

Medical Science

About the Cover



Background: Hesitancy toward vaccination is a major problem around the globe with significant public health ramifications. It has increased worldwide. *Aim of the work:* The aim of this study is to explore the level of knowledge about and attitude and practice toward childhood vaccines among parents in Riyadh and Dammam. *Methods:* This study was a cross-sectional questionnaire-based study that was conducted in Riyadh and Dammam from December 2019-January 2020 among 899 parents who have children in the vaccination age group 0-17 years old. *Results:* The mean knowledge score among the studied population was 7.76 out of 18, indicates poor knowledge. The mean hesitancy score was 3.41 out of 14. Only 13.3% of the total population obtained a hesitancy score above 50%. The overall vaccine hesitancy rate was 14.5%. The highest knowledge and attitude scores recorded among the residents of Riyadh, whereas the lowest hesitancy score recorded among residents in Dammam. The important reported barrier for childhood vaccines was that parents didn't think vaccines were needed for their children. *Conclusion:* The current study reported poor knowledge but a good attitude toward vaccination and a low level of both vaccine hesitancy and refusal among the studied population. (Ref: ElFeky DS, Alsaif AS, Alkhuwaylidi AA, Alkalthem DH, Alharthi SF, Bajunaid NJ, Aldhaferi FH, Almuhsayn BN. Assessment of knowledge, attitude, and practice toward childhood vaccination in Riyadh and Dammam, Saudi Arabia. *Medical Science*, 2022, 26, e2015.

Effectiveness of feeding with standard formula of Ensure, Entrameal feeding and Hospital-prepared blended formulas in trauma patients admitted to ICU

Shima Shahri, Behnam Mahmodiyeh, Alireza Kamali, Faegheh Kazemi Majd

Introduction: In the present study, we decided to compare the effectiveness and economic efficiency of ensure, standard entrameal feeding and standard hospital gavage in trauma patients admitted. *Material and Methods:* In this double-blind clinical trial, 66 patients were randomly divided into three completely equal groups. Total protein level, arm circumference (MAC), and electrolyte levels were measured and the nutritional score and cost of each group were calculated. *Results:* The mean age of the three groups of ensure, standard entrameal feeding and hospital gavage were 35.05 (8.46), 34.05 (8.32) and 35.95 (11.55), respectively. The studied groups in terms of age, sex, sodium, potassium, magnesium and calcium were not significantly different. Total protein and MAC were not significantly different in the two groups of ensure, standard entrameal feeding ($P = 0.998$). A decreasing trend in NUTRIC Score was observed in all three groups, the most significant decrease was related to the anchor group, followed by intramyelastical standard and hospital gavage ($P < 0.0001$). In NUTRIC Score was observed in all three groups, where the most significant decrease was related to the ensure group, followed by standard entrameal feeding and hospital gavage ($P < 0.0001$). *Conclusion:* The standard entrameal feeding was the same as ensure in terms of total protein and MAC, but imposes more complications and costs on the patient. Hospital gavage is not a good nutrition to provide patient's energy and protein.

Medical Science, 2022, 26, ms1e1840

Emotional intelligence and stress coping mechanisms among dental students in Riyadh, Saudi Arabia

Bahija Basheer, Mohammed Alassaf, Abdulelah Alameer, Abdulaziz Alghamdi, Nasser Alzaaqui, Fahhad Alfaran, Faisal Alanzi

Background: Dental education and practice have been considered as one of the most challenging and stressful fields. The type of stressors and stress perception methods in the dental academic environment varies depending on multiple factors. *Methods:* The level of emotional intelligence to stress coping strategies among clinical-year dental students in Riyadh was evaluated using a cross-sectional questionnaire with four sections, i.e., the demographic data, Emotional intelligence scale (BEIS-10), Perceived stress scale (PSS-10), and Brief COPE scale. *Results:* The analysis of the 291 responses showed that students who were not able to regulate their own emotions were more likely to have a higher level of perceived stress. Students who were better at regulating others' emotions rely on planning for stress coping. Finally, students who could utilize their own emotions use positive reframing, planning, and religion as their mechanism of coping. *Conclusions:* There were significant differences in the perceived stress levels between males and females despite minor differences in emotional intelligence levels. There is a significant correlation between stress coping strategies with stress level and emotional intelligence.

Medical Science, 2022, 26, ms2e2018

Assessment of knowledge, attitude, and practice toward childhood vaccination in Riyadh and Dammam, Saudi Arabia

Dalia Saad Elfeky, Amal Saleh Alsaif, Alhanouf Adnan Alkhuwaylidi, Dalal Hamed Alkalthem, Shahad Fouzi Alharthi, Norah Junaid Bajunaid, Fatima Humood Aldhaferi, Batool Nawaf Almuhsayn

Background: Hesitancy toward vaccination is a major problem around the globe with significant public health ramifications. It has increased worldwide. *Aim of the work:* The aim of this study is to explore the level of knowledge about and attitude and practice toward childhood vaccines among parents in Riyadh and Dammam. *Methods:* This study was a cross-sectional questionnaire-based study that was conducted in Riyadh and Dammam from December 2019-January 2020 among 899 parents who have children in the vaccination age group 0-17 years old. *Results:* The mean knowledge score among the studied population was 7.76 out of 18, indicates poor knowledge. The mean hesitancy score was 3.41 out of 14. Only 13.3% of the total population obtained a hesitancy score above 50%. The overall vaccine hesitancy rate was 14.5%. The highest knowledge and attitude scores recorded among the residents of Riyadh, whereas the lowest hesitancy score recorded among residents in Dammam. The important reported barrier for childhood vaccines was that parents didn't think vaccines were needed for their children. *Conclusion:* The current study reported poor knowledge but a good attitude toward vaccination and a low level of both vaccine hesitancy and refusal among the studied population.

Medical Science, 2022, 26, ms3e2015

Professional exposure and the risk of covid-19 infection among Saudi dentists during the first semester of the pandemic: A cross-sectional study

Arwa Alnoury, Tariq Abuhaimed

Objective: To explore practice changes among dentists during the first six months of the COVID-19 pandemic (March-August 2020) and to estimate the risk of occupational COVID-19 infection in association with the professional risk factors. *Method:* A cross-sectional study was involved 321 dentists working in public or private center in Western Saudi Arabia. An online, questionnaire was disseminated through social media professional groups, collecting data on the participant's practice during the exposure period, COVID-19 status and the suspected source of infection if applicable, besides data on other professional parameters and occupational exposure. *Result:* Of the total participants, 191 (59.3%) declared having worked during the study period, among whom the prevalence of COVID-19 infection was 10.5% (95% CI=6.5% - 15.7%), of them 15.0% suspected having acquired the infection

from an infected patient. The prevalence of COVID-19 was higher among participants who declared having practiced during March (16.3% vs. 4.3%) and April (16.5% vs. 6.3%) compared to those who were not on duty during these two months, respectively ($p < 0.05$). All COVID-19 positive participants were working in facilities not requiring patients to be tested prior treatment ($p = 0.015$). Further, the COVID-19 infection rate was relatively higher among participants who declared performing treatment that require hand-piece operation (12.7% vs. 2.4%; $p = 0.081$). *Conclusion:* The prevalence of COVID-19 infection among dentists was estimated as 10-fold the prevalence in the general population, and the risk of infection was time-dependent and was associated with the preventive measures implemented by the facility and the type of procedures performed by the dentist.

