledge, attitude and performance of parents of children with thalassemia. *Methods:* Sixty-two parents of children with β -thalassemia in Zabol, Iran participated in this quasi-experimental study. The samples were randomly assigned into intervention and control groups. A demographic questionnaire and a knowledge, attitude and performance scale for thalassemia patients were used for data collection. *Results:* The results of independent t-tests did not show a statistically significant difference in the knowledge and attitude scores before the intervention in the two intervention and control groups ($P \geq 0.005$). But after the intervention, a statistically significant difference was observed between the knowledge and attitude scores in the two groups ($P \leq 0.001$). Mann-Whitney U test, there was no statistically significant difference in the performance mean scores before the intervention in the two interventions and control groups ($P \geq 0.005$). However, after the intervention, a statistically significant difference was observed in the mean performance scores between the groups ($P \leq 0.001$). *Conclusions:* The results suggest the effectiveness of the teach-back method in improving the awareness, attitude and performance of parents of children with thalassemia in line with the implementation of their children's care plan.

Medical Science, 2023, 27, e250ms3033

Impact of emergency department ultrasound in diagnosing patients with right upper quadrant pain in a tertiary hospital in the Kingdom of Bahrain: A cross-sectional study

Taif Najeebi, Lina Aljailani, Horeya Falamarzi, Salah Alghanem

Introduction: Patients presents to the emergency department commonly with complaints of right upper quadrant pain. Ultrasound is widely used in diagnosis; thus, emergency physicians should be able to interpret bedside ultrasound results for optimal patient management and outcomes. *Aim:* This study aimed to determine the diagnostic accuracy between emergency and radiology physicians in patients complaining of right upper quadrant pain in Bahrain Defense Force Hospital, Kingdom of Bahrain. *Methods:* Following a one-day abdominal ultrasound skills workshop, 10 emergency physicians performed bedside ultrasound examinations on patients presenting with right upper quadrant abdominal pain at the emergency department. The emergency physicians' diagnoses were compared with those of the radiology department. *Results:* The emergency physicians had 62.5% accuracy. In 9 cases, they had 100% accuracy and 6 got the lowest accuracy (37.5%–50%). Regarding the ultrasonographic findings, the highest accuracy (over 80%) was in detecting gallstones and the lowest (67.3%) was for distended gallbladder. The physicians could identify over 80% of the cases accurately. *Conclusion:* The ability of emergency physicians to perform and identify the ultrasound within a short training period raised the need for more professional training courses to improve the outcome by reducing the time needed for diagnosis and initiating management and treatment.

Medical Science, 2023, 27, e251ms2949

Prevalence of depression and its associated factors among elderly. Cross sectional study in health cluster two, Saudi Arabia, Riyadh

Bashaer A Alzahrani, Abdulaziz A Alodhayani, Faris A Alzahrani, Faisal F Alotaibi

Background: Major Depression Disorder (MDD) is considered one of the challenging issues to diagnose in elderly due to its atypical presentation in this particular group of age. This issue can be easily missed or under diagnosed. Ignoring this issue can lead to unfortunate consequences. Besides, limited studies were found regarding the prevalence of depression and the associated factors in elderlies globally and locally. *Methodology:* This is a cross-sectional study that was conducted in Riyadh, the capital of Saudi Arabia using self-administrated paper-based questionnaire. Short version of Geriatric Depression Scale (GDS-15) questionnaire was used to assess the prevalence and severity of depression among the participants. *Results:* In this study, we were able to collect data from 402 participants aged more than 60 years old. Moreover, 92.8% of them were Saudi Arabian and 58.6% were males. According to the Geriatric depression scale, it was found that 71.6% of the participants in the current study were detected to have features suggestive for depression. It was found that age did not significantly affect the prevalence of depression ($P=0.198$), neither nationality ($P=0.910$), gender ($P=0.944$), nor education ($P=0.106$). Married, employed and those living with families reported significantly lesser prevalence of depression. *Conclusion:* The current study reported high prevalence of depression among elderly participants receiving care at Riyadh's Primary Health Care Centers - second cluster. Assisting elderly population to get jobs and being financially secure may contribute in lowering the level of depression, in addition to other factors.

Medical Science, 2023, 27, e252ms3007

Knowledge, beliefs, attitudes and awareness level towards bipolar disorder among Saudi population: A national survey

Dalal Mohammed Albakr, Feras A AL-Awad, Mohammed Almaslami, Yousef Alshaikh, Norah Almudaymigh, Majed Bin Dayel, Nidhal Rasheed Al-Muhanna, Amar Hussain Alsubaie, Khames T Alzahrani

Background: Bipolar disorder is a mental disorder characterized by cycle patterns of depression and the condition in which patients increase their level of activity or energy, mood or behavior (mania) or hypomania. Although bipolar has not been fully understood until now, it is established to be one of the most disabling mental disorders. Our aim is assessing knowledge, attitude, beliefs and awareness level towards bipolar disorder among Saudi populations. *Methodology:* This is a cross sectional survey among Saudi general population. Data was collected by means of an online questionnaire. Males and females in Saudi Arabia between the ages of 17 and 65 who are willing to get involved in this study were enrolled. A scoring system was adopted to evaluate KAP of bipolar disorder among study participants. Data was analyzed by using version 26 IBM. *Results:* The study included 869 participants, 59.5% of them were males and 40.5% were females. 63.4% of participants aged between 17- 25 years old. 81.8% of studied sample have heard about bipolar disorder before. Source of information was cited as internet in 32.9% and social media in 29%. Bipolar disorder is frequent in Saudi Arabia, according to forty-nine percent of participants. 362 individuals (50.9 percent) had high knowledge, attitude and practice (KAP) about bipolar disorder, whereas 49.1 percent had poor KAP scores. *Conclusion:* The level of awareness was shown to be significantly related to marital status. Awareness initiatives are needed to educate the Saudi public about bipolar disorder.

