

Medical Science

About the Cover



Objective: Major depressive disorder (MDD) is associated with cognitive deficits and inflammation which predict treatment resistance. This study aimed to investigate the efficacy of Curcumin in cognitive functions and inflammation in depression. *Methods:* The present study was a double-blind, randomized clinical trial design. One hundred twenty MDD outpatients, aged 18 to 55, were selected regarding the inclusion and exclusion criteria and randomly assigned to Curcumin (n = 60) and control groups (n = 60). Participants were assessed at baseline, sixth and twelfth week for depressive symptoms and cognitive functions. Inflammatory markers (IL-6, IL-1 β) were measured at baseline and the twelfth week. Both groups received sertraline. Experimental group received Curcumin while the control group received placebo. Data were analyzed by repeated measures MANOVA. *Results:* Curcumin out performed control on trial making test-B (P= 0.011), backward digit span, verbal fluency task and Tower of London (P< 0.001) at the twelfth week of assessment and forward digit span (P<0.001) and trial making test-A (P=0.041) at the sixth and twelfth week of assessment. Moreover, inflammatory markers reduced in the curcumin group more than in the control group (P< 0.011). *Conclusion:* According to the results of this study, Curcumin could be considered as an antidepressant to bring more therapeutic benefits in improving clinical symptoms and cognitive deficits, especially the executive functions of MDD patients. Moreover, it could lead to reduction of inflammatory markers and would target cognitive function more than conventional treatments (Ref: Alimadadi Z, Jazayeri S, Salehi M, Azami S. Efficacy of curcumin in cognitive functions and inflammatory markers of major depressive disorder. Medical Science, 2022, 26, ms72e2051); (Image: eiko ojala).

Efficacy of curcumin in cognitive functions and inflammatory markers of major depressive disorder

Zeynab Alimadadi, Shima Jazayeri, Masoud Salehi, Saeed Azami

Objective: Major depressive disorder (MDD) is associated with cognitive deficits and inflammation which predict treatment resistance. This study aimed to investigate the efficacy of Curcumin in cognitive functions and inflammation in depression. *Methods:* The present study was a double-blind, randomized clinical trial design. One hundred twenty MDD outpatients, aged 18 to 55, were selected regarding the inclusion and exclusion criteria and randomly assigned to Curcumin (n = 60) and control groups (n = 60). Participants were assessed at baseline, sixth and twelfth week for depressive symptoms and cognitive functions. Inflammatory markers (IL-6, IL-1 β) were measured at baseline and the twelfth week. Both groups received sertraline. Experimental group received Curcumin while the control group received placebo. Data were analyzed by repeated measures MANOVA. *Results:* Curcumin out performed control on trial making test-B (P= 0.011), backward digit span, verbal fluency task and Tower of London (P< 0.001) at the twelfth week of assessment and forward digit span (P<0.001) and trial making test-A (P=0.041) at the sixth and twelfth week of assessment. Moreover, inflammatory markers reduced in the curcumin group more than in the control group (P< 0.011). *Conclusion:* According to the results of this study, Curcumin could be considered as an antidepressant to bring more therapeutic benefits in improving clinical symptoms and cognitive deficits, especially the executive functions of MDD patients. Moreover, it could lead to reduction of inflammatory markers and would target cognitive function more than conventional treatments.

Medical Science, 2022, 26, ms72e2051

ANALYSIS**Evaluation of factors affecting pressure ulcers in patients with brain – Spinal injuries: A cross-sectional descriptive study**

Masoud Hatefi, Khalil Komlakh

Background: Due to the importance of pressure ulcers (PUs), this study was performed to determine the status of pressure ulcers in patients admitted to hospitals in Ilam. *Methods:* This is a cross-sectional descriptive study that was conducted (sample size=220). Researchers obtained a list of discharged patients from hospitals and contacted patients or their companions. The instruments included a demographic profile form and the Braden Scale for Predicting PU Risks. Data analysis was SPSS ver. 16 software. *Results:* It showed most of the patients achieved scores in poor and low risk status. Also, the overall score for risk of Pus was low, moderate, and high, and very high in 28 (12.7%), 81 (36.7%), 105 (47.7%), and 6 (2.7%) of cases, respectively. The total mean \pm SD of patients with and without Pus was 10.18 \pm 0.77 and 13.01 \pm 1.40, respectively. Also, there was a significant difference between patients with and without Pus in terms of the mean \pm SD of scores obtained in all items of this instrument, except friction and shear (P<0.05). *Conclusions:* Due to the identification of factors affecting the development of pressure ulcers, it is necessary to take the necessary interventions to reduce them.

Medical Science, 2022, 26, ms73e2056

CASE REPORT**Chronic Hip Monoarthritic TB without Systemic Manifestations in young Female: A case report from KSA**

Ahmed Abdullah Alghamdi

Articular tuberculosis (AT) is caused mainly by *Mycobacterium Tuberculosis* (TB). Due to the infrequent presentation of the AT cases, there is a high probability of a misdiagnosis or delay of the accurate diagnosis that in most occasions results in inadequate therapy resulting in irreversible joint deterioration. This presented case report of a 30-year-old female was admitted complaining of hip pain in the right side for over a year. Probability of tuberculous arthritis being the cause of this woman complaint was not suspected; therefore she had been misdiagnosed for a long time. It was then identified as TB-arthritis but after a significant delay that necessitate the excision of large tuberculoma from the acetabulum and thigh. If the patient was precisely diagnosed in the proper time, she might success to be exactly treated without the need for the replacement arthroplasty. Therefore, TB arthritis should be supposed as one of the differential diagnosis in monoarticular arthritis and suspected in any age and any economic levels.

Medical Science, 2022, 26, ms74e2087

Swyer James Macleod Syndrome -A rare cause of hemoptysis in 31 year old man

Mohanakrishnan Jayamani, Yasar Arafat M, Aravind Raj AS, Koushik L

Swyer James Macleod syndrome (SJMS) is a seldom reported manifestation of post infectious obliterative bronchiolitis in childhood. This cause obliteration of peripheral airways and vascularity of the infected lung and impede lung development. We report SJMS in 31 year old male who presented with complaints of exertional dyspnea, productive cough and hemoptysis and history of recurrent childhood respiratory infections. He had hypoplasia of right lung and right pulmonary vasculature with bronchiectasis as per CT pulmonary angiography while ventilation perfusion scan showed matched V/Q defect diagnosed as SJMS.