Medical Science, 2022, 26, ms4e1908

Prevalence, knowledge, attitude and practice of using topical retinoids among Saudi population, Saudi Arabia

Sahar Hasan Alsharif, Ashwaq Alosaimi, Raghad Aldoobi, Yousra Alturki, Rawan Aldhahwani, Suha Alsayed, Shahad Bukhari

Background: Vitamin A (all-trans-retinol) derivatives are collectively referred to as retinoids. It is FDA approved to treat acne. We aimed to assess the prevalence, knowledge, attitude, and practice of using topical retinoids among all the region's populations. *Methods:* A cross-sectional study was carried out in all Saudi Arabian regions from October 2021 to November 2021 through a verified electronic-based self-administered questionnaire. *Results:* The survey questionnaire was completed by a total of 1,139 people. In Saudi Arabia, the frequency of acne among males and females is approximately 73.2 percent. The subject's knowledge of topical retinoids contraindications is spread out between 44.6 percent and 77.5 percent. Approximately half of the study participants took topical retinoids without a prescription. *Conclusion:* In this study, the most commonly reported effect after using topical retinoids was a reduction in acne formation. This indicates that topical retinoids have a very good effect in the treatment of acne. The other preferable outcomes to use retinoids include preventing wrinkles and facial lines, as well as enhancing skin brightness. The majority did not seek a medical prescription for topical retinoids and did not utilize them properly, which lowered their satisfaction with the benefits of topical retinoids.

Medical Science, 2022, 26, ms5e2023

Influence of Vitamin D status on hematological markers of inflammation in prediabetes

Vidya Bhakta, Said Khader, Rubeena Quadri

Objectives: Inflammation is the integral pathophysiological component of prediabetes. Hemogram is a routinely performed lab test, cheap and convenient to reproduce; hence hematological indices are useful to monitor the disease process. Vitamin D modulates inflammatory mediators and hence can impact the progression of prediabetes to type 2 diabetes mellitus. The study intends to find the association of hematological indices with glycemic control and vitamin D status in prediabetic subjects. *Methods:* Retrospective study was done on 270 prediabetic patients based on HbA1c (5.7 - 6.4%) and 299 normoglycemic subjects. Chi square analysis and t test were used to compare hematological indices in two groups. ANOVA used for comparison of variables under three Vitamin D categories, sufficient (≥ 75 nmol/L), insufficient (50-74.9 nmol/L), deficient (< 50 nmol). Regression analysis was done to find odds ratio for prediabetes. *Results:* Vitamin D was lower in prediabetic subjects (57.91 ± 20.83 ; p value < 0.05). Neutrophil lymphocyte ratio (2.10 ± 0.85 ; p value < 0.05), platelet lymphocyte ratio (137.70 ± 43.70 ; p value < 0.05), mean platelet volume (8.55 ± 3.00 ; p value < 0.001), red cell distribution width (12.65 ± 1.31 ; p value 0.05) were higher in prediabetes group. Neutrophil lymphocyte ratio, platelet lymphocyte ratio and red cell distribution width showed statistically significant rising trend with declining vitamin D level in prediabetic subjects. Mean platelet volume was significant predictor of prediabetes. *Conclusions:* Neutrophil lymphocyte ratio, platelet lymphocyte ratio and red cell distribution width and mean platelet volume are novel inflammatory markers to monitor prediabetic patients but should be considered along with Vitamin D status.

Medical Science, 2022, 26, ms6e1911

CASE REPORT

Ludwig's angina after severe thrombocytopenia associated with dengue fever in a primigravida: A case report

Sameera Dronamraju, Sourya Acharya, Shraddha Jain, Charan Bagga, Sunil Kumar

Ludwig's angina is a potentially fatal condition that can result from periodontal infections that are not treated promptly. It is uncommon in pregnancy; however, it has been documented. Pregnancy causes cellular metabolic changes in the body along with a higher risk of poor dental hygiene. Tooth decay is more common among pregnant women for a variety of reasons. Dengue infection may precipitate Ludwig's angina in an already predisposed individual due to leukopenia, gingival haemorrhage, compromised immune system, etc. We report a case of a 31-year-old primigravida, with 20 weeks period of gestation, who presented with fever, suprapubic abdominal pain. She was diagnosed with threatened abortion and dengue fever (serological test indicative of IgM positive Dengue) on admission. During the course of hospital stay she developed Ludwig's angina and was treated conservatively with antibiotics and was discharged on 17th day of hospitalisation after complete resolution of symptoms. This case highlights that early detection and prompt intervention in a potentially life-threatening condition like Ludwig's angina may defer interventions like intubation, tracheostomy and surgical drainage.

Medical Science, 2022, 26, ms7e1921

Infection control practices in dental clinics of Al-Jouf region, Saudi Arabia: A cross sectional study

Abdulkarim Alshamrani, Amany Ghazy, Ibrahim Taher, Waleed Elawamy, Awad Ashekhi

Dental practices have been associated with an increased risk of transmission of infections between patients and dentists, or among patients. *Aim:* This study aimed to evaluate the infection prevention and control (IPC) practices in dental care settings of the Ministry of Health in Al-Jouf region, Saudi Arabia. *Methods:* This cross-sectional study enrolled dental healthcare workers (DHCWs; dentists and dental assistants) working at dental clinics of the Ministry of Health. A structured questionnaire collected data including demographics and work characteristics of the study participants. *Results:* The study recruited 159 DHCWs (response rate= 91.4%). Hand washing was reported by 84.9% after patient treatment, 45.5% before patient treatment, and 30.2% before donning gloves. More than 89% of DHCWs frequently used gloves and masks during dental procedures, changing gloves between patients, and using single syringes for local anesthetic injections. Less than 50% always used sterile gloves, disposable gowns, and eyewear for surgery. More than 87% reported using sterilizing burs all the time. More than 50% reported always immersing used instruments in decontaminant solutions, sterilizing hand pieces, and disinfecting impressions before being sent to the laboratory. HBV vaccination rate was 87.4%. Dentists with a bachelor's degrees or higher were more compliant with IPC practices compared to the less qualified dental support staff. *Conclusion:* Dental IPC practices of DHCWs in Al-Jouf region showed a need to focus more on their importance and implementation among both dentists and support staff via continuous training programs and continuous supervision.

Medical Science, 2022, 26, ms8e2022

Gallbladder stones and their contributing factors in Saudi Arabian population: Knowledge and awareness assessment

Hyder Osman Mirghani, Khaileh Fuad Aljuhani, Asmaa Hamed Albuhairy, Malak Mohammed Alghaith, Ammar Dawood Alzoriri, Khalid Abdullah Saleh, Fayez Dakhil Allah Althobaiti, Khames T Alzaharani

Background: In 90% of cases, the main cause of acute cholecystitis is gallbladder stones. The majority of Saudis are still unaware about Put, and there aren't enough papers in Saudi Arabia about gallstone disease knowledge. The aim of our study is to assess the awareness and knowledge of the general population of Saudi Arabia towards gallbladder stones and its risk factors. *Methodology:* In Saudi Arabia, an observational cross-sectional questionnaire study was done. The period runs from January 2020 through September 2021. The total number of participants in the study was 1540 Saudis. Data was collected using structured self-administered questionnaires as a study method. Data was input into excel, and then analyzed using the SPSS program. *Results:* There were 1540 participants in the study, with 65% of them being girls and 34.9% being males. Between the ages of 20 and 30, 47.9% of the population is between the ages of 20 and 30. Gallstones are known by 88.7% of the people in the study. A positive history of gallstones was reported by 39.9% of individuals, either directly or in a family member. Gallstones were found to cause stomach discomfort in 76.6% of cases, fever in 21.7%, pale skin in 36.7% of cases, jaundice in 36.7% of cases, exhaustion in 41.9% of cases, nausea in 40.1% of cases. *Conclusion:* There was a strong relationship between participants' awareness of gallbladder stones and their age, gender, and educational level. To promote awareness of the disorders, future health awareness programs and conferences are proposed.