Medical Science, 2023, 27, e253ms3077

Awareness of Cluster Headache among students of Hail University

Walid Alesefir, Muath Alshammari, Abdullah Almuwaysi, Turki Alshammari, Yousef Alanazi

Introduction: Cluster headache (CH) needs to be better studied in our region, given the absence of previous literature in Saudi Arabia regarding awareness of this rare disease. Furthermore, CH is one of the leading causes of life disability. Therefore, we looked to increase CH awareness among students at Hail University. *Method:* We used a cross-sectional study prospectively studying the awareness of CH among Hail University students by an electrical form questionnaire; our study aimed to improve the understanding of CH among Hail University students and secondly to measure the prevalence of CH in our university. *Result:* The study survey was completed by 400 students in total. 32.8 percent of the candidate has heard about CH. Only 86 (21.5%) of the subjects experienced CH. Compared to 17.7% of male students, 25.7% of female students reported having an attack at least. A precise 158 (39.5%) students attended medical colleges, while 242 (60.5%) attended non-medical institutions. *Conclusion:* We found a low level of awareness among Hail University students. We ultimately concluded that to improve Hail University students' knowledge of the disease more effectively, we needed to raise their degree of awareness. Although it's one of the region's first studies, more studies must follow to confirm our results.

Medical Science, 2023, 27, e254ms3054

Anatomical variations and the correlation between hand and forearm superficial vein types among medical students

Mustafa Kandil, Waleed K Aljohani, Mohammed Fahad Aloufi, Naim Zaknoun, Abdulaziz Hassan Alraddadi, Rand A Rasheed, Bana Jeha, Abdullah A Alkurdi

Background: Veins are blood vessels that transport deoxygenated blood to the heart. Because they convey oxygen-rich blood from the lungs to the heart, pulmonary veins are an exception. There are several types of veins in our body, comprising deep veins, superficial veins and connecting veins; Phlebotomy is the use of a needle to withdraw blood from a patient. Identifying the vein's location and the pattern will aid in providing better healthcare services to patients while reducing the risk of complications. *Aim:* Our study aimed to address the vein types and patterns among students in AL-Madinah Al-Munawwara. *Method:* This was a cross-sectional observational study among 207 participants; vein images were captured using a digital camera after applying a tourniquet

above elbow joints. *Results:* Out of the 207 participants, vein types 2, 3 and 4 were the most reported ones among the sample; the pattern of the vein types also varies; the common ones reported were types b, c and a and there was an association between vein types and pattern in both arms and it was consistent in both hands. *Conclusion:* In conclusion, our study investigated the vein types and patterns yielded a better understanding of veins nature among students; these outcomes shall improve healthcare services provided to the patients.

Medical Science, 2023, 27, e255ms3062

Prevalence rate assessment of impacted canine among patients with peg shape lateral incisor in Saudi Arabia

Hussain Y A Marghalani, Salma Shahin, Horia Alghanmi, Abdulmohsen Alahmari, Sultana Alshammry, Hind Alserhan, Abdulmajeed Alaamri, Dhuha Alshaikh, Ammar Wali, Abeer Alanazi, Muath Saeedi, Almaha Alniami, Khames T Alzahrani

Background: In orthodontic facilities, maxillary canine impaction is a common clinical condition. The objective of this study will be to assess the prevalence of impacted canines among orthodontic patients with peg shape lateral in Saudi Arabia. *Methodology:* In this questionnaire-based cross-sectional study, was enroll orthodontists, dental interns and dental general practitioners to assess the prevalence of peg-shaped lateral incisors and impacted canines among orthodontic patients in Saudi Arabia during the period of August 2022 to March 2023. Orthodontists, dental interns and dental general practitioners will be invited to participate in this study. *Results:* The research enrolled 1522 citizens, with 53 percent of them working as general dentists; thirty-seven percent were dental interns and 16.3 percent being orthodontists. Canines were affected in 79.8% of cases. In 65.3% of cases, a panoramic radiograph was utilized for diagnosis, whereas cone-beam computed tomography was employed in 21.6 percent. Canine impaction was reported to be unilateral in 74.6% of subjects and bilateral in 25.4%. There was a significant association between diagnosis of impacted canines with profession of the medical practitioner, their gender and years of experience. Also, a significant association was noted with patients' gender and age ($P < 0.05$). *Conclusion:* The investigation demonstrated a significant frequency of impacted canines in Saudi patients. The right side was hit more frequently than the left side. Males had lower impactions than females. To avoid malocclusion and to maintain a healthy, normal dentition, which would enhance masticatory functioning; early diagnosis of impacted teeth should be done.

Medical Science, 2023, 27, e256ms3068

CASE REPORT

Effect of proprioceptive exercises on balance and kinesiophobia in a patient with bilateral total hip arthroplasty: A case report

Tushara Nair, Kumar GP

Total hip arthroplasty (THA), done as a result of idiopathic avascular necrosis damages the joint proprioceptors which leads to impairments in proprioception, balance and increase in the fear of movements that is kinesiophobia. A 42-year-old male, diagnosed with bilateral avascular necrosis was operated in the form of bilateral THA. The patient came to the physiotherapy outpatient department of Dhiraj General Hospital after one and half months with complaints of pain over the recently operated hip joint during sit-to-stand activities, fear of fall and difficulties in walking. A physiotherapy rehabilitation protocol was formed and personalized according to the needs of the patient. Berg Balance Scale, TAMP scale for kinesiophobia and hip joint proprioception were taken as the primary outcome measures. This study concludes that proprioceptive exercises following THA help decrease kinesiophobia, improve balance and joint proprioception.

