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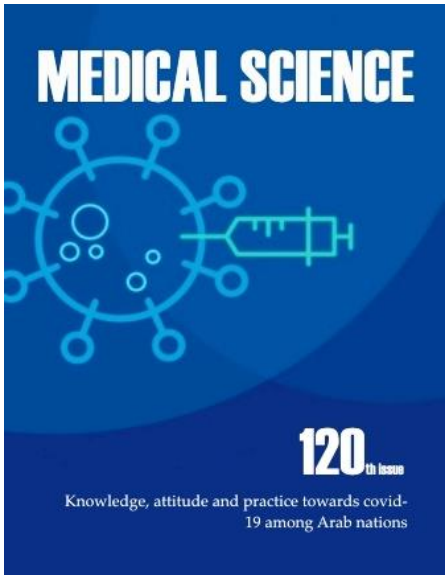
Medical Science

About the Cover



Background: At the end of 2019, a new epidemic of an infectious easily transmissible disease is emerged in the world, Coronavirus disease 2019 (COVID-19) is infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), COVID-19 was first recognized in China, and then spread around the world, resulting in the ongoing coronavirus pandemic. *Objectives:* This study aims to investigate knowledge, attitude and practice of Arab population toward COVID-19. *Methods:* A self-administered web-based questionnaire was delivered through multiple social media channels targeting population of Arab countries. The questionnaire consists of 22 questions assessing the general knowledge and preventive measures of respondents toward COVID-19. *Results:* This is the first study to investigate KAP for the COVID-19 outbreak, among the general population of Arabs region. Our findings suggest that Arab residents have adequate knowledge, favorable attitudes, and good practices toward COVID-19. Knowledge of the disease is considered the most important step to any health education activity that is implemented. *Conclusions:* The majority of Arabs world residents are familiar with COVID-19, hold optimistic attitudes, and have appropriate practices toward COVID-19. Health education programs designed to enhance COVID-19 awareness are beneficial for Arab residents to maintain positive attitudes and appropriate practices. (Ref: Alsaihani A, Alhamed G, Almohsen O, Alfawzan A, Alasseri N, Gaikwad R. Knowledge, attitude and practice towards covid-19 among Arab nations. Medical Science, 2022, 26, ms45e1880); (Image: WHO).

CASE REPORT

Core decompression with Bone Marrow Aspirate Concentrate (BMAC) - Halting the progression in early AVN head of femur

Ganesh MT, Saravanan P, Arvind Natarajan K

Hip pain in young adults could be due to femoral head avascular necrosis which has an indistinct etiology. A delay in the diagnosis and treatment, around 70-80% of the hips progresses to secondary osteoarthritis. Various treatment modalities have been described in the literature for early AVN hip with variable outcome. Early diagnosis and appropriate intervention could halt the progression, hence preserving the hip joint. However, if the disease progress, the femoral head collapses leading to secondary degeneration, and the surgeon would be left with Total Hip Arthroplasty (THA) as the treatment option. THA in young patients may invariably require revision replacement surgeries future in their lifetime and hence a good treatment modality is essential for early AVN to delay the need for arthroplasty. This case report focuses on a 28 year old male patient who came with left hip pain for the past two months with no history of any significant trauma. A possibility of ANV was considered and MRI taken. MRI showed a vascular necrosis grade II of left femoral head. Core decompression (CD) followed by Bone Marrow Aspirate Concentrate (BMAC) was then carried out for the patient under image intensifier guidance. Earlier MRI imaging helped in early diagnosis and intervention to prevent progression of the disease. The addition of Bone Marrow Aspirate resulted in better osseous regeneration.

Medical Science, 2022, 26, ms43e1955

ANALYSIS

Plaque deposition around conventional and self-ligating brackets in patients undergoing orthodontic treatment

Mustafa Azhar Al-okbi, Tamara Kosyreva, Imad Katbeh, Nikolay Tuturov, Olga Voeykova, Alexey Birukov

Aim: The purpose of this study was to compare and evaluate the accumulation of plaque around brackets, colonization of *S. mutans* and other microorganisms on brackets that self-ligated or ligated with elastomeric ligation in fixed appliance. Patients' self-esteem improves as a result of enhanced esthetics and a more appealing smile provided by orthodontic therapy. On the other hand the tour of orthodontic treatment raised the risk of teeth decalcification as a result of plaque accumulation near the brackets, which can result in white spot lesions. *Materials and Methods:* Three hundred twenty orthodontic patients from males and females aged from (15-45 years old) were prepared for fixed orthodontic treatment. Self-ligation orthodontic brackets (Damon) and conventional type brackets (Dantaurum) were used. Filtek 4gr 3M composite material was used; all patients used the same type of adhesive (3M Unitek). The accumulation of microbial and periodontal plaque was recorded twice: T1 after three months and T2 after six months. Microbiological examinations of the oral microbiota were used to provide a quantitative analysis for *streptococcus mutans*, *Staphylococcus aureus, Streptococcus mitis* and *Streptococcus oralis*. *Results:* When comparing the conventional with self-ligating brackets, The results showed that accumulation of *S. mutans* in conventional ligature was 4.9 times higher than Self-ligating, colony forming units ($P<0.05$). *Conclusion:* Self-ligating brackets appliance system showed superior plaque control and reduced bacterial colonization as compared with conventional ligation approach.

