

Medical Science

About the Cover



The most prevalent reasons for respiratory physiotherapy treatment include pulmonary issues, decreased functional ability, and limitation of movement as a result of heart surgery. The objectives of this case study were to define the use of pre-operative and post-operative protocols in cardiac surgery patients. Physiotherapy was prescribed for 49-year-old female patient detected having rheumatic cardiac disorder having heavy aortic stenosis with mitral stenosis. Breathlessness and pedal edoema were the patient's main complaints, and he had a history of paroxysmal nocturnal dyspnoea. The patient was given pre-operative physiotherapy treatment, which included breathing exercises and ambulation, as well as patient education, prior to cardiac surgery. Following surgery, the patient received Phase 1 in-patient cardiac rehabilitation, which included patient education, sternal precautions, lung cleanliness, bed mobility, and early mobilisation. The data in this case report suggests that the patient's health improved as a result of pre-operative and post-operative care (Ref: Parkhi RB, Jain MJ, Bhakaney PR, Vardhan VD, Yadav VD. Effectual pre and post-operative rehabilitation journey of a patient undergone open heart valves surgery: A case report. Medical Science, 2022, 26, ms261e2205).

CASE REPORT

Epstein–Barr virus-positive mucocutaneous ulcer: A rare case report from Riyadh, Saudi Arabia

Jihad Alrehaili

Background: A new ailment, Epstein–Barr virus-positive mucocutaneous ulcer recognized as a B cell lymphoproliferative disorder caused by latent EBV infection that causes distinct ulcerations on the oral cavity, gastrointestinal tract, and skin. There are a number of factors that predispose to this condition, among which are iatrogenic immunosuppressive medications, primary immunodeficiency, or the effects of aging. *Case presentation:* 58-year-old rheumatoid arthritis patient present with pain in the hard palate, palatal demarcated ulceration with raised edges near the right upper premolar, hypertrophic gums, and hypertrophy of the gums. Following he had been diagnosed with EBVMCU on the basis of pathological finding of biopsies that displayed with a surface ulceration of polymorphic lymphoid infiltrate in the submucosa that contained large, atypical cells. *Conclusion:* Diagnosis confirmed as histologic sections show a biopsy of squamous epithelium with an atypical lymphoid infiltrate filling the submucosa. *In situ* hybridization for Epstein-Barr virus encoded RNA (EBER) demonstrated positive results in large cells atypical cells. This condition has been described in immunocompromised patients recently, and an understanding of its etiology is essential for proper diagnosis and treatment.

Medical Science, 2022, 26, ms215e2293

ANALYSIS

Chest computed tomographic findings in patients with sickle cell disease–related acute chest syndrome: A retrospective study

Rahmah Alsilmi, Saeed Alghamdi, Salim Alghamdi, Raad Alshahrani, Ahmed Alyoubi, Omar Almassari, Mohammed Alshaikhi, Ahmed Barefah, Amr Aylan, Ayman Eskander, Fatima Jabali, Mohammad Mustafa

Background: Sickle cell disease (SCD) is a hematological condition with significant pulmonary involvement, especially in episodes of acute chest syndrome (ACS). Defining radiographic pulmonary features during an ACS episode can expand our understanding of this complication. *Aim:* We aimed to describe the radiological pulmonary features of SCD patients with ACS to better understand this condition from a radiographic perspective. *Method:* This retrospective study was conducted on adult patients with ACS admitted to King Abdulaziz University Hospital (KAUH) in Jeddah, Saudi Arabia during the period from January 2016 to June 2020. Data collection included clinical and demographic information and radiological descriptions of inflammatory and fibrotic features from computed tomography (CT) of the chest. *Results:* We reviewed chest CTs for 44 patients, including 30 males (68.2%) and 14 females (31.8%). Hemoglobin SS (HbSS) was the dominant HB genotype in 34 patients (77.3%). The most frequent findings on the chest CTs were consolidation, mainly in the lower zones, which was noted in 32 patients (72.7%), and cardiomegaly in 23 patients (52.3%). Fibrosis was noted in 14 patients (31.8%), assessed by the presence of parenchymal scarring, subpleural reticulation, architectural distortion, traction bronchiectasis, or volume loss. The distribution of abnormalities was predominantly in the lower lung zones. *Conclusion:* Inflammatory changes in lung parenchyma were common in ACS, mainly in the lower lung zones. In the SCD patients, cardiomegaly was a common cardiac radiographic abnormality. Pulmonary fibrosis was noted in one-third of the patients, dominated by scattered parenchymal scarring that lacked a specific fibrotic pattern.

Medical Science, 2022, 26, ms246e2344

CASE REPORT

Effectual pre and post-operative rehabilitation journey of a patient undergone open heart valves surgery: A case report

Rutuja Bhaskar Parkhi, Moli Jai Jain, Pallavi Rajeshwar Bhakaney, Vishnu Diwakar Vardhan, Vaishnavi Dilip Yadav

The most prevalent reasons for respiratory physiotherapy treatment include pulmonary issues, decreased functional ability, and limitation of movement as a result of heart surgery. The objectives of this case study were to define the use of pre-operative and post-operative protocols in cardiac surgery patients. Physiotherapy was prescribed for 49-year-old female patient detected having rheumatic cardiac disorder having heavy aortic stenosis with mitral stenosis. Breathlessness and pedal edema were the patient's main complaints, and he had a history of paroxysmal nocturnal dyspnoea. The patient was given pre-operative physiotherapy treatment, which included breathing exercises and ambulation, as well as patient education, prior to cardiac surgery. Following surgery, the patient received Phase 1 in-patient cardiac rehabilitation, which included patient education, sternal precautions, lung cleanliness, bed mobility, and early mobilisation. The data in this case report suggests that the patient's health improved as a result of pre-operative and post-operative care.

Medical Science, 2022, 26, ms261e2205

Treatment of massive infected residual cyst with marsupialization, decompression, surgical endodontic therapy, and enucleation: Case report

Mona A Alsulaiman

Management of residual cyst by marsupialization, decompression, surgical endodontic therapy, is reported here. Though typically surgical enucleation is the recommended treatment for small cystic lesions, Treatment of large lesions may require a treatment plan

that is delivered through two stages: first stage is marsupialization and decompression. Second stage is surgical endodontic treatment accompanied by curettage and surgical enucleation. A case report is presented of a massive residual dental cyst. Presentation, diagnosis and management of the massive cyst are discussed.

Medical Science, 2022, 26, ms262e2210

ANALYSIS

Effects of covid-19 pandemic on smoking behavior among Saudi postgraduate physicians

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The COVID-19 pandemic has sparked global stress. This has altered people's coping mechanisms, with some turning to harmful smoking as an option. Smoking is highly prevalent among Saudi healthcare workers, particularly postgraduate physicians. Therefore, it is critical to comprehend the smoking factors among Saudi postgraduate physicians and how COVID-19 affects their smoking status. This cross-sectional study used a self-administered questionnaire to collect data from postgraduate physicians across Saudi Arabia. Data from questionnaires were collected and analyzed using descriptive statistics, Pearson Chi-square test, and multivariate and multinomial logistic regression. Of the 740 participants, 27.6% were smokers and 11.6% were former smokers. Cigarette smoking was the most prevalent type, followed by electronic cigarettes and Shisha (51.0%, 47.1%, and 37.3%, respectively). Smoking was found to be associated ($P < 0.05$) with age over 30, male gender, father and mother smoking, as well as smoking brothers, friends, and smokers' less educated mothers. Despite COVID-19, most smoking postgraduate physicians smoke at their average rates, followed by those who smoke more than their average. Educational and training programs should include appropriate, healthy coping techniques. Furthermore, the associated factors of smoking could help in developing appropriate tobacco-control programs to prevent smoking among postgraduate physicians.

Medical Science, 2022, 26, ms263e2353

Use of virtual patients in orthopedic teaching as an adjuvant tool to clinical training for medical students

Bandar A Alghamdi

Background: Virtual patients are a valuable tool that can be used besides clinical teaching for medical students' education. The purpose of this study was to assess the educational benefit of using virtual patients in the orthopedic field for the clinical teaching of medical students. *Methods:* One hundred eighty-seven undergraduate medical students, 99 male, and 88 female from the college of medicine in Al-Qunfudhah, university of Umm Al-Qura, from level 3 till level 6, who finished the orthopedic course, were recruited in this cross-sectional study after their acceptance to participate. Each student had the same validated virtual patient questionnaire to assess their learning and clinical reasoning experiences with virtual patients. *Results:* Regarding the items of the questionnaire regarding the virtual case teaching: in the 1st item, 80% of students agree with the "Authenticity of the patient encounters and the consultation" while 5.8% of students disagree. In the 2nd item, 79.1% of students agree with the "Professional approach in the consultation" and 5.8% disagree. In the 3rd item, 83.9% of students agree with the "Coaching during the consultation" and 2.1% disagree. In the 4th item, 54.5% agree with the "Learning effect of consultation" while 5.8% disagree and 36.8% are neutral. Finally, there is no significance between the different student levels in their response. *Conclusions:* Virtual patients had a favorable effect on medical students and can be carried out as a supportive tool in clinical teaching to achieve maximum educational benefit.

Medical Science, 2022, 26, ms264e2356

Work-related musculoskeletal pain and disorders among ultrasound practitioners in Saudi Arabia: A cross sectional study

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Background: work-related musculoskeletal disorders (WRMSKDs) in ultrasound (US) imaging become common because different US tests need US practitioners to conduct different physical activities and movements. Consequently, physically exposed US practitioners acquire certain pains and injuries in the shoulders, neck, back, hands, wrists, elbows, and others. *Methods:* A cross-sectional study design was used. A total of 222 US practitioners from governmental, private, and educational hospitals across the Kingdom of Saudi Arabia (KSA) were enrolled during the period from January to March 2020. Data was collected using an online electronic questionnaire distributed via social media applications. *Result:* The age of the participants ranges from 25 to 56 years. There were 81 (36.48%) male and 141 (63.51%) female participants. Around 57% of participants were working on general ultrasound imaging and cardiovascular imaging, 82% of participants had been working on the same technique for a long time, examining 11–20 patients per day and feeling pain at around the middle of their working shift. Moreover, 78% of participants were suffering from WRMSDs. Ultimately, 60% of participants used rest, medication, and physiotherapy sessions as treatments. A strong correlation was found between the examination time, working hours, and type of examination with WRMSKD ($P < 0.001$). *Conclusion:* The finding of this study conclude WRMSKDS are the major problem among Saudi sonographers and would contribute to reduces the WRMSKDs by applying effectives methods for safe working setting and to achieving healthy life for sonographers as well as to enhance the performance.

