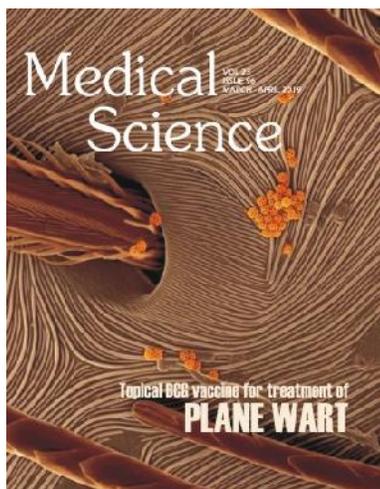


# Medical Science

## About the Cover



Plane wart is a dermatological disease, caused by HPV. Spontaneous recovery takes a long time to occur and patients often seek for treatment. Many therapeutic modalities have been used with variable success. Immunotherapy with BCG vaccine is a modality that has recently used for treatment of wart. We reported a 17 years old girl with multiple plane warts on the right cheek and below the right eyebrow which had undergone several treatments such as cryotherapy, but all treatments failed with recurrent of all warts. We started a new therapeutic modality with topical BCG vaccine for this patient. Treatment protocol was weekly topical application of 1ml BCG for two hours under plastic occlusive dressing. Patient monitored every tow week with imaging. After six weeks treatment all the warts disappeared simultaneously. After a four months period of follow up, patient showed no recurrence. Immunotherapy with topical BCG vaccine is an effective treatment modality for plane warts with no recurrence and minimal side effect. (Ref: Reza Yaghoobi, Sedighe Tavakoli, Bahareh Maleki. Topical BCG vaccine for treatment of plane wart. *Medical Science*, 2019, 23(96), 152-154).

## ANALYSIS

---

### **The correlation between help-seeking behaviour, social comparison and stigma in caregivers of children with autism**

Marjan Mohamadi, Jamileh Mohtashami, Parvaneh Vasli, Alireza Khajavi, Sina Tavakoli

Caregivers are one of the most important elements in the care of children with autism, that it is very essential to take into consideration their mental dimensions. This study has been conducted with the purpose of investigating the correlation between helping-seeking behaviour, social comparisons and stigma in caregivers of children with autism. This descriptive-correlational study was conducted on 141 caregivers of children with autism referred to the autism centre since 2018 in Karaj and Tehran. Sampling method was convenience. The instruments used included the demographic characteristics and the help-seeking behaviour scale, the social comparison scale and the stigma scale. Data were analyzed using SPSS v20 software. Most caregivers were female, aged between 36 and 45, married and had a diploma. The results also showed that there is a significant relationship between help-seeking behaviour and affiliate stigma of the caregivers of children with autism ( $P = 0.046$ ). Also, there is a significant relationship between social comparison and affiliate stigma of the caregivers of children with autism ( $P = 0.009$ ). Considering the significant relationship between the three variables, the greater the help-seeking behavior, the amount of social comparison is higher and the amount of stigma is lower, it seems that it is better to pay particular attention to help-seeking behaviour, factors affecting it, facilitation of access to professional services such as counseling, psychological and psychiatric services, so that the person is less likely to compare himself to other people in the community and the stigma associated with the presence of the child with autism is diminished.

*Medical Science*, 2019, 23(96), 146-151

## CASE REPORT

---

### **Topical BCG vaccine for treatment of plane wart**

Reza Yaghoobi, Sedighe Tavakoli, Bahareh Maleki

Plane wart is a dermatological disease, caused by HPV. Spontaneous recovery takes a long time to occur and patients often seek for treatment. Many therapeutic modalities have been used with variable success. Immunotherapy with BCG vaccine is a modality that has recently been used for treatment of warts. We reported a 17-year-old girl with multiple plane warts on the right cheek and below the right eyebrow which had undergone several treatments such as cryotherapy, but all treatments failed with recurrence of all warts. We started a new therapeutic modality with topical BCG vaccine for this patient. Treatment protocol was weekly topical application of 1 ml BCG for two hours under plastic occlusive dressing. Patient monitored every two weeks with imaging. After six weeks treatment all the warts disappeared simultaneously. After a four-month period of follow-up, patient showed no recurrence. Immunotherapy with topical BCG vaccine is an effective treatment modality for plane warts with no recurrence and minimal side effect.