Medical Science, 2022, 26, ms9e2026

Knowledge, attitude and practice of bariatric surgery among primary care physicians in Riyadh, 2020

Arwa Abdulsalam Alkhuraji, Rema Saad Almohanna, Mohammed Hamad Aldebasi, Nouf Abdulaziz Altwaijri, Imad Abdulmajeed, Raghad Saleh Alharbi, Taghreed Mohammed Al Hazmi

Objectives: This study aimed to determine knowledge, attitude and practice of bariatric surgery among PHCP's in Riyadh, Saudi Arabia. *Methods:* From September to December 2020, a 43-question questionnaire was developed and delivered to all PHCPs practicing in Riyadh, Saudi Arabia, using social sites and participants' emails (n= 202). *Results:* One hundred thirty people answered. Male respondents made up 84.6 percent of those who assessed their BMI at each visit (p=0.037). Males were also more likely to initiate or refer to bariatric surgery discussions (p=0.001 and p=0.028, respectively). More than half of the participants had little understanding about bariatric surgery, with those older than 30 years old and with more than 5 years of experience having the most knowledge (p= 0.009, p= 0.012). Physicians who encounter patients between 11 and 20 hours each day and work in primary care clinics had a positive attitude (p=0.005, p=0.043). *Conclusions:* Overall, male participants performed better in primary care for obese individuals. A knowledge gap concerning the function of bariatric surgeries has been discovered, particularly among younger physicians.

Medical Science, 2022, 26, ms10e2011

Difference in prevalence of digital eye strain among students using online e-learning during COVID-19 pandemic in western of Saudi Arabia

Yaser Elhams, Abdullah Fakieha, Salah Bakry, Abdulaziz Albarakati, Faisal Alshehri, Hussain Alhelali

Background: Due to the increased use of digital devices and advanced technology in the last year, digital eye strain is a significant health problem leading to serious complications if it is not well managed. Our study surveyed students from schools and universities in western Saudi Arabia. We compared the prevalence and associated factors of DES among students. *Methodology:* A

survey-based study was carried out among students in western schools and Umm Al-Qura University between September 2021 and October 2021. *Results:* The total student's number in the current study was 347. Their mean age was 1.66 ± 0.47 years. Overall, 198 (57.1%) participants were males, and 149 (42.9%) were females. Furthermore, 176 (50.7%) participants were university students, while 171 (49.3%) were school students. *Conclusions:* out of DES symptoms; headache, blurred vision, and shoulders pain shows a significant association correlated with participants' gender (P-values, 0.000, 0.002, and 0.000, respectively), while the only symptom of eye dryness shows significant association associated with participants' educational level (P-values, 0.001).

Medical Science, 2022, 26, ms11e1949

Saudi population knowledge and awareness about orthodontic space maintainers

Ahmed Marghalani, Abdulrahman Alomairy, Hanin Alahmadi, Ghadi Aloufi, Lama Aljuhani, Norah Alzubedy, Adeeab Alruthaya, Shabib Alharbi, Saif Alharbi, Mohammed Aldughayyim, Amal Althubyani, Basmah Alhassan, Khames Alzahrani

Background: Premature loss of deciduous teeth results in arch discrepancy, crowding, permanent tooth impaction, midline shift, and thereafter function impairment. Due to these reasons, we need a "space maintainer" which is an appliance utilized to maintain a space in a certain arch that had previously been filled by a tooth or more. The purpose of our study was to determine if the Saudi populace has adequate knowledge and awareness of the necessity of space maintainers. *Methodology:* A population-based cross-sectional survey was conducted in different regions of Saudi Arabia from January 2020 until November 2021. An online questionnaire was used; collect data in Saudi Arabia with a sample size consisting of 690 Saudi adults. Microsoft Office Word Software program (2020) for windows was used to data entry. Data was shifted to the (SPSS) program to be statistically analyzed. *Results:* The study sample consisted of 690 participants. 16.4% of study sample were males and 83.6% were females. 51.3% aged between 20-30 years old. 54.9% of all participants take their children to the dental clinic twice a year, 16.8% every year and 21% only if there's a problem with the child. Only 27.5% of our participants knew space maintainers. *Conclusion:* Finally, there was a lack of knowledge and awareness of space maintainers among the Saudi people. Parents should be urged to clean their children's teeth in order to avoid the development of dental caries and the premature loss of primary teeth.

Medical Science, 2022, 26, ms12e2032

The level of awareness regarding bronchial asthma among Riyadh population

Amar Fathi M Khalifah, Yazan Abdullah Alansari, Abdulaziz Ibrahim Alhonaizil, Abdulaziz Ibrahim Alsadhan, Naif Abdulmohsen Almujailli, Saleh Emad Abu-Alreesh, Yaser Saleh Alkraidis, Ahmed Khalid Alghamdi, Mohammed Saud Alsharif

Background: bronchial asthma is a long-standing disease which results from airway inflammation and hyper responsiveness. *Methodology:* this is a cross-sectional study which was conducted in Riyadh, Saudi Arabia. It included 175 participants, using a convenient sampling technique. A Self-administered, pre-coded, and pre-tested questionnaire was used. The collected data was reviewed and statistically analyzed by using SPSS version 23 and P=Value of 0.05 or less is considered significant. *Results:* 66.3% of participants were females, and majority of the participants were in the age group of 18-30. 58.3% of participants had a moderate level of awareness regarding bronchial asthma. It also showed that 46.3% had moderate levels and 44.6% had high-level regarding triggering factors. 60% and 54.3% had high levels regarding complications and symptoms respectively. Only 21.7% of respondents were asthmatic. *Conclusion:* most of the responses showed moderate level of awareness regarding bronchial asthma. There was a significant statistical relationship between gender and the level of awareness regarding complications of bronchial asthma, and the relation between male and female regarding symptoms of bronchial asthma.

Medical Science, 2022, 26, ms13e2037

Assessment of otolaryngology knowledge among primary care providers in Saudi Arabia

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Objective: This study aims to assess the knowledge and deficits of otolaryngology in primary care physicians who work at primary care centers or tertiary hospitals in Riyadh, KSA. *Methods:* This is a cross-sectional study conducted among residents of primary care specialties and otolaryngology residents in Riyadh, Saudi Arabia. A 10-item question with multiple-choice to assess the knowledge toward otolaryngology was given to the primary care provider by using face to face interview. Further, questions about clinical rotation in otolaryngology during medical school and residency were asked whether they participated or not. *Results:* A total of 253 primary care physicians took part (92 internal medicines, 79 family medicines, and 82 pediatrics) and 13 otolaryngologists, Primary care physicians who participated in clinical rotations during medical school and residency were 79.7% and 26.3%, respectively. Otolaryngologists' percentage of average correct knowledge score was (89.2%), family medicine (62.9%), pediatrics (55.4%), and internal medicine (52.5%). Primary care providers who participated in a clinical rotation in otolaryngology showed significantly higher knowledge scores than those who did not participate ($p < 0.001$). *Conclusion:* primary care physicians had unsatisfactory ratings after examinations. Previous otolaryngology clinical rotation during residency had a positive effect on the knowledge of PCPs with their daily practice, which supports adding further clinical training in otolaryngology for primary care specialties.