Medical Science, 2022, 26, ms265e2232

Prevalence of irritable bowel syndrome and its association with academic performance in Umm Al-Qura University medical students

Ahmad S Al-Zahrani, Abdullah S Al-Shanbari, Abdullah S Al-Sulami, Osama S Zamzami, Anas A Sindy, Saad Albagami, Mokhtar Mahfouz Shatla

Background: Irritable bowel syndrome (IBS) is one of the most prevalent global diseases and national health issues. IBS symptoms have an impact on a patient's quality of life as well as their capacity to work and study. Medical students are affected by IBS, but the rate of IBS is unknown. Accordingly, this study investigates the prevalence and impact of IBS among all medical students at the Umm Al-Qura University (UQU) Medical College. *Methods:* A cross-sectional study including all medical students at UQU. Data were collected using self-administered questionnaires from an online survey using validated ROME III criteria to find out the prevalence of IBS distributed via social media. *Results:* A total of 303 medical students participated. Most participants were male (59.4%), and female (40.6%). In dependence of ROME III criteria, IBS was diagnosed in 100 (33.0%) of the participants. Participants with IBS had a significant association with life stressors ($P = 0.000$). In addition, according to the hours spent studying, absence from lectures, poor academic performance, and classroom activities, participants with IBS had significantly lower academic performance than those without. ($P = 0.000, 0.001, 0.000, 0.000$, and 0.000 , respectively). *Conclusion:* According to the findings, this study found a high frequency of IBS among participants, especially students in clinical-based years (i.e., from the 4th to 6th year). Furthermore, this research discovered a significant association between students without IBS and stressful life events. Poor academic performance was significantly associated with students with IBS compared to those without IBS.

Medical Science, 2022, 26, ms266e2203

CASE REPORT

Pulmonary rehabilitation program as supportive therapy to chemotherapy for improving functional performance in a case of malignant pleural effusion who underwent debulking surgery for ovarian cancer: A case report

Purva Mundada, Vaishnavi Yadav, Moli Jain, Pallavi Bhakaney, Vishnu Vardhan

Malignant Pleural Effusion (MPE) is defined by cancer cells metastasizing into the pleural space, resulting in an increase in fluid buildup in the pleural space. It is curable but reduces chest expansion and causes lung collapse, restrictive ventilatory abnormalities, and respiratory failure over time resulting in impaired quality of life. These complications induced by structural lung damage result in physiological dysfunction that leads to impairment, respiratory problems, and a reduction in functional capacity, all of which have an impact on Activities of Daily Living (ADLs). In this study, we are describing a case of 55 year old female who was a known of ovarian cancer presented to this hospital with moderate dyspnea, chest pain, and cough with expectorations and after investigations diagnosed with malignant right sided pleural effusion which was primarily managed with chemotherapy and ICD and subsequently, physiotherapy rehabilitation was planned. The current case demonstrated that medical care combined with physiotherapy and/or Pulmonary Rehabilitation (PR) can improve patient outcomes.

Medical Science, 2022, 26, ms267e2187

Inpatient pulmonary rehabilitation followed by Tele-Rehabilitation in a patient with Post Tubercular sequelae: A case study

Samiksha V Sonone, Pallavi R Bhakaney, Moli Jain, Vaishnavi Yadav, Vishnu Diwakar Vardhan

A 52-year-old known case of pleural effusion caused by tuberculosis presented with complaints of breathlessness, right-sided chest pain, and weakness. History revealed that this was her second episode as a post tuberculosis sequel. She was treated with a multidisciplinary approach i.e. pharmacological as well as physiotherapeutic management. Necessary radiological imaging included chest x-ray and HRCT thorax which gave a better understanding of the lung condition of the patient. Pharmacological treatment included oxygen therapy and Inj. Augmentin, Inj. Aminophylline, Inj. Hydrocort, Tab. Mucinac 600mg and Tab. Montair; whereas physiotherapeutic management included airway clearance techniques, chest expansion techniques, early graded mobilization, strengthening, and stretching through telerehabilitation. The progression of the patient was recorded on outcome measures taken such as Dyspnea (MMRC score), 6-minute walk test, and HADS (Hospital Anxiety and Depression Scale).

Medical Science, 2022, 26, ms268e2188

ANALYSIS

Schizophrenia and PCR-proved cases of COVID-19: A preliminary case-control study

Saleh A Alghamdi

Objectives: The coronavirus infection (COVID-19) significantly impacts populations worldwide, including individuals with schizophrenia. This study meant to investigate whether COVID-19 patients with schizophrenia have the same disease severity and outcome as those without schizophrenia. *Methods:* This case-control, retrospective study included 108 adult patients who attended a tertiary care hospital with a polymerase chain reaction (PCR)-confirmed diagnosis of COVID-19. The study cohort was divided into the patient group ($n=54$) with confirmed schizophrenia diagnosis and the matched control group. The patients' medical data were retrieved from archived hospital e-medical records from 1 January to 26 February 2021. A logistic regression study was made to

identify the risk of concomitant comorbidities. *Results:* Females accounted for 25.9% of the study population. Approximately 75% of the participants were aged ≥ 50 (50–69) years. None of the study participants were admitted to the ICU. Patients with schizophrenia had more comorbidities (68.5%) than COVID-19 patients without schizophrenia (35.2%). Nevertheless, patients with schizophrenia were less likely to have a concomitant cerebrovascular disease (OR = 0.48, 95% CI = 0.39–0.58, $p < 0.001$), epilepsy (OR = 0.48, 95% CI = 0.39–0.59, $p < 0.001$), or bronchial asthma (OR = 0.49, 95% CI = 0.40–0.59, $p < 0.001$). There were no reported cases of mortality in either study group. *Conclusions:* Although COVID-19 patients with schizophrenia had multiple comorbidities, they did not necessarily present a severe course or detrimental outcome compared to COVID-19 patients without schizophrenia. Further studies are required to confirm the findings of this study.

Medical Science, 2022, 26, ms269e2069

The effect of open varicocelectomy on sperm parameters and pregnancy rates in infertile males with a varicocele

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Background: Varicocele is a most common treatable cause of male with infertility. *Objective:* Aiming of the study is to evaluate and compare the sperms parameters and spontaneous pregnancy rate of patients with clinical varicocele and infertility (primary or secondary) at three to six months after varicocelectomy. *Materials and Methods:* in a retrospective study we evaluated the semen parameters of 34 male patients present with clinical varicocele and infertility, which underwent sub or inguinal varicocelectomy, and then compared the semen parameters (concentration & motility) with spontaneous pregnancy of their partner preoperatively, and at three to six months postoperative. *Results:* from (34) patients in this study, at a mean age of 29 years in a range: (25.0 – 33.0) years underwent the varicocelectomy, there is an increasing in semen parameters results at the third to sixth months' post-operative, The tested variations of the semen parameters result at the third to sixth month, conclude that there is a significant increasing in the sperm count and motility at six months ($p \leq 0.05$). *Conclusion:* the varicocelectomy is increased the success rate of percentage of the spontaneous pregnancy as also as live birth rates in infertile patient regardless the semen analysis results, the rate of success in a zoospermic men can be useful to retrieve sperm after varicocelectomy.

Medical Science, 2022, 26, ms270e2197

Prevalent practice of swaddling and its association with developmental dysplasia of hip

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Background: Traditional swaddling is widely used in neonates which imply restrictive mobilization of the lower limbs by extending and adducting the hip forcefully. It has been proven the association between incorrect methods of swaddling with an increased risk of Developmental Dysplasia of Hip (DDH). This study aims to determine the prevalent practice of swaddling among mothers in the Eastern province of Saudi Arabia. *Methods:* This was an observation cross-sectional conducted among 3166 Saudi mothers in the eastern province, Saudi Arabia during the period of 1/10/2021 to 26/2/2022. A mother who is 18 years and above and has a child was included in the stud. A self-structures validated questionnaire was used. *Results:* This study involved 3166 mothers with a mean age of 36.9 ± 11.7 years old and more than half of the 61% had a high level of education. Seven percentage of participant had a child with DDH that was diagnosed during the first 6 months of age. Only 37% showed good knowledge about DDH level its complications. An exact 64.7% acknowledged that Swaddling is a predisposing factor for DDH but only 27.1% had fair knowledge regarding swaddling. Most of the participants 86% learned how to swaddle from their families. Mothers with a high level of education, having a child with DDH, and being health care providers had proper prevalent of practicing swaddling ($P < 0.05$). *Conclusion:* Hip-safe techniques of swaddling are considered as a modifiable risk factor, being familiar with this association is essential to eliminate the risk of it.

Medical Science, 2022, 26, ms271e2342

Facemask Associated Dry Eyes among Healthcare Workers during COVID-19 Pandemic, Jeddah, Saudi Arabia

Nada M Alghamdi, Najlaa A Mandoura

Background: The use of facemasks is a key preventive measure against the COVID-19 pandemic. Wearing a facemask for long periods can cause mask-associated dry eyes. This study explored the prevalence of facemask-related dry eyes (MADE) and associated factors. *Methods:* This study was cross-sectional, carried out on healthcare workers in Primary Healthcare Centers (PHCs) in Jeddah, Saudi Arabia. Descriptive statistics were performed. Chi-Square was used to evaluate the association between determinant and outcome variables. P-value < 0.05 was considered for significance. Regression analysis was applied to identify the contribution of independent factors to the outcomes. *Results:* Our study got a 91% response rate. The prevalence of mask-associated dry eyes was 70.9%. Participants aged 31–40 years had almost three times more likelihood to develop MADE (OR: 2.98; 95% CI: 1.493–5.947), and those aged 41–50 years had 2.54 odds of developing MADE (OR: 2.54; 95% CI: 1.090–5.924). Time spent on digital screens (> 4 hours) was 2.38 times more associated with MADE, while radiology staff, medical specialists, medical consultants and managerial team were less likely (OR=0.097, OR= 0.257, OR=0.222, and OR=0.290, respectively) of developing MADE. There was no statistically significant association of MADE with pre-existing eye problems ($p > 0.05$). *Conclusion:* The prevalence of mask-associated dry eyes was high. Increased age and screen time were significant independent factors associated with risks for MADE, while being

a radiology staff and managerial team member, medical specialists, and medical consultants were associated with lower risks for MADE than other healthcare workers.