*Medical Science*, 2019, 23(96), 152-154

## ANALYSIS

---

### **Pressure injury on the face of patients undergoing noninvasive ventilation, hospitalized in the intensive care unit**

Viveiros Abel, Nóbrega Júlio, Santos Luísa, Peña-Otero David, Costa Ana, Ribeiro Leonardo, Alves Ana

Noninvasive ventilation (NIV) implies some complications, being the lesion by pressure on the face the most frequent lesion associated to this practice in intensive care. To determine the incidence of injuries caused by pressure on the face occurred in patients hospitalized in intensive care unit (ICU) of a hospital in the Autonomous Region of Madeira (ARM), submitted to NIV. Retrospective study carried out between January and December 2017. Inclusion criteria: patients with age  $\geq 18$  years, hospitalized in the intensive care unit (ICU), exceeding 24 hours, with the introduction of NIV for an equal time and/or exceeding 2 hours and showing healthy skin on the face at the time of admission. The data of 103 patients in our sample were collected from the database of patients with NIV in the ICU. The use of masks for single use, pressure relief and the application of sweet almond oil seems to have contributed to the reduction of lesion incidence on the skin which were caused by pressure (LSP) in patients submitted to NIV in the ICU.

*Medical Science*, 2019, 23(96), 155-158

### **The effect of Rhubarb stem extract on blood pressure and weight of type 2 diabetic patients**

Fahimeh Shojaei-Shad, Maryam Jahantigh-Haghighi, Ali Mansouri, Mahdieh Jahantigh-Haghighi

Diabetes is a serious chronic disease that can damage the heart, blood vessels, eyes, kidneys and nerves, leading to death and early disability. Blood glucose control can prevent these complications. Also, a decrease in systolic blood pressure reduces the risk of each complication of diabetes and the risk of death from diabetes. Rhubarb is prescribed in traditional medicine for various patients, including patients with diabetes, high blood lipids and high blood pressure. However, its effect has not been scientifically reported. This study aimed to determine the efficacy of Rhubarb stem extract on hypertension and weight of type II diabetic patients. In this experimental study, 80 diabetic patients with type 2 diabetes mellitus in the city of Zabol, aged 30-60 years old, fasting blood glucose greater than 140 mg/dl and hypertension above 140/90 mmHg, after matching they were randomly divided into two groups of 40 patients treated with Rivas stem capsules and placebo. Patients in both groups were evaluated for blood pressure and weight before and after the study. The mean systolic blood pressure and diastolic blood pressure in the rhubarb group before and after the intervention were  $144.87 \pm 8.73$  and  $95.75 \pm 7.72$ , respectively, after intervention, to  $133.95 \pm 10.98$  and  $83.73 \pm 25.28\%$  decrease. Paired t-test and Wilcoxon showed a significant decrease in systolic and diastolic blood pressure and diastolic blood pressure with rhubarb intervention ( $p < 0.05$ ), but no significant changes were observed in intervention and weight loss control groups ( $p < 0.05$ ). The use of 400 mg Rhubarb stem capsules three times a day in type 2 diabetic patients can significantly decrease systolic blood pressure and diastolic blood pressure, but there is a significant difference in weight loss between the two groups before and then the intervention did not work.

*Medical Science*, 2019, 23(96), 159-162

### **Nurses' communication skills and the quality of inpatient services from patients' viewpoints**

Mohammad Ali Morowati Sharifabad, Mojtaba Fattahi Ardakani, Mohammad Amin Bahrami, Hossein Fallahzadeh

Effective communication is an essential part of nursing profession and is one of the important tools of nurses to support patients and their family members. That is one of the effective factors for improving the outcomes of health care services. The purpose of this study was to investigate the communication skills of nurses and their correlation with the quality of hospital services from patients' viewpoints. In the cross-sectional study, a total of 402 patients hospitalized in two hospitals in Yazd province (Iran) participated. The quality of inpatient care was measured using the Service Quality (SERVQUAL) scale. SERVQUAL examines dimensions of tangibles, empathy, reliability, assurance, and responsiveness of hospital inpatient services. The communication skills of nurses from patients' viewpoints were assessed by communication part of Quality of care questionnaire. Data were analyzed by Spearman's correlation coefficient and Mann-Whitney U-test using the SPSS. There was a positive, significant correlation between communication skills of nurses and the quality of inpatient care ( $r = 0.312$ ,  $P < 0.005$ ). The dimension of responsiveness had the strongest correlation with communication skills ( $r = 0.314$ ) and the highest gap in quality service was observed in the

dimensions of reliability and tangibles. Considering the relationship between communication skills of nurses and service quality dimensions, improving communication skills of hospital staff can lead to an increase in the quality of health care in these centers.