Medical Science, 2023, 27, e257ms3049

Management and rehabilitation of rhino-orbito-cerebral mucormycosis in immuno-compromised patient- post COVID-19 – deterioration of deteriorated

Sri Lekha Rao, Archana R Thool

A 27-year-old male with seropositive status came to ophthalmology OPD with complaints of swelling on medial side of left medial canthus and left lid edema since 2 weeks followed by diminution of vision in left eye since 8 days. History of complete loss of vision in left eye since 7 days. All necessary precautions were taken while examining and performing the surgical procedures. All necessary investigation was done. Patient was diagnosed with Mucormycosis infection which is more common among immunocompromised patients. Exenteration followed by prosthetic eye implantation was done along with necessary medical management. Follow-ups were done at regular intervals.

Medical Science, 2023, 27, e258ms2844

REPORT

Short term functional outcome of transforaminal epidural steroid injection in the treatment of lumbar disc prolapse

Niranjan Raghavn Muralidharagopalan, Damodharan Vasudevan, Abin Mahmood Nizar

Introduction: Low back ache is one of the most common causes of physical constraints at work, affecting around 80 percent of the population. Mechanical low back ache and disc prolapse are more seen in younger population while lumbar spinal stenosis and lumbar spondylosis are more common in middle-aged and older patients. The purpose of the study was to determine the short-term functional outcome following Bupivacaine & Triamcinolone through transforaminal route in chronic disc prolapse. Time

between onset of symptoms and injection ranged between 2 -12 months. *Methodology:* A prospective study of 30 patients with chronic low back ache with radiating pain who were well distributed based on age, sex, gender, radiating side and root involved. Patients were treated by transforaminal epidural injection under fluoroscopy guidance with combination of Triamcinolone and bupivacaine. *Results:* Post injection, functional outcomes were evaluated using VAS, LBPRS and ODI score at 2 weeks, 6 weeks, 3 and 6 months. *Conclusion:* In our study, there was a statistically significant improvement in the 6-month post TFESI VAS score, ODI score and LBPRS scores compared to the baseline. In conclusion, bupivacaine with triamcinolone is safe and effective in the treatment of chronic disc prolapse patients.

Medical Science, 2023, 27, e259ms3064

Association between sleep quality and cardiovascular diseases risk among general population of Makkah region, Saudi Arabia

Ahmed Jafar Khusayfan, Abdullah Eid Alharbi, Abdullah Saad Alharbi, Albraa Jameel Khayyat, Fadi Luaai Qutub, Omar Furayj Alharbi, Bassam Abdullah Saati, Mokhtar Mahfouz Shatla

Background: Cardiovascular diseases (CVDs) are a category of illnesses that affect the heart and blood vessels and are the major cause of death and morbidity globally and locally in Saudi Arabia (SA). Risk factors for developing CVD include hypertension, diabetes mellitus, obesity and others. Sleep has an important physiological, physical and psychological role and disturbance in sleep quality or quantity is associated with adverse health effects, such as hypertension and obesity. This study aims to look for the association between sleep quality and CVD risk. *Methods:* In this cross-sectional study, Makkah's general population was given an online survey from June 2022 to August 2022 to complete. An adequate statistical analysis was performed once the data was collected. *Results:* The study shows that sleep quality scores would decrease in hypertensive participants ($B = -1.08$, $p\text{-value} = 0.073$, Lower confidence interval (CI) = -2.27), in participants eating fatty food ($B = -0.85$, $p\text{-value} = 0.008$, Lower CI = -1.48) and in participants who breathe more than normal during exercise ($B = -2.02$, $p\text{-value} = <0.000$, Lower CI = -2.49). *Conclusion:* Poor sleep quality is associated with an increase in CVD risk, such as hypertension and fatty food consumption. However, maintaining proper sleep duration and quality could serve as prevention for developing hypertension.

Medical Science, 2023, 27, e260ms3078

ANALYSIS

Prevalence and clinical aspects of post COVID-19 infection complications among population of Jeddah, Saudi Arabia

Fathi El-Gamal, Ahmed Jiman, Mohammed Aljabri, Hussam Aljuhani, Asem Fadel, Nawaf Aljedaani

COVID-19 could lead to several extra-respiratory system specific manifestations and complications. This study aimed at exploring the occurrence and determinants of post COVID-19 infection complications among the population in Jeddah city. It was a cross section study where a convenient sample of 367 subjects from the population of Jeddah city was selected. They were asked a questionnaire which provided responses on personal and socio-demographic characteristics, as well as on clinical aspects and complications of post COVID-19 infection. The SPSS (IBM, P/C, ver 25) was used to analyze the data. Logistic regression and Chi square tests of significance were employed. The level of significance was 0.05. Although 96% of the subjects were vaccinated by COVID-19 vaccinations, 50% got the infection. Having chronic morbidity was significantly associated with catching the infection. Those with hypothyroidism were about 3times more likely to catch COVID-19 infection ($OR = 3.297$; 95 CI: 1.062, 10.237 and $p < 0.039$). Vaccination by Pfizer vaccine gave more protection than other vaccine types. Completion of vaccine doses was significantly associated with decreased occurrence of COVID-19 infection. Majority of the cases were diagnosed by PCR analysis. Post COVID-19 infection complications were persistent fatigue, arthritis, headache and loss of smell and taste. Depression, anxiety, brain fog, dysrhythmia and dyspnea and lung fibrosis were also reported by older subjects. COVID-19 is a highly contagious disease. The available vaccines do not confer solid protection against it.