Medical Science, 2022, 26, ms14e2034

Prognostic value of pre-treatment inflammatory markers in patients with locally advanced breast cancer (LABC) from Saudi Arabia

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Background: Inflammation is a recognized factor in cancer progression and resistance to treatments. Several studies correlated inflammatory-related peripheral blood indices to disease progression and poor survival in various cancer types and different populations. Nonetheless, inflammation is affected by the distinctive characteristics and environmental exposure of each people. *Methods:* We retrospectively analyzed the data of female patients with LABC undergoing neoadjuvant chemotherapy (NACT). Demographics, BMI, clinicopathologic characteristics, stage of the tumor, follow-up status, and response to treatment were collected. Outcomes were evaluated concerning the high and low groups of inflammatory markers based on the cut-off values of NLR and RDW. *Results:* A total of 172 patients met the eligibility criteria among patients diagnosed with breast cancer (BC) from January 2014 to December 2020. At the time of diagnosis, the mean age was (53.4± 11), BMI was (31.2 ± 6). Left BC accounted (54.7%) and the majority were moderately differentiated (51.2%), and ductal carcinoma (85.5%), ER-positive tumor in (79.1%), HER2-positive in (32%), TNBC in (9.8%). Only normal RDW and Low NLR were significantly associated with a type of response post NACT with P values (0.003) and (0.014) respectively, with significant response type complete remission (71.5%) based on the radiological evaluation. *Conclusion:* RDW and NLR could be applicable biomarkers to predict response after systemic therapy among LABC. The great advantage of these biomarkers depends on routine tests before treatment, and it is cost-effective in the diagnostic plan.

Medical Science, 2022, 26, ms15e2009

Knowledge and attitude of dentists towards ocular complications of intra-oral local anaesthesia: A survey-based study in Riyadh

Hussain S Al Nasrallah, Bader M Saeedi, Assaf A Albiebi, Firas N Alhozaim, Khaled B Almutairi, Shahzeb H Ansari

Introduction: Local and systemic problems connected to local anaesthetic might occur despite appropriate patient evaluation, correct tissue preparation, and a meticulous administration process. *Materials and methods:* A survey questionnaire was used to perform cross-sectional research among dental surgeons in Riyadh, Saudi Arabia. In this study, 673 dentists in Riyadh were approached using social networking sites. *Results:* Findings revealed that 30 percent felt there were no ocular consequences from intraoral local anaesthetic, 31.9 percent had experienced ocular issues during clinical practice, and 40.1 percent had called an ophthalmologist in the event of a difficulty. *Conclusion:* Dental practitioners' general experience and awareness on the association with ocular problems related to local anaesthetic are on the low side.

Medical Science, 2022, 26, ms16e1933

CASE SERIES

Clinicoradiological analysis of a series of cyst at periapex diagnosed in central Indian population

Rakhi Chandak, Manoj Chandak, Runal Bansod, Pranali Thakare, Ramhari Sathawane, Pranada Deshmukh, Zareesh Akhtar, Isha Madne

A frequent jaw bone cyst that can be difficult to diagnose is the odontogenic cyst of the neck and head, because it shares clinical and histopathologic features with other odontogenic lesions. Only around 100 instances of radicular cyst with valid clinical and histopathologic data have been described in the literature to date. In addition, due to lack of a well-documented radicular cyst case series makes it difficult to get a better understanding of the lesion's biological behaviour and appropriate treatment options. As a result, we are reporting three occurrences of radicular cyst of the jaw in our case series.

Medical Science, 2022, 26, ms17e1945

ANALYSIS

Pattern of antibiotics prescription by endodontists for root canal infections in Saudi Arabia

Muhammad Atif Agwan, Syed Fareed Mohsin, Sulaiman Ahmed Almatrudi, Thunayan Abdullah Alodhaib, Yahya Raja Alharbi, Nour Abdulmajeed Lardhi, Khames T Alzahrani

Background: Antibiotic resistance is a severe worldwide health concern caused by inappropriate use of antibiotics. In most cases, pulp inflammations caused by a root canal system infection do not necessitate the administration of systemic antibiotics to assess the prescriptions' attitude of the endodontist and general dentist towards antibiotics during endodontic treatment. *Methodology:* Between September 2020 and October 2021, a descriptive study was conducted in Saudi Arabia. Depending on a designed questionnaire distributed to general dentists, endodontists in Al-Qassim Province. Data was gathered and entered into the "Microsoft Office excel software" (2016) for Windows program, which was then analyzed using the (SPSS) program. *Results:* 75.3 % of the 792 participants in the study were males, and 24.7 % were girls. 40.2 % of the study's sample was between the ages of 20 and 25, and 31.4 % was between the ages of 26 and 30. Buraydah has 37.4 %, while Al-Rass has 30.3 %. 61.6 % graduated after 2015, while 19.4 % graduated between 2010 and 2015. Amoxicillin dose prescribed for adults with no allergy was reported to be 500 mg by 66.2% of participants. Amoxicillin + clavulanic acid dose prescribed for adults with no allergy was reported 500mg by 66.3%. *Conclusion:* In conclusion, Saudi endodontists and dentists follow worldwide guidelines when prescription antibiotics. There were,

however, instances of unsuitable prescriptions, as in the case of patients who have irreversible pulpitis, necrotic pulps with no systemic involvement, and/or sinus tracts. Antibiotics and their indications in endodontics must be better understood by endodontist and dentists.

Medical Science, 2022, 26, ms18e2036

Three-dimensional identification of knife with a thickened tenon edge in solving the issues of modern forensic practice

Pavlo Kyshkan, Ivan Savka

Objective of the research: To apply the technique developed by us for the methods of photogrammetry with subsequent creation of 3D models and their research in space of the graphic editor "3DsMax" concerning elements of the wound channel formed by knife with a thickened tenon edge. The research was carried out of the series of 15 experimental and practical cases of stab injuries. To make experimental wound channels caused by piercing-cutting objects with one-sided sharpening of the blade and thickened tenon edge, alginate impression mass with rubber-like effect «Hydrogum 5» (firm «Zhermack», Italy) was used. During examination and measuring injuries of 3D models by means of a graphics editor «3ds max» linear dimensions of certain morphological parts of the wound channel were obtained to within 0.001 cm, which is indicative of the possibility to identify fine-resolution of both separate elements and a sharp traumatic object on the whole. Considering reliable results obtained in the experiment, the method was applied during forensic expertise of a stab wound of the cardiac muscle, which enabled to identify the object causing the injury among other piercing-cutting objects presented for expertise. The results obtained are indicative of high information value of the three-dimensional identification methods used to find a knife with a thickened tenon edge by means of spatial reconstruction of the wound channel fragments, which provides an high level of accuracy in solution of applied tasks in modern forensic practice and science of criminal law.

Medical Science, 2022, 26, ms19e1944

Skin problems related to personal protective equipment and personal hygiene measures during COVID-19 pandemic among healthcare workers in Aseer Region, Saudi Arabia

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Background: Reports revealed rising levels of skin diseases secondary to protective equipment use. Healthcare providers who are working day and night during the pandemic of COVID-19 are more susceptible to the damage of the skin. There is scarce published data about the incidence of skin disorders secondary to protective equipment use during the COVID-19 pandemic and what factors are associated in Saudi Arabia. *Aim:* Assessing the potential skin damage as a result of personal protection equipment (PPE) and intensive hygiene measures for healthcare providers during COVID-19 pandemic in Aseer region. *Methods:* This study a cross-sectional questionnaire-based study done in Aseer region from January to October 2021. Personal data and related to history of skin disease, practices toward personal protective equipment, and new skin damage was collected and analyzed. Independent t-test and chi-square test was used to determine factors associated with the incidence of new skin damage during the COVID-19 pandemic. *Results:* Total of 214 participants was included in the study. (47.7%) of the participants reported experiencing new skin damage during the COVID-19 pandemic, while 112 (52.3%) of the participants did not. Age, having a history of chronic skin disease, and number of worn gloves layers were all significantly associated with the incidence of skin damage during COVID-19 pandemic. *Conclusion:* The considerable rate of new skin damage during the COVID-19 pandemic makes it essential to take action and start rising awareness toward this topic among health-care workers as well as teaching them how to prevent the incidence of new skin damage.