Medical Science, 2022, 26, ms44e2059

Knowledge, attitude and practice towards covid-19 among Arab nations

Abdullah Alsaihani, Ghadah Alhamed, Omar Almohsen, Ahmad Alfawzan, Nasser Alasseri, Raul Gaikwad

Background: At the end of 2019, a new epidemic of an infectious easily transmissible disease is emerged in the world, Coronavirus disease 2019 (COVID-19) is infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), COVID-19 was first recognized in China, and then spread around the world, resulting in the ongoing coronavirus pandemic. *Objectives:* This study aims to investigate knowledge, attitude and practice of Arab population toward COVID-19. *Methods:* A self-administered web-based questionnaire was delivered through multiple social media channels targeting population of Arab countries. The questionnaire consists of 22 questions assessing the general knowledge and preventive measures of respondents toward COVID-19. *Results:* This is the first study to investigate KAP for the COVID-19 outbreak, among the general population of Arabs region. Our findings suggest that Arab residents have adequate knowledge, favorable attitudes, and good practices toward COVID-19. Knowledge of the disease is considered the most important step to any health education activity that is implemented. *Conclusions:* The majority of Arabs world residents are familiar with COVID-19, hold optimistic attitudes, and have appropriate practices toward COVID-19. Health education programs designed to enhance COVID-19 awareness are beneficial for Arab residents to maintain positive attitudes and appropriate practices.

Medical Science, 2022, 26, ms45e1880

The effect of bilateral infraorbital nerve block on hemodynamic changes during sinus endoscopic surgery

Hadiseh Valeh, Mohammad Reza Doroodian, Shirin Salajegheh, Jafar Salehi, Naeimeh Naeimi Bafghi, Neda Naeimi Bafghi, Ali Barkhori

Background: The present study examined the effect of bilateral infraorbital nerve block with marcaine on hemodynamic changes during sinus endoscopic surgery. *Material and Methods:* 30 patients underwent sinus endoscopy surgery in two groups: marcaine and normal saline. Ifraorbital nerve block was performed in the first group by injecting 1 ml of 0.5% marcaine for 30 to 40 seconds

and in the second group by injecting 1 ml of sterile normal saline. The level of oxygen, pulse rate, and systolic and diastolic blood pressure were measured before anesthesia, 30 minutes and 60 minutes after anesthesia, at the time of completion of recovery surgery and exit from recovery. *Results:* The mean age of men was 37.29±10.15 and the mean age of women was 38.92±7.60. The mean systolic blood pressure of the marcaine group was less in comparison with the normal saline group 30 minutes ($p = 0.001$) and 60 minutes after the start of the anesthesia process, as well as at the time of surgery, at the time of entering the recovery and at the time of leaving the recovery ($p < 0.001$). The mean pulse rate of marcaine group was less than normal saline group 30 minutes ($p = 0.005$) and 60 minutes ($p = 0.019$) after the start of anesthesia and at the end of surgery ($p = 0.007$). *Conclusion:* Bilateral infraorbital nerve block with topical injection of marcaine has a greater effect on lowering systolic and diastolic blood pressure and pulse than normal saline injection.

Medical Science, 2022, 26, ms46e1879

The effect of intraperitoneal ketamine, dexmedetomidine and bupivacaine on postoperative pain control in patients undergoing abdominal hysterectomy

Maryam Shokrpour, Melika Akbari, Shirin Pazouki, Alireza Kamali

Introduction: Today, hysterectomy is one of the commonest types of surgery and is the one of the most prevalent surgical procedures in the United States after cesarean section (C-section). One of the important complications of hysterectomy is postoperative pain. To relieve this pain, various methods are used, including the use of analgesics such as intraperitoneal ketamine, dexmedetomidine and bupivacaine. Therefore, the present study is aimed to conduct a comparative study on the effect of intraperitoneal ketamine, dexmedetomidine and bupivacaine on postoperative pain control in patients undergoing abdominal hysterectomy. *Materials and Methods:* The present study is a randomized, double-blind clinical trial which performed on 105 patients during March 2019 to June 2020, undergoing abdominal hysterectomy who were randomly divided into three groups including D (dexmedetomidine), K (ketamine) and B (bupivacaine). The study groups were compared in terms of hemodynamics, postoperative pain score and amount of drug used after 24 hours after surgery, as well as duration of postoperative analgesia. The obtained data were statistically analyzed using Spss 22 statistical software using ANOVA and T test. *Results:* The results of this study revealed the effect of intraperitoneal dexmedetomidine, bupivacaine and ketamine in controlling the pain following abdominal hysterectomy, among which intraperitoneal ketamine was more effective in controlling postoperative pain, increasing postoperative pain relief, and reducing postoperative opioid use when compared with dexmedetomidine and bupivacaine. *Conclusion:* All three drugs, intraperitoneal dexmedetomidine, bupivacaine and ketamine, were detected to be essential in controlling postoperative pain in patients with complete abdominal hysterectomy. However, the effect of intraperitoneal ketamine was found to be greater than that of the other two drugs.