Medical Science, 2023, 27, e261ms3063

Prevalence and determinants of Allergic Rhinitis among the population of Jeddah Saudi Arabia

Fathi El-Gamal, Kameelya Alsulaimani, Layan Alkarimi, Khadija Alnasif, Abdullatif Maimny, Ahmed Mohammed-Hussain

The clinical aspects of allergic rhinitis (AR) and its impact on the quality of life of the population in Jeddah city were studied in a cross-section study of 650 subjects. Validated questionnaires on AR and quality of life were used. AR was encountered among 37% of the subjects. Socio-demographic characteristics, family and personal history of allergy were significantly associated with having AR. Skin rash, asthma and eczema were significantly more common among subjects with AR. Nasal blockage, sneezing, runny nose, headache and itching of the nose were common symptoms of AR. The knowledge of the patients on predisposing factors, symptoms and signs, prognosis and treatment of AR was inadequate. AR is a chronic morbidity that affects the quality of life of the subjects.

Medical Science, 2023, 27, e262ms3083

Perception of postpartum depressive symptoms and associated risk factors. A study in the women of Hail, Saudi Arabia

Naveed Iqbal, Lamya A Alshammari, Sarah Al Barrak

Postpartum Depression (PPD) is an episode of mood disorder that occurs within four weeks after delivery. It's a major health problem affecting the mothers after childbirth. *Objectives:* The objectives of this study are to determine the knowledge and perception of PPD in the women of Saudi Arabia and its association with different risk factors. This study was conducted in Hail

from December 2022 to February 2023 and sample size was 316. The data was collected on a pre-designed questionnaire, from mothers aged 20-45, with no known psychiatric illness. The questionnaire includes demographics, number of children, mode of delivery, loss of close family member during pregnancy, family support during pregnancy, abusive partner and bad obstetrical history. The symptoms used in the study taken from Edinburgh scoring system. The data was analysed to see the knowledge and perception of postpartum depression and association with different risk factors. *Conclusion:* The study showed strong association of numerous risk factors in the women who experienced different depressive symptoms during their postpartum periods, although they were not diagnosed with any psychiatric illness. It will provide the foundation for health care providers to do early screening in woman high risk for postpartum depression.

Medical Science, 2023, 27, e263ms3022

CASE REPORT

A Rare case of thrombosed cavernous hemangioma in the right arm of a child: A case report

Chaitanya Kumar Javvaji, Amar Taksande, Jayant Vagha, Revat Meshram

A cavernous hemangioma happens when capillaries small blood vessels that connect arteries and veins – swell and form a noncancerous mass called an angioma. In reality, cavernous hemangiomas are slow-flow venous malformations, not true vascular tumours. They are categorized as hamartomas. According to reports, Vascular Malformations can manifest itself anywhere, including the skin and subcutaneous layers of the head and neck, face, limbs, liver, gastrointestinal tract and even the thymus. Here we report a rare case of thrombosed cavernous hemangioma over the right arm in a 7-year-old since birth, discussing the diagnostic aspects and treatment modalities of such a lesion. This is the first report of its kind in English literature, to the best of our knowledge.

Medical Science, 2023, 27, e264ms3048

ANALYSIS

Risk factors, diagnosis and management of primary angle-closure glaucoma after cataract surgery: A systematic review and meta-analysis

Anunya Deewijit, Jing-Min Guo, Jun-Ming Wang

Background: The world's most common reason for blindness is primary angle closure glaucoma (PACG) and treatment trends are changing. The development of anterior segment imaging has improved our understanding of pathophysiology and made it possible to monitor treatment modalities more accurately and objectively. This study investigates the risk factors, diagnosis and treatment strategies associated with PACG after cataract surgery. *Methods:* A systematic review using the PRISMA approach has been applied to ascertain the objective. *Results:* This study has identified 20 most relevant papers which presented the recent outcomes of PACG, its risk factors, diagnosis and management after cataract surgery. This study reveals several risk factors responsible for PACG, such as age, gender, ethnicity, ocular biometry and genetics. Most studies used a gonioscopy method, ultrasound bio microscopy (UBM), AS-OCT, SPAC and visual-field loss for PACG diagnosis. *Conclusion:* Cataract surgery offers the chance to treat many diseases with a single procedure in PACG, including enhancing vision, lowering IOP, minimizing IOP fluctuation, lowering medication requirements, removing a narrow-angle and raising GQL-15 scores. Nevertheless, the increasing frequency of cataract surgeries could potentially influence the occurrence of PACG.

Medical Science, 2023, 27, e265ms3030

Incidence and risk factors of retinopathy of prematurity in Medina city, Saudi Arabia

Majed Tale'a Alharbi, Abeer Habeeb Almutairi, Mohammed Ghazi Alsaedi, Haneen Omar Alhujaili

Retinopathy of prematurity (ROP) is the most common cause of childhood blindness. It is a proliferative retinopathy of premature, low birth weight (BW) infants. This study aimed to report the incidence and risk factors of ROP in premature infants in Medina, Saudi Arabia. The data of premature infants recorded between January 2019 and December 2022 were reviewed. Gender, gestational age, birth weight, Apgar score, length of hospital stays, existence of systemic disorders, congenital anomalies, quantity and duration of oxygen therapy, presence of ROP, severity and location were all gathered and examined. *Results:* Among 101 premature infants, 25.74% had ROP and 65.4% had bilateral presentation. Patients who developed retinopathy had a lower gestational age and BW ($p < 0.001^*$) than those who did not develop retinopathy. Moreover, they had statistically lower Apgar scores at 1 min and were exposed to longer duration of oxygen therapy ($p < 0.05^*$) than patients who did not develop retinopathy. *Conclusions:* The incidence of ROP was 25.74% and low BW and low gestational age were independent main risk-factors for ROP development.