ANALYSIS

Irritable bowel syndrome prevalence and health-related quality of life in women with polycystic ovary syndrome at tertiary hospitals in Riyadh, Saudi Arabia

Sulaiman A Al Shammari, Renad Abdulaziz Al Mogren, Meaad Faiz Al Nofaie, Rahaf Turki Al Shammari, Renad Bader Alfirm, Gharam Saud Julaidan

Objective: To assess the prevalence of irritable bowel syndrome (IBS) and its subtypes in patients with polycystic ovary syndrome (PCOS), determine its associated factors, and compare the quality of life (QOL) of PCOS patients with and without IBS. *Method:* The cross-sectional study was conducted between February 2021 and June 2021 on patients attending outpatient family medicine and Obstetrics and Gynecology clinics at a tertiary hospital in Riyadh, Saudi Arabia. The participants comprised women aged ≥ 18 years with a confirmed PCOS diagnosis. They completed an online questionnaire about their sociodemographic information, body mass index, the Rome IV Diagnostic Questionnaire (R4DQ), and IBS-QOL questionnaire; the Bristol Stool Scale was also used. *Results:* Of the 291 participants, the majority (92.4%) was below 45 years old, 61.9% were unmarried, and 47.8% were students. IBS was diagnosed in 49 (16.8%) patients, which was associated with poor sleep quality ($p = 0.005$) and emotional stress ($p = 0.006$). IBS-constipation and IBS-diarrhea accounted for 24.5% and 12.2% of participants, respectively. In PCOS patients, the IBS subgroup obtained the lowest QOL scores ($p = 0.009$). In addition, a low QOL score was associated with dysphoria ($p < 0.001$), interference with activity ($p < 0.02$), and relationship ($p < 0.003$). *Conclusion:* Women who have PCOS are more likely to suffer from IBS. Poor sleep quality and emotional stress are two factors that contribute to IBS development. Both conditions have a significantly lower quality of life, particularly those affected by dysphoria, interference with activity, and interpersonal relationships.

Medical Science, 2022, 26, ms76e1987

Role of zinc, selenium, vitamin D and vitamin C in boosting respiratory system: A meta-analysis approach

Nazfar Nazari, Firoozeh Niazvand, Narges Chamkouri, Neda Amoori, Mohsen Shafiee Asl

Introduction: Respiratory tract infections consist of many diseases such as colds, pharyngitis, tonsillitis, influenza and respiratory diseases. Therefore, this meta-analysis study was performed to assay the effect of zinc, selenium, vitamin D, vitamin C on respiratory tract infections. *Methods:* In this systematic review of data on the effects of zinc, selenium, vitamin D and vitamin C on respiratory tract infections in the last 20 years in the world (2001-2020) with a review of 30 studies (5351 cases) including English and Persian articles, Reputable domestic and foreign sites were performed. Data were analyzed using meta-analysis. *Finding:* The odds ratio of respiratory tract infections in vitamin D users was estimated to be 0.797 (confidence interval 95%, 0.808-0.786). The Rate of odds of respiratory infections in consumers of vitamin C, 0.0496 (confidence interval 95%, 0.55-1.441) was estimated. The odds ratio of respiratory infections in zinc users was estimated to be 0.437 (confidence interval 95, 0.51-0.366). The odds ratio of respiratory tract infections in selenium users was estimated to be 0.624 (confidence interval 95, 0.696, 0.545). *Results:* Respiratory infections are seen in consumers of vitamin D, vitamin C, zinc, selenium. Proper use of vitamin D, vitamin C, zinc, and selenium is essential in addition to monitoring the epidemiology of regional respiratory infections.

Medical Science, 2022, 26, ms77e1837

CASE REPORT

Wilson's disease manifesting as Hepatopulmonary syndrome- A rare case report

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

Wilson's disease presents with a wide clinical spectrum, most common being hepatic involvement and neuro-psychiatric features. Hepatopulmonary syndrome (HPS) is one of the rare complications of liver failure presenting as breathlessness, platypnea, orthodeoxia and central cyanosis. Wilson's disease rarely presents initially with central cyanosis and clubbing. A case of 16 year old female who presented dyspnoea, platypnea, clubbing and cyanosis focuses on rare presentation of Wilson's disease as hepatopulmonary syndrome.

Medical Science, 2022, 26, ms78e1956

ANALYSIS

A survey of the awareness level of intraoperative neurophysiologic monitoring among students of the college of medicine in Umm Al-Qura University, Saudi Arabia

Salah Bakry, Jamil Adnan, Omar Babateen

Background/Aim: The neurodiagnostic test known as 'Intraoperative Neurophysiological Monitoring' (IONM) is critically important in providing live-feedback during neurosurgery on the functional integrity of the nervous system. IONM is the use of electrophysiological methods and evoked potentials to detect neurological impairments, reducing the risk of iatrogenic damage.

This study examines the awareness level of IONM among students of the College of Medicine in Umm Al-Qura University, and recommends strategies to bridge this knowledge gap. *Methodology:* A survey-based study was carried out on students from the College of Medicine, Umm Al-Qura University between Septembers to December 2021. *Results:* There were 322 participants in the current study, with a mean age 22.03 ± 1.47 years. The male participants made up 73.9% against 26.1% females. The majority were 3rd-year students, while intern students were the smallest group. This study did not find any association between the level of awareness of IONM and the participant's demographics. However, the association between students attitude towards IONM and their academic year was significant, particularly upon completing both neurosurgical and orthopedics courses (P-value, 0.000). Moreover, the correlation between students attitude towards IONM and gender distribution was significant as well, mainly males participants who is completing both neurosurgical and orthopedics courses (P-value, 0.001, 0.000, respectively). *Conclusions:* conceptual understanding of basic principles of IONM helps minimize medical errors and provide optimal care. We recommends for further studies investigating level of knowledge among health population and Saudis' medical collages.

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Saudi' mothers understanding towards pediatrics acute gastroenteritis and its management

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Background: Acute Gastroenteritis (AGE) is an emerging infectious disease-causing pediatric morbidity and mortality worldwide. *Method:* A cross-sectional Arabic language anonymous questionnaire-based study was performed among the Saudi mothers' population October – December 2021. *Results:* Up to 1301 Saudi mothers completed the study questionnaire. As for the first action that Mothers should do for a child with AGE, 52.3% of the mothers reported for consult physician, followed by starting ORS (16.7%), giving fluids (6.5%), and increasing frequency of breastfeeding (5.6%). Furthermore, good knowledge level was remarkably higher among young aged mothers (< 25 years) than among old aged group (56 or more) (42.7% vs. 13%, respectively; P=.001). Also, 45.8% of university graduated mothers had a higher understanding level compared to 19.5% of those below the secondary educational level (P=.001). In addition, our result detected good knowledge among 55.2% of mothers who started fluid therapy as the first step for AGE, compared to 48.2% of caregivers who went to a physician and 12.5% of those who consulted pharmacies (P=.001). *Conclusion:* Overall, we found that mothers' knowledge and attitude toward AGE were reasonably good. However, their practice in managing AGE signs and symptoms at home was relatively poor. Factors associated with gastroenteritis management were education, knowledge level, and attitude. Thus, the deficiency of knowledge poor attitude continues to cause a substantial burden on the hospitals.