*Medical Science*, 2019, 23(96), 163-167

## RESEARCH

### **Histopathological findings after breast reduction operations with inferior Pedicular techniques**

Ümran Muslu, Dilek enen Demirez, Güven Güney, Engin enel

Breast reduction mammoplasty is one of the most commonly performed cosmetic surgical procedures, which provide us with breast tissue for pathologic examination. In this study, we aimed to examine the breast tissue to detect histopathological abnormalities. It is a single-center, retrospective study designed in Antalya Education and Research Hospital between 2011-2014. 276 patients were included in this study. All patients underwent bilateral breast reduction surgery. Mean age of the patients was  $42.5 \pm 12.0$  years (median: 43, min: 17, max: 75). The patients were examined psychically, and then mammography, ultrasonography and MRI (older than 40 years) and breast ultrasonography and MRI (younger than 40 years) were performed. No evidence of tumor formation was seen in any of the patients who were included in the study. All mastectomy specimens were evaluated histopathologically (n=552). The lightest specimen was 183 g., the heaviest specimen weight was 2800 g. 114 breast specimens were histopathologically normal, nonproliferative lesions were found in 349 breast specimens. A slight increase in risk was seen in 80 specimens. 80 specimens were found to be moderately increased risk. None of the patients showed any significant increased risk. Only one lobular carcinoma was detected. According to our findings, it is important to examine breast tissues for the detection of breast lesions. Breast reduction surgery may be useful for not only cosmetic concerns but also detection of proliferative, nonproliferative lesions, and even carcinoma.

*Medical Science*, 2019, 23(96), 168-172

## REVIEW

### **Outcomes of patients in Peritoneal Dialysis program: Nursing Practice**

ALVES Ana Isabel; FREITAS Carlos; BARRETO Luís; GONÇALVES Ricardo; VIVEIROS Abel; FARIA Sidónio; BARRETO Licinia; VIEIRA Sofia; MARQUES Aurélio

The chronic kidney disease and the beginning of dialysis treatment brings to the fore the circumstances which threatens the physical and psychological aspects of individuals. There may be personal, family and social repercussions therefore the need to relearn how to live, in order to meet the demands of a world permeated by technical procedures, consultations and examinations. To analyze the outcomes of patients in Peritoneal Dialysis program. Systematic review of the literature, using the keywords: "Peritoneal Dialysis," "Nurse Care" and "Nephrology"; and the PICO method. Between 2013/2018 many electronic databases were selected, including the analysis of eight articles. The analyzed studies revealed that the peritoneal dialysis has good acceptance by patients. The peritonitis is the most frequent conditionate to its failure, followed by infection of the outlet port of the catheter. Besides these factors an advanced age and other comorbidities are also factors for the failure of the peritoneal dialysis. It is important the creation of therapeutic and care protocols, that are effective in controlling these occurrences to obtain a proper evaluation. Although the implant is a medical competence procedure, nursing professionals, especially the nurses, are responsible for the training of maintenance of these catheters, which is of great importance.

*Medical Science*, 2019, 23(96), 173-178

## ANALYSIS

### **Dental students' knowledge and practices regarding antibiotic prescribing guidelines in children in Abha, KSA: A cross-sectional study**

M Zakirulla, Amerah Bedah Muraih, Amjad Ali Al-whlan, Ohood Saeed Al-merei, Rasha Hussain Al-zahrani, Abdulaziz Bedah Alshahrani, Allah Baksh Meer

The use of antibiotics prophylactically and therapeutically in dentistry has become common practice. An inappropriate prescription may lead to adverse side effects and bacterial resistance. During clinical training, dental students in Saudi Arabia are authorized to prescribe antibiotics. To evaluate dental students' knowledge and attitudes regarding antibiotic prescription in Abha, Saudi Arabia. In this cross-sectional study, participants (n = 175) were selected based on simple random sampling method. Data were collected using a questionnaire regarding knowledge of antibiotics, attitudes and behavior towards antibiotic prescribing guidelines and clinical cases to assess knowledge of antimicrobial prescribing in children. Descriptive statistics were generated for all questions. The results were tabulated and expressed as both number and percentage. Average percentage of fully correct answers (Yes) was higher than 70% of the all the statement proposed for knowledge about antibiotic. Attitude and behavior of statement about antibiotic are relatively less compared to knowledge questions, average correct answers (Yes) were ranges 31% to 59%. The compliance rate with prescribing guidelines in each of the clinical cases ranged from 28% to 53.2%. This study concludes that dental students have positive knowledge regarding antibiotics, but had low awareness and compliance with antibiotic prescribing guidelines to children. There is a clear need for the development of prescribing guidelines and educational initiatives to encourage the rational and appropriate use of the antibiotics in children by the dentist.