Medical Science, 2022, 26, ms272e2361

A population-based survey examining the awareness of factors that are associated with male infertility in the Kingdom of Saudi Arabia

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Men's knowledge of the numerous factors linked to male infertility is poor. There haven't been many research on men's awareness of their own fertility. According to research of both men and women, men are relatively less aware of issues with fertility and reproductive health. A regionally representative sample of Saudi men took part in a web-based survey on male fertility and reproductive health over the course of three months in 2022. For the study, men between the ages of 18 and 65 were enrolled. With a mean age of 24 years, there were 444 male participants. Each participant was required to list the causes of male infertility; their knowledge of fertility was evaluated by two open-ended questions and a thorough list of associated risk factors and medical conditions. By the majority of demographic factors, the general degree of fertility knowledge remained constant. The majority of men (70 percent) claimed to have some knowledge about male fertility and reproduction. Fewer men learned about fertility via television and radio than from medical professionals or the internet.

Medical Science, 2022, 26, ms273e2362

Awareness, knowledge of healthy lifestyle behaviours related to hypertension among secondary schools teachers in KSA

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Background: Hypertension is a chronic disease attributed to underlying multifactorial causes. Awareness and management of modifiable risk factors of hypertension can increase the quality of life and health outcomes. *Aim:* Assessment of knowledge of secondary school teachers in KSA regarding the association between hypertension and lifestyle habits and daily behaviours. *Methodology:* A Cross-Sectional research targeting secondary school teachers in Saudi Arabia. The study period was from March 2022 to May 2022. An online questionnaire was distributed; data was gathered with a pre-structured data collection tool. The survey tool was used after an intensive literature review and expert's consultation. A pilot study on 25 teachers evaluated tool applicability, clarity and reliability with α -Cronbach of 0.71. *Results:* The study was conducted on 400 Saudi teachers, averaging 41.1 ± 7.9 years old. The study showed that 243 (60.8%) were interested in raising awareness regarding high blood pressure, and 39.3% participated in hypertension educational activities. A percentage of 79.5% of teachers were well educated in regards to high blood pressure, and 62.3% had given a precise definition of it. A total of 73.8% have stated the correlation between hypertension and diet. Moreover, 76.8% understand the importance of treatment compliance. *Conclusions:* In conclusion, secondary school teachers in Saudi Arabia were found to be well educated about hypertension, its risk factors, symptoms, outcomes, and complications. Teachers with a family history of hypertension were found to have more knowledge regarding hypertension.

Medical Science, 2022, 26, ms274e2352

Level of knowledge and awareness about diabetic retinopathy among population of Al Baha region in Saudi Arabia

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Background: Diabetic retinopathy is a complex metabolic disease with a huge prevalence ratio. However, there is a dearth of literature about the importance of knowledge regarding diabetic retinopathy, which can help in the ease of screening and management. *Methods:* The study was conducted in Al Baha region, Saudi Arabia. N = 385 participants, including diabetics and non-diabetics, were recruited through the online questionnaire. The questionnaire was based on 15 questions that were focused on awareness of diabetic retinopathy, participants' satisfaction with the knowledge of disease and the barriers faced by them while seeking access to the treatment. *Results:* Out of N = 385 participants in the present study, 246 were males, and 139 were females. The majority of the participants (69%) reported that Diabetes could lead to eye blindness in affected patients. These participants do have some knowledge of diabetic retinopathy. Furthermore, the participants (60%) reported that they acquired knowledge of diabetic retinopathy from resources other than social media and doctors. Only a few of them (4 participants) had diabetic retinopathy; however, most participants (84%) exhibited the need for a regular annual eye check up. *Conclusions:* Subjects in the present study have significant knowledge of diabetic retinopathy. However, many still remain underdiagnosed in the practical world. Delay onset of diabetic retinopathy in the case of Diabetes mellitus is also because of the under diagnosis. Therefore, it is important to assess the complete knowledge and awareness of the disease and its serious complications.

Medical Science, 2022, 26, ms275e2372

Functional outcomes of upper extremity in rural household following burn injury in the course of epilepsy: A case report

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The most frequent site of burn injury in rural households are hands, Spilling of liquids like tea, water are the most frequent causes of burn in rural households. Properly planned comprehensive physiotherapy rehabilitation is very essential to obtain full-fledged functional recovery. A single hand holds lower than 3% of the TBSA. After the incident of burn, the patient underwent contracture release surgery in which the distal and middle interphalangeal joint of the right 5th phalanges was amputated. Skin flaps were raised and modelled, and the corners of the proximal interphalangeal joint were nibbled with a bone nibbler. All margins were manipulated in the manner of a fisherman. The split-skin graft was taken from the right thigh and placed over the right wrist, with silk sutures holding it in place followed by a sterile dressing and the patient was shifted towards the ward. Various outcome measures like NPRS, Tampa Kinesiophobia Scale, FIM, Burn Specific Scale, Likert Scale, Burn anxiety Inventory, Burn depression checklist, and Hospital-Acquired Depression Scale were used along with the physiotherapeutic interventions to track the progress. Surgical management was achieved but to bring him back to his pre-pathology life, a comprehensively designed rehabilitation is very beneficial. The outcome obtained was effective medically and correlated with numerous health benefits in overall health-related quality of life. Thus, improving physical functioning and bringing a patient back to his normalcy and resuming her occupation back.

Medical Science, 2022, 26, ms276e2277

Physiotherapeutic approach in a patient with breast carcinoma – A case report

Muskan Bhojwani, Shubhangi Patil, Prasad Dhage

Breast carcinoma is one of the most serious illnesses in females and a significant because of mortality and morbidity. A variety of treatment programs has now been developed to help with the restoration of shoulder movement while also lowering the occurrence of subsequent lymphedema. Modified radical mastectomy has several advantages, including local cancer management and a lower chance of cancer recurrence, as well as the preservation of the chest muscles, which prevents deformity and allows patients to undergo breast reconstruction. Lymphedema can cause cosmetic issues, functional difficulties, and psychological anguish in breast cancer patients, all of which can reduce the quality of life. Females who receive quick breast reconstruction have a lower risk of depression and have a higher standard of life. For females who have had breast cancer, physiotherapy can assist to reduce pain, restore shoulder mobility, and enhance the quality of life.

Medical Science, 2022, 26, ms277e2248

Diagnostic dilemma of a complex tumor- hemangiopericytoma/ solitary fibrous tumour or nodular hidradenoma of thigh - A unique case report

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Hemangiopericytoma is described as a rare variety of tumors originating from the unrestricted or uncontrolled proliferation of pericytes. It is believed that these rare tumors arise from the vascular cells called Zimmerman pericytes which are present in the entire spiral body involving the capillaries and post-capillary venules. These painless, slowly growing tumors are liable to develop in the subcutaneous tissue and skeletal muscle. Hemangiopericytomas more commonly affect the lower extremities and may also affect the head and neck region. Clinically, it can affect any age but the increased incidence has been noted in adults in the fifth decade of life without any gender predilection. We report a case of hemangiopericytoma of the left lower extremity i.e., in the thigh in a 35-year-old male patient who came to our hospital at J.N.M.C., Sawangi (M), Wardha with the chief complaints of a painless mass in the left thigh which clinically looked like a sebaceous cyst. Thereafter, tumor excision was performed and the sample was sent for HPE. The histopathological examination of the tumor tissue showed features that were highly suggestive of hemangiopericytoma. However, interestingly the tumor was diagnosed as Nodular Hidradenoma, a benign adnexal tumor on immunohistochemistry. Nodular hidradenoma is a rare non-malignant tumor of adnexa that originates from the distal excretory duct of eccrine or apocrine sweat glands, which is rare, considering all the adnexal tumors.

Medical Science, 2022, 26, ms278e2285

ANALYSIS**Prevalence of bronchial asthma among Al-Qunfuda populations and extent of awareness of the preventive methods from bronchial asthma exacerbating retrospective study**

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Objectives: To assess bronchial asthma prevalence in Al-Qunfudhah population, the extent of awareness by the preventive methods from exacerbating asthma and to determine the effects of bronchial asthma exacerbation on patient life, work, school, and relationships. *Methodology:* This is an observational cross sectional study design. 952 respondents from Al-Qunfudhah region's population formulated an electronic questionnaire using question items from previously validated questionnaires. All data was

analyzed using the SPSS version 23.0 program (SPSS Inc, Chicago, IL). *Results:* our study down on 952 participants most of them females 860 between (26-60 years), 844 residents in Al-Qunfudhah and suburbs. We founded that majority of participants (934) were thinking about smoking and breath of dust are the main causes and triggering factors for bronchial asthma. Also, we found that 734 participants though that cough is the main symptom of asthma. Lastly the information's taken from the 622 participants about the treatment of bronchial asthma confirming that the use of the inhaler and medicine only when symptoms are present.

Medical Science, 2022, 26, ms279e2298

The consequences of the arbitrary herbal and analgesics on renal function

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Background: Many modifiable risk factors have been linked to the etiology of the increased renal disease worldwide. The objective of this study was to assess the consequences of arbitrary herbal and analgesics on renal function in a series of Saudi patients. *Methodology:* This study investigated 2944 Saudi volunteers who have joined during a cross-sectional survey conducted in Hai'l region. Renal function status was established corresponding to Glomerular infiltrating Rate (GFR) estimation using creatinine level, age, and sex. GFR was categorized into: Stage III CKD (GFR = <60 - 30 mL/min). Stage IV (GFR = <30 - 15 mL/min). Stage V (GFR = <15 mL/min). *Results:* Around 14.4% of participants claimed using non-steroidal anti-inflammatory drugs (NSAIDs). Of the 391 analgesics users, about 12.8% were found with impaired renal function. The risk of analgesics uses in deteriorating renal function, the relative risk (RR) and the 95% confidence interval (95%CI), RR (95%CI) = 1.7926 (1.3313 to 2.4137), P = 0.0001. Out of the 426/2714(15.7%) herbal users, 45/426(10.6%) were found with impaired renal function. The risk of herbal uses in deteriorating renal function, the RR (95%CI) = 1.3659 (1.0366 to 1.7999), P = 0.0268. *Conclusion:* Significant Reverse associations between arbitrary herbal use as well as, frequent NSAIDs renal function. The frequent use of Arbitrary herbal and NSAIDs is common among the Saudi Community, particularly among women.

Medical Science, 2022, 26, ms280e2369

Evaluating social media addiction and self-medicating behavior in adults in Saudi Arabia: A pilot study

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Objectives: This study sought to study how social media addiction and self-medicating behavior are related in adults in Saudi Arabia. *Materials and methods:* We utilized an online self-administered survey using multiple-choice questions, free-text comments, and a five-point Likert scale to evaluate self-medication behavior. We used the validated [Social Media Addiction Scale (SMAS)] to evaluate social media addiction. Survey participation spanned from July 2021 to December 2021. *Results:* 692 participants responded to the online survey. Approximately 71.5% (n=495) of participants reported no self-medication practices. Vitamins were the most used among self-medicating participants (10.5%) followed by analgesics (8.5%). The SMAS scale mean was 41.7±8.76 indicating a moderate tendency to social media addiction with no difference between males and females. Social media addiction showed a weak but statistically significant correlation to self-medication $r(692) = 0.036$ $p=0.035$. Social media addiction was weakly and adversely correlated to age in a statistical significance correlation $r(692) = -0.116$ $p=0.002$. *Conclusions:* Saudi adults demonstrated moderate inclination towards social media addiction with positive correlation of social media addiction to self-medication and invers correlation to age.