Medical Science, 2022, 26, ms80e2104

Healthcare workers awareness and perception to COVID-19 measures and their attitude toward the vaccine rollout: A Saudi Arabian experience

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Background: COVID-19 still poses a threat to healthcare workers (HCW). *Aim:* Study knowledge and attitude of the HCWs of King Abdulaziz Specialist Hospital (KASH), Taif, Saudi Arabia, about COVID-19 and the vaccine rollout. *Methods:* A questionnaire was self-administered to achieve study aim. *Results:* The participants aged 39.3 ± 3.9 ; 41.5% were physicians, 58.5% non-physicians. A questionnaire's mean overall score [93.5 (62.3%)] <cutoff [105 (70.0%); $p < 0.001$] was recorded; "physician" was predictor for score variability ($p < 0.001$). A mean "COVID-19 epidemiological/clinical knowledge" score [22.2/32 (69.4%)] comparable to the cutoff [22.4/32 (70%), $p = 0.64$]; and that [21.7/38 (57.1%)] for "COVID-19 infection prevention/ control (IPC) guidelines" <cutoff [26.6/38 (70%), $p < 0.001$] were recorded. Perception [21.3/28 (76.0%)] of the latter exceeded the cutoff [19.5/28 (70%), $p < 0.001$]. Despite a modest vaccine response, 86.5% HCWs were vaccinated candidates. Being a physician, male, had COVID-19 infection were vaccination predictors. *Conclusion:* A satisfactory COVID-19 knowledge and a favorable IPC attitude; with a modest vaccine response yet a notable vaccination acceptance were reported. Supplementing our HCWs' adequate COVID-19 control practice, e.g., through holistic COVID-19 training until enough evidence for vaccine safety has been established is warranted.

Medical Science, 2022, 26, ms81e2017

Assessment of palliative care knowledge among medical students and factors affecting it: A cross-sectional study, 2021

Maram Alshareef, Safwan Ahmed Almuwallad, Abdulrahman Abubaker Babkooor, Hussam Abdulaziz Albarakati, Bayan Alsharif, Mokhtar Mahfouz Shatla

Background: In Saudi Arabia the number of palliative care PC experts is relatively low, so most PC work is done by doctors who have recently graduated. Moreover, PC is not a mandatory course in medical school but can be taken as an elective. *Method:* This cross-sectional, web-based survey used a modified questionnaire to measure self-reported PC knowledge. A total of 266 medical students at Umm Alquara University (males: 160, 60.2%) participated. Of the participants, 166 (62.4%) were sixth-year students, 86 (32.3%) were in their internship year, and 14 (5.3%) were one-year post-graduate physicians. *Result:* Most of the participants (124, 46.6%) reported a self-assessed poor level of PC knowledge. However, interest in the oncology specialty as future career or attending an educational course about PC affected students' knowledge. *Conclusions:* Half of the undergraduate medical students expressed an interest in learning about PC which can be part of the curriculum.

Can rehabilitative ultrasonography imaging utilised for activation of transversus abdominis in asymptomatic population?: A double-blinded randomised controlled-trial

Summaiya Zareen Shaikh, Sanjay Pasoria, Tejashree Dabholkar, Ajit Dabholkar, Bhavini Gupta, Atul Deshmukh

Study Design: Double-blinded Randomised Controlled Trial. *Participants:* 20 asymptomatic individuals with mean age of 23.60 ± 1.85 years (12males, 8 females) were included by random sampling into two groups, one was given visual feedback (experimental) & the other without feedback (control). Procedure was double-blinded in supine- hook lying (B-mode ultrasonography), transversus abdominis thickness (TrA) were measured during abdominal draw-in manoeuvre (ADIM). *Intervention:* Intervention for activation of the TrA was administered once/week for 6-weeks via ultrasonography. *Outcome measures:* Visual feedback via ultrasonography for measuring TrA thickness. *Results:* Repeated measures ANOVA analysis was run to determine any statistical difference between or within the groups. Logistic regression model was run to test association between age, gender, BMI (Body Mass Index) and desirable mean thickness of TrA. A multivariate logistic regression assessed influence of predictors from demographic variables (age, gender, BMI). RM- ANOVA indicate a statistically significant week-wise increase in thickness Wilk's lambda = 0.189, $F = 12.03$, $p < 0.001$. Follow - up comparisons indicated each pair (week-wise) difference was statistically significant, $p < 0.001$ with no significant difference between the groups ($p = 0.617, > 0.05$). Amongst the predictors BMI was found to be associated with increase activation of TrA. *Conclusion:* Visual biofeedback via ultrasonography increases muscle activation of TrA following a 6 - week intervention. The MCID (Minimal Clinical Important Difference) defined by the improvement was able to account for progress in asymptomatic population of 20-30 years.

Medical Science, 2022, 26, ms83e2075

Awareness of forensic medicine as a subspecialty among Umm-Al-Qura medical students: a cross-sectional study

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Objective: Practitioners of forensic medicine assist with medicolegal investigations by providing expert medical advice to law enforcement during pathological investigations. Recent evidence suggests that Saudi medical students attending the College of Medicine at Al-Baha University know little about forensic medicine. The aims of the study to assess awareness of forensic medicine among medical students in the Faculty of Medicine at Umm Al-Qura University and to identify factors that affect their choice to pursue forensic subspecialty as a future career. *Methods:* The study had a cross-sectional design and was open to all students of medical at Umm Al-Qura University. The study data were collected by self-administered questionnaires distributed via social media. *Results:* A 298 totally of medical students returned completed questionnaires. Awareness of forensic medicine was poor in 176 students (59%), moderate in 69 (23.2%), and good in 53 (17.8%). The majority of the respondents (65.8%) agreed that there was insufficient information about forensic medicine in the college curriculum. A total of 232 respondents (77.9%) believed that there was a need for more education about forensic science and its subspecialties, and 144 (48.3%) were prepared to consider specialization in forensic as a career option. *Conclusion:* The findings of the study suggest that a forensic medicine department should be established at Umm Al-Qura University. More research is required to develop an education program on forensic medicine and methods that may be used to determine level of quality, to increase awareness of forensic medicine as a specialty, and to facilitate collaboration with other universities.