Medical Science, 2022, 26, ms20e2044

CASE REPORT

Synchronous primary malignancy of breast and endometrium in premenopausal women - A rare case report

Anurag Bhattacharjee, Geetika Malhotra, Harshal Ramteke, Dharendra Wagh, Sandip Shinde

Synchronous primary cancer in a single patient is relatively an infrequent occurrence. Combined ovarian & endometrial cancers are well-known synchronous primary cancers in women. Although breast carcinoma and endometrial cancer are too common malignancies in the female population, they have known association in the postmenopausal phase & not in the younger age group. Therefore, the possibility of concomitant cancer in a young woman (premenopausal) is often neglected. The current case is an example of this scenario hence presenting a very rare case of a 38 year old women diagnosed with invasive ductal carcinoma & endometrial papillary adenocarcinoma synchronously. Since such a correlation has not been reported in the literature, the associated risk- factors are worthy of attention seeking, and the strategy for prevention is highlighted.

Medical Science, 2022, 26, ms21e1912

ANALYSIS

Awareness of Saudi society with benefits prickly pear to lowering diabetes in rats

This study aims to increase the nutritional awareness of Saudi society and beneficial of the importance of the prickly pear through an electronic questionnaire that includes the extent of Saudi society's awareness of prickly pear and the percentage with diabetes. The results showed that the percentage of diabetes in Saudi society is high. In addition, the percentage that was aware of the relationship of prickly pear with diabetes was high. This is a good indication of Saudi society's awareness of the importance of prickly pear to lower blood sugar. Therefore, it was confirmed by conducting a determination of the nutritional values, total phenolic content, and flavonoids compounds, in addition, biological experiment on rats with high blood sugar, lipids, and cholesterol. The results indicated that the prickly pear the highest in total carbohydrate was 91.04%, meanwhile, the total fats, ash content, and crude fiber were lowering. Mineral content noticed that the potassium, magnesium, calcium, and phosphorus were higher contained amounts in prickly pear. The highest amounts of the prickly pear extract as total phenolic and flavonoids content, in addition, antioxidants capacity. The results after four weeks from biological experiment demonstrated that the prickly pear extract when taken orally at 400 ppm/day/kg body weight, it had contained the natural antioxidant, which important role in contributing to the health benefit of lowering glucose and reducing the lipid profiles. It could be recommended to increase nutrition awareness and health awareness of the importance of prickly pears and their effect on blood sugar levels.

Medical Science, 2022, 26, ms22e1934

Prevalence of migraine and its effect on the quality of life among the Saudi general population

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Background: Migraine is a common episodic neurological condition with complicated pathophysiology that manifests itself as repeating bouts of throbbing and unilateral, frequently severe headaches, nausea, phonophobia, and photophobia. *Objectives:* To determine the prevalence of migraines in Saudi Arabia's general population and their impact on quality of life. *Methods:* This was cross-sectional research based on a broad group of male and female migraine sufferers in Saudi Arabia who were over 18. The research was carried out between June and August of 2021. *Results:* The majority of the participants in this cross-sectional research, 173 (40%), were between 26 and 35. Females (65%) outnumbered males by a margin of (35%). The majority of the participants were jobless Saudis with no prior history of chronic illnesses (191 (44.2%), 376 (87%), and 351 (81.3%), respectively. Age (p-value = 0.046) and gender (p-value = 0.001) were also shown to be substantially linked with migraine attacks. While the MSQ score was associated with living in a city, being single, being a university student, and not having any past chronic conditions (p-value = 0.001, 0.001, 0.046, and 0.001), respectively. *Conclusions:* According to the current study, the total prevalence of migraines in Saudi Arabia's general population was 39.58%. The participants in this study had a significant prevalence of migraines since they were middle-aged females living in southern or metropolitan locations. The most prevalent migraine symptoms were nausea and being bothered by light or loud sounds during a headache attack.

Medical Science, 2022, 26, ms23e1928

The impact of the covid-19 pandemic on the commitment to routine pediatric vaccination among the population in the kingdom of Saudi Arabia 2021: A cross-sectional study

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Background: The goal of this study was to see how the COVID-19 pandemic affected children's vaccination in Saudi Arabia. During the COVID-19 pandemic, we investigated the population's commitment to routine immunization of their children as well as the prevalence of vaccine misconceptions. *Methods:* A cross-sectional study was done on 586 parents of children under 6 years of age. An online questionnaire was used that included items to collect data about parents' demographics, knowledge about childhood vaccination and its side effects, practice toward vaccination of their children before and after the COVID-19 pandemic. *Results:* Approximately 67.2% of parents reported having good knowledge about the benefits of vaccines for their children, and 7.2% had ever declined to vaccinate their infant, with the most common reason being concern about vaccine side effects. Prior to this pandemic, 88% of parents had their children's vaccinations scheduled on a regular basis, while 25.3% had missed or postponed their children's vaccinations. 26.8% of the participants and their families were willing to take a coronavirus vaccine if one was available. During the epidemic, non-Saudi participants had a significantly greater percentage of those who missed or delayed a child's immunization. Participants who had one or two children and those with ages ranging from 18-25 years had a higher percentage of those who were willing to take a vaccine against the coronavirus. *Conclusions:* Addressing parents about the need of protecting their children from vaccine-preventable diseases is vital even as the COVID-19 pandemic persists.

Medical Science, 2022, 26, ms24e2045

RESEARCH

The role of bright and dark personality traits in self and other protective pandemic-related preventive behaviors

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

Aim: The Purpose of this study was to examine the relationship between bright and dark aspects of personality dimensions and self-interest and other interest preventive related behaviors during Covid-19 pandemic. *Method:* This cross-sectional study was advertised on social media. 541 participants completed four self-reported questionnaires through the online link. Analysis was performed to assess the kind of association by SPSS. *Results:* Findings indicate different significant associations between the personality dimensions and preventive behaviors. Regression analysis indicated that conscientiousness ($B=.27, P=.00$) and agreeableness ($B=.11, P=.03$) positively and extraversion ($B= -.14 P =.02$) negatively predict self-protective behaviors. Likewise, conscientiousness ($B=.40, P=. 00$) and agreeableness ($B=.14, P=.00$) and antisocial tendencies ($B= -.23, P=.00$) could have predictive role in other-oriented behaviors. *Conclusion:* Personality traits have role in explaining compliance and noncompliance with Covid-19 guideline protocols and protecting self and others.