Medical Science, 2022, 26, ms281e2371

Substance use disorder, is it related to type 2 diabetes? An analytical cross-sectional study, among patients admitted to MOH addiction hospital in Jeddah, Saudi Arabia 2021

Hana J Gadah, Hani A Al Ghamdi

Background: The association between substances use disorder and type 2 diabetes mellitus, is an under-studied topic. Since type 2 diabetes is a major health issue, it requires a comprehensive knowledge of all aspects regarding its etiology and risk factors. *Objective:* To understand the association between different substance abuse and type 2 diabetes among patients admitted to the Ministry of Health (MOH) addiction hospital in Jeddah, Saudi Arabia. *Methods:* This is an analytical cross-sectional study. Data were retrieved from the patient's records over the year of 2021. Random sampling was applied to include the patients. The data collection sheet was created by the researcher. Data analysis was done using the statistical package for the social sciences (SPSS, version 27.0). *Results:* A total of (322) patients were included in the analysis. Amphetamines were the most common used substance 55.3%, followed by Cannabis 53.1%. Of the total, 8.4% had diabetes. Two thirds (66.7%) were taking medications, and only three cases (1.1%) had controlled blood glucose levels. Among those whom diabetes was not controlled, the HbA1c mean was 9.9%±1.6. Regarding other comorbidities, 11.1% had psychiatric illnesses, 2.5% had hepatitis C virus and 1.2% had HIV. Longer durations of abuse and Cannabis use were significantly associated with diabetes (P-value=0.02, P-value<0.001), respectively. *Conclusion:* The prevalence of diabetes among substance use patients was (8.4%), and the majority of which had uncontrolled blood glucose levels. While most substances were not associated with diabetes, cannabis showed a significant association in our sample.

Medical Science, 2022, 26, ms282e2373

Practicing healthy lifestyle behaviors among physicians in public primary healthcare centers, Jeddah, Saudi Arabia

Bassam A Alhejaili, Hani S Almutgi

Background: Primary healthcare centers (PHC centers) physicians play a vital role in health promotion. This study evaluated healthy lifestyle behavior practices among the public PHC centers physicians in Jeddah, Saudi Arabia. *Methods:* This was an online cross-sectional study using a questionnaire and the WHO STEPwise approach to NCD Risk Factor Surveillance (STEPS) instrument. Data were analyzed by the statistical package of social science SPSS version 27. P-value < 0.05 will consider for significance. *Results:* Our study received 212 responses. Most respondents had overweight and obesity (61.7%), hypertension (82.1%), hyperlipidemia/dyslipidemia (19.3%), hypertension (10.8%) and diabetes mellitus (9.4%). Of all respondents, 8.5% knew 100% of scientific evidence about lifestyle medicine and 46.5% and 30.2% reported to know three-fourths and a half of practical lifestyle medicine, respectively. The vast majority significantly ($p=0.000$) agreed that physicians should apply lifestyle medicine services to every patient. Female gender ($p=0.030$), older age ($p=0.000$), marriage ($p=0.000$) and higher education levels ($p=0.030$) were associated with updates of knowledge ($p=0.030$) and giving more advice to patients about physical activities. Eating 4-5 servings of fruits ($p=0.008$) and vegetables 3-5 days a week ($p=0.028$) and never adding salt to the meal ($p=0.000$) were significantly associated with more frequent updates of knowledge of lifestyle medicine and always advising patients to perform physical activities. *Conclusion:* Our findings showed poor knowledge updates, good attitude and willingness to practice healthy behaviors and lifestyle medicine, highlighting the need for incorporating lifestyle medicine concepts in medical education and training of physicians.

Medical Science, 2022, 26, ms283e2387

Side effects of COVID-19 third booster dose among healthcare workers in Saudi Arabia

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The number of COVID-19 cases has continued to rise since the World Health Organization (WHO) declared the Coronavirus Disease 2019 (COVID-19) as a global pandemic in March 2020. At this time, WHO has received reports of about 460 million confirmed illnesses and over 6 million deaths. In Saudi Arabia, the number of confirmed cases has nearly surpassed 750 thousand, with COVID-19 responsible for approximately 9,000 deaths. Vaccination is the most effective approach to prevent this pandemic, and persons who have had three doses are better protected than those who have not. The goal of this study is to look into the adverse effects of COVID-19 vaccine after the third booster dosage in Saudi Arabian healthcare personnel. Between November 2021 and April 2022, a cross-sectional survey was conducted using simply a questionnaire. Pain at injection site was the commonest side effect, followed by fatigue and headache. There is a temperature and edema at the injection site, respectively. 27.71 percent of female participants experienced menstrual cycle changes such as delayed or menorrhagia. The side effects are comparable to those experienced after the first and second COVID-19 vaccination doses. More research on long-term side effects, as well as studies into the relationship between menstrual cycle changes and COVID-19 vaccination, is needed.

Medical Science, 2022, 26, ms284e2350

Knowledge regarding cancer and its determinants and barriers to seeking medical help among university students in the city of Hail, KSA

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Background: The burden of cancer has been increasing among the young population worldwide, specifically in Saudi Arabia. The present study aims to assess the knowledge of cancer and its determinants and barriers to seeking medical help among university students. *Methods:* It is a cross-sectional study, and 300 students were selected through stratified random sampling. A validated and structured questionnaire was used. Descriptive statistics were used to calculate the mean and standard deviation of the variable. Regression analysis was used to determine the association of risk factors with the outcome variable of knowledge level. A P-value < 0.05 was considered significant. *Results:* Out of 300 study participants, most had inappropriate knowledge (67.7%). The important determinant which caused barrier to seeking medical advice is fear of being diagnosed positive cancer test. In univariate analysis, social science students whose father's occupation was a job were significantly associated (OR 3.27, CI 1.96-5.45, p -value 0.00) and (OR 1.70, CI 1.01-2.84, p -value 0.043) with in-appropriate knowledge. After adjusting covariates, the age group 16-21 years and social science students were significantly associated (OR 3.33, CI 1.22-9.10, p -value 0.019) and (OR 2.78, CI 1.58-4.90, p -value 0.000) with inappropriate knowledge towards cancer respectively. *Conclusions:* The study found that university students, specifically in the social science program, had inappropriate knowledge of cancer signs and symptoms. Health promotion programme should be developed to the young population of the society, it will help to prevention of the Cancer.

Medical Science, 2022, 26, ms285e2299

Knowledge and awareness level of *Helicobacter pylori* infection among medical students in Umm Al-Qura University: A cross-sectional electronic survey

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Background and aims: *Helicobacter pylori* are a significant pathogen that can lead to various complications such as gastric cancer and peptic ulcer. Identifying the infection pattern will help in early diagnosis and treatment to avoid serious complications. Accordingly, our study is aimed to evaluate the understanding in level between students of medical College at Umm Al-Qura

University (UQU). *Methods:* An online descriptive cross-sectional survey was distributed in March 2022. The questionnaire was administered to all medical students from second to sixth grade who study in UQU during the 2021-2022 academic year. *Results:* Overall, there were 334 participants from the second to the sixth year students involved in the survey. Most of the participants' age ranged from 21-and 24-years old, representing 68.8%, and most of the participating students were males, representing 67.06%. Students from fifth-year medical students had higher responses representing 33.23%, than in other academic years. In addition, the association between students with a previous positive history of *H-pylori* and a poor level of *H-pylori* knowledge was significantly positive (P-value, 0.003). *Conclusion:* The Early detection and intervention of *H-pylori* are significant in preventing serious complications. However, our findings indicate that students are not informed about basic knowledge of *H-pylori*, so we suggest further extensive educational campaigns.

Medical Science, 2022, 26, ms286e2289

Bending resistance and cyclic fatigue of TRUShape and ProTaper Next rotary instruments in static and dynamic modes

Khalid Merdad

Introduction: The goal of this study was to evaluate the bending and fracture resistance of TRUShape and ProTaper Next files in static and dynamic modes. *Method:* A universal testing machine evaluated the bending resistance of ten randomly chosen files from each system. These files were chosen for the present investigation because they were all 0.25-inch in diameter. Custom-built equipment was used to conduct both static and dynamic cycle fatigue testing. An artificial canal was cut with a 60-degree curve and a 6mm diameter in a stainless-steel block. Scanning electron microscopy was utilized to detect the fracture mechanism after the broken segments' lengths had been determined by other means. New TRUShape and ProTaper Next files were subjected to X-ray energy-dispersive spectrometer (EDS) examination to assess their average nickel and titanium contents. The statistical analysis made use of an independent t-test. *Result:* TRUShape files displayed substantially less bending resistance than ProTaper Next files. Moreover, the TRUShape demonstrated significantly better cycle fatigue resistance than the ProTaper Next in both static and dynamic modes. The EDS analysis demonstrated that the alloy composition of both files was highly comparable. *Conclusion:* When evaluated in static and dynamic modes, TRUShape files outperformed ProTaper Next in cycle fatigue resistance. ProTaper Next files displayed much less flexibility than TRUShape files for dynamic cycle fatigue testing.

Medical Science, 2022, 26, ms287e2216

CASE REPORT

Type II Lissencephaly with chronic epilepsy and behavioral disturbances: A rare case report

Ajinkya Suresh Rao Ghogare

Lissencephaly is a rare genetic disorder of brain malformation. It is characterized by the absence of normal folds or convolutions of the cerebral cortex. It is caused by abnormal neuronal migration during a period of embryonic development. It has various symptoms such as difficulty in swallowing, unusual facial appearance, abnormal muscular spasms, failure to thrive, extreme psychomotor retardation, deformities of fingers, toes, or hands, intellectual disability, and the seizure episodes. There are two variants of Lissencephaly namely type I and II. This case report has highlighted a rare case of type II Lissencephaly with chronic epilepsy and behavioral disturbances in a 12-year-old child managed effectively with a mood stabilizing antiepileptic drug named Divalproex sodium and a benzodiazepine named Clobazam.