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Tobacco use and secondhand smoking among pregnant women in Al-Madinah, Saudi Arabia

Maha Almutairi, Nouf Alkalbi, Zahrah Alsharif, Mohamad Almotairy, Ayman Almotairy, Abdulmohsen Al-Zalabani

Objectives: This study investigated the prevalence of tobacco smoking and second-hand smoking among pregnant women in Al-Madina, Saudi Arabia, as well as the factors associated with it. *Method:* A cross-sectional analytic study was conducted on 534

pregnant women who attended antenatal care units in 10 primary healthcare centers in Al-Madina in 2022. The mothers completed a self-reported questionnaire that collected data on socio-demography, tobacco use and second-hand smoking. *Results:* Active smokers among the pregnant women were 9.2% and 46.8% were second-hand smokers. A significant association was found between being a passive smoker and having the highest level of education as secondary school (odds ratio (OR) = 2.36; confidence interval (CI) = 1.53-3.66) as well as between being employed and the probability of being a smoker (OR = 4.3; CI = 2.10-9.02). Only 25.4% of the participants were asked about smoking history during their clinical visits over the preceding 12 months. *Conclusion:* Public health education should be given to pregnant women and their husbands about the harmful effects of smoking during pregnancy, to develop a smoke-free environment at home and to promote smoking cessation among them.

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Assessing disability and quality of life among migraine patients: A single center study using MIDAS and SF-36 questionnaires in Jeddah, Saudi Arabia

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Background: Migraine is characterized by painful headaches lasting 4-27 hours and accompanied by nausea and disturbed vision. It is considered the seventh major factor for living with disability. *Aim:* This study aims to assess quality-of-life (QoL) impairment and disability among chronic migraine patients in King Abdulaziz Medical City, Jeddah, Saudi Arabia. *Methods:* A descriptive cross-sectional survey was conducted from October to December 2022. Data was collected through phone interviews using: The Short Form-36 (SF-36) and Migraine Disability Assessment (MIDAS). *Results:* 103 out of 202 patients were already diagnosed with migraine, with 64.1% being females. The mean age of participants was 36.7 years. Significantly, there was a negative association between MIDAS and QoL components except for the limitation of emotional problems ($P=0.063$), whereas the highest negative correlation was overall QoL ($r=0.487$). Females had the lowest QoL scale ($P=0.001$). There were no notable variations in QoL by age category ($P=0.621$) and educational level ($P=0.085$). *Conclusion:* The results highlight the essential of monitoring QoL domains as an important factor in managing migraine patients to minimize the disability it imposes on their everyday life.

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The prevalent practice and attitude toward neonatal danger signs among mothers in Eastern Province, Saudi Arabia

Ali Tawfiq Alamer, Mohammed Ali Alshayeb, Hassan Nassir M Bumejdad, Kadhem Hussain Alhaddad, Mohammed Saeed Alramadan, Jalal Khaled Aldandan, Ahmed Eissa Aleissa, Ali Ameer Al Mohammedsaleh, Mohammed Hussain Al Ali, Raghad Yousof Alturaifi, Fatimah Mohammed Ahmed Alshakhs, Sawsan Sami Albattat, Zainab Hussain Buzaid, Fares Ahmad Al Fares, Sirar Ahmad Alali

Background: Neonatal danger signs were recommended by World Health Organization (WHO) and United Nations International Children's Emergency Fund (UNICEF), which categorized new-borns at higher risk of morbidity and mortality. Reporting any of these signs requires early detection. Appropriate and suitable care-seeking is crucial to improve neonatal health and survival. *Methodology:* In Saudi Arabia's Eastern Province, cross-sectional online research (based on a survey) was carried out. During the research period January to March 2023, the study targeted all mothers and neonatal caretakers in the Eastern province. Following a thorough literature study and expert consultation, the researchers created an online electronic questionnaire for collecting the data. *Results:* There were a total of 1664 neonate caregivers, of which 1609 (96.7%) were mothers and 55 (3.3%) were nannies. The ages of the participants ranged from 18 to over 40 years. The most well-known danger signs among study participants were convulsions (81.6%), new-born child abstains from breastfeeding completely at birth or later (73.6%), High temperature of more than 37.5 C (67.6%), rapid breathing (66.9%), inflammation signs (66%) and jaundice (64.2%). Twelve hundred eighty-seven (77.3%) of the study participants reported that their new-born infant exhibited one of the danger sign symptoms. *Conclusions:* The current study revealed that approximately two-thirds of mothers and caregivers were aware of their new-born's danger indicators, particularly convulsions and breastfeeding difficulties. Additionally, three-quarters of the mothers/caregivers observed at least one neonatal danger sign.