*Medical Science*, 2019, 23(96), 179-184

## RESEARCH

### **Protective effect of Cortisone and Hydrocortisone drugs on lysosomal damages induced by bacterial endotoxin in wistar rats**

Yaser Eshaghmilasi, Ramin Tavakoli, Mansoor Khaledi, Hoshang Roshanmehr, Mohammad Aberomand, Ghorban Mohammadzadeh, Mostafa Madmoli, Shahdokht Rastegar

Bacterial endotoxin as biological stress by multiple organs failure causes lysosomal enzyme leakage. Lysosome as a basic cytoplasmic organelle in animal tissues contains hydrolytic enzymes capable of degrading various cellular constituents. In this study protective effect of Cortisone acetate and hydrocortisone 21-sodium hemisuccinate on lysosomal damage and its association with change level of serum and hepatic acid phosphatase activity investigated. In this study, 30 rats equally divided to Control, tolerance and Endotoxin groups. The tolerance group (12.5 mg/kg body weight intramuscularly injection Cortisone acetate for 3 days and on the 4th day, the intravenous injection 12.5 mg/kg of hydrocortisone 21-sodium hemisuccinate). The induce endotoxin shock in rats with 2.5 mg/kg body weight intravenous injection of Salmonella endotoxin. Partial purification and beta-glucuronidase activity were determined by sephadexG75 chromatography and Polyacrylamide Gel Electrophoresis. The results of this study shown a significant different in level serum and homogenate acid phosphatase activity in Tolerance group compared with the other groups (P<0.05). Also enzyme especial activity in all steps of purification, in Endotoxin group was more than the other groups (P<0.05). Endotoxin shock as biological stressor by induction of lysosomal enzymes into the cell plays an important role in deterioration of cells. Also, it seems that protection of

these particles by injection of cortisone acetate and hydrocortisone 21-sodium hemisuccinate can a significant resistance to induced stress by endotoxin shock.

*Medical Science*, 2019, 23(96), 185-190

## ANALYSIS

### **Comparison of patency of heparin-coated with non-heparin coated catheters in patients under hemodialysis: a randomized clinical trial**

Mohammadreza Sobhiyeh, Najme Bagherhosseini

To compare the patency and incidence of infection in patients under hemodialysis with the heparin-coated catheter and non-heparin coated catheter. In this randomized clinical trial (IRCT: N 2016010925918), 100 patients with the end-stage renal disease, referred to the Imam Reza hospital in Kermanshah, Iran, were recruited. The patients were randomized into either Palindrome chronic catheter, 14.5 F-19 cm (Non-heparin coated) or Palindrome H chronic catheter, 14.5 F-19 cm (heparin coated) groups (50 patients in each group). The catheter lines in both groups were filled with 5 ccs of TauroLock (heparin +antibiotic), then in the heparin-coated group, the tip to cuff of catheters were heparinized and the second group left without any more intervention and was considered as control. The patients were followed up for five months (150 days) and the rate of patency and the incidence of infection were compared between two groups. 100 patients including 55 males and 45 females, mean age 52.00±15.00 (range 30-80) years old were evaluated. The rate of patency in non-heparin group one month after placement was 83%, and decreased to 72% after three months and 54% after five months. In the heparin-coated catheter group the rate of patency was non-significantly, higher than non-coated and was 90%, 79% and 64% at one, three and five months after procedure, respectively (P=0.87). The incidence of infection in non-heparin coated catheters was significantly higher than heparin coated group (20% vs 10%, P=0.001). We showed that in case of filling of catheters with a TauroLock solution, the heparinization of catheters' tip to cuff does not improve the patency, however, it decreases the incidence of infection.

*Medical Science*, 2019, 23(96), 191-194

## CASE REPORT

### **Treatment of a woman with seconder infertility and vaginismus**

Omer Demir, Cihan Comba

Vaginismus has traditionally referred to involuntary contraction of the muscles of the pelvic floor surrounding the vaginal orifice. Vaginismus is a disorder that is easy to diagnose but also has a psychiatric component that is difficult to assess and treat at the same time. We intend to write this article to show how the problem is recognized, approached, and treated in a county state hospital in the East of Turkey. A patient with vaginismus who applied to our clinic with second child's wish was treated with different size of molds (dilators) for pelvic relaxation. The treatment efficacy was then tested with different validated tests. After the patient's treatment has been completed and the sexual relationship has been established, the pre-treatment questionnaires were repeated, and significant improvements were observed in the questionnaire results. Vaginismus is a sexual dysfunction that is easy to diagnose but difficult to treat. The two most important factors that facilitate treatment are the understanding and patience demonstrated by the practitioner and the belief that those who experience this problem will be able to resolve this situation. In our case, treatment has been successful and reflected in our surveys. If these conditions provided, vaginismus treatment can be performed with success, even in a region in eastern Turkey.