Medical Science, 2022, 26, ms288e2145

ANALYSIS

Spectrum of chest High Resolution Computed Tomographic (HRCT) findings in coronavirus disease-19 (covid-19) patients

Avinash Dhok, Dheeraj Tripathi, Vrushali Dalvi, Prashant Onkar, Kajal Mitra, Aisha Lakhani

Background: After its emergence in Wuhan, China COVID-19 (Coronavirus 2019 disease) has spread across the world at the end of 2019. It has become important to study and understand the type and pattern involvement of lung in COVID – 19 to help diagnose and manage this disease. *Aim:* To study and describe the spectrum of High resolution computed Tomography (HRCT) chest findings in coronavirus disease-19 (COVID-19) infected patients at our institute. *Methods:* 111 RT-PCR (reverse transcriptase polymerase chain reaction) positive or Rapid Antigen Test (RAT) positive patients who underwent HRCT chest were included in this observational analysis. The prevalence, distribution, extent, and kind of abnormal lung findings were investigated. *Results:* Out of the 111 study subjects, 76 (67.87 %) male patients and 36 (32.14 %) female patients. Lung parenchymal abnormalities were found in 78.3%. Rest of the RT-PCR or RT positive cases had a normal chest CT. The most common findings in the lung parenchymal abnormalities on CT were major peripheral and posterior distributions of ground-glass opacities. Ground glass opacities (GGO) were noted in 87 (i.e. 100 %) cases. Ground glass opacities were purely observed in 32 % patients. Crazy paving patterns were noted in 20.67 % patients. In 47.1 % patients, GGO with consolidation was also noted. *Conclusion:* Patients who tested positive for RT-PCR or RAT were included in this cohort research had a predominantly bilateral and peripheral distribution of GGOs which were typical findings in 78.3 % of patients whereas normal chest CT was seen in the remaining patients.

Postoperative outcome of pancreaticoduodenectomy for pancreatic ductal adenocarcinoma and predictors of 1st year mortality

Sayed Shaker Shaeir, Fouad Abdelshaheed, Ahmed Elsebaei, Mohamed Emam Sobeih, Eman Desoky, Ahmed Shaaban Owis, Mahitab Ibrahim Eltohamy, Haitham Fekry Othman

Background: Due to late detection, a low percentage of resectable malignancies, and resistance to systemic therapy, pancreatic ductal adenocarcinoma (PDAC) has the poorest outcome of all pancreatic cancers. The basis of contemporary multimodal therapies aimed at long-term survival is complete lesion excision. Postoperative complications are common consequences following pancreaticoduodenectomy (PD). **Objective:** To investigate the outcome and factors contributing to the 1st year survival after Whipple's procedure for pancreatic ductal adenocarcinoma. **Patients and Methods:** Between January 2020 and December 2021, all patients identified with pancreatic ductal adenocarcinoma (61 individuals) who had Whipple's surgery in the surgical department at the National Cancer Institute were included in this retrospective cohort analysis. **Results:** Wound infection (49.2%), followed by pancreatic leak (41.7%) were the most prevalent complications among the 61 patients who received PD. The 1st year survival rate was 77% (47/61). In multivariate assessment postoperative pancreatic fistula and adjuvant treatment were independent predictors of 1st year survival. **Conclusion:** In multimodally managed patients following curative PDAC surgery, individuals who acquired a postoperative pancreatic fistula and did not get adjuvant therapy had greater 1st year death rates.

Medical Science, 2022, 26, ms290e2294

Effect of caffeine on medical student's performance during exams in Northern Border University (NBU), Saudi Arabia

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Background: Caffeine is a somewhat psychoactive element that is broadly ingested. **Objective:** To confer consequence of caffeine on university student's performance thru exams in NBU, Saudi Arabia. **Methods:** This is a cross sectional study was conducted among 395 of the students of Northern Border University, KSA. Respondents were interviewed and filled a predesigned questionnaire. **Results:** The percentage of pupils that use caffeine was determined to be 92.2% in our survey. Caffeine use had no significant relationship with sex, age, BMI, study level, or GPA ($P > 0.05$). Coffee was the most prevalent source (89.3%), followed by chocolate (54.4%). In terms of daily caffeine use, 29.9% consume it three times a day, 28.6% two times a day, 13.7% four times a day, and 17.0% three times a day. When it comes to the rationale for daily intake, 40.9% use caffeine to improve attention, 29.7% use it to stay awake during courses, and 28.6% use it for morning vigour. When it comes to the time of day when people consume the most caffeine, 40.1% consume it in the late evening, which accounts for more than half of all cases. 61.3% believed that caffeine improves his or her GPA, and 59.9% agreed that caffeine extends study time. The majority (60.4%) believe that caffeine reduces body weight, while 44% have experienced negative side effects as a result of caffeine usage. 16.8% of people suffered tachycardia, while 14% felt gastrointestinal discomfort. **Conclusion:** Almost all studied students of NBU consume caffeine products. The most common source was coffee. Most of the students agreed that caffeine increases study hours and increases his/her GPA.

Medical Science, 2022, 26, ms291e2239

RESEARCH

Simple prediction accuracy for covid-19 daily incident data in Malaysia using machine learning- Auto Regressive Integrated Moving Average (ARIMA), and Linear Regression (LR) Model

Mohamad Arif Awang Nawati, Muhamamd Amirul Mat Lazin

Introduction: The COVID-19 pandemic has spread so widely across borders and worldwide. All countries, including Malaysia, need to take immediate and aggressive action to curb and combat this virus by accurately predicting the number of new COVID-19 cases a few weeks in advance. This paper aims to present robust traditional methods that can be used to make accurate predictions for the evolution of an epidemic over the next two weeks. **Methodology:** There are two traditional methods for forecasting, such as ARIMA and LR. We use COVID-19 daily data in Malaysia from 1 January 2021 to 14 January 2022, and use Microsoft Excel, Minitab, and SPSS software version 26 to perform the forecasting procedure. **Results:** The ARIMA model showed a slight difference between the forecast value and the actual value of the new COVID-19 case compared to the forecast value for the LR model. This indicates that the efficient and usable prediction model is the ARIMA model with high adj- R^2 values and low MAD, MSE, RMSE, and MAPE values. **Conclusions:** Accurately predicting trends is an important aspect of preventing the spread of COVID-19 outbreaks, especially in countries with large populations. Furthermore, accurate forecasts can provide feedback on whether the policies implemented effectively relieve the pressures of the national healthcare system and enable the government to evaluate different strategies for risk reduction and to regulate different policies based on projections of different areas of concern.

Medical Science, 2022, 26, ms292e2305

Urinary tetrahydroxy bile acids investigation in infantile cholestasis

Mostafa Al-Bassam

Background: Tetrahydroxy bile acids present at negligible or undetectable levels in healthy human adults but present at elevated levels in urine of infants with cholestasis clinically are the most valued marker of cholestasis next to serum tests. *Methods:* Twenty subjects with cholestasis, age range between seven days and one year, the study measured urinary tetrahydroxy bile acids for all cases. *Results:* Study found the presence of urinary tetrahydroxy bile acids in new-borns and infants with infantile cholestasis. New-borns and infants with a good prognosis had higher tetrahydroxy bile acids levels than those with a poor prognosis according to their outcomes. *Conclusion:* The study found the incidence of urinary tetrahydroxy bile acids in new-borns and infants with infantile intra-hepatic and extra-hepatic cholestasis. Extra-hepatic cholestatic patients had higher tetrahydroxy bile acids urine level than intra-hepatic, Cytomegalovirus and idiopathic neonatal hepatitis patients had a lesser tetrahydroxy bile acids level than in patients with genetic cholestasis. Tetrahydroxy bile acids play a role in clinical managing and treatment, in addition to their possible defensive properties against hepatic injury.

Medical Science, 2022, 26, ms293e2283

CASE REPORT**Difficult airway management of 17 years old patient with Osteosarcoma of jaw**

Nitin R Alaspurkar, Vijay Chanadak, Aruna Chandak, Vivek Chakole, Jayashree Sen, Nikhil Bhalerao, Sanjot Ninave

The management of a problematic airway is one of the most critical tasks for an anaesthesiologist. Airway issues are one of the most common causes of anaesthesia-related morbidity and mortality. Poor airway management has been recognised as a serious patient safety issue for nearly three decades, emphasising the significance of a comprehensive airway assessment before to anaesthesia induction. Mask ventilation and endotracheal intubation are considered challenging in patients with osteosarcoma of the jaw, where the mass protrudes from the mouth. Video laryngoscopic equipment, retrograde intubation, the laryngeal mask airway, Fiberoptic bronchoscope-guided intubation, and the pliable fibre optic stylet are among the procedures and equipment used to facilitate tracheal intubation in patients who are expected to have a difficult intubation. Anesthetists as well as surgeon prefer awake fiberoptic endotracheal intubation. Fiberoptic intubation with sedatives and local anaesthetics is a safe procedure for securing the airway in a difficult situation; even if the patient does not consent to an awake intubation. Here we report airway management of a 17 years old patient with osteosarcoma of jaw.

Medical Science, 2022, 26, ms294e2178

ANALYSIS**The impact of smoking cessation on the control of diabetes mellitus and blood pressure in Saudi Arabia: A prospective randomized controlled clinical trial**

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Diabetes mellitus is a major health problem that affects a wide range of populations worldwide. Recently, diabetes mellitus had become a growing public health concern in Saudi Arabia. The latest prevalence estimates indicate that there are about 4 million diabetic adults among Saudi population. The present study represents a prospective open labelled randomized controlled clinical trial with a two-group parallel design to detect the impact of smoking cessation on the control of diabetes mellitus and hypertension in Saudi populations. Assessment of smoking showed no difference in smoking duration between the two groups; whereas the intervention group had higher nicotine dependency level, greater amount of smoking and a higher level of expired carbon monoxide (CO). Indicators of diabetes control showed a minor, non-significant decrease in glycosylated hemoglobin (HbA1c) and a statistically significant increase in fasting blood glucose (FBG) ($+18.34 \pm 73.90$ mg/dL versus -21.10 ± 46.20 mg/dL) in the intervention versus the control group respectively. In the present study, after one-year, smoking cessation intervention reduced systolic blood pressure (BP) by 7.8 mmHg and cigarette abstinence reduced it by 9.8 mmHg, by comparison to continued smoking where only a 2.8 mmHg decrease in systolic BP was observed. In conclusion, motivational smoking cessation interviews and telephone-calls follow-up along with the appropriate pharmacological interventions resulted in significant decline in the rate of smoking with significant reduction of systolic BP when compared versus those who continued smoking. However, smoking cessation, at least on the short-term run, didn't significantly affect the glycemic control.