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Assessment of the extent, causes and prevalence of aspirin resistance among Saudi and Egyptian patients: A comparative study

Madiha Rabie Mahmoud, Amal Fahad Sadon Aljibreen, Sham Thuwaini Marzouq, Alshammari, Sherif Gad Abdelaziz, Osama G Abdelaziz, Fahmida Khatoon Zahid Balouch, Ahmed Fathy Abdou Abbas

Background and Aim: Aspirin (antiplatelets) was significantly effective as anticoagulant in reducing cardiovascular disease (CVD) morbidity and mortality. Aspirin resistance was reported by some studies so; the aim of this study is to assess the aspirin resistance prevalence and the causes of this resistance in patients among Saudis and Egyptians. *Methods:* This study will be carried out among Saudi and Egyptians with previous strokes or thromboembolism and using aspirin as anticoagulant through interview containing some questions about the reasons for refusing aspirin, degree of satisfaction of aspirin as anticoagulant and the signs of aspirin un-efficacy. *Results:* There were 786 participants in total, the majority of them were women (414 were from the KSA and 372 were from Egypt). Aspirin use was common among both countries and the majority of them for their metabolic disorders. Only 7.0% & 9.9% of Saudis & Egyptians switched from aspirin to other anticoagulants due to aspirin inefficacy (1.2% & 1.1%) or bleeding (1.2% & 2.2%), or gastric ulcer (1.7% & 2.7%) or sensitivity (2.7% & 4.0%), respectively. Most participants were strongly in favor of using aspirin as an anticoagulant. *Conclusion:* We can conclude that low percentage of aspirin resistance was observed and Patients with an

inadequate aspirin response have an increased likelihood for subsequent resistance. More research was needed to be done on more patients to confirm these results.

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Migraine in emergency department; a retrospective analysis of the attendances at a major city hospital in Riyadh, Saudi Arabia

Osama Mohammed Binbakheet, Wael Obaid Aladham Alanazi, Hend Hamoud Alshammari, Abdelwahed Sayar Alenezy, Abdulaziz Abdullah Mohammed Hussain, Ammar Ahmad Hassan Alasiri, Fahad Awad Asiri, Sarah Ahmed Alghamdi, Farah Ahmed Alghamdi, Hashim Marshud R Alsaedi, Fahad Hadram Alasemr Alharbi, Rayan Dhaif Allah A Alamri

Saudi Arabia has the highest rates for migraine, per the Global Summary of the Eastern Mediterranean Region. A recent audit found that 30% of patients with headache-related ED discharge data had been given a migraine diagnosis. For future endeavors to offer alternatives to headache care, it is crucial to understand the features of these emergency migraine attendances. The goal of this study is to describe the characteristics, diagnostic techniques and therapeutic strategies used in migraine patients who sought treatment at King Saud Medical City (KSMC) and security forces hospital in emergency room in Riyadh, Saudi Arabia, during the course of a five-month study period. Migraine C-E criteria according to Headache International Classification were used to categorise adult emergency department headache visits and evaluate attendance characteristics. Because there was inadequate proof of headache symptoms, 221 (24.8%) study participants could not be categorized. 202 (22.6%) of the 670 trial participants who were present experienced headaches or were likely to have migraines based on satisfying criteria C-E of the ICHD-3. The majority of attendances—147 or 72.7%—had symptoms that had lasted more than 24 hours when they came, with 65 attendances (32.1%) happening less than four days following headache onset. A healthcare professional suggested 37 attendances. This analysis reveals how inadequate acute care and a mismatch between migraine diagnosis and coding contribute to under reporting. We advise additional analysis of the identified populations and the usage of headache proforma.

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REPORT

The consequence of deconditioning on the levels of physical fitness in healthy school going children

Dhwani Chanpura, Kumar GP

Background: Physical inactivity (PI) and sedentary behaviours (SB) play a significant impact in health-related risks and the development of chronic diseases. Evidence suggests that a majority of elementary school children do not receive health instruction during school because of that the levels of physical fitness have reduced. *Methodology:* In this observational study, total of 119 normal school going children of aged 11-16 years were randomly selected. Baseline assessment were done of all the children's and after that, they performed a battery of tests which assess their physical fitness levels. *Result:* The results of all the physical fitness assessment tests have showed significant reduction in the physical fitness levels as compared to the normal peers. Among all the tests, girls performed better with flexibility test and boys performed better in muscular endurance and core strength. *Conclusion:* All the test results showed reduction in fitness levels when compared it with the peer age normal school going children. So, emphasis should be made in schools for incorporation of physical activity session in routine schedule.

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ANALYSIS

Knowledge, attitudes and practice toward venous thromboembolism prophylaxis among students of Health Colleges, Al-Baha University, Saudi Arabia

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Background: The incidence of venous thromboembolism (VTE) is rising gradually in emerging nations and is a global public health concern. This research aims to assess knowledge, attitude and practice (KAP) towards venous thromboembolism prophylaxis among students at health colleges, Al-Baha University, Al-Baha, Saudi Arabia. *Methods:* This is a cross-sectional study, conducted in the period between August and September 2022 and involved 298 students enrolled at health colleges at Al-Baha University, Al-Baha, Saudi. Each participant received a pre-designed self-administered questionnaire. *Results:* Four cases were questioned whether they needed VTE prophylaxis and what kind. Cases 1 and 3 need unfractionated heparin, 2 requires LMWH, while 4 requires no prophylaxis. Cases 1 (82, 27.5%), 2 (107, 35.9%), 3 (107, 35.9%) and 4 (131, 44%) did not require VTE prophylaxis. Most participants chose low molecular weight heparin (LMWH) for all cases: Case 1 (78, 26.2%), case 2 (74, 24.8%), case 3 (57, 19.1%) and case 4 (42, 14.1%). Faculty of Medicine students had the best VTE prophylactic knowledge and behaviors ($P < 0.001$). Interns from all health schools practiced better than other years ($P = 0.034$). *Conclusion:* Health college students showed an acceptable attitude toward VTE prevention, although knowledge was limited and the number of positive procedure responses was low. These results advise colleges to boost VTE prevention training programs, with a higher focus on early-career doctors with less formal training.