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Knowledge and awareness of Endo-Perio lesions among dentists and dental interns in Saudi Arabia

Amna Yusuf Siddiqui, Raghad Radhan, Fahad Almalki, Faris Alghamdi, Aseel Alsubhi, Abdulrahman Alalamri, Khames T Alzahrani

Background: An endo-perio lesion is defined as inflammation on a tooth that is associated with both pulpal and periodontal pathology. Endodontic-periodontic lesions are a clinical difficulty to diagnose and treat properly. According to studies, the awareness and knowledge levels were low in general dentists compared to specialist dentists. This research was done to evaluate knowledge and awareness about Endo-Perio lesion among dentists in Saudi Arabia. *Methods:* In KSA, an observational cross-sectional questionnaire study was done. The study's population consisted of 773 Saudi dentists. Structured self-administrated questionnaires were applied in this research data. Data was entered on the excel program 2016 and then analyzed using SPSS. *Results:* There were 773 respondents in the study. 53.7 percent were between the ages of 20 and 25, and 41.4 percent were between the ages of 26 and 30. Males made up 54.3 percent of the sample, while females made up 45.7 percent. Defective restorations, 58.2 percent vertical root fracture, 53 percent dental caries, 67.4 percent plaque and calculus, 26.6 percent malocclusion, and 23.8 percent reported high heat during endodontic therapy were all indicated as risk factors. *Conclusion:* Dentists and dental interns in Saudi Arabia have a moderate to poor degree of information's and awareness about endo-perio lesions, according to the study. Periodic seminars and workshops for dentists employed in governmental hospitals and private clinics to improve their understanding of EPL might provide better results.

Medical Science, 2022, 26, ms85e2121

Awareness and knowledge of Rheumatic heart disease among medical students comparing to other health specialties students in Umm Al-Qura University, Makkah city, KSA: Analytic cross-sectional study

Waleed Alnemari, Salah Bakry, Saad Albagami, Sultan AL-Zahrani, Amr Almousa, Ammar Alsufyani, Muhammad Irfanullah Siddiqui

Background: Rheumatic heart disease (RHD) is an infectious disease that encompasses a global health dilemma. Early diagnosis and appropriate management of pharyngeal infections by group (A) streptococci are significant in prevention of RHD. Our study surveyed health students from various health-related departments in the Makkah city. We compared the knowledge and attitude of pharyngeal infections and RHD and recommended strategies to bridge this knowledge gap. *Methodology:* An observational cross-sectional survey study was distributed among students at various health departments at Umm Al-Qura University between March 2021 and September 2021. *Results:* The number of participant's students was 385. Their mean age was 22.19 ± 1.19 years. Altogether, 286 (74.3%) participants were female and 99 (25.7%) were male. The majority were 4th-year students, while second-year students were the smallest represented. Furthermore, the correlation between knowledge' level and participants' age, academic year, and collage were significantly positive. *Conclusions:* Rheumatic heart disease has a poor level of understanding and awareness among health related medical students. This study offers valuable information into the perceptions and practices around sore throat, which can be used to develop awareness campaigns focused at lowering the incidence of RHD.

Medical Science, 2022, 26, ms86e2088

CASE REPORT

Ectopic kidney urothelial carcinoma with lower rectum adenocarcinoma: A case report

Hamdan S Alaamri, Fawaz Al Thobaiti, Mohammad Al Adwani, Hama A Abdelaziz, Amjad Ahmed Althagafi, Faisal S Alrubaei, Sara A Assiri, Raad M M Althaqafi

Bladder cancer (BC), one of the urothelial carcinoma (UC) and colorectal cancer (CRC) are Lynch syndrome's manifestations. In this case report, a 56 years old woman was admitted to ER with intermittent, progressive and colicky abdominal pain for 6 months associated with a change in bowel habit and bleeding per rectum, anorexia and weight loss. Rectal examination revealed a nodular, easy to bleed mass from anal verge. MRI revealed left ectopic pelvic kidney with soft tissue enhancing lesion in the lower calyx. Patient was underwent low anterior resection and left nephrectomy after which she was decided to complete on adjuvant XRT and chemotherapy. The comorbidity of UC and CRC in this patient in spite of being of low risky group being a non-smoker female has strongly prove the existence of the lynch syndrome and may replace the molecular confirmation. Therefore genetic investigation of all her relatives for presence of causative genetic abnormalities is mandatory, a project we are currently working on to enable proper medical intervention in the proper time.

Medical Science, 2022, 26, ms87e2112

Dermatomal Erythema Multiforme and HZV: A case report with literature review

Fawaz H Aljehani, Atheer M Aljohani, Ashwaq K Alosaimi, Renad G Alhazmi, Lein Azzhary

Erythema multiforme is one of the acute and recurrent skin lesions that are usually seen soon after HSV infection. The distribution of lesions is usually symmetrical favoring distal extremities. Rarely, EM can present with dermatomal distribution. The association between HSV and Erythema multiforme is well established in the literature. On the other hand, only a few cases were reported suggesting HZV infection to be a trigger of Erythema multiforme. Here we presented a case where a patient devolved dermatomal Erythema multiforme after he was diagnosed with HZV. Also, we provide below a review of articles of the same clinical association.

Medical Science, 2022, 26, ms88e2133

Treatment of paediatric bronchopneumonia: a case report

Rajan Jacob, Vishnu Priya G

Pneumonia is a complex pulmonary disease caused by inflammation of lower respiratory tract frequently affecting infants, young children and elderly people. Bronchopneumonia is the commonly seen presentation of pneumonia occurring mainly in paediatric population. This disease may be life-threatening if not treated promptly. Early signs and symptoms include productive cough, fever with chills, difficulty in breathing, tachypnea and fatigue. Most common causes are Streptococcus pneumonia, influenza, respiratory syncytial virus (RSV), and severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The primary goal is to treat the underlying infection which will resolve the disease. Some form of pneumonia can be prevented prophylactically by taking appropriate vaccines. In this case report, we aim at early diagnosis and treatment of paediatric bronchopneumonia by reviewing its clinical presentation. This is a case of 15 months old boy with bronchopneumonia, who responded well with intravenous antibiotics and recovered within 10 days.

Medical Science, 2022, 26, ms89e1990

Spontaneous Pneumothorax, a rare complication of COVID-19: A case report

Hakami Abdulrahman, Tawfeeq Altherwi

Coronavirus disease 2019 has been a pandemic outbreak since December 2019. It was notified in Wuhan, China in in December 2019, has rapidly swept around the world, causing a great threat to global health. COVID-19 result in systemic inflammation and lead to multiorgan dysfunction and complications. These complications involved pulmonary and cardiovascular system that result in in significant morbidity and mortality. A rare pulmonary complication of COVID-19 is the development of a spontaneous pneumothorax that detected less commonly in affected patients. Her, we treated a case of COVID 19 with a large spontaneous pneumothorax in middle-aged man with chest decompression by intercostal tube, the pneumothorax resolved and the patient discharged home with good outcome.