Medical Science, 2022, 26, ms295e2309

The extent of knee osteoarthritis patients adherence to exercise and reducing weight in Makkah, Saudi Arabia – A cross sectional study

Shimaa Mashrai, Ohud Alwadaani, Reema Alsaadi, Safa Albijali, Mawaddah Zahrani, Yosra Alhind, Arwa Fairaq

Introduction: Knee Osteoarthritis (OA) is a chronic disorder that is manifested by degeneration and cartilage loss which results in stiffness, pain, and limitation of movement. The common sites to be affected of this disease are knees, hips, hands, and spine joints.

It is well known to use non-pharmacological path as a start before medications such as exercise and weight reduction. Researches before found were lack of knowledge about knee osteoarthritis among Saudi population. However, there are no studies conducted in Makkah, Saudi Arabia to assess the attitude of patients with Knee osteoarthritis towards weight reduction and daily exercise in Makkah population. *Aim:* our main aim was to examine the knowledge and adherence of subject suffering from knee osteoarthritis to weight reduction and daily exercise. *Methods:* we used a cross-sectional survey (questionnaire) with a total duration of 6 months, and total sample size 200 participants selected randomly in the Western Region of the Kingdom of Saudi Arabia. *Results and conclusion:* We found in this study around 72% of the subjects were suffering from knee osteoarthritis. Moreover, 94.0% of them worked outside the medical field. Around 61.0% of the subjects mentioned that when they decrease a load of heavyweights the pain is reduced. Unlike them 62.5% did not believe that physical therapy helps. To conclude we observed that our community needed more awareness about the essential part of exercise and weight loss to reduce pain and symptoms of knee osteoarthritis.

Medical Science, 2022, 26, ms296e2383

Patients Knowledge, attitude, and practice (KAP) towards diabetic complications in Saudi Arabia

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Background and aim: As the prevalence of diabetes is increasing in Saudi Arabia. Moreover, by 2045 researchers expected that the number of diabetic patients will increase to more than half of the Saudi population. Diabetes is a complicated disorder if not controlled and well managed will lead to multiple complications and increase mortality. Therefore, we needed to assess knowledge, attitude, and practice towards the diabetic complications. *Methods:* Across sectional survey was done from December 2021 to June 2022 with a total sample of 202 diabetic patients in Saudi Arabia. *Results:* the study participants aged was 51 and above years old. Moreover, female participants were 58.9% more than males 41.1%. 93.1% of them had their primary and elementary education. 55.9% have been diagnosed with diabetes for more than 10 years. Around above 50 % of the study subjects had well balanced knowledge and attitude towards their diabetic complications however, they needed more education in the practice side. *Conclusion:* patient with diabetic had good knowledge and attitude but needed more emphasize in the practice to decrease their complication rate.

Medical Science, 2022, 26, ms297e2385

The extent of family satisfaction to relatives' care in the intensive care units in Saudi Arabia

Omar Mahmoud Ballut, Thamer Ahmed Alghamdi, Fares Gormallah A Alghamdi, Thamer Abdullah Tami Alghamdi, Thamer Saad Saeed Alzahrani

Introduction: The family has an important role in the recovery of the intensive care patient. Evidence in the literature reveals the importance of family members' satisfaction with patient care. Because of that, it is crucial to evaluate the level of family satisfaction with the services provided to them and their patients. *Methodology:* A comparative, descriptive multicenter cross-sectional study was carried out in Saudi Arabia, targeting all Intensive Care Units in both Government and Private Hospitals in all regions equally. *Result:* A total of 2053 responses were analyzed. A 63.4% satisfaction index was reported for communication with ICU staff, the emotional support and support in decision making reported a 62.9% satisfaction index. The patient's and family's overall needs reported a 56.9% satisfaction index. Also, data showed some discrepancies between government and private hospitals. *Discussion:* A high satisfaction index among families for the services provided to their patients in intensive care units, compared to the satisfaction index among families in the Arab world, and with a relative level compared with research around the world. *Conclusion:* This study showed a satisfaction level of 56.9% in meeting the patient's and family's overall needs; many families indicated the need for improvement in the ICU's services. That urges to carry out future researches to identify the families' and patients' needs in detail.

Medical Science, 2022, 26, ms298e2394

The effect of social media addiction on psychological distress, sleep quality and loneliness among health care professional in Saudi Arabia

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With the rapid evolution of technology and social media, there has been a growing trend of social media addiction among health care professionals and this could have negative consequences on their mental health. This study was done to assess the relationship between social media addiction and; (i) psychological distress; (ii) sleep quality; and (iii) loneliness among health care professional in Saudi Arabia. This cross sectional study used an electronic questionnaire that was distributed through social media. The questionnaire included questions related to the measurement of demographics in terms of social media addiction, sleep quality, psychological distress, and loneliness. A total of 773 health care students or practitioners from different cities in Saudi Arabia completed the questionnaires. The participants score of psychological distress was directly associated with social media addiction ($p<0.001$), with R-squared of 0.189. There was an inverse relationship between social media addiction and sleep quality ($p<0.001$). There was strong positive association between social media addiction and emotional loneliness ($p=0.006$, R-squared=0.01). Our study suggests social media addiction is strongly associated with psychological distress, sleep quality and loneliness.

Medical Science, 2022, 26, ms299e2379

Psychological stress after Covid-19 in hypertensive patients in Madinah: Cross- sectional study

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Background: Corona virus disease 2019 pandemic had a major impact on the general wellbeing of people. Hypertension patients are more liable to psychological stress. This study aims to assess the prevalence of psychological stress in hypertensive patients affected by Covid-19 in Madinah. **Methods:** Hypertension patients in Al Madinah were invited to participate in an online questionnaire in the period from December 2020 to May 2021. It included the personal data, questions assessing hypertension and psychological health status using the General Health Questionnaire. **Results:** Total number of participants in our study was 588. 30.8% of participants were mildly distressed and 6.8% were severely distressed. Females are being more at risk of severe distress. Regarding taking prescribed medications there was a significant relationship between groups. **Conclusion:** The prevalence was found to be 0.376. Hypertensive patients in Al Madinah are at more risk of psychological stress especially females, students, unemployed, and those who are not adherent to their medications. More psychological care should be provided to them in pandemics. **Objectives:** To evaluate the prevalence of psychological stress after Covid-19 in hypertensive patients in Madinah.

Medical Science, 2022, 26, ms300e2367

REPORT

Vitamin D₃ deficiency in babies and children with cholestasis

Mostafa Al-Bassam

Background: Cholestasis, also known as prolonged jaundice, is characterized by a reduction in bile flow. Vitamin D₃ is a fat-soluble vitamin whose absorption is affected by bile acids passing through the bile ducts. The primary objective was to determine the clinical utility of serum vitamin D₃ in infants and children with cholestasis. **Materials and Methods:** Using an enzyme-linked immunosorbent assay, vitamin D₃ levels in the blood serum of sixty patients with cholestasis, twenty patients with non-cholestatic causes, and twenty-five healthy subjects ranging in age from one day to fourteen years were determined. **Results:** Comparing intra- and extra-hepatic cholestasis groups to the control group, intra- and extra-hepatic cholestasis groups showed a highly significant decrease in serum vitamin D₃ ($P < 0.001$), while there was no significant difference between the control and non-cholestatic jaundiced groups ($P = 0.069$), and there was no significant difference between the old and newly diagnosed intra-hepatic cholestatic groups ($p = 0.627$). **Conclusion:** The amount of vitamin D₃ in the serum of those with extra-hepatic cholestasis is lower than those with intra-hepatic cholestasis, indicating a poor prognosis for cholestasis illness.

Medical Science, 2022, 26, ms301e2308

CASE REPORT

Dawning of percussive massage therapy combined with other interventions for a patient with lumbo-sacral transitional vertebrae: A case report

Madhu Lakhwani, Pratik Phansopkar

Sacralization is the inclusion of sacral components caused by the merging of the 5th lumbar or 1st coccygeal vertebrae, or both. The fifth lumbar vertebra could fuse with the sacrum unilaterally or bilaterally, resulting in partial or total sacralization. It is linked to low back pain, bulging of disc or herniated one, Neck rib, and Bertolotti's syndrome. Backpain is the most prevalent adult health problem that causes discomfort and impairment, whereas Radiculopathy causes low back pain that radiates to the lower extremities. The purpose of this case study is to develop a thorough physical therapy plan for a patient who suffers from persistent low back pain and Prolapsed Intervertebral Disc. The patient was a 54-year-old male with a 2-year history of LBP. The pain further radiated to left leg. His MRI revealed degenerative abnormalities in the lumbar spine and annular tear at the L2-L3, L3-L4 disc level. The patient's major issue about his ailment was that he couldn't work without pain, and that the pain was interfering with his sleep. The pain level on the NPRS has decreased from 8/10 to 2/10 after 4 weeks. The patient reported that intolerable pain has been lessened. The ability to function has been returned, as has the ability to sleep. Percussive Massage therapy, electrical stimulation, tailored patient education, manual methods, superficial heat, and a home exercise regimen were all part of a complete physical therapy program.

Medical Science, 2022, 26, ms302e2313

RESEARCH

Parents' risk perception in the predictive association between personal fable and sensation seeking with adolescents' pandemic related preventive behaviors during covid 19: A moderated mediation approach

Parastoo Naeimijoo, Ahmad Yousefi, Abbas Masjedi Arani, Maryam Bakhtiyari, Mahdi Jafari

Objective: Amid the barriers created by Covid-19 and the enforced strict governments' containments measures, adolescents were negatively impacted more than any other age group. Adolescents are known to display a pivotal role in spreading the virus because of their low conformity. To find the contributing and mediating factors associated with teens' extensive non-compliance, this study focuses on the mechanisms of adopting preventive behaviors. *Method:* This cross-sectional study was administered online using convenience sampling over four weeks during severe lockdown 4th peak outbreak period. Data were gathered online from 422 adolescents with an average age of 15.48 years (SD=2.74) and their parents. Analysis of data was done by PROCESS macro for SPSS version 25. *Results:* Personal fable and sensation seeking were predictive of rule-disrespecting in adolescents of both genders. Mediation modeling demonstrated that parents' risk perception partially mediated the predictive relationship between personal fable and sensation seeking with pandemic preventive behaviors in girls (personal fable: [B = -0.034, 95% CI = (-0.076, -0.005)]; sensation seeking [B = -0.047, 95% CI = (-0.102, -0.008)]). *Conclusion:* These findings highlight the importance of some peculiar characteristics of this developmental stage in explaining adherence to pandemic-related preventative behaviors. It seems that teen boys are more vulnerable in pandemic time frames regarding their inattention to parents' recommendations.