Medical Science, 2023, 27, e273ms2891

A cross-sectional study of medical students' perceptions about family medicine in Saudi Arabia

Futoon Afandy, Abdullah Khafagy, Razan Alsuayri, Alaa Kadah Salim, Reem Khan, Lena Mahrous, Mohammed Shaikh Omer, Nadeem Ikram

Objectives: The main aim of this study is to evaluate the interest and knowledge of medical students about family medicine (FM) in Saudi Arabia. *Methods:* A cross-sectional study was conducted. The data was collected through a voluntarily filled survey that was distributed among medical students at all universities in Jeddah, Saudi Arabia. *Results:* Data were collected from 340 students, with a mean age of 22 ± 1 . The majority of respondents (94%) have heard about the FM specialty and only 6 percent haven't heard about it. Most of the participants (79%) stated that they knew the family physician's role in society. Statistics showed a significant difference between males, females and Saudi and non-Saudi students regarding knowledge about the family physicians' role in the community. *Conclusion:* Our qualitative study provided comprehensive information on medical students' knowledge of family medicine. The available data shows that there is good knowledge and perception of FM as a specialty and its role in the community. In general, almost half of the students have the desire to specialize as family physicians, which is consistent with the plans of the country's health system.

Medical Science, 2023, 27, e274ms3079

Assessment of staging in gingival cancer: The value of computed tomography

Dang Kim Phung, Nguyen The Anh, Lam Diem Phuong, Dang Vinh Hiep, Nguyen Anh Huy, Nguyen Tin Trung, Huynh Quang Huy

Purpose: To assess the values of computed tomography in T staging of gingival cancer. *Methods:* A retrospective cross-sectional study conducted with 102 patients who had CT-scans and pathology results of carcinoma of gingiva at Ho Chi Minh City Oncology Hospital. This study evaluated the diagnostic value of CT in assessing the stage and bone invasion of gingival cancer by comparing CT assessment and pathology assessment. *Results:* There were 102 cases of gingival cancer in the study sample, of which 46 cases had tumor surgically removed. CT measurements of tumor size showed a strong correlation with macroscopic measurements with a Spearman correlation coefficient of 0.77. CT showed high diagnostic value in assessing bone and retromolar trigone invasion with sensitivity of 97.6% and 88.8%, specificity of 71.4% and 91.7%, positive predictive value of 95.2% and 80.0%, negative predictive value of 83.3% and 95.7%, respectively. In comparison between CT-scans and histologic analysis in T staging, showed good agreement, with weighted kappa index of 0.6 (95% CI, 0.4–0.9). *Conclusion:* Computed tomography is a valuable method in T staging of gingival cancer. The CT assessment should evaluate factors according to 8th AJCC to accurately evaluate the disease stage.

Medical Science, 2023, 27, e275ms3112

Prevalence of Contact Lens usage and relationship between the risky practices and complications among adolescents and adults in Jeddah, Saudi Arabia

Jumana S Alghamdi, Nizar M Alhibshi, Shahad T Khayyat, Raghad M Alzhrani, Wasayf M Almeahmadi, Maram Y Alqahtani, Sara A Alansari

Contact lens (CL) wearers' lens care habits are critical in lowering the risk of contact lens problems. The general Saudi population has limited knowledge of CLs practice. This study aimed to determine the prevalence of CL's usage, knowledge, practice and complications among adolescents and adults in Jeddah, Saudi Arabia. *Method:* A cross-sectional study was done and data about participants' demographics, wearing contact lenses and knowledge about factors that increases or decreases the risk of experiencing a contact lens related complication and practice related to CL use were collected. *Result:* 89.7% of the participants were females and 85.2% had an age > 18 years. The prevalence of CL use was 64%, 61.2% were using it for cosmetic purposes and 52.1% bought the CL from an optician. The commonly known CL complications were related to sleeping or swimming with lenses. Female participants and those who received information about lens care and hygiene had a significantly higher mean knowledge score about CL use. Additionally, those who did not have eye infections and who received information on lens care and hygiene had a significantly higher mean practice score. CLs users who had non complications had a significant higher practice score compared to those with no complications. *Conclusions:* Although the majority of participants had knowledge, there is still poor hygienic practice. Raising awareness of Saudi community about CLs wearing hygiene is needed.

Medical Science, 2023, 27, e276ms2967

Prevalence of overweight and obesity and its risk factors in adults Type 1 Diabetic patients among Saudi general population

Lujain Bin Othman, Ali Alamri, Yara Assiri, Faris Alzahrani

Background: Diabetes mellitus, a prevalent endocrine disorder worldwide, has seen an increasing global incidence in recent years, establishing it as a significant public health issue. Notably, individuals with Type 1 Diabetes often have a higher Body Mass Index (BMI) compared to the general population. *Objective:* The study aims to evaluate the prevalence and risk factors of overweight and obesity in adults with Type 1 Diabetes in Saudi Arabia. *Methods:* A descriptive, cross-sectional web-based study was conducted, collecting data through an online questionnaire. This tool, designed based on literature reviews and expert consultations, gathered information on demographics, medical history, BMI, diabetes details, dietary habits and lifestyle. *Results:* Out of 250 type 1 diabetic patients aged between 18 and 45 years (mean age 26.0 ± 11.8 years) who completed the survey, 187 (74.8%) were females. The study found that 29.2% were overweight and 19.6% were obese. Overweight/obesity was observed in 66.7% of smokers and the same percentage of those who exercised at the gym. Moreover, overweight and obesity rates were significantly higher among patients

who did not adhere to a high-fiber diet compared to those who did (66.7% vs. 46.4%, respectively; $P=.049$). *Conclusion:* The study highlighted that nearly half of the patients with diabetes were overweight or obese. Factors such as age, smoking and unhealthy diet correlated significantly with the obesity rate among individuals with Type 1 Diabetes.