Medical Science, 2022, 26, ms47e1835

Clinical profile and risk factors for stroke in inpatients admitted in tertiary care center, Saudi Arabia

Abdulrahman Alharbi

Objective: The current research examines the clinical profile and associated risk factors for stroke in inpatients admitted to a tertiary care hospital in Saudi Arabia. *Methods:* This retrospective record-based study was conducted in central region of Saudi Arabia from January 2020 to December 2020. The data collected included demographic details, detailed history, examination, and investigations. The stroke patients were classified as mild, moderate, and moderate to severe stroke according to the NHSS stroke scale. Entry of data and analysis were carried outby SPSS Version 25 to know any association between the severity of the stroke and qualitative and quantitative variables. *Results:* The present study was done on 398 stroke patients with 275 (69.1%) males and 123 (30.9%) females. About 45% of patients were in the age group of 61-80 years. With regards to the type of stroke, ischemic stroke was predominant (92.7%) as compare to hemorrhagic stroke. A significant association was found with age, obesity, hospital stay, and dyslipidemia with moderate and moderate to severe stroke. *Conclusion:* Our findings suggest that the prevalence of stroke is on the rise and gets worse with age. The vast majorities of stroke victims were over the age of 60 and were associated with preventable risk factors such as hypertension, diabetes, obesity, and smoking.

Medical Science, 2022, 26, ms48e1871

CASE REPORT

Lipoma Arborescens: A rare case report

Ali Hassan A Ali, Omar O Serhan, Mohamed Manaa, Abdulrahman M Alkassar Alanazi, Abdulaziz M M Alshamrani, Salem Hamad Aldosari

Introduction: Lipoma arborescens is a rare condition of unknown cause. It is characterized by proliferation of the synovium with replacement of the sub synovial tissue by mature fat cells. The knee joint is the most commonly affected. Involvement of other joints has been announced such as elbow and shoulder. *Case presentation:* We are describing a case of 49-years old female diabetic patient who came to the rheumatology clinic of King Khalid Hospital in Al-Kharj with a two-year history rheumatoid arthritis and treated with methotrexate. In addition, she had a right knee arthroscopy and synovectomy for "pigmented villonodular synovitis". Thereafter, the patient came in the outpatient clinic with a swollen knee. At examination, she has arthritis of the ankles and the

wrists and a swollen right knee. Laboratory investigations show elevated inflammatory markers and normal liver and renal panels. An MRI of the right knee was ordered. *Discussion and conclusion:* In this case; we focus attention on is an extremely uncommon condition; lipoma arborescens. The clinical findings and imaging are characteristics by highlighting the role of MRI, in diagnosis of other, intra-articular pathological masses. The treatment of choice in lipoma arborescens is open synovectomy.

Medical Science, 2022, 26, ms49e2070

ANALYSIS

Sleep quality among Al Qunfudhah medical students and its effects on their academic performance during covid-19 pandemic

Safa Alkalash, Hani Alzubaidi, Nasser Alessi, Abdulrahman Alghanmi, Ahmad Almasoudi

Background: Adequate sleep is a critical issue for good human health and cognitive function. COVID-19 pandemic disrupts sleep pattern for medical students so this study assessed sleep quality among medical students in Al Qunfudhah College of medicine and its effects on their academic performance during COVID-19 pandemic. *Methods:* A random sample of 198 undergraduates was enrolled in this cross sectional study during academic year 2020-2021. A validated, an online survey Pittsburgh Sleep Quality Index (PSQI) was used to collect data. *Results:* A total of 198 undergraduates responded to survey, male students represented (59.1%) and majority were single (96.5%). Poor sleep quality was observed among 55.6% of them. About 25.0% of medical students were using sleeping medications and 53.0% of them slept less than five hours a night. Finally, 91.0% of students who got GPAs 2-2.5 were having poor sleep quality *(P 0.001). Conclusion:* COVID-19 carried major stresses for medical students which in turn led to poor sleep quality among most of them and negatively affected their academic performance. Poor sleep quality pushed medical students to use sleeping medication which is an issue of concern.

Medical Science, 2022, 26, ms50e2066

Evaluation of the relationship between the level of disc herniation and spinopelvic radiological parameters in patients with lumbosacral disc herniation

Mehdi Nikobakht, Mohammad Minaravesh, Maziar Azar, Amin Jahanbakhshi, Reza Molla Hosseini

Introduction: Back pain is one of the most common musculoskeletal pains that more than 80% of people experience it at least once in their lifetime. *Material and Methods:* The present retrospective cross-sectional study was conducted on 197 cases of patients with single level herniated disc. Lateral radiographic images of patients were examined to determine spinopelvic parameters including TK, LL, SVA, SS, PT, PI, TA and TPA. *Results:* The most common level of disc herniation was related to L4/L5 and the most common morphology was found to be central, with a prevalence of 56.3% and 68%, respectively. There was a significant difference between different levels of disc herniation in terms of SVA, TA, PI and TPA parameters ($p < 0.001$), a significant difference in terms of TK and LL parameters between different herniated disc morphologies ($p<0.05$). Furthermore, SS and PI indices in women and PT index in men were significantly higher (p P<0 0.05). Besides, there was a significant association between age and LL index ($r = 0.511$, $p < 0.001$). *Conclusion:* L4/L5 disc herniation and central type were the most common level and morphology of discopathy in our study. The highest prevalence of the disease was reported in the age range of 34 to 54 years. A significant decrease of TA and TPA parameters and a significant increase of SVA and PI indices were observed in L5/S1 disc herniation. Additionally, a significant decrease of TK and LL indices was found in foraminal type herniated disc.