Medical Science, 2022, 26, ms90e1901

ANALYSIS

Parents and caregivers knowledge, awareness and attitude toward childhood hearing loss in western district of KSA

Ahmed Elrefaie, Taif Majid Alreefi, Baraa Hameed Alsubhi, Atheer Ahmed Alzahrani, Alhassan Ahmed Al Dundur, Khames T Alzahrani

Background: Depending on the findings of the hearing test, a kid may be diagnosed with hearing loss if they can't hear sounds below a specific volume level in either one ear (known as unilateral) or both ears (bilateral). The most basic threshold is generally 15 – 20 (dB), which is approximately equivalent to the sound of leaves rustling or people speaking. To assess caregivers and parents' awareness and knowledge about hearing loss, its causes, its effects in children, and their attitude toward childhood audiology services in the western district of SA. *Methods:* This study is a cross-sectional conducted in western district in Saudi Arabia. A pre-designed online questionnaire covers study objectives. The "Microsoft Office Excel Software" was used to organize data on the PC, analyzed with (SPSS) version 20, where it was statistically analyzed. *Results:* Out of 1618 participants, most study participants were females 72.1% and 29% aged between 20- 30 years old. 84.6% of parents reported that babies may be born with a lost sense of hearing. Regarding causes of loss of hearing in kids, 57.8% reported the infection of (CNS) can led to loss of hearing in kids, 38.6% reported new-born infections, 32.1% reported maternal infection during pregnancy. *Conclusion:* in conclusion, this report highlighted the importance of generating and maintaining appropriate health education programs to enhance parents' and caregivers' awareness of child hearing problems.

Medical Science, 2022, 26, ms91e2118

Prediction of childhood cancer using APGAR score: A systematic review and meta-analysis

Abdullah Omar Alabdulkarim, Munirah Ibrahim Alsaeed

Background: The etiology of childhood cancer remains unclear, although current research suggests that the uterine environment has a significant impact. The objective of this review is to investigate the 5-minutes and 1-minute APGAR scores as a predictor risk factor for cancer development among the pediatric population. *Methodology:* We performed a systematic literature search on four major databases, PubMed, Google Scholar, Web of Science, and EBSCO to include relevant and eligible studies in this review. The authors used Review Manager 5.4 to conduct a quantitative data synthesis for the condition of interest analyses. *Results:* Thirteen eligible studies and 19517 patients with childhood cancer were included as the population of this study. The low 1-minute and 5-minutes APGAR score (<7) were regarded as significant factors for risk for development of childhood cancer [OR: 1.23, 95% CI (1.1, 1.35), P= 0.000] and [OR: 1.29, 95% CI (1.02, 1.57), P= 0.000], respectively. *Conclusion:* We conclude that low 1-minute and 5-minutes APGAR scores are momentous risk influences for childhood cancer development. We further conclude that the low 1-minute APGAR score potentiated a grander hazard for developing hepatoblastoma and neuroblastoma among the pediatric population. The 5-minutes APGAR score was also a probable risk factor for hepatoblastoma development among children but a protective factor for childhood embryonal tumors development.

Medical Science, 2022, 26, ms92e2110

Depression and traumatic brain injury in Al Karaj

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Depression is repeated sequel among patients with traumatic brain injury (TBI). The purpose of our research is to identify the prevalence of depression after TBI. It is a prospective, study carried out in the first two year after brain trauma occurred. In this study 213 patients with head trauma. All of them, MRI of the brain was done within 30 days after accident. Radiological, demographic, clinical, and data were gathered during hospitalization. Psychiatric and neurocognitive assessment were done two years after that time. In patients with lesions of the cerebral hemisphere and the corpus callosum, major depressive disorder is regularly recorded. Our research focuses attention on the importance of psychosocial factors as foretellers of those who will report severe depression after injury. Our data show a positive relationship between brain injury and depression.

Medical Science, 2022, 26, ms93e2122

Knowledge and attitude of adult females regarding breast cancer and its early detection in Alqunfudhah district: A cross sectional community based study

Safa Alkalash, Maryam Alzubaidi, Ghadeer Alqarni, Hala Alzubaidi, Laila Alamri, Gadi Alqarni

Background: Breast cancer (BC) is the commonest cancer among Saudi women. Awareness about its screening among females is a crucial issue for early detection of breast abnormalities and interference to reduce its complications. *Methods:* A cross sectional study was conducted on a sample of 421 adult females in Alqunfudhah district. Data were collected through a self-administered questionnaire to assess their knowledge and attitude towards breast cancer screening. *Results:* A total of 421 females responded to survey 83.4%, 63.4 % and 44.4% of them respectively knew about breast self-examinations, clinical examinations, and mammography. Most information was from media (67.9%). The commonest risk factor was family history (88.1%) while occurrence of a breast mass was the most identified warning sign (96.9%). Good knowledge was significantly higher among highly educated females ($P 0.008$) and whose high family income ($P 0.000$) while their positive attitude was significantly higher among younger females ($P 0.003$). *Conclusion:* Females' knowledge and attitude towards breast cancer screening were not up to expected and this indicated necessity to promote breast cancer screening by intensifying educational campaigns and increasing screening programs.

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Gender dependent difference of hippocampus and amygdala sizes in relation to depression: A manual brain segmentation study

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Introduction: hippocampus and amygdala believed to be central to the cognitive deficits associated with depression. The former has a crucial role in declarative memory, whereas the latter is the center that is responsible for fear and anxiety. The present study examined their volumes depending on the patient's right and left sides, as well as gender, depression and controls. *Methods:* 50 controls (25 male, 25 female) and 50 patients with depression (25 male, 25 female) were involved in the study. The amygdala and hippocampal volumes were manually calculated using ImageJ brain segmentation software utilizing structural MRI. *Results:* The volume of right as well as left amygdala in a female patient with depression and control female (2.3648 cm³ and 2.2420 cm³) and (2.1352cm³ and 2.0724 cm³) (\pm SD 0.45704 and 0.41871) and (\pm SD 0.34923 and 0.31978), respectively. A patient with depression is higher than control, p. value < 0.05 (0.052); furthermore, the left amygdala has less volume than the right. *Conclusion:* depression is associated with the reduction of the volume of amygdala in females specifically the left side. Along with the amygdala, it could also cause abnormalities in hippocampus volume.