Medical Science, 2023, 27, e277ms3042

Role of Computed Tomography in evaluation of invasion and regional lymph nodes metastasis in patients with thyroid cancer

Truong Thuy My, Lam Diem Phuong, Dang Vinh Hiep, Huynh Quang Huy

Background: Vietnam reported 5471 new thyroid cancer patients which rank tenth in 2020. The sensitivity of computed tomography (CT) is higher than ultrasound in evaluation of invasive thyroid cancer and the lymph nodes metastasis. *Materials and methods:* One hundred and four patients (72 women, 32 men; age range 16 – 80 years; mean 44 years) with 116 malignant tumors of the thyroid were enrolled in this descriptive study. All patients were performed a neck contrast-enhanced CT and the results were compared with the surgical and histopathologic findings. *Results:* The features of thyroid cancer on CT include irregular margins, unclear boundaries, calcification and strong contrast enhancement after injection. The sensitivity (Se), specificity (Sp), positive predictive value (PPV) and negative predictive value (NPV) of CT were as follows: 99%, 84.6%, 98.1% and 91.7% for capsular invasion; 98.7%, 97.4%, 98.7% and 97.4% for invasion of strap muscles; 85.7%, 97.2%, 66.7% and 99% for invasion of subcutaneous soft tissues; 77.3%, 98.9%, 94.4% and 94.9% for tracheal invasion; 76.5%, 98.9%, 92.9% and 96.1% for esophageal invasion; 83.3%, 100%, 100% and 99% for invasion of blood vessels. The rate of lymph node metastasis in thyroid cancer was high and the central cervical lymph node group predominates. *Conclusion:* CT can be a valuable tool for evaluation of invasive thyroid cancer and the lymph nodes metastasis.

Medical Science, 2023, 27, e278ms3113

CASE REPORT

Mobile left atrial thrombus - ping ball: A case report

Mohammad Al Shammri, Manal Alkhonezan, Shahad Alkhonezan

A 45-year-old female with a history of chronic rheumatic heart disease, chronic atrial fibrillation and a past mitral balloon valvotomy in 2002, arrived at the hospital with severe mitral stenosis. A large free-floating thrombus was discovered in her left atrium she was recommended to undergo immediate surgery. The surgery successfully improved her condition without any complications.

Medical Science, 2023, 27, e279ms3016

Beaked nose with syndactyly: A rare case of Rubenstein-Taybi syndrome

Kushal Desai, Amar Taksande, Ravat Meshram, Apoorv Jain

Rubinstein-Taybi syndrome is a rare genetic disorder characterized by facial dysmorphism along with multiple malformations. A 6 years old male child was brought to the Department with complaints of stammering speech and webbed as well as joint fingers. Extraoral features revealed characteristic facial appearance with a nasal septum extending below alae nasi i.e., beaked nose, posteriorly rotated ears, maxillary hypoplasia and the clinical features, cardiac abnormality and treatment plan of this patient are considered in this case report. Identification of multiple malformations associated with this syndrome is pivotal for an early diagnosis as multidisciplinary approach is required in the initial evaluation, treatment and follow-up among these patients.

Medical Science, 2023, 27, e280ms3070

A rare case of Ataxia Telangiectasia with cerebellar atrophy: A case report

Sri Sita Naga Sai Priya K, Amar Taksande, Meshram RJ, Manasa Suryadevra

Ataxia Telangiectasia (A-T) is an uncommon genetic disorder that affects multiple systems in the body, encompassing the nervous and immune systems. The diagnosis of A-T does not have a definitive diagnostic test and it primarily relies on a clinical examination, elimination of other similar conditions and supportive laboratory tests. The majority of individuals diagnosed with A-T exhibit identified mutations that arise in ATM gene, which plays a crucial role in the repair of damaged DNA. The high level of alpha-fetoprotein on blood test is also consistent with A-T. We report a 10-year-old male child who presented with difficulty in maintaining postural control, unsteady gait, slight bulbar telangiectasia and neurological signs such as dysidiadochokinesia, past pointing and intentional tremors. A-T has no conclusive cure, only supportive treatment such as vitamin E supplementation and balance exercises can be helpful in managing symptoms and maintaining quality of life.

Medical Science, 2023, 27, e281ms3072

REPORT

Intravitreal dexamethasone sustained release implant in refractory diabetic macular edema

Ahmed Mohamed Ahmed Ibrahim, Mamdouh Mahmoud Kabeel, Boshra Mohamed Ali Elbayoumi, Amr Aly Mohamed Elshormilisy, Ahmed Samir Montaser

Purpose: Intravitreal therapies with anti-VEGF medications are regarded as effective treatment option. The biodegradable intravitreal implant, Ozurdex (Allergan, Irvine, CA, USA) depends on slow-release dexamethasone. The present study aimed to

assess the effect on best corrected visual acuity and efficacy of intravitreal Ozurdex in patients with refractory DME. *Methods:* This prospective study included patient with refractory DME who received intravitreal Ozurdex. Baseline clinical evaluation, change in best corrected visual acuity BCVA and central retinal thickness CRT were analysed, intra ocular pressure, adverse effects were recorded. *Results:* The reported CRT measurements showed significant decrease in the first 3 months post injection, however at 6 months there was a slight increase in CRT. The reported BCV showing significant improvement from the baseline values, there was significant increase in IOP in the first month only which was controlled with medical treatment, no marked side effects were reported in the studied patients. *Conclusions:* For patients with refractory macular oedema, Ozurdex implant showed improvement in visual acuity and decreased macular thickness. Side effects such as increase of intraocular pressure, may require medical treatment.

Medical Science, 2023, 27, e282ms3038