Medical Science, 2022, 26, ms51e1927

CASE REPORT

Neurofibromatosis type – 1 (NF-1) presenting as intracerebral haemorrhage in a young adult- unveiling a rare culprit

Anamika Giri, Sourya Acharya, Amol Andhale, Sunil Kumar, Rohan Kumar Singh, Abhijit Chandankhede

Neurofibromatosis type I (NF-I) is an autosomal dominant disorder. Epidemiologic data suggests it affects 1 in 3000 individuals. Various vascular abnormalities are reported to be associated with NF-1. Amongst these cerebrovascular anomalies are common in form of vascular stenosis or aneurysms. Arteriovenous malformations of the brain are still rarely found. We present a case of a 24 year old male who presented to this hospital with one episode of generalised tonic clonic seizure. After clinical examination and investigations the diagnosis of intracerebral haemorrhage due to rupture arteriovenous malformation and NF-1 was made. This report highlights the rare association of intracerebral vasculopthy with NF-1.

Medical Science, 2022, 26, ms52e2019

ANALYSIS

Contact lenses usage across the western regions of Saudi Arabia

Ahmed A Basheikh, Reham AlJehani, Ola H Abudaowd, Nada A Bugshan

Introduction: The use of contact lenses for various purposes is steadily gaining popularity over the years. It is crucial that the awareness surrounding its use and care should be properly communicated to avoid undesirable outcomes associated with its use.

Methodology: This cross-sectional study deployed a validated, self-administered electronic questionnaire among 1930 participants in the western regions of the Kingdom of Saudi Arabia. Demographic characteristics, as well as questions about their practice in wearing and taking care of their contact lenses, were asked and were used to gauge their usage behavior score. *Results:* The prevalence of contact lenses usage is relatively high (58.9%) with women comprising 94.4% of the users. 7.30% of the users exhibited an "excellent" score, 62.70% demonstrated a "good" score, while the remaining 30% achieved a "poor" score. *Conclusion:* Although the Saudi population in the area under study is generally aware about the proper usage and care of contact lenses, improvements in practices such as care visits to ophthalmologists/optometrists, changing the container, and changing the contact lens solution, are needed.

Medical Science, 2022, 26, ms53e1886

Knowledge, attitude and practice towards child abuse among the general population in Saudi Arabia

Muhammad Noman Saeed, Turki Mohammed Alhasani, Jawaher Mohammed Hassan Al-Ruwaili, Naif Mousa Alshaeri, Saad Fareed Gandurah, Abdulmohsen Khalid Alswayed, Khalid Mohammed Saad Al-Qahtani, Maha Safar Althuwaybi, Abdalla Mohamed Bakr Ali

Background: Child abuse encompasses a wide range of physical, emotional, and sexual abuse, as well as negligence in child care, all of which can have a severe impact on a child's health and development. The purpose of this study is to assess the population's knowledge, attitudes, and behaviours about child abuse in Saudi Arabia. *Methodology:* This is a cross-sectional study conducted in Saudi Arabia between July and August 2021. This study covers the general population of Saudi Arabia. Online self-completed questionnaires are distributed on social media. The questionnaire has been revised and translated. The questionnaire consists of 16 questions/questions to evaluate knowledge (8), attitude (3), and practice (5) in addition to sociodemographic data. Scores are analysed according to a normal distribution. *Results:* Our study included 499 individuals, 33.1 % of whom were between the ages of 18 and 25, and 45.3 % of whom were female. Knowledge, attitude, and practise mean (SD) scores were 71.9 ± 28.1, 46.8 ± 34.8 and 70.1 ± 34.8, respectively. Knowledge, attitudes, and practice are all associated with age (P = 0.050). Knowledge (P = 0.001) and practice (P = 0.000) were both significantly related to marital status. Knowledge and practice are strongly associated with having children (P = 0.000). *Conclusion:* Attitudes of the Saudi Arabian population towards child abuse were low relative to knowledge and practices. To reduce the incidence of child abuse in society, more efforts are needed to improve knowledge, attitudes and practices about child abuse.

Medical Science, 2022, 26, ms54e1998

The effectiveness of online mindfulness-based cancer recovery program on psychological Variables of colorectal and stomach cancer patients: A randomized control trial

Ahmad Yousefi, Abbas Masjedi Arani, Mojtaba Ghadiany, Mahdi Jafari, Maryam Aslzaker Lighvan, Behzad Asanjarani, Mohsen Saberi Isfeedvajani

Background: This study aimed to investigate the effectiveness of an online version of a mindfulness-based recovery program (E-MBCR) on stress, cancer-related fatigue, and sleep disturbances in colorectal and stomach cancer patients. *Method:* In a randomized controlled trial, 50 cancer patients (34% colon, 28% rectum, 38% stomach) were recruited by convenience sampling from oncology departments of two hospitals and were randomly allocated to intervention (n=25) and control groups (n=25). The experimental group participated in a 9-week online mindfulness-based cancer recovery program. Outcome measures were assessed at three phases (pre-test, post-test, and two-months follow-up) by DASS-21, fatigue symptom subscale of QLQ-C30, and the Insomnia severity index. *Results:* Mixed linear models revealed significant improvements in cancer-related symptoms, including stress (F=43.01, P=0.00, $\eta 2$=0.50), fatigue (F=33.40, P=0.00, $\eta 2$=0.43), and sleep disturbances (F=39.14, P=0.00, $\eta 2$=0.47), in colorectal and stomach cancer patients. *Conclusion:* E-MBCR can be considered as having potential utility to ameliorate cancer patients' psychological disturbances.