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Osteoporosis knowledge, attitudes, and practices among women in Makkah, Saudi Arabia

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Introduction: Osteoporosis is a systemic disease that is characterized by a decline in the mass of bone leading to bone thinning and fragility that, in turn, leaves patients highly vulnerable to bone fractures. There is a lack of information on awareness about osteoporosis in Makkah, the third most populated city in Saudi Arabia. *Aims:* To investigate the level of attitude, practice and knowledge of females in Makkah regarding osteoporosis. *Methods:* A cross-sectional descriptive study was carried out among females in Makkah, Saudi Arabia from October 1 to 31, 2021. The study queried Saudi and non-Saudi adult women residing in Makkah through a self-administered, previously validated questionnaire that was distributed online in addition to a tool used to assess the knowledge regarding osteoporosis. *Results:* Of 404 females (mean age 27.4 \pm 10.1 years) participated. The proportions of participants who exhibited high levels of perception were 56%, 87.9%, and 56.9%, respectively. There were significant associations between attitudes and knowledge ($P = 0.025$) and practices ($P = 0.003$). Furthermore, attitude level was associated with education level ($P = 0.047$). *Conclusion:* An acceptable amount of women showed high levels of practice and perception, whereas their attitude was much higher regarding osteoporosis. This high attitude suggests that the female participants are willing to increase their knowledge and practice, both of which can be achieved by increasing education through university education and physicians.

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CASE REPORT

Anaesthetic management of severe dextroscoliosis in a post-covid patient undergoing lumbar fixation and laminectomy

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Aim: Patients who have severe case of kyphoscoliosis face functional and physical difficulties, making anaesthetic treatment challenging. In this example, a severe case of scoliosis was successfully treated under general anaesthesia. The case report aims to highlight the meticulous perioperative management of a patient with severe scoliosis, even after the surgery has been completed. *Case:* A 69-year-old woman with severe dextroscoliosis, single-vessel disease, and a recent history of covid (1 month ago) was scheduled for L1 to S1 fixation with L2-L4 laminectomy. On post-covid chest x-ray, the patient showed lung fibrosis, making anaesthetic management more challenging. *Discussion:* Scoliosis can cause a sort of respiratory restriction. The angle of the malformation is connected to the severity of the pulmonary issue. Cardiovascular, respiratory, and neurological dysfunction caused by the abnormality should be assessed prior to surgery. Fluid shift needs to be monitored carefully and corrected if necessary. There were no issues associated to ocular changes or the biracial plexus. *Conclusion:* Thorough pre-anaesthetic evaluation and

optimization of the respiratory and cardiovascular systems is critical. In severe kyphoscoliosis, precise planning of anaesthesia induction and meticulous approach will result in a satisfactory outcome.

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ANALYSIS

Anti-ulcer effects of chamomile, sesame and flax oils on gastric ulcer-induced rat model

Nahla S Zidan

This study looked at the gastroprotective effects of chamomile, sesame, and flax oil extracts on experimental rats with piroxicam-induced stomach ulcers. In this investigation, 36 albino rats weighing 100-10 g were separated into 6 groups, one of which was preserved as a control -ve group, while the other five were given one oral dose of 2ml oil every day for the duration of the experiment. First group was kept as a (+ve) control group, while the others were given orally administered oils (2 ml per rat each day) for four weeks. Feed intake, body weight gain percent and feed efficiency ratio were all part of the biological examination. The levels of glutathione and malondialdehyde in the stomach were determined. The Histopathological changes in stomach tissues were also looked into. The use of oils, according to the research, enhanced all previous criteria. Histological investigation confirmed the biochemical results. The best treatments were found to occur with high doses. Oils considered as a prophylactic measure against stomach ulcers induced by non-steroidal anti-inflammatory drugs, according to the study (NSAIDs).

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Impact of preoperative stroke on post cardiac surgery stroke incidence

Ehab Mohamed kaseem

Introduction: Stroke is the most dreadful complications post cardiac surgery. In spite of advances in surgical techniques, its incidence still 3 to 5%, with associated mortality up to 26%. It's more post valve surgery. Does preoperative stroke affect incidence of post-operative stroke and impact timing of stroke on preoperative stroke are main objective to answer. *Patients and Methods:* This is retrospective study analyzing data of 68 patients with preoperative stroke from July 2013 to December 2020 in Zagazig university hospital. Preoperative, Operative and Postoperative data are collected from patients' medical files. *Results:* The mean age of patients was 53±11yrs, dominant female (63.2%). Infective endocarditis (IE) was the commonest cause of preoperative stroke (39.7%). Benign cardiac tumor a potential cause of preoperative stroke (7.3%). Most of cases done in chronic phase, 4 cases reported with postoperative stroke have no relation to surgery timing from preoperative stroke. It correlates with the cardiac pathology. The post-operative data other than stroke included bleeding 675 ml ± 125 ml, with 2 cases re-explored. We reported 1 case of mortality, early stroke post aortic dissection (AD). *Conclusions:* Surgery can be performed safely in patients suffered from preoperative stroke without burden on post-operative stroke incidence. Following guidelines is recommended, and surgery timing is still debated however early surgery is recommended if patient clinically deteriorated or biasing about negative outcome.

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Does COVID-19 pandemic have any impact on use of behavior management strategies in paediatric dentistry? A cross sectional study

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Objective: To analyse the effects of the COVID-19 outbreak on behavior management strategies in paediatric dentistry. *Study Design:* For this cross sectional research, before the COVID-19 pandemic and after the lift of lockdown during COVID-19 pandemic, a standardized close-ended set of 26 questions on behaviour management and paediatric dental practise was developed and forwarded to pedodontist in India. The data of their responses was collected and put into a worksheet in Excel, then analysed statistically and inferences were drawn. *Results:* The preference for non-pharmacological and pharmacological behavior management techniques has been changed; before COVID-19, non-pharmacological behaviour management techniques were widely prevalent but after the lift of lockdown the preference for pharmacological behavior management techniques have noticeably increased. *Conclusion:* Because of the threat of cross-infection in the COVID-19 pandemic, use of strategies for behavior management has been changed. So the paediatric dentist should cope-up with the situations such as the COVID-19 outbreak, adapt to changes in behavior management strategies and become competent enough to effectively perform treatment in paediatric patients.

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RESEARCH

Using Minimally Invasive Sphincter-Sparing Techniques of Surgical Treatment of Transsphincteric Anal Fistulas: A Focus on Preserving Anal Sphincter Function

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Background: The existing recommendations for the diagnosis and treatment of anal cryptoglandular transsphincteric fistulas (AF) are contradictory, which makes practical decisions in its treatment extremely difficult. *Methods:* 82 patients were examined after surgery for AF. All the patients were divided into three groups: the first included patients who underwent fistulotomy (n = 17) and fistulectomy (n = 9); the second, who underwent ligation of the intersphincteric fistula (LIFT, n = 29); and the third, treated with bio-welding of the AF (n = 27). *Results:* Positive short-term results were obtained in all groups, in 53.8%, 82.8%, and 85.2% of cases, respectively. The effect of bio-welding of AF was achieved due to electrothermal denaturation and the appearance of common space between protein molecules with a small area of heat propagation, less than 1–2 mm. The immunohistochemical studies showed that cells had produced neutrophilic granulocytes and pro-inflammatory interleukins in both the intra- and extrasphincteric parts of AF. The average follow-up period for patients after bio-welding was 8.8±4.6 after LIFT was 9.6±4.6, and in the group, who underwent fistulotomy and fistulectomy, was 9.8±4.8 months; satisfactory long-term results of treatment were noted in 92.6%, 89.7% and 62.2% of cases, respectively. *Conclusion:* Suggested surgery techniques in AF have made it possible to personalize surgical tactics and improve the treatment. The cryptoglandular theory of AF seems controversial considering the data of our study.