*Medical Science*, 2019, 23(96), 195-200

## ANALYSIS

### **Why are cervical smear abnormalities frequency increasing in Turkey?**

Cihan Comba, Omer Demir

To evaluate the prevalence of abnormal cervical cytological results in Turkey. This retrospective case-control study was conducted in the Departments of Obstetrics and Gynecology at Sorgun State Hospital in Yozgat, Turkey between January 2015 and June 2016. Evaluation in this study was made of patients who accepted the gynecologic examination, were aged 18-75 years, were not in the menstrual period, had not had a PAP smear with in the previous year and were sexually active. The Bethesda system was used for the cervical smear sample collection, examination, and reporting. Cervical dysplastic changes were observed in 110 cases, of which, 89 (80.90%) were diagnosed as ASCUS, 2 (1.81%) as ASC-H, 8 (7.27%) as LSIL, 2 (1.81%) as HSIL, 5 (4.54%) as AGC-NOS, 3 (2.72%) as ASCUS+AGC-NOS, and 1 (0.9%) as HSIL+AGC-NOS. The rate of abnormal Pap test result was determined as 8.02%. The higher results could be attributed to greater sensitivity of pathologists to smear assessments or that the population could be more polygamous than expected or a combination of both.

*Medical Science*, 2019, 23(96), 201-204

### **The Effect of Reiki energy therapy on the severity of pain and quality of life in patients with rheumatoid arthritis: A Randomized clinical Trial Study**

Naser Shirani, Abdolghani Abdollahimohammad, Mohammadreza Firouzkouhi, Nosratollah Masinaeinezhad, Aziz Shahraki-Vahed

Patients with rheumatoid arthritis (RA) experience moderate to severe pain and a low quality of life. Reiki energy healing is a modality to control pain and improve the QOL patients. This study aimed to investigate the effect of Reiki energy healing on pain and QOL the patients with RA. This clinical trial study was conducted in 40 RA patients who were randomly divided into control and Reiki groups. The data were collected using the demographic information questionnaire, quality of life questionnaire (SF-36), and the Visual Analogue Scale (VAS) for pain. The questionnaires were collected after two day of distribution in pretest phase. Remote or distance energy healing was performed four times a week (20 minutes each time) for Reiki group then the questionnaires were completed within two days after intervention. The independent t-test or Mann-Whitney U test was applied to compare the mean or median of normal and non-normal distributed data, respectively. The mean or median score of the pain (P<0.001) and the QOL (P=0.009) were significantly higher in the Reiki healing group in compared with the control group in the dimensions of physical functioning, energy/fatigue, emotional well-being, role limitation due to physical health. Remote or distance reiki therapy as a complementary and alternative, and noninvasive healing modality relieves pain and improves the QOL in the RA patients.

*Medical Science*, 2019, 23(96), 205-210

## RESEARCH

### **Association of neutrophil-to-lymphocyte and platelet-to-lymphocyte ratios with coronary artery disease severity**

Javad Ramezani, Hamidreza Bagherian Kalat, Amir Masoud Hashemian, Neema John Mehramiz, Mahdi Foroughian

Neutrophil-to-lymphocyte ratio (NLR) and platelet-to-lymphocyte ratio (PLR) are two measurable parameters through complete blood count (CBC), whose role has recently been considered as inflammatory markers with potential in predicting cardiovascular events. The purpose of this study was to determine the association of NLR and PLR with coronary angiographic findings in patients with acute coronary syndrome (ACS). This cross-sectional study was conducted on hospitalized patients diagnosed with ACS who underwent angiography. The patients were divided into two groups according to coronary circulation status in the angiography: 1) spontaneous reperfusion group (SRG) consisting of patients with normal coronary circulation and TIMI flow grade of 3; 2) non-SRG group including patients with some degree of impaired coronary circulation and TIMI flow grade of 2. Then clinical, laboratory, echocardiographic and angiographic findings were compared. The ROC curve was used to calculate a suitable cut-off point from PLR and NLR to predict the severity of coronary artery involvement and to differentiate SRG from non-SRG. Independent sample t-test, Chi-Square, and logistic regression were applied for statistical analysis. The study consisted of 360 patients (224 males and 136 females) with a mean age of  $60.7 \pm 12.3$  years. According to the angiography, 134 (37.2%) patients were assigned to the SRG group and 226 (62.8%) patients to the non-SRG group. Comparison of laboratory findings in the two groups of SRG and non-SRG showed that white blood cell count, platelet count, neutrophil count, troponin I level, NLR and PLR were significantly higher in the abnormal group. The best cut-off point of PLR and NLR in the non-SRG prediction was 103 and 3.3 in the ACS patients, respectively. The area under the ROC curve, sensitivity and specificity of obtained cut-off points were determined to be 66.6, 73.1%, and 54.5% for the PLR (95% CI=61.5-71.4), and 68.3, 46.9%, and 82.0% for NLR (95% CI=63.2-73.1), respectively. In the ACS patients, the coronary atherosclerosis is associated with inflammatory markers, and PLR and NLR can be used to evaluate the severity of coronary artery involvement.