Medical Science, 2022, 26, ms25e1941

ANALYSIS

Prevalence of Alexithymia and the influencing factors among medical students at Umm Al-Qura University: A cross-sectional study

Abdullah Meshal Alharthi, Manal Abdalelah Almasoudi, Mohammed Bandar Alotaibi, Mohammad Sami Jalaladdin, Mokhtar Mahfouz Shatla

Background: Alexithymia is inability of the person to describe his emotions, somatic sensations, and struggle to discuss feelings. *Objectives:* To determine the prevalence of the state of alexithymia among undergraduate medical students and to explore its potential risk factors. *Methods:* A cross-sectional study was done through online survey targeted to undergraduate medical students. The survey included the Toronto Alexithymia Scale (TAS-20), students' socio-demographics, and the potential risk factors for alexithymia. *Results:* A total of 317 students participated in the study. A 56.5% prevalence of alexithymia among participants was demonstrated. A binary logistic regression model revealed higher risk of alexithymia among students with female gender (OR: 2.32, 95% CI: 1.47-3.65; $p < 0.001$), divorced parents (OR: 3.23, 95% CI: 1.43-7.32; $p = 0.005$), history of psychiatric illness (OR: 3.40, 95% CI: 1.51-7.67; $p = 0.003$), and history of childhood emotional, physical and/or sexual abuse (OR: 2.46, 95% CI: 1.42-4.29; $p=0.001$). A lower risk for alexithymia was demonstrated among students with higher grade point average (OR: 0.32, CI: 0.04-0.93; $P = 0.035$). There was no association between alexithymia and students' academic year of study. *Conclusions:* The current study revealed high alexithymia prevalence among undergraduate medical students. The condition is linked with female gender, divorced parents, history of psychiatric illness, and childhood abuse, and is associated with lower academic performance. Accordingly, for prevention and proper intervention of alexithymia among medical students, students' screening for the condition and ease of their access to psychiatric care is recommended.

Medical Science, 2022, 26, ms26e1947

The Effect of the Pre-treatment by Hydrofluoric and Nitric acid in combined and sandblasting on the retentive force of monolithic zirconia with different yttria content

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Background: Zirconia is chemically stable biocompatible material used in dentistry. Current study aimed to evaluate the effect of yttria content (5Y, 7Y & 9Y) in combination with (Hydrofluoric and Nitric Acid) and silica sandblasting on the surface structure of crown to achieve mechanical retention. *Methodology:* From April 2021 to November 2021 study was conducted on 54 maxillary premolars, and zirconia crowns with planned and constructed proximal extensions. Based on yttria content samples were divided in 3 groups ($n=16$) ceramics Copran Zri (5Y), Copra Supreme (7Y) and Copra Smile (9Y). Each group is subdivided in to three pretreatment subgroups ($n=6$), followed by specimen characterization via scanning electron microscopy (SEM). Targeted zirconia crown pre-treated before cementing to the associated tooth. The test of crown retention was recorded in Newtons and performed to displace the crown. The mechanical strength (MPa) was determined. *Result:* In Yttria concentration group the retentive strength of various zirconia crowns was found to be significant $p < 0.05$. The Post Hoc test revealed that group 1 having the greatest mean retention strength value (5YS1). There is significant difference ($p < 0.0001$) in retention strength and surface pretreatment observed among group 3 and 2. *Conclusions:* With the combination of air abrasion and hot acids, the 5Y group demonstrated the greatest retentive force. The study discovered an inverse relationship between the quantity of Yttria content and the retentive force, whereas pre-treatment with a hot acid air abrasion increased the retention of zirconia crown.

Medical Science, 2022, 26, ms27e2049

RESEARCH

Contamination level of unused gloves in King Saud University dental clinics

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Objective: The present study aims to measure the contamination level of gloves contained in an open box during dental procedures in the clinics of King Saud University, Dental Hospital, Riyadh, Saudi Arabia. *Methods:* a prospective in-vitro study for evaluating

the contamination level of unused non-sterile latex gloves in dental clinics. Distance between the glove box and the dental chair was measured and grouped into two categories. The boxes were numbered and swabbed before opening. Two additional swabs were collected from the unused gloves at the beginning and end of each clinical session. The sample was then evaluated to identify type of bacteria and number of colonies. *Results:* 57.5% of contaminated second gloves were within 135cm distance while 70.83% of non-contaminated second gloves were located further than 135cm of the dental chair. For any given second glove placed more than 135cm, there is a decrease of 1.34cfu/ml compared to second gloves placed within 135cm. *Conclusion:* the study findings necessitate the importance of placing exposed glove boxes no less than 135cm from the source of aerosols to reduce the risk contaminating unused gloves.

Medical Science, 2022, 26, ms28e2047

ANALYSIS

Parental involvement in medical imaging in the emergency department

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Background: Radiology uses different modalities to identify wide range of the problems, monitor response to treatment, and screen for diseases. As for children, parents or caregivers should be up-to-date about the benefits and risks of the management. Health care staff ordering or performing procedures have a communal responsibility to contact with the patients. *Methods:* A cross sectional study was conducted in AlAhsa, Saudi Arabia during the period from September to November 2021. Data were collected by using pre-structured questionnaire that distributed to parents whom visit ER department and their child went imaging study. The questionnaire consists of 4 parts (biographical data, sociodemographic data, child data and understanding the imaging procedure and radiation risks). *Results:* Out of 1344, 535 caregivers fulfilling the inclusion criteria completed the study questionnaire. The mean age of participants was 34.2 ± 11.8 years old. Exact of 374 (69.9%) care givers were females. A total of 455 (85%) caregivers reported that the physician explains the main reason of doing radiation, 144 (26.9%) told that the physician explains risk of radiation, and 269 (50.35%) worried about the radiation toward their child. Exact of 192 (35.9%) caregivers had good awareness level regarding medical radiation exposure while 343 (64.1%) had poor awareness level. *Conclusion:* the study caregiver's involvement regarding reasons of child exposure to medical radiation was high but the discussion regarding risks of exposure was unsatisfactory and below caregiver's expectations.

Medical Science, 2022, 26, ms29e2041

Knowledge and awareness of shoulder injuries associated with resistance training among athletes in Riyadh, Saudi Arabia 2021

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Background: Sport and exercise have become an important part of our daily life to promote and enhance our quality of life. However, injuries might occur in some cases due to multiple factors such as improper techniques, overexertion, inadequate preparation, and other factors. In this study we aim to determine the level of knowledge about shoulder injuries associated with resistance training among athletes in Saudi Arabia. *Methodology:* An electronic observational-descriptive cross-sectional study has been conducted on all members older than 18 years old inside and outside gym trainees asking them about shoulder injuries, sample size is 314 based on census taken by General Authority for Statistics. Significance was considered if $P\text{-Value} \leq 0.05$. *Result:* The training place showed a statistically significant association with shoulder injury. Respondents who trained in the gym were more prevalent among those with injuries (46.6%) than those without (34.1%), and the association was statistically significant ($P = 0.036$). The duration of practicing sports was lower in respondents with shoulder injuries ($P = 0.008$). The prevalence of respondents who did not warm up was lower in respondents with injuries (11.7%) than those without (24.6%), and the association was statistically significant ($P = 0.011$). Powerlifting ($P = 0.016$) and bodybuilding ($P = 0.008$) were associated with more shoulder injuries. *Conclusion:* Resistance training such as weight lifting showed a direct impact on shoulder injuries, particularly at gym. The risk of shoulder injuries increases with short period of resistance exercising.

Medical Science, 2022, 26, ms30e1943

Case-control: A low-fiber diet increases the risk of appendicitis in main Qassim, Saudi Arabia hospitals 2020-2021

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Background: Appendicitis is caused by the occlusion of the appendiceal lumen; it is the most cause of abdominal surgery emergency. The low fiber diet can cause the blockage of the appendiceal lumen. It is necessary to know the impact of the low fiber diet on the risk of appendicitis. *Aim:* To assess the association between a low fiber diet and the increased risk of appendicitis. *Methods:* This study is a case-control study that was conducted at 15 main hospitals in Qassim region during the period from 01 January 2020 to 01 June 2021. The study investigated the demographics and the nutritional habits of participants related to fibers using a fat & fiber behavior questionnaire "FFBQ" survey. The data were analyzed using the SPSS program. *Results:* Two groups were included; the patient group, which included 115 appendicitis patients, and the normal control group, which included 230 participants without history of appendicitis. There was a group match regarding the demographics of all the participants. The normal control group

significantly tended to consume more different types of fiber diet compared to the patients' group. Also, between the two groups, there was a significant difference regarding the overall fiber diet frequency ($P=0.0001$). *Conclusion:* A low fiber diet is a major risk factor for appendicitis; the patients suffering appendicitis consume low fiber diets compared to normal individuals.