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ANALYSIS

Egyptian physicians' lifestyle behaviors and health promotion activities towards patients with chronic non-communicable diseases

Hanaa E Bayomy Helal, Mona Ahmed El-Awady

Introduction: The primary prevention of chronic non-communicable diseases (NCDs) is based on health promotion activities aiming to protect people against unhealthy lifestyle behaviours. The aim of this study was to assess lifestyles, the perceived level of training on and practicing health promotion among physicians working in Benha City, Egypt. *Materials and methods:* This is a cross-sectional study conducted on physicians working at public health facilities in Benha. A designed electronic questionnaire was employed to collect data on sociodemographic characteristics, lifestyle behaviours, perceived level of training on and practices health promotion among physicians. *Results:* The study recruited 260 physicians (response rate = 67.7%). Their ages ranged between 27 and 70 years. 10.8% of physicians have been ever smoked, and 50% slept 6-8 hours per day. About two-thirds of physicians ate <3 portions of fruit/ vegetable daily and were physically active. Three-quarters were overweight/ obese. Less than one-third were very prepared on counseling for weight control, nutrition, exercise, breast cancer, and cervical cancer. Most physicians advised their patients to eat healthy food and take medication properly. Physical exercise, avoiding smoking, and avoiding alcohol intake were advised by 55.4%, 21.5%, and 3.8%, respectively. Physical activity was associated with providing counselling about nutrition, exercise, and smoking avoidance. *Conclusion:* Considerable proportions of physicians reported not engaging in healthy lifestyle behaviours, which might impact their health and render them less likely to encourage such behaviours in their patients.

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Acceptance and awareness of breast reconstruction surgery among educated women in hail, kingdom of Saudi Arabia: A community-based study

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Background: Breast cancer incidence rate has risen and consider one of the most frequent malignancy worldwide. Surgery is continuously the most appropriate way for curing breast cancer; breast reconstruction is an important stage for breast cancer management and improves breast appearance. *Aim:* The study was carried out to find out the knowledge, awareness, and acceptance of reconstruction of the breast due to mastectomy among educated females in the Saudi population. *Methods:* A cross-sectional community-based study carried out to estimate the awareness, and acceptance of reconstruction of the breast due to mastectomy among educated females in Hail, Saudi Arabia. Online questionnaires consisting of 24 multiple choices questions were distributed to the targeted population who meets the requirements for inclusion criteria. Data entered through Microsoft Excel sheet then analyzed using the (SPSS) version 25.0. *Results:* we include (383) female participants, the majority were Saudi (97.4%). A (60.06%) of the participants were aware about reconstruction of the breast after breast removal surgery. However, most of them didn't know the advantages and disadvantages of reconstruction shows (81.7%). A (77.8%) of participants were not knew of the complications associated with reconstruction of the breast surgeries. Our study shows a (83.3%) of participants accepted the idea of reconstruction surgery. *Conclusion:* We concluded that there is a gap in the knowledge about various methods for breast cancer management, as well as reconstruction of the breast due to mastectomy even among educated participants, while acceptance of reconstruction was higher among the population.

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Prevalence of musculoskeletal disorders among health care workers during covid-19 pandemic in the western region of Saudi Arabia

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Background: During the period of COVID-19 and as number of cases increase, shortages in healthcare workers (HCWs) is a concern. Subsequently, the workload of HCWs may be substantial. *Objective:* to assess prevalence of Musculoskeletal disorders among health care workers during COVID-19 pandemic in the western region of Saudi Arabia. *Methods:* A cross-sectional design of the study was steered between July 2020 and July 2021 at Western region in Saudi Arabia. It was permitted by the research ethics committee unit of Taif University. An online questionnaire was used. *Results:* In our study, 19.3% of HCWs reported MSDs after COVID-19 duty. The prevalence of MSDs in HCWs who change their work shift due to COVID-19 duty (71.6%) and also not due to COVID-19 (60%) was comparatively more than who didn't change their work shift at all (27.7%) that showed a statistically significant association ($p<0.001$). It was reported that 34.1% of HCWs treated an excess number of patients as a result of COVID-19 duty had an incidence of MSDs compared to those who didn't treat an excess number of patients (7.1%) and who treated excess number not attributable to COVID-19 (17.5%). Insufficient breaks during workdays due to COVID-19 duty were reported by 39.1% of HCWs. *Conclusion:* COVID-19 duty had put some extra workload on many HCWs, which lead to the development of work-related MSDs. Significant predictors included change in work shift due to COVID-19, working in awkward and cramped positions as a matter of COVID-19 duty and lifting heavy materials/equipment during COVID-19.

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Effect of social media advertisements on the treatment decisions of patients for veneers and lumineers, patient perspectives: A cross-sectional study

Lubna Alkadi, Alanoud Alotaibi, Alanoud Alharbi, Khulood Alghamdi, Modhi Alsubaei, Showq Alali, Tala Alobaid, Fathima Fazrina Farook

Aims: The study objective was to assess the association between social media advertisements related to veneers and lumineers and the treatment decision made by the patients. *Methods:* This study was carried out in Riyadh, Saudi Arabia from January to June 2021 using a convenient sampling technique with 220 participants. Patients receiving treatment in public hospitals, who have been exposed to social media advertisements on dental veneers and Lumineers, were included. The questionnaire focused on the person's usage of social networking sites, factors influencing the plum for treatment of veneers or Lumineers, and whether the advertisements on social media influenced their decision for a particular treatment. *Results:* The respondents were predominantly female (83.6%), between 25 and 34 years of age (36.4%), and from the Central Region (84.1%) of Saudi Arabia. The majority of the sample (72.3%) spent more than 2 hours daily on social media. Moreover, 33.2% used 3 social media platforms. A significant association was found between the hours of exposure to social media and the likelihood of considering that social media influenced the request for veneers and lumineers ($p=0.034$). However, the association was not significant for the group who already had veneers or lumineers ($p=0.199$). The association between the tendency to seek veneers or lumineers when the advertisers were dental professionals was significant ($p<0.001$). *Conclusion:* Social media had a significant influence on the tendency to seek veneer and lumineers treatments and the type of social media influencer had a significant effect on this tendency.