*Medical Science*, 2019, 23(96), 211-216

#### **Did free drugs for smoking cessation effect treatment success?**

Sertaç Arslan

Drugs used for smoking cessation had not been paid by health insurance system in our country; however, these drugs started to be given freely by community health services in case an authorized doctor prescribe them. We evaluate the treatment success after smoking cessation drugs become free. Eighty-five patients (48 males, 37 females) admitted to smoking cessation clinic at a university in Çorum between July 1<sup>st</sup> 2015 – December 31<sup>st</sup> 2015 were evaluated retrospectively. Mean age of patients was 37.9 years. Most common symptoms were exercise dyspnea (71.8%) and productive cough (61.2%). Sixty-six patients were prescribed Varenicline (77.6%) and bupropion prescribed 19 patients (22.4%). At the end of 3 months therapy 26 patients (30.6%) quit smoking. Percentage of smoking cessation was 33.3% for males and 27% for females; moreover, 33.3% for varenicline and 21.1% for bupropion group ( $p=0.309$ ). Mean duration of smoking was 22.1 years for quitters and 16.5 years for non-quitters ( $p=0.068$ ). Fagerstrom smoking scale was adapted to the study as low (0-4), moderate (5-7), high (8-10) nicotine dependence. Percentage of quitters was 20.8%, 30.4% and 36.8% for low, moderate and high dependence patients respectively ( $p=0.411$ ). There was no significant difference between varenicline and bupropion for treatment success according to nicotine dependence levels. For the patients who quit smoking, pre-treatment and post-treatment spirometry tests were compared. Mean PEF% were increased from 71.6% to 77.7% ( $p=0.062$ ), mean MEF75% were increased from 75.2% to 81.2% ( $p=0.075$ ). Free drugs for smoking cessation treatment may decrease treatment success.

*Medical Science*, 2019, 23(96), 217-220

#### **Does nutritional status affect on quality of life among patients with Diabetes Mellitus?.**

Esin Sevgi Dogan, Ozden Dedeli Caydam, Sezgi Cinar Pakyuz, Ayse Akkaya

To determine the nutritional status effect on quality of life among patients with diabetes mellitus. A case controlled study. Patients with diabetes mellitus (case group) attended a diabetes polyclinic of a state hospital and their family members (control group) were selected randomly ( $n=200$ ). The data were collected by patient information form, Mini Nutritional Assessment Scale, Diabetes Quality of Life Scale from diabetic subjects, and personal information form, Mini Nutritional Assessment Scale, SF-36 Quality of Life Scale from non-diabetic subjects. The mean age of the case group was  $50.06 \pm 10.44$  (18-64) years, and control group was  $39.46 \pm 12.47$  (18-63) years. A negative significant correlation was found between total MNA score and total DQOL scale score ( $p<0.01$ ) among patients with diabetes mellitus. Patients with diabetes mellitus may be at risk of malnutrition when compared with non-diabetics. There is probably a causal relationship between malnutrition and health related quality of life decline in this group.

*Medical Science*, 2019, 23(96), 221-226

#### **Microalbuminuria as a predictor of early glomerular injury in children and adolescents with Sickle Cell Anaemia at King Salman Armed Forced Hospital, Tabuk, Saudi Arabia**

Sawsan Elbalawy, Nagwa Gad, Meznah Alshwameen, Duha Alshaman, Ifraj Alhowity, Asma Ghumaird, Abdullah Ali, Mohammad Zubair, Shamina Begium, Omnia S El Seifi, Marai Mohammed Alamri, Arshi Malik

Microalbuminuria (MA) is considered as an early marker of various diseases affecting the renal system. Its relevance in children with sickle cell anaemia (SCA), who are known to be prone to renal complications, has not been fully explored. Microalbuminuria in the early stages of sickle cell nephropathy is a hallmark of future deterioration of renal function. *Objective:* The objective of this study was to determine the prevalence of microalbuminuria and its clinical correlates in children and adolescents with sickle cell disease attending sickle cell anaemia clinic at King Salman Armed Forced Hospital (KSAFH). This is a hospital based case-control study that was conducted in KSAFH in the period from 2014-2016. A total of 145 patients aged 3 – 18 years attending sickle cell clinic were randomly selected. These children were divided into 3 groups. Group A Sickle cell anaemia (69 patients), Group B sickle thalassaemia (13 patients), Group C sickle cell trait (10 patients) along with 54 healthy children of comparable age as controls. The demographic data including age, sex, and residency were analysed. A urine sample of all eligible children of the 3 groups together with controls were collected and analysed and screened for microalbuminuria. The haemoglobin level with microalbuminuria was recorded and compared between the 3 groups and the controls. The mean age of patients was found to be 8.5 years and 44.6% were females. Microalbuminuria (MA) was found in 42/145 (28.9%) and it was much more common in males than in females 61.9% and it was more common at a higher age. None of the clinical characteristics (painful crisis, blood transfusion) was significantly related to MA. Haemoglobin levels were significantly lower in subjects with MA than in those without MA. Microalbuminuria was a insignificant number of patients with sickle cell disease and was more common in males and higher age. In conclusion, the prevalence of MA in children (1-16 years) with SCA in our study was 28.9%. Prevalence of MA was influenced by age, gender.