Medical Science, 2022, 26, ms55e2021

RESEARCH

Relationship between the caregiver burden and the resilience among primary caregivers of individuals suffering from schizophrenia attending tertiary care rural hospital from central India: A cross-sectional observational study

Rashmi Shankardayal Shukla, Ajinkya Sureshrao Ghogare, Pradeep Shriram Patil

Introduction: Schizophrenia is a chronic mental disorder prevalent across the globe. Because of its chronic course, most of the individuals with schizophrenia require lifelong treatment which may pose financial, physical, and mental burden over the primary caregivers. So, while taking care of the individuals with schizophrenia over a prolonged period, caregivers themselves can suffer from the burden in the form of depression, anxiety, and stress. *Objective:* To study the relationship between caregiver burden in the form of depression, anxiety and stress, and the resilience among the primary caregivers of individuals with schizophrenia. *Methodology:* Present cross-sectional study was carried out by the department of Psychiatry of a tertiary care rural teaching hospital from Maharashtra, India. Data were collected from 80 primary caregivers by using standard questionnaires like Depression, Anxiety and Stress – 21 item (DASS-21) scale to measure the caregiver burden and Brief Resilience Scale (BRS) to measure the levels

of resilience. *Results:* Prevalence of depression, anxiety, and stress were 55%, 35%, and 48.7% respectively. Significant negative correlation was observed between resilience levels and depression (r= -0.23), anxiety (r= -0.35), and stress (r= -0.24), suggesting that the probability of the caregiver burden increases with decline in the level of resilience. *Conclusion:* Based on the findings, we recommend that regular individual as well as group sessions should be conducted for the primary caregivers to strengthen their resilience so that they can not only effectively deliver the necessary care to the individuals with schizophrenia but can maintain their own mental health also.

Medical Science, 2022, 26, ms56e2005

ANALYSIS

Effects of pediatric liquid medications on surface properties of dental restorations

Doaa Y Jamal, Najat M Farsi, Azza A El-Housseiny, Osama M Felemban

Background/purpose: Tooth-color restorations have diverse stability in regard to their surface properties especially after exposure to abrasive conditions, such as acid media or medication. This *in-vitro* study aimed to investigate the effects of exposure to liquid pediatric medications on the color stability and roughness of three tooth-colored restorative materials (a resin-modified glass ionomer cement, nanocomposite, and compomer). *Materials and Methods:* For each material, 55 disk-shaped samples were prepared and stored in a thermocontrolled incubator for 24 h while submersed in one of five exposure media (a multivitamin, bronchodilator, antiepileptic, antibiotic, and distilled water). All specimens were tested before and after exposure to estimate the shift in color and surface properties. *Results:* The medications significantly affected color stability, surface roughness, or both in all dental restorations. A significant and unfavorable change in color stability was observed for all restorative materials after immersion in the bronchodilator and antiepileptic, with the composite sample showing the least color stability after exposure. The resin-modified glass ionomer cement demonstrated the greatest change in surface roughness (P-value = 0.003). The best color stability, below 3.3, and surface roughness, below 0.2μm, were observed for the compomer. *Conclusion:* The medications evaluated in this study had a negative affect on the color and roughness of the materials under investigation. Parents should be instructed in proper oral hygiene to limit the negative impact of prolonged exposure to these medications. More *in-vivo* studies are required to improve the stability of direct restorations.

Medical Science, 2022, 26, ms57e2000

The effectiveness of holographic reprocessing therapy (HR) on the avoidance, intrusions and hyperarousal symptoms in PTSD patients

Asie Eftekhari, Maryam Bakhtiari, Abbas Masjedi Arani

Introduction: Avoidance, intrusions, and hyperarousal are common symptoms in people with PTSD (Post-traumatic stress disorder). In this study, the effectiveness of holographic reprocessing treatment, which is an evidence-based treatment in these patients, will be investigated so that in the future it can be used in therapeutic settings to reduce the symptoms of this mental disorder. *Materials and Methods:* The research method was semi-experimental and based on the pretest-posttest control group design, with follow-up after three months. The sample included 42 participants who were selected by a purposeful sampling method and placed randomly in the experimental and control groups. At first, at the same time, and in the same conditions, all the participants responded to the Posttraumatic Stress Disorder Checklist (PCL-5). Structured Clinical Interview for DSM Disorders (SCID-5) was used for people who scored 31 or higher. Event Scale-Revised questionnaire (ESR) was also used. The holographic reprocessing therapy (HR) was performed for the experimental group. In the end, both groups were evaluated by posttests, and then they were tracked after an interval of three months. In order to analyze data, ANCOVA and MANCOVA tests were applied through SPSS 22. *Results:* Findings showed that HR was meaningfully effective in decreasing avoidance, intrusions, and hyperarousal symptoms ($p<0.01$) and after three months, no significant changes were found in the results. *Conclusions:* While HR coincided with reductions in avoidance, intrusions, and hyperarousal symptoms in PTSD patients, more research with larger samples is needed to further examine the effectiveness of this treatment on these patients.

Medical Science, 2022, 26, ms58e2024

CASE REPORT

Craniofacial Cleft -Tessier 1-13: A unique enigmatic challenge

Shweta Patil, Anendd Jadhav, Apoorva Mishra, Nitin Bhola

The exceptional cases of facial clefts are undoubtedly a surgical dogma to the surgeons. These cases bring the surgeon into a state of surgical muddle. The uniqueness of these defects demands a systematic multidisciplinary approach over a period of time. The identification of the type of cleft is critical in order to sketch out the treatment algorithm for that individual case. Therefore these extremely uncommon cases ought to be documented for further reference and enhancement of the literature available. To the best of our knowledge, this would be the sixth case of Tessier Cleft 1-13 to be documented.