Medical Science, 2022, 26, ms31e2033

Comparison of efficacy and recovery time of sevoflurane inhalation deep sedation with propofol deep sedation in pediatric dentistry

Mhd Raslan Alzein, Mohamed Altinawi, Faten Rostom, Imad Katbeh, Mamasaidova Zarina, Saidova Patimat

The purpose of this study was to compare the efficacy and recovery time of inhalation sedation using sevoflurane to intravenous sedation using propofol. *Materials and Methods:* The study included 46 uncooperative children aged (3-6) year's who needed to undergo dental treatments under deep sedation. They were randomly assigned to two groups, the propofol group (Group P) and the sevoflurane group (Group S). All children were sedated by an anesthesiologist who was independent of dental treatment and was wholly responsible for the sedation procedure until the patient was discharged. The efficacy assessments and depth of sedation evaluation were done using the University of Michigan Sedation Scale (UMSS). After treatment, modified Vancouver Recovery Scale (MVRS) scale was used to determine the recovery time until the patient was discharged. *Results:* There were no significant differences in efficacy between groups. Statistically significant differences appeared in the recovery time between groups ($p = .000$). *Conclusions:* inhalation deep sedation with sevoflurane is an effective as propofol sedation in managing uncooperative children and the recovery of sevoflurane sedation was more quickly than propofol sedation.

Medical Science, 2022, 26, ms32e2048

Prevalence of MRI findings in lumbosacral spine in patients with chronic low back pain: A cross-sectional study

Ziyad Almushayti, Ali Alamer, Sharifa Alduraib, Asim Aldhilan, Bader Alharbi, Mohammed Alammari, Majed Almutairi, Turkey Alfadda, Mohammed Almushayti

Introduction: Low back pain (LBP) is one of the most common causes of patients looking for medical care. The incidence of LBP in adults is 84% and the estimated incidence in all age groups is 18%. *Materials and Methods:* A cross-sectional study conducted among patients who underwent lumbosacral spine MRI for suspected degenerative disc diseases causing chronic low back pain in patients who age from 21 to 73 years between January 2019 and August 2021. *Results:* 427 patients fit into our inclusion criteria. The most common MRI degenerative finding was disc dehydration (82%) followed by the effect on the relative nerve roots including touching, encroachment, and compression (78.7%) while annular fissure was the least (4.9%). *Conclusion:* Disc dehydration was the most common pattern of MRI degenerative findings and its prevalence was higher among the elderly. The most commonly affected region of the spine was L4/5 with similar prevalence in both males and females.

Medical Science, 2022, 26, ms33e2053

The effectiveness of the unified protocol on symptoms, quality of life, negative affect, and negative reactivity in irritable bowel syndrome patients in comorbidity with anxiety and depression

Ala Ghapanchi, Abbas Masjedi-Arani, Amir Sadeghi, Maryam Asle Zaker Lighvan, Mohsen Saberi Isfeedvajani, Shaghayegh Eslamipour

Introduction: Irritable bowel syndrome (IBS) is a prevalent gastrointestinal dysfunction characterised by chronic abdominal pain and changes in bowel movement. Unified protocol is based on emotion regulations skills and can be used for a wide range of emotional disorders. The present study aimed to evaluate the effectiveness of unified protocol on Symptoms, Quality of Life, Negative Affect and Negative Reactivity in IBS patient's in comorbidity with anxiety and depression. *Method:* This study was a quasi-experimental study with a control group ($n = 13$) and an intervention group ($n = 12$) with random assignment and pre-test post-test with a three-month follow-up after treatment. In this study, the population included all of the patients with irritable bowel syndrome and the sample included the patients referring to Taleghani Hospital in 2020. Data were analyzed through repeated measures ANOVA. *Results:* The results of repeated measures ANOVA indicated that the symptoms of irritable bowel syndrome, anxiety, depression, negative affect, and fear of emotions, anxiety sensitivity, repetitive negative thinking, and the quality of life in the intervention group reduced over time compared to the control group and the difference between the means of two groups was statistically significant. *Discussion and conclusion:* In general, the results of this study showed that the unified protocol is effective on gastrointestinal symptoms and accompanying anxiety, depression symptoms and it can reduce both the symptoms of negative affect and the negative reactivity to emotions and also improve the quality of life of patients.

Medical Science, 2022, 26, ms34e1964

Primary teeth importance and dental care of children among mothers in Saudi Arabia: Knowledge and awareness assessment

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Background: Parent's belief and attitude about children's oral health is very crucial to enhance their children's oral health. Mothers can help their children establish dental care habits if they are well acquainted with oral prevention and diseases techniques. The purpose of this study was to measure mothers' knowledge and awareness of primary teeth and their value in the lives of their

children. *Methods:* A cross-sectional study was carried out through self-administered questionnaire which distributed to around 841 mothers in different regions in Saudi Arabia. Information regarding, mother education, children's oral habits and dental preventive measures was obtained. Data was entered using the Office Excel program (2016) for windows. The data was then transferred to the Statistical Package of Social Science Software (SPSS) version 20 program. *Result:* A total of 841 participants who responded for the questionnaire. The mean age of the study participants was 34.29 ± 9.43 years. 40.8 percent of the subjects were employed. 73.7% of the participants were having a university education, 88.8% are having Saudi nationality. Majority (45.9%) were from eastern region. Out of these 841 participants 43 were not considered as they were not having children. So, final sample size considered for the study was 798 (95.9%). *Conclusion:* In the current study, caregivers have favourable partial understanding deciduous teeth and their worth. Through kids' oral programs with active parental engagement, there is a need to nurture and reinforce good attitudes, as well as significantly enhance their dental awareness.

Medical Science, 2022, 26, ms35e2050

CASE REPORT

Ischemic stroke after covid-19 mRNA vaccination (Pfizer): A case report

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COVID-19 has been linked to more than expected cases of strokes especially in young population. Over a 42-day follow-up period, the BNT162b2 vaccination caused few side effects, majority of it were minors and few are dangerous. This is the second case report which suggest a relationship between COVID-19 mRNA BNT162b2 (Pfizer) vaccine and stroke. Our case is regarding 40-year Saudi women previously healthy, presented to ER with signs and symptoms of weakness in her right side with ipsilateral mild facial palsy and slurred speech ten days after receiving first dose BNT162b2 vaccine. Non-contrast CT scan of the brain demonstrated large fairly defined hypodense area involving the left fronto-temporal region; it exerts a mass effect in the form of effacement in the cortical sulci and mild compression of the ipsilateral ventricle with no shift of the midline structures. In our case, a link between the stroke and Pfizer vaccine is hard to exclude out. The above link has to be investigated further, and people who develop a stroke sooner after getting the first dose should be addressed carefully.