*Medical Science*, 2019, 23(96), 227-232

#### **ANALYSIS**

#### **Comparison of the effects of Nigella sativa and Mefenamic acid on the severity, duration, and systemic symptoms of primary Dysmenorrhea**

Fatemeh Mohanazadeh Falahieh, Farzaneh Jafarnejad, Hassan Rakhshandeh, Mohammad-Taghi Shakeri, Malihe Motavasselian

Dysmenorrhea is the most prevalent pelvic cyclic pain and the most common complaint of gynecologic patients due to causing many personal and social problems. Since the use of physiotherapy has become commonplace, this study was conducted to evaluate the effects of *Nigella sativa* compared to *Mefenamic acid* on primary dysmenorrhea. This double-blind randomized clinical trial was conducted on 70 single female students

aged between 18 and 30, who were living at the dormitory of Mashhad University. The students were allocated randomly into two groups; the *Nigella sativa* group (n=35) took 1gr of *Nigella sativa* powder q8h in the first 3 days of menstruation for two cycles. The second group (n=35) received 250mg of *Mefenamic acid* q8h in the first 3 days of menstruation. The pain severity (measured on the visual analog scale) and duration (measured on cox) were measured at the baseline and during the two cycles. The two groups had no significant difference in the severity and duration of pain at the baseline; however, after the intervention, the severity and duration of the pain were significantly lower in the *Nigella sativa* group than in the *Mefenamic acid* group ( $P < 0/05$ ). The results of this study showed that *Nigella sativa* could reduce the severity and duration of menstrual pain by exerting anti-inflammatory effects; thus, it is recommended to be used in the treatment of this common gynecologic disorder in women.

*Medical Science*, 2019, 23(96), 233-237

---

#### **A decision aid to support breast cancer patients**

Ghiyasvandian Shahrzad, Mousavizadeh Seyede Narges

One of basic principles of patient protection is patient's right to make decisions for their health. In this study, the effect of a decision aid to support breast cancer patients was studied. This clinical trial study was conducted on 60 early stage breast cancer patients who referred to Cancer Institute of Imam Khomeini Hospital of Tehran. Patients were randomly assigned into intervention (30 patients) and control (30 patients) groups. The patients in the intervention group were received decision aid package. In the control group routine care was done. Data was gathered by three questionnaires: demographic information, treatment method-decision conflict, and decision regret. Data analysis was performed by descriptive and inferential statistics like independent t-test and ANOVA using the SPSS software version 16. Type of treatment was selected by patients, participating in decision-making and decision conflict were significantly different between two groups ( $p < 0.05$ ). Decision satisfaction or decision regret was not significantly different between two groups ( $p = 0.087$ ). The decision aid intervention, by involving patients in treatment decisions related to their health, was improved patients' awareness and confidence to start treatment. Also then, the treatment option was according to their values and priorities.

*Medical Science*, 2019, 23(96), 238-243

---

#### **Determinants of Dietary Approaches to Stop Hypertension (DASH) among Prehypertension Individuals: An Application of Protection Motivation Theory**

Seyed Saeed Mazloomi Mahmoodabad, Saeid Dashti, Amin Salehi-Abargouei, Hossein Fallahzadeh, Mohammad Hossein Soltani

Pre-hypertension is a common worldwide disease in 30-50% of the studied population. Diet compliance among pre-hypertensions is one of the most important changes in lifestyle. This study aims to determine compliance dietary approaches to stop hypertension (DASH) among prehypertension by using the protection motivation theory. This cross-sectional study was performed on 165 prehypertension individuals in Ferdows city. A researcher-made questionnaire was used to examine the scores of the theory of protection motivation structures. The diet was measured by using a three-day dietary questionnaire. Validity and reliability of the instrument were confirmed. The data were analyzed by means of correlation coefficient, chi-square, and linear regression. The average Dash diet compliance was  $25.24 \pm 4.7$ . There is a significant correlation between all incentive protection structures, except perceived rewards and perceived costs with the intention of diet compliance. Theoretical structures were able to predict 66% of the variance of the intention of diet compliance. According to the ability of the protection motivation theory structures to explain the behavior of a diet, interventions based on the structures of this theory are suggested, in particular to improve the self-efficacy as the strongest predictor of the intention to diet compliance.