Medical Science, 2022, 26, ms303e2030

REPORT

Microbiological approaches to caries risk determination in children

Oksana I Godovanets, Anastasiia V Kotelban

The aim is to evaluate the microbial factor in the development of caries of temporary teeth. 6-year-children were examined at Bukovyna region (n=73). As cariogenic microflora detection, we were used the CRT bacteria kit (Ivoclar Vivadent, Liechtenstein). We found (<10⁴) CFU of streptococci at a low level of caries intensity in the 55.55% of children. In the case of a high level of caries intensity, (>10⁶) CFUs of streptococci were shown in 46.67% of children and (10⁵ - 10⁶) CFUs of streptococci in 33.33% of children. Regarding lactobacilli, the low level of intensity of caries is characterized by the concentration (<10⁴) of CFU and high level – (10⁴ - 10⁵) CFU of lactobacilli. Thus, we found a high concentration of the main cariogenic microorganisms in children with caries of temporary teeth. As the level of caries intensity increases, there is a probable increase in the titer of streptococci and lactobacilli.

Medical Science, 2022, 26, ms304e2316

ANALYSIS

Epidemiology of Urticaria among Adults in Saudi Arabia – Survey based results

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Background: Urticaria is considered a common skin disease that is characterized by red, itchy wheals. It can be associated with angioedema which is deeper swelling of the mucous membrane and skin. It divided into acute and chronic urticaria. In general, urticaria is prevalent throughout life is approximately 20%. It is more common in males than females. *Objective:* To describe the pattern of urticaria and angioedema among adults in Saudi Arabia, especially in Hail region. *Methodology:* In this cross-sectional study, a questionnaire was administered to adults in Saudi Arabia, especially in Hail region from November 2021 to March 2022. *Results:* Up to 838 participants fulfilling the inclusion criteria completed the study questionnaire. A total of 166 (19.8%) of the participants experienced any of the urticaria clinical presentations while 672 (80.2%) never experienced any. Urticaria experience was significantly more reported among 25.3% of female participants compared to 14.9% of males. 33 (19.9%) patients with history of urticaria complained of angioedema. The most reported triggers/risk factors of initiating urticaria symptoms were skin itching (68%), followed by spontaneously or no reason (57%). *Conclusion:* Overall, in this study we found that the urticaria was more frequent in the females than in the males. About two thirds of the patients had urticaria symptoms only once, and less than three-quarters experience the symptoms monthly.

Medical Science, 2022, 26, ms305e2327

Knowledge and practice of primary healthcare physicians toward diagnosis of oral clefts through prenatal ultrasound imaging: An analytical cross-sectional study

Arwa Alahmadi, Majed Alghamdi

Background: Oral clefts are of the common malformation in newborns. The prevalence of this condition varies worldwide. Numerous negative consequences are linked to oral clefts and affecting both a child and parents. The influence can be minimized through early detection, and multidisciplinary team management. *Methods:* This is an analytical cross-sectional study that utilized an online questionnaire to assess primary healthcare (PHC) physician's knowledge about and practice toward prenatal diagnosis of oral clefts. *Results:* A total of 237 physicians with diversity in gender, age, and seniority level were included in the study. Overall knowledge and practice were insufficient in the sample. Several factors were significantly associated with level of knowledge and practice such as seniority level of the physician, and the hospital to which a physician reports (*p*-value<.05). *Conclusion:* Oral clefts are a devastating abnormality affecting children and parents life. An obvious paucity in knowledge and practice is observed among

PHC physicians, and this necessitates a comprehensive training to establish competent PHC physicians in prenatal diagnosis of oral clefts.

Medical Science, 2022, 26, ms306e2390

Prevalence, clinical characteristics and allergen sensitization patterns of allergic rhinitis and its impact on daily activities among the general population of Al-Jouf province, Saudi Arabia

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Background: Allergic rhinitis (AR) has a major global health impact on all age groups, with a global increase in its annual morbidity and mortality rate. It is common among children and adults in many regions of Saudi Arabia. In spite of its increasing incidence and its great impact on the family, the precise risk factors and the level of awareness on AR in Aljouf region are still unclear. *Methodology:* This is a questionnaire-based cross-sectional study to identify the common risk factors and their impact on individuals' daily activities. An online questionnaire was disseminated among residents (Saudi and non-Saudi) in Al-Jouf provinces in Saudi Arabia in the period from January to March, 2022. *Results:* The prevalence of AR among participants was 67.4%, and dust, weather changes, smells, fumes, cold air, perfumes, animal dander, and pollens were the common risk factors. Almost all participants have reported that the manifestations were intermittent (less than 4 weeks, 86.5%), seasonal, and more common during Jumada Al-Thani, Jumada Al-Awwal, Rabi Al-Thani, Rabi Al-Awwal, and Rajab, respectively. Many patients with allergic rhinitis had sleep disturbances, and their daily activities affected. *Conclusion:* There is high prevalence of AR in Al-jouf region, Saudi Arabia. Thus health education programs are essential to raise community awareness about the risk factors and how to avoid them.

Medical Science, 2022, 26, ms307e2384

CASE SERIES

Prevention of radial head instability by augmentation of annular ligament with local triceps tendon sheath autograft in radial head Fixation or Replacement: A case series

Suhas Vijay Landge, Prateek Upadhyay, Aditya Pundkar, Shubham Padmawar, Nikhil Bhalerao

During radial head plating or replacement it has been observed that the end to end repair of annular ligament was impossible especially when torn. It may cause radial head instability later on. Use of Bell Tawse technique and its modification has been elaborated in literature for the management of chronic radial head instability using Triceps tendon autograft, but its application for prevention of instability in the first place has not been elaborated. This case series will explain prevention of instability of radial head in those cases. During radial head plating or replacement, torn or resected annular ligament was augmented with a strip of autologous triceps tendon sheath graft. During subsequent follow-ups no patient had any instability in the elbow. The mean of Mayo elbow performance score (MEPS) was 90 in 6 month follow-up. Radial head instability can be prevented in first place by simply augmenting annular ligament with triceps tendon sheath graft.

Medical Science, 2022, 26, ms308e1975

CASE REPORT

An unusual case of multiple magnets ingestion: A case reports and review of the literature

Mohammed AL Khalaf, Mohammed Alsheikh, Saud K Al Khaldi, Khalid Al Dhafeeri, Dana Al Mishri, Fawzia Kilany

Foreign body ingestion is common, but magnet foreign is less commonly encountered and rarely reported. An extensive PubMed and Google scholar research has been done to search for similar cases, to the best of our knowledge; it is the first case to be reported with this large number of small magnets, reaching more than 35 magnets, and this way of management. A literature review was performed, and the results were discussed.

Medical Science, 2022, 26, ms309e1673

Effectiveness of rehabilitative physiotherapeutic intervention in case of acute onset quadriparesis following transverse myelitis – A case report

Chitrakshi A Choubisa, Snehal Samal

Transverse myelitis is considered as a rare inflammatory disorder of spinal cord, resulting in damage and destroy myeline covering of spinal cord and eventually leads to motor and sensory deficit producing impaired and altered sensations, paresis in limbs, also bowel and bladder malfunctioning. A 24 year old male came with the complaints of weakness in all four limbs from 7 days. He was admitted to hospital and it was found that he was having vit B12 deficiency whereas, MRI spine reviled Acute Transverse myelitis. Due to weakness, he was advised physiotherapy treatment. A well framed physiotherapy protocol has been used for significant improvement and functional recovery. By making use of various outcome measure such as Berg Balance Scale, Barthel Index of

Activities of Daily Living, Hamilton Rating Scale of Depression, MMT and Fatigue Assessment Scale, pre-rehabilitation and post rehabilitation recovery in patient has been compared which has shown relatively significant improvement.

Medical Science, 2022, 26, ms310e2177

A rare case report on physical therapy rehabilitation of arthroscopic repair of full-thickness supraspinatus tear in a 61-year-old woman

Swati Gupta, Madhu Lakhwani, Prishita Koul, Pratik Phansopkar

Background: Supraspinatus tear is common in adults post 60 years of age but a full-thickness tear of this muscle, solely is rare. In such cases, the arthroscopic repair is done. Rehabilitation post arthroscopic repair lasts for 4-6 months depending upon the extent of the tear and focuses on reducing pain and inflammation and improving ROM and strength. The primary goal of therapy is to prevent contractures and stiffness, maintain the integrity of the repair and make the patient independent. The treatment protocol has four phases: immediate post-operative phases, protection and protective active motion phase; early strengthening phase advanced strengthening phase. *Case Description:* A female 61 years of age visited AVBRH due to extreme shoulder pain and difficulty performing overhead activities after pressurizing her shoulder while attempting to balance with a stick. An MRI revealed a full-thickness supraspinatus tear in the right shoulder, which was treated with the arthroscopic repair of the torn muscle. *Diagnosis, Therapeutic intervention and outcomes:* A full-thickness supraspinatus tear was diagnosed in the patient. Patient education, ROM exercise, and exercise strengthening were part of the therapeutic intervention. The overall intervention resulted in an improvement in ADL. *Conclusion:* This study suggests that surgical intervention and physical therapy can help increase muscle strength and range of motion and reduce pain. It also improves the quality of life by increasing ADL activities.

Medical Science, 2022, 26, ms311e2276

Non-invasive sinonasal mucormycosis in a diabetic - Case report

Muralidharan KR, Rajasekar MK

The case of a diabetic patient hospitalized with a discharging ulcer sinus in the maxillary area and poor oral hygiene related to mucormycosis were shown and discussed in this study. A 52-year-old man with uncontrolled diabetes was referred to a tertiary care hospital with a two-year history of headaches, toothaches, nasal obstruction, and head heaviness. Recurrent URI and side face discomfort are also common. The patient was observed with ulcer sinus drainage and left maxillary pain. In the upper second and third molar regions, there is a blackish discoloration. A histological examination showed fungal hyphae after he had surgical debridement. Amphotericin B was used as a systemic antifungal. Sinonasal mucormycosis is a disease that is currently poorly understood and has a significant fatality rate. Currently, the trifecta of physician awareness, rapid initiation of therapy, and timely surgical intervention represents the most successful method of illness management.