Medical Science, 2022, 26, ms59e2068

ANALYSIS

Obesity as a risk and predictive factor for ovarian cancer among Saudi women: Hypothetical cloned artistic projection

Abdulaziz Alorwan, Mahdya Bukhari, Omer Quayidkhalanazi

Objective: The goal of this research was to investigate the role of body mass index (BMI) as a risk and prognostic factor for ovarian cancer in Saudi women. *Methods:* The data of 937 ovarian cancer patients treated in Saudi Arabia between January 2020 and October 2021 were studied in this cloned duplicated hypothetical view point. Four age-matched controls from healthy women were selected to assess sickness risk based on BMI (1-year age group). *Results:* Obese (BMI >25 kg/m2) and overweight (BMI >23 kg/m2) women had a greater cancer incidence than non-obese (BMI b23 kg/m2) women (OR=3.161, 95 percent CI=2.655–3.763 and OR=1.536, 95 percent CI=1.260–1.873, respectively). In other words, a rise of 1 kg/m2 raised the risk of ovarian cancer by 18% (OR=1.181, 95 percent CI=1.155–1.207). Overall survival, however, did not change based on BMI categories (log-rank=0.366, p=0.8328). The crude Cox model found that obesity was not associated with overall survival when obese and non-obese women were compared (crude HR=0.82, 95 percent CI=0.40–1.66). Furthermore, there was a significant trend toward a better prognosis as BMI increased (p for trend b 0.001), despite the fact that this was not detected in the multivariate analysis. Conclusions: A high BMI was shown to be a substantial risk factor for ovarian cancer in the Saudi population. Despite the early tumor stage in the obese women, it was not associated with overall survival.

Medical Science, 2022, 26, ms60e2016

CASE REPORT

Type-A aortic dissection masquerading as acute inferior wall myocardial infarction - A rare case report

Nipun Bawiskar, Sandeep Kamat, Sourya Acharya, Sandeep Mohale, Sunil Kumar

Aortic dissection occur secondary to splitting of the layers in the wall of the aorta. There is a tear in the intima that results in entry of blood in between the intima and media. Type A dissection typically occurs in the ascending part of the aorta. The tear is brachiocephalic artery. It is a medical emergency. Mortality is high even though there is an advance in medical and surgical techniques. Acute myocardial infarction is a clinical mimic of aortic dissection. This case report discusses a patient with chest pain in the retrosternal area radiating to the back; aortic dissection manifesting as acute inferior wall myocardial infarction.

Medical Science, 2022, 26, ms61e2007

ANALYSIS

A Study on the prevalence of self-medication among urban population in Makkah region

Muazzam Sheriff Maqbul, Haya Abdrahman N Binhashr, Ohoud Mohammed M Almana, Jayan Mohammed Algarni, Mariam Mohammed AL Zamil Alghamdi, Raneem Abdullah S Aljuhani, Arwa Othman S Fallatah, Razan Abdulrahman G Alharbi, Aejaz Abdullatif Khan, S M Shakeel Iqubal, Areej Dawoud, Abdul Rahman Ikbal, Tasneem Mohammed, Moustafa Elsayed AE Elsaadani

The majorities of the population pay little attention to the health issues and accord little or no priority to medical checkup which leads to the preference of Self-Medication practice. This study was conducted to determine the knowledge and practice of the prevalence of self-medication among urban population in Makkah region. A descriptive cross-sectional study was conducted with a target population of 1000 participants over the period of three months. The data was collected in the form of well designed specific questionnaires related to self-medication along with other informations related to the bio-informatics of the individual, etc., both in English and Arabic language. This cross-sectional survey study was conducted by blending both qualitative and quantitative methods of data collection during an awareness campaign and through direct interview with the participant. The collected data were analysed by the Microsoft Excel and SPSS. The values were presented as numbers (%). IBM SPSS, IBM Corp., Armonk, N.Y., USA, version 23 was utilized for analysis. Statistical comparisons were made by Pearson Chi- Square test. The data were significant if P-values were < 0.05. The analysed results of the collected data suggested that the effort was needed in ensuring that the drive is required to discourage the practice of the self-medication and encourage the visit to the medical practitioners to follow the proper guidelines of the prescribed medications. It is necessary to study the factors associated with the uptake of medications among the studied population and avoid the complications of self-medication.

Medical Science, 2022, 26, ms62e2039

Perception, attitude and experience of women living in Jeddah with or without Breast lump towards BSE & mammography: Pre-Post study

Helen Suban Mohammed Gouse, Sherehan Mohammed Ali Wahid, Renad Al Gaedy, Dania Abdu Al Ahdal, Ghadeer Abbas Katib, Riham Melebari, Intessar Emam Sultan

Background: Breast cancer is the most common cancer among women in Saudi Arabia with a higher mortality rate in comparison to other more advanced countries. This study aims to judge the effectiveness of awareness campaigns by assessing the improvement

in knowledge regarding breast cancer and attitude towards screening after attending breast cancer awareness campaign, in addition to exploring areas of defective knowledge. *Materials and Methods*: This cross-sectional study is a community-based pre-post study. A pre-campaign questionnaire was distributed among 119 females to assess their knowledge about cancer of breast and attitude towards its screening methods from September 2020 to September 2021. After which an online awareness campaign was conducted due to Covid-19 restriction to educate the participants on breast cancer and its screening methods. This was followed by the distribution of a post-campaign questionnaire to assess improvement in knowledge and attitude. The collected data was then analyzed using Microsoft Excel software and IBM SPSS. *Results and Conclusion:* A significant increase was observed in the total scores of all participants (p=0.00) along with number of correct answers for knowledge and misconception related questions (p=0.003, p=0.021) after attending the awareness programs. There was a smaller increase in participant percentage with an encouraging attitude towards mammograms than towards BSE after the awareness campaign was conducted. *Recommendations:* More effective awareness campaigns should be conducted across the Kingdom and females need to be reassured regarding their concerns about mammograms.