*Medical Science*, 2019, 23(96), 244-249

---

#### **Prognostic Value of Preoperative Plasma Von Willebrand Factor Levels in Patients with Glioblastoma Multiforme**

Seyed Reza Bagheri, Karim Moradian Kokhedan, Reza Fatahian, Masoud Sadeghi

Glioblastoma multiforme (GBM) is the most frequently occurring cancer among the primary astrocytomas. We investigated the plasma von Willebrand Factor (VWF) level and its effect on the prognosis of GBM patients. This descriptive study was conducted on 50 patients with GBM. Patient's GCS score and performance rate of each patient in one year (two 6-month periods) were recorded. The mean age of the patients was 42 years, and 56% of them were male. The mean GCS scores at baseline, after six, and twelve months were 13, 13, and 11, respectively, indicating a decreasing trend during one year. The mortality rate after six months was 14%. Most of the patients had VMF levels of 220-230 and 260-270 IU/dL. After six months based on plasma VWF level, the highest mortality happened at 290-310 and 310-320 IU/dL, and all deaths occurred at 270-350 IU/dL levels. Based on the results of this study, it can be concluded that the survival of patients with GBM reduces with increasing plasma VWF level, and this level can be effective in better clinical diagnosis and prognosis of GBM.

*Medical Science*, 2019, 23(96), 250-254

---

#### **Expectations of Medical Sciences' Collegians about Higher Education Programs**

Azizollah Arbabisarjou, Ali Alemifar, Mahan Mirmortazavi

University is one of the institutions where a given society has at hand for progression and development. The most successful universities and institutes of higher education is those which seek to analyze, improve, and ensure the quality of their educational programs. Therefore, this study aimed to determine the expectations of the students of Zahedan University of Medical Sciences on higher education programs. This descriptive-analytical study was conducted on 326 students of Zahedan University of Medical Sciences in the academic year of 2017-18. The samples were selected using stratified random sampling technique. Student expectations of higher education programs (Moghimi and Ramazan, 2011) were used to collect the required data. The validity of the questionnaire was measured by a group of expert faculty members. Its reliability was also calculated using Cronbach's alpha coefficient ( $r = 0.82$ ). The collected data were analyzed running SPSS software version 22 using descriptive and independent t tests and analysis of variance. A significance level of 0.5 was considered as well. This study results showed that the mean age of students was  $22.39 \pm 2.44$  years old among whom 224 and 102 students were male and female, respectively. The students' mean score from student expectations questionnaire was  $78.85 \pm 12.54$ . Student expectations were optimal on higher education programs. It is suggested to consider educational programs to maintain and improve these expectations for university students.

*Medical Science*, 2019, 23(96), 255-259

---

#### **CASE REPORT**

##### **Pneumomediastinum due to blunt neck injury: a case report**

Elnaz Vafadar Moradi, Shima Sheibani, Behrang Rezvani Kakhki, Sayyed Majid Sadrzadeh, Seyed Mohammad Mousavi

We report a 19-year-old male who was admitted after being hit by a motor vehicle and was complaining of neck pain and odynophagia. Physical examination of the patient at the time of admission to the emergency department revealed no pathological findings. After initial examination and patients evaluations, it was decided to under observe the patient. After the patients serial examinations we found subcutaneous emphysema around the neck. The chest X ray was performed and suspected for pneumomediastinum, then chest CT scanning was performed and the pneumomediastinum was confirmed.

ANALYSIS

---

**Smokeless tobacco consumption awareness, attitude and behavior among guilds of Chabahar, Iran**

Sayed Saeed Mazloomi Mahmoodabad, Mohammad Saeed Jadgal, Iraj Zareban, Hossein Fallahzadeh

Smokeless Tobacco product consumption is associated with various types of oral diseases in terms of etiology, such as periodontal diseases, oral mucosal lesions, and ultimately leads to tooth loss. The present study was conducted to investigate smokeless tobacco consumption awareness, attitude and behavior among guilds of Chabahar, Iran. In this descriptive cross-sectional study, 250 merchants working in different guilds of Chabahar in 2018 were selected using simple random sampling. The data collection tools were a researcher-made questionnaire inquiring about demographic and background details, awareness, attitude and behavior, and was used after the verification of its validity and reliability. Data were analyzed in SPSS software using statistical tests including mean, standard deviation, Mann-Whitney's test, Pearson's test and cross tables. The mean attitude score was 27.98 in the Smokeless Tobacco consumers and 31.06 in the non-consumers, and a significant difference was observed between the two groups based on Mann-Whitney's test ( $P < 0.05$ ). The mean awareness score was 11.21 in the consumers and 10.52 in the non-consumers, and no significant differences were observed between the two groups in terms of this variable ( $P > 0.05$ ). In general, due to the high prevalence of Smokeless Tobacco consumption, the poor awareness regarding this subject in the participants and the relationship between participants' attitude and the consuming and non-consuming groups, proper health promotion interventions should be adopted by national and local planners and policymakers to reduce the consumption of these products.

Medical Science, 2019, 23(96), 262-268