Medical Science, 2022, 26, ms312e2296

A lethal encounter with malignant mixed germ cell tumour in an adolescent girl: A double trouble

Manisha Andela, Deepika Dewani, Kalyani Mahajan, Subhada Jajoo, Srinidhi Cherukuri

Ovarian carcinomas are rarely encountered among paediatric population. Malignant germ cell tumours are comparatively uncommon ovarian neoplasms constituting less than 5%. Germ cell tumours consisting of numerous types, mainly including teratomas and dysgerminomas, accounts for around 10-15 % of ovarian tumours. Germ cell tumours are found to represent the malignant transformation of primordial germ cells. We discuss a case of 11 year-old girl who was been referred to our rural tertiary care centre with complaints of excruciating abdominal pain associated with abdominal distension. Patient was investigated elaborately and was found to have abnormally elevated tumour markers. Her CECT revealed an enormous tumour mass covering the entire pelvic region. Timely intervention was carried out by performing a cytoreductive surgery followed by frozen section evaluation which confirmed mixed germ cell tumour. Histopathological examination which was carried out elaborately has revealed the tumour was in advanced stage. Then the patient was started on chemotherapy. This case emphasizes that though mixed germ cell tumour among adolescents is rare condition, it is extremely important for the clinicians to be vigilant as it is often mismanaged especially in the rural centres where there is dearth of resources and investigations.

Medical Science, 2022, 26, ms313e2320

Midtrimester pregnancy loss in IVF conception due to parvovirus -A twisted tale of gravid

Tanvi Chaurasia, Deepti Shrivastava, Kamlesh Chaudhary, Rahul Agola, Geeta Chaurasia

Mid trimester pregnancy loss due to parvovirus infection in patients with IVF conception is an infrequent finding encountered in pregnancy and is associated with high output cardiac failure, anemia, and hydrops fetalis. Effects may range from an uncomplicated pregnancy to severe hydrops fetalis or intrauterine fetal death. Parvovirus B19 causes prolonged epidemics of erythema infectiosum, particularly in primary school-aged children. Infection produces clinically significant anemia in those who have a high red cell turnover rate, such as the fetus. Infection affects around 40% of women of reproductive age, with annual seroconversion rates ranging from 1.5 percent during endemic periods to 10-15 percent during epidemics. Around 50% of susceptible women infected at home are infected, and 20-30% gets infected after professional exposure, such as in a primary school. Maternal infection during the first half of pregnancy is linked to 10% more fetal loss and 3% more occurrences of hydrops fetalis.

Congenital abnormalities or long-term sequelae have been attributed to parvovirus B19 infection. We are presenting a case of 34 years old teacher conceived through IVF with five months of amenorrhea with leaking per vaginum and spotting. She was diagnosed with severe oligohydramnios and IgG positive status which previous history of parvovirus infection and had twin fetal demise both of which presented with hydrops fetalis.

Medical Science, 2022, 26, ms314e2321

Endodontic management of an open apex with apexification using Mineral trioxide aggregate: A case report

Nagaraj NJ, Pallavi S, Ravisankar MS, Tamil Selvan Kumar

Endodontic treatment of a tooth with an immature apex poses a lot of challenges. The absence of an apical stop makes obturation and achieving a good apical seal more difficult. Because of their thin walls, these teeth are also more prone to fracture. Apexification with Mineral Trioxide Aggregate (MTA) is the preferred treatment because it creates a calcific barrier at the apex, allowing root canal filling to take place in a more favorable environment. This case report discusses the use of MTA to create a barrier at the apex in a previously root filled discolored maxillary right central incisor with an open apex. MTA aided in the creation of an apical barrier in the maxillary right central incisor with an open apex, resulting in satisfactory clinical and radiographic outcomes.

Medical Science, 2022, 26, ms315e2331

ANALYSIS

Practice and awareness of migrant pregnant women living in urban slums towards tobacco consumption

Fahad Afzal, Khadija Parveen Aalam, Satya Mehra, Sunil Joshi, Afaq Amir Ahmad

Background: Annually, 1.35 million tobacco attributable mortalities occur in India. The problem is alarming and exacerbated in the case of migrants living in low socioeconomic conditions. Past researchers indicated migrant pregnant women are most vulnerable in this regard. *Aim:* The objective of the study is to find out the tobacco related practices and awareness of migrant pregnant females residing in the urban slums area of Aligarh city. *Method:* A cross-sectional study with a sample size of 314 was conducted. Three hypotheses were proposed based on the available evidences. Data collection was done by a pre-tested interview schedule. Awareness level was captured by scoring the responses of participants. For statistical analysis IBM-SPSS (version 22.0) was utilized. Linear regression, unpaired t-test and ANOVA methods were employed for analysis and hypothesis testing. *Results:* About one-third of the respondents consumed tobacco product in the past, out of which approximately 31% of the respondent consumed tobacco during pregnancy. The awareness score of respondents were analyzed and found to exhibit a positive linear association ($R^2=0.802$) with mass media exposure. Analysis unveiled a statistically significant variation in awareness score (regarding health impact of tobacco use) of migrant women married to tobacco consuming males (14.7 ± 2.6) and non-consuming males (23.2 ± 3.1). *Conclusion:* The government health agencies should reboot mass media campaigns against tobacco use; priority to migrants in the reproductive age group should be given. A social-network analysis needs to be done, to examine the role of husbands in imparting tobacco related awareness to wives.

Medical Science, 2022, 26, ms316e2332

The assessment of awareness level among the parents regarding the neonatal jaundice in the Arar city, KSA

Irfan Hanif, Sarwar Hussain, Wael Khulaif J Alanazi, Faris Athal F Alanazi, Abdullah Ayidh Q Alanazi, Ziyad Daham R Alanazi

Background: Raising parental awareness will help the illness progress by enabling early identification, prompt treatment, and appropriate management of new born jaundice. *Objective:* The aim and objectives of the existing research paper was to explore the awareness level of parents about neonatal jaundice (NNJ) knowledge and attitude. *Methods:* A cross sectional survey was conducted in Arar city, Saudi Arabia, by using social media, personal interviews and paper-based questionnaires, during the period from 1 May to 31 July, 2021. *Results:* The study included 385 participants, 69.4% of them were females and 30.6% were males. 55% of study participants had a child or more diagnosed with neonatal jaundice. 49.9% of participants had knowledge of NNJ. Source of knowledge was relatives and friends in 46.2% of participants, and 14.3% from a healthcare provider. 36.4% of participants reported head as the first part of the body affected by neonatal jaundice, 15.6% arms and 2.6% legs. Neonatal jaundice complications included physical handicap, hearing and vision loss, mortality, epilepsy, and delayed development, which were all reported by 10.4%, 14.0%, and 5.2% of participants respectively. 37.4% of participants reported using sunshine as their primary form of treatment for newborn jaundice, followed by home lighting (12.7%), hospital light therapy (5.69%), and blood transfusion (4.9%). *Conclusion:* The inhabitants of Arar Saudi Arabia knew little about the causes, problems, and treatments of newborn jaundice. Efforts to improve generals' knowledge and attitudes are needed to promote good maternal health-seeking behaviour and decrease impairments and infant jaundice-related deaths.

Medical Science, 2022, 26, ms317e2388

The prevalence of back pain among male teachers in Makkah region, Saudi Arabia: An analytic cross-sectional study

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Background: In primary care settings, back pain is the most prevalent complaint. Schoolteachers are at a higher risk of musculoskeletal issues. Several studies in Saudi Arabia have been looking into work-related musculoskeletal disorders, but the actual frequency and risks are unknown. Thus, this study's goal was to establish the incidence of back pain and its determinants among male schoolteachers in the Makkah, Saudi Arabia. *Methodology:* In this cross-sectional study, male schools in Makkah were divided into seven categories using cluster sampling, and a validated back pain questionnaire was used. *Results:* A total of 380 participants responded, with a mean age of 44.23 and ± 7.70 SD. A positive history of past back issues was found in 48.2 % of the participants. The majority of the participants reported working for 11 to 24 years, working fewer than 30 hours per week, standing for more than 30 minutes, sitting for less than 15 minutes, less than a 20-minute break, and sleeping for less than 6 hours. Except for sleep duration, none had a significant association with the back pain likelihood ratio. Having a master's degree, not having depression or sleep issues, number of classes, and job satisfaction were revealed a significant association. *Conclusion:* Overall, compared to prevalence rates recorded in other countries, this study demonstrates a high prevalence of back disability among male teachers in Makkah, Saudi Arabia. Practical preventives are recommended, and increased knowledge of occupational hazards. Teachers need to get health education to prevent back disability.

Medical Science, 2022, 26, ms318e2326

Prevalence and degree of burnout among medical students in Jeddah University using Maslach Burnout Inventory (MBI)

Mohammed Qashqary, Abdulrahman Alqahtani, Ahmed Alotaibi, Ziyad Alghamdi, Hashim Alattas

Burnout is broadly used term that is spread more recently than before. Medical student burnout can cause serious distress on the student that could cause severe consequences. There has been increased attention to burnout and many studies has been conducted to estimate the prevalence and the effect of burnout. This study aims to use the Maslach Burnout Syndrome (MBI) to estimate the prevalence and extent of burnout in medical students at the University of Jeddah in 2021. A cross section study was used. The study included 271 medical students in university of Jeddah who completed the second year (first in the college) until the end of internship of 2021 batch. The total of participants in the study is 271 and they completed a self-administered questionnaire. 27% of participants are females and 73% are males. According to the method of the assessment, the prevalence of burnout is 20%. The three areas of burnout i.e., Burnout, depersonalization, and personal achievements has been found to be in mild to high rate category with (20%) of medical students having burnout.

Medical Science, 2022, 26, ms319e2290

CASE REPORT

Descriptive case report on the postoperative rehabilitation of roof and posterior column acetabular fracture following accidental event

Nikita kaple, Madhu Lakhwani, Medhavi Jagzape, Pratik Phansopkar

Introduction: Fractures of acetabulum are among the most difficult injuries for orthopaedic surgeons to treat dealing with trauma. The most common injuries are RTA and falls from great height causes of acetabular fractures. These fractures that occur are prone to failure of joint and may be better treated with methods such as ORIF. In terms of patient and fracture characteristics, fractures of acetabulum in the elder population are characterized by a significant grade of diversity. Thus, the analysis focuses to show the effect of a unique surgical method for the therapy of break in the continuity of acetabulum in the posterior wall. *Case description:* A 55-year male visited to the department of emergency after RTA due to collision with an auto rickshaw. X-rays findings showed posterior wall of right fracture of acetabulum. His treatment was done by ORIF and plate osteosynthesis for acetabulum fracture. *Diagnosis, Therapeutic Intervention and outcomes:* Patient was diagnosed with the Roof and posterior column of right acetabulum fracture without neurovascular deficit. Therapeutic intervention for the patient comprised of education to him, range of motion exercises, strength building exercise. Final outcome of all the treatment showed functional recovery. *Conclusion:* This study suggests that surgical intervention along with physiotherapy help to increase the ROM, strength of the muscle, and activities of daily living over time leading to more restoration of effectiveness.

Medical Science, 2022, 26, ms320e2256