Medical Science, 2022, 26, ms63e2060

The association between leptin levels with glycemic control, body mass index, and progression of HbA1c values in type 1 diabetic children in Southwestern Saudi Arabia

Mohammed Ayed Huneif, Mohammed Helmy Faris Shalayel, Elhashimi Eltayb Hassan, Amar B Elhussein, Omar E Fadlelseed, Hassan Gumaa Mustafa Hamid, Amin A A Elbadawi, Sultan A Almedhesh, Seham M Alqahtani, Abdulwahab Alqahtani, Mohammed Jamaan Alzahrani, Dhafer Batti Alshehri

Background: Diabetes mellitus is a widespread serious metabolic disease with both short and long-term complications. Leptin is a polypeptide hormone, exclusively secreted from adipose tissue and its level is directly proportional to the amount of body fat. There was growing evidence that leptin level has an impact on insulin sensitivity, so this study aims to demonstrate the relationship between total plasma leptin concentrations with glycated hemoglobin, fasting glucose levels, and body mass index in diabetic children. *Methods:* A case-control study was carried out in the Najran University Hospital and included 133 type 1 diabetic children and 71 healthy controls in the same age group. In this due, plasma fasting blood sugar (FBS), HbA1c, and leptin were analyzed. *Results:* Significantly higher values of leptin in the diabetic group were seen in our study. In addition, leptin showed non-significant positive correlations with FBG in diabetic children (r=0.110, p=0.359). While, it revealed positive significant correlations with HA1c and BMI (r=0.245, p=0.005 and r=0.393, p<0.001 respectively) and a non-significant positive correlation with age (r=0.64 and p=0.593). *Conclusions:* Our results displayed that leptin in children with type 1 diabetes was significantly greater than what was seen in the normoglycemic control group. Moreover, leptin was correlated with HbA1c and BMI and this may explain the insulin implication in the secretion of leptin.

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REPORT

Impact of Covid-19 risk perception on compliance with preventive measures among adult Egyptians

Ebtesam A Elsayed

Background: The current COVID-19 pandemic has rapid inevitable effects on individuals' health and life, which need to heighten readiness to comply with preventive measures and adjust our health behaviors. The aim of this study was to assess the impact of COVID-19 risk perception on compliance with preventive measures among adult Egyptians. *Materials & methods:* A cross-sectional study conducted on 582 participants who met the inclusion criteria. An online, self-administered questionnaire sent to participants through different social media platforms; it consisted of three parts concerned with sociodemographic data, risk perception scale, and COVID-19 preventive measures scale. *Results:* The mean age of the study participants was 34.16 ± 9.86, and 87.8% of them had high compliance with COVID-19 preventive measures. The results also showed high COVID-19 risk perception among participants with a weighted mean of 4.01±0.74. The results reported a positive relationship between compliance with preventive measures and COVID-19 risk perception (r = 0.183, P<0.001). Also reported that risk perception is the most important predictor of compliance with preventive measures [OR=3.100, p <0.001, 95% CI (1.715-4.975)], followed by educational level [OR=2.921, p <0.001, 95% CI (1.557-6.172)]. *Conclusion:* Risk perception is the strongest predictor of compliance with protective measures, the findings of this study added to the rising literature suggesting that COVID-19 risk perception is an important factor in predicting compliance with preventive measures.

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A survey study on radiology and imaging students about radiation protective devices

Arnabjyoti Deva Sarma, Pulsha Sangma, Chinmoy Das

Aim: The aim of this study is to see how well radiography students understand radiation protection equipment, how to use it, and how to handle it. *Methods*: A prospective questionnaire-based research was done by the Department of Radiology and Imaging. A validated questionnaire was provided to undergraduate radiography students to complete the study. *Result*: In this study, 267 Radiology and imaging undergraduate and diploma students completed a questionnaire. To put their knowledge of radiation

protective equipment, its use, and handling to the test, they participated in theoretical sessions and hospital placements. In the group, there were 82 (30.7%) girls and 185 (69.2%) males. *Conclusion*: According to the findings, radiology departments should provide appropriate theoretical classes for the transfer of knowledge on radiation protection systems, their use, and management. This questionnaire-based study discovered that current radiation protective equipment, its use, and handling skills among radiography students at Assam Down Town University's faculty of paramedical sciences were inadequate, and that this could be improved with well-designed training and theoretical sessions. As a result, we strongly advise all members of the medical community to attend seminars, guest lectures, training sessions, and other related events.