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REPORT

Imaging of adenomyosis of uterus: What radiologist needs to know?

Avinash Dhok, Kajal Mitra

Background: Adenomyosis of uterus is difficult to diagnose clinically because of nonspecific symptoms and signs. Accurate diagnosis can be achieved with imaging. *Objective:* To study imaging findings of adenomyosis of uterus by EVUS and MRI with histopathological correlation and to evaluate accuracy of EVUS and MRI in diagnosis of adenomyosis. *Material & Methods:* Prospective study of 50 patients in age group of 30-59 years, presenting clinically with menorrhagia, dysmenorrhea, pelvic discomfort, low backache and uterine enlargement underwent EVUS and MRI. Imaging findings were correlated with histopathology reports from biopsy and operated cases. *Results:* Adenomyosis of uterus was confirmed in 41 patients, 38 patients were diagnosed correctly on magnetic resonance imaging. MRI showed 2 false positive and 3 false negative diagnosis. EVUS correctly diagnosed 33 patients. It showed 4 false positives and 8 false negatives. Sensitivity of MRI was 92.68% and specificity was 81.82%. EVUS showed sensitivity of 80.49% ($p<0.001$) and specificity of 69.23% ($p=0.41$). *Conclusion:* EVUS and MRI are extremely accurate methods of diagnosing uterine adenomyosis. MRI is more precise than EVUS.

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CASE REPORT

Avulsion of triceps tendon - a rare entity

Ankit Mittal, Siddharth Jain, Ankit Jaiswal, Sandeep Shrivastava

Background: The Avulsion of triceps muscle tendon is a very uncommon tendinous damage. Avulsions could be partial and/or entire, and they can be fractured or not. The most obvious source of injury is a fall onto an extended hand; however injuries can also occur following direct contact. Diagnosis will be aided by a great degree of suspicion, physical assessment for a palpable gap, and lateral radiographs exhibiting a "flake fracture". Early detection and surgically repairing a full rupture typically leads in favorable outcomes. *Case presentation:* We show a case presentation of avulsion of triceps tendon coupled with olecranon chip fracture that was reduced and stabilized with two k-wires and later reinforced with tension band wiring. As a consequence, the patient had a strong complete motion of joint and power equivalent to the contralateral area. A great degree of suspicion, physical assessment for a palpable gap, and lateral radiography for a "flake fracture" will all assist to confirm triceps avulsion.

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ANALYSIS

Color Doppler Sonography in fetal growth retardation: Need of the hour

Avinash Dhok, Kajal Mitra

Objective: Color Doppler sonography and flow velocimetry of fetal UA, MCA, and RA for accurate prediction of perinatal outcome in fetal growth retardation. *Material and methods:* Prospective study of 200 singleton pregnancies having FGR (24-39 weeks). BPD, HC, AC and FL were obtained for fetal weight on high end sonography machine with 2-5 MHz transducer. Color Doppler waveform measurements of fetal UA PI, MCA PI, RA PI, UA/MCA PI ratio, and RA/MCA PI ratio were calculated. *Results:* Analysis of 197 pregnant women and 197 fetuses was done. 40.6 percent pregnant women had one or more complication of pregnancy such as hypertension, diabetes, preterm membrane rupture, vaginal bleeding, and miscellaneous complications. There were 8 stillbirths and 189 live births. 103 of 189 live born neonates were hospitalized to premature baby critical care unit, 86 staying for 48 hours or more. 47 fetuses experienced perinatal problem, 8 Still births, 3 infant deaths, 1 ischemic encephalopathy of hypoxia, 1 intraventricular hemorrhage, 1 periventricular leukomalacia, 2 necrotic enterocolitis, 33 Cesarean section, 5 pH of umbilical cord less than 7.1 and 13 Apgar score less than 7 were minor outcomes. UA PI sensitivity 85.17%, MCA PI sensitivity 70.25% and RA PI sensitivity 37.50% was observed. *Conclusion:* An aberrant UA PI suggests poor perinatal results. Normal MCA PI identifies fetuses unlikely to have significant perinatal problems.

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Vaccination history in covid 19 cases: Observational study

Ahmet Doğan, Taliha Karakök, Yakup Gezer, Süleyman Değermenci

Background: The lack of an effective antiviral treatment in the COVID 19 pandemic is increasing the importance of vaccines day by day. *Materials and Methods:* The study was scheduled between October 1, 2021 and January 7, 2022. COVID-19 PCR negative cases, cases whose vaccine information could not be reached, and cases under 18 years of age were excluded from the study. The cases in the service and the ICU, the cases that died and did not die during the follow-up in the ICU, and the vaccinated and unvaccinated cases were compared among themselves by dividing them into two groups. *Results:* The mean age, presence of comorbid conditions, length of stay, time elapsed after the last dose of vaccine and some laboratory values were found to be higher in ICU cases than in cases hospitalized in the service. The mean age and intubation rate were higher in the patients who died in the ICU compared to the survivors. The intubation rate was higher and the length of stay in the ICU was longer in unvaccinated cases compared to vaccinated cases. *Conclusion:* In our study, it was determined that the COVID 19 vaccines reduced the hospitalization of the patients in the early age groups, the length of stay in the ICU, and the admission to intubation. The reason for the significant difference in terms of mortality was thought to be due to the excess of comorbid conditions and higher average age in vaccinated cases.

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The prevalence and associated factors of depression among elderly in social care in Makkah: A cross-sectional study

Enas Alfalogy, Ghaida Alzahrani, Ghady Algethami, Joud Alwan, Lama Sindi, Murouj Almaghrabi

Introduction: Aging is a normal process for human beings associated with numerous issues, one of which is depression that is common among elderly. This study aims to estimate the prevalence of depression and identify associated factors among senior residents in a nursing home in Makkah, thus aiding in promoting seniors' psychological health. *Methodology:* The study is a cross-sectional design study which utilized a paper-based questionnaire that was distributed to collect data regarding demographic factors, disability score through Barthel Index (BI), and depression score through either Patient Health Questionnaire-9 (PHQ-9), or CSDD based on subject's status. *Results:* A total of 48 senior individuals were included in this study. Male participants represented the majority (64.6%), and 60.4% of participants were considered as total dependent based on Barthel Index. Mild depression was prevalent among the study subjects who were assessed by PHQ-9: (16.7%), and probable major depression was observed among 27.1% of those assessed with CSDD. Multiple associated factors were identified, such as gender and marital status (p -value <.05). *Conclusion:* A noteworthy prevalence was observed among study participants. Moreover, several associated factors were recognized such as demographic factors and certain comorbidities. Careful care should be prioritized for the senior residents in our societies to improve their quality of life and reduce the burden of such a devastating condition.