Medical Science, 2022, 26, ms36e2052

ANALYSIS

Cardiovascular risk factors and co-morbidities in patients with Alopecia Areata: A case-control study

Dalia A Ahmed Attallah, Mahmoud Ali M Ashry, Samah Abourehab, Ayman M Mahran

Objective: Study the possible cardiovascular risk factors and co-morbidities in patients with Alopecia Areata. *Design:* Case-control study. *Setting:* Dermatology Outpatients' Clinic, Assiut University Hospitals, Egypt. *Patients and Methods:* One hundred Alopecia Areata patients and fifty age and sex matched healthy controls were recruited from the Dermatology Outpatients' Clinic, Assiut University Hospitals, Egypt at the time from June 2018 to January 2020. Each participant was exposed to full history taking, general and dermatological clinical examinations, Severity of Alopecia Tool score and Body Mass Index evaluation. Investigations included Complete Blood Count, Lipogram, random blood sugar, Electrocardiogram and Echocardiography. *Results:* Body Mass Index of patients was significantly higher than that of the controls. Patients had significantly lower levels of hemoglobin. Triglycerides, Cholesterol and Low Density Lipoproteins levels were significantly higher in patients. However, High Density Lipoproteins levels were significantly lower in patients. Positive correlations were detected between SALT score with Triglycerides, Cholesterol, Low Density Lipoproteins and random blood glucose. No definite ECG or ECHO abnormalities could be identified in patients. *Conclusion:* Patients with Alopecia Areata, especially severe forms, have several CV risk factors which make them liable for future development of definite CV diseases.

Medical Science, 2022, 26, ms37e1866

Transdiagnostic treatment (UP-A) on shame, self-criticism, emotional eating and emotional dysregulation in obese adolescents: A randomized controlled trial

Parastoo Naeimijoo, Abbas Masjedi Arani, Maryam Bakhtiari, Gholamreza Mohammadi Farsani

Background: The present study aimed to investigate the effectiveness of Unified Protocol for Transdiagnostic Treatment – adolescent version- on shame, self-criticism, emotional eating and difficulties in emotion regulation in adolescents suffering from obesity. *Method:* In a randomized controlled trial, 30 female adolescents were recruited by convenience sampling from three nutrition clinics and randomly allocated to intervention and control groups. The experimental group went through 16 weekly treatment sessions of UP-A. Both groups were assessed at pre-tests and re-assessed after the intervention and 3 months follow-up. Body image shame scale, difficulties in emotion regulation scale, self-criticizing and reassuring scale, and emotional eating subscale of Dutch eating behavior questionnaire, and were used to measure body shame, self-critical attitudes, emotional eating, and emotional dysregulations, respectively. *Results:* Mixed analysis of variance (P-value <0.05) showed that UP-A significantly reduced body

shame ($F=19.28$, $P=0.00$, $\eta^2=0.40$), self-criticism including {inadequate Self ($F=11.22$, $P=0.00$, $\eta^2=0.28$), Hated Self ($F=9.66$, $P=0.00$, $\eta^2=0.25$), Reassuring Self ($F=11.01$, $P=0.00$, $\eta^2=0.28$)}; emotional eating ($F=13.94$, $P=0.00$, $\eta^2=0.33$) and difficulties in emotion regulation ($F=10.41$, $P=0.00$, $\eta^2=0.27$) in teens with obesity. *Conclusion:* The findings suggest that UP-A treatment offers a promising avenue through which emotional problems could be alleviated in obese adolescents.

Medical Science, 2022, 26, ms38e1978

Impact of physical activities on quality of life among female medical students in King Abdulaziz University

Ahmad Azhar, Reem Ebraheem Aldaheeri, Yara Faisal Alqurashi, Wafaa Mohammed Alalyani, Albandari Abdullah Albandar

Background: Physical activity (PE), which offers a variety of health and mental advantages, has gotten a lot of attention in Saudi society, particularly among medical students. In 2014, the prevalence of physical inactivity was found to be 66.6 percent, namely 60.1 percent for males and 72.9 percent for females in Saudi Arabia, where the prevalence of physical inactivity was found to be 66.6 percent, specifically 60.1 percent for males and 72.9 percent for females. Our goal is to show that physical activity has a significant impact on the quality of life of female medical students at King Abdulaziz University (KAU). *Methodology:* From September 2019 to September 2020, a cross-sectional study was undertaken. Female medical students completed a combination of two validated questionnaires: the (WHOQOL)-BREF questionnaire as a measurement tool for QOL and the (BREQ-3) for Physical Exercise Engagement. From a total of 1000 students, we selected 437 students between the ages of 18 and 25, excluding those who had graduated from medical school. *Result:* We observed a statistical significant relationship between PE and general health, physical fitness, and psychological well-being. Female medical students who participate in physical activity are more likely to be pleased with their physical appearance and lifestyle, as a result of which they have a high degree of confidence, motivation, and self-esteem. *Conclusion:* It is recommended that the entire Saudi population be made more aware of PE, and that future studies employ other study methods for more thorough results.

Medical Science, 2022, 26, ms39e2063

Nutritional status among children with autism spectrum disorders in Saudi Arabia

Samar Alahmari, Rehab Alatawi, Renad Albalawi, Ryanah Albalawi, Eman Alamri

Objective: To compare the nutritional status of Saudi children with autism spectrum disorders (ASD) to Saudi children without ASD. *Methods:* The research was a case control study for children aged between 7 and 12 years. In total, 155 children enrolled (70 children with ASD and 85 children without ASD). Dietary consumption was assessed using a 3-day food record. *Results:* The daily average of energy from carbohydrates was significantly higher among children with ASD than children without ASD. A lower intake of folic acid, vitamin B12, calcium, iron, magnesium, sodium, and selenium was detected among children with ASD, while vitamin B6, vitamin C, and potassium were significantly higher among children with ASD compared to children without ASD. *Conclusion:* Nutrient deficiencies were more present among children with ASD than children without ASD. Thus, nutritional intervention is essential for children with ASD to avoid future complications.

Medical Science, 2022, 26, ms40e1960

CASE REPORT

Ventricular Septal defect (VSD) as an extra renal manifestation in Congenital Anomalies of Kidney and Urinary Tract (CAKUT) Syndrome: A rare Case report

Sagar VVSS, Sourya Acharya, Shantanu Gomase, Rohan Kumar Singh, Samarth Shukla, Sunil Kumar, Chitturi Venkata Sai Akhil

Congenital abnormalities of the kidney and urinary tract (CAKUT) are a key cause of morbidity and a substantial contributor to end-stage renal disease (ESRD). These anomalies are the most prevalent form of birth malformation. Other system abnormalities such as those of the heart, gastrointestinal tract, central nervous system, skeletal system, respiratory system, facial dysmorphism, reproductive system, abdominal wall coexist with these anomalies. Congenital heart defects (CHD) are the most frequent complication in this syndrome, according to previous data. These findings show a similar genetic aetiology for congenital heart disease (CHD) and renal abnormalities, implying that CHD patients are at a significantly increased risk of renal anomaly outcomes. To avoid renal damage and chronic kidney disease, it is crucial to be aware of this linkage in the early treatment and diagnosis of CAKUT. We present a case of a 23 year old male who presented to us with symptoms of ESRD and was diagnosed to be case of CAKUT syndrome with VSD as the extra renal association.

Medical Science, 2022, 26, ms41e2003

ANALYSIS

Parents' knowledge, attitude, and practice towards childhood constipation in Al Baha- Saudi Arabia

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Introduction: Constipation is an important pediatric health issue, most childhood constipation (CC) cases are due to functional constipation (FC), rather than being caused by organic causes, occurring as a result of intentional stool with hold. *Methodology:* This is a prospective, cross-sectional, community-based study that was carried out to assess the Knowledge, Attitude, and Practice (KAP) of parents towards childhood constipation. *Results:* It was found that only 3.5% had 'good' knowledge, whereas the majority of the parents (80.5%) had 'poor' knowledge regarding childhood constipation, while only 35.9% (n=204) of the parents had shown good practices related to (CC) with statistically significant association seen with age, educational level, and employment status. *Conclusion:* Parents' level of knowledge and practices towards CC is poor and there is a considerable need to disseminate accessible and reliable information to parents or caretakers for supporting and effectively managing their children's health.

Medical Science, 2022, 26, ms42e2054