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CASE REPORT

Protein S deficiency-induced spermatic vein thrombosis, a rare cause of painful scrotal mass: A case report

Muhammad Amir Afiq Zakaria, Nur Azidawati Ab Halim, Sherreen Elhariri

A painful scrotal mass requires prompt surgical intervention. Common diagnoses would include testicular torsion, acute epididymo-orchitis, and strangulated inguinal hernia. However, very rarely, it can be diagnosed as a rare clinical disease, including spermatic vein thrombosis (SVT). We present a case of right SVT possibly precipitated by Protein S deficiency, initially presented with a painful right scrotal lump for 2 days. He was treated with Aspirin tablets for 1 week and remained asymptomatic after 3 weeks of initial presentation. At 12 months follow-up, sequelae of right varicocele had developed. SVT is a rare diagnosis with a left-sided prevalence. The etiology of spontaneous SVT remains unclear. In this case, hypercoagulability due to Protein S deficiency could predispose to the formation of venous thrombotic events. Treatment of spontaneous SVT is suggested based on its anatomical location. Complications linked to this disease include varicocele, testicular infarction, pulmonary embolism, and renal vein thrombosis.

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RESEARCH

Factors related to compliance with official guidelines of covid-19 measures among Iranian population: The predictive role of social alienation, trust and morality

Ahmad Yousefi, Parastoo Naeimijoo, Mostafa Heidari, Reza Karimi, Maryam Bakhtiyari, Abbas Masjedi Arani

Objective: Despite the development of various vaccines to combat Covid-19, adopting preventive behaviors are still the first line of struggle. There exist vast differences in the way people comply with the rules. Some are committed to restrictions laid down by the government, while others disrespect the rules. Therefore, understanding the underlying structures of behavioral management was the purpose of the present study. We aim to examine the contribution of moral standards, sense of social alienation, and institutional trust in predicting compliance with Covid-19 rules. *Method*: The study design is cross-sectional and data collection was done for two months through online social media. The sample of the study was obtained from 465 of the general population with an average age of 30.01 years (SD=7.04). Analysis of data was done by SPSS version 25. *Results*: correlation and regression analysis were done to obtain the predictive power of study variables. Findings show that social alienation, institutional trust, and moral standards explain 33% of the variance of compliance [R2 = 0.33, F (461) = 7.68, p = 0.001]. *Conclusion*: The results of the present study not only contribute to theory development but also provide implications to the governance of Covid-19. It seems that strengthening trust and moral standards along with expanding the sense of cohesion will help to improve compliance with health regulations imposed during Covid-19 and end this tedious period as soon as possible.

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ANALYSIS

Radiation protection: Are pediatrics health care providers up to date?

Mawya Khafaji, Khalid Kouzaba, Abdullah Tashkandi, Sultan Almusallam, Aliaa Ghoneim, Sarah Hagi

Objectives: To assess the knowledge and level of awareness of practitioners who provide pediatric care on radiation risks in pediatric computed tomography (CT) examinations. *Methods:* This cross-sectional study was conducted from July 2020 to January 2021 at King Abdulaziz University Hospital in Jeddah, Saudi Arabia. The sample comprised pediatric radiologists, pediatric surgeons, emergency pediatricians, general pediatricians, and radiographers. A three-part questionnaire consisting of 46 questions was used for data collection; correct responses were given a score of 1, and incorrect or incomplete answers were given 0. The maximum possible score was 40.Statistical Package for Social Sciences version 25 (IBM, Armonk, NY, USA) was used for all analyses. Statistical significance was set at $p < 0.05$. *Results:* A total of 34 participants completed the questionnaire, and the mean±standard deviation score was 17.5±8.97. More than half of pediatricians (63.2%) and radiographers (52%) estimated the radiation dose incorrectly. *Conclusion:* The pediatric CT practice in our hospital was suboptimal. Practitioners must be continuously educated and updated on radiation protection. Further studies from different regions of Saudi Arabia are needed to avoid this bias.

CASE REPORT

Simultaneous Bilateral Primary Spontaneous Pneumothorax (SBPSP) in a young male athlete: A rare presentation

Sagar VVSS, Sourya Acharya, Amol Andhale, Samarth Shukla, Sunil Kumar, Chitturi Venkata Sai Akhil

Simultaneous bilateral primary spontaneous pneumothorax (SBPSP) is a rare life threatening emergency. The majority of patients do not have any significant medical issues. Smoking, youth and male gender are associated risk factors. A 28 year old basketball player with no significant medical history who presented to this hospital with sudden onset breathlessness and after investigations diagnosed as bilateral spontaneous pneumothorax which was treated with bilateral intercostal tube drainage.

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Allergic Bronchopulmonary Aspergillosis (ABPA) in pre existing chronic obstructive pulmonary disease (COPD)-A case report

Sagar VVSS, Sourya Acharya, Amol Andhale, Samarth Shukla, Sunil Kumar, Chitturi Venkata Sai Akhil

Allergic bronchopulmonary aspergillosis (ABPA) is an entity of immunological pulmonary disease characterised by airway hyper-responsiveness to Aspergillus fumigatus colonised in the airways, as well as distinct radiological and serological findings. The case reported here is a 53-year-old farmer who was diagnosed with COPD seven years back presented with cough with expectoration, shortness of breath, wheeze. The radiological investigation revealed fleeting shadows, and a CT scan revealed central cystic bronchiectatic features, which are typical with ABPA. On further investigation the sputum examination revealed Aspergillus. Eosinophilia was found in peripheral blood smears, as well as elevated total IgE and fungus specific IgE levels in serum. As a result, ABPA was determined to be the cause. Management with steroids, antifungals improved patient symptoms and partial improvement in pulmonary infiltrates.

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