

# Medical Science

## About the Cover



This study was conducted to evaluate the epidemiologic indices of 1418 patients diagnosed with cancer in Misan province, Iraq, all patients admitted to Al-Sadder Teaching Hospital from 2011 to 2018. All cases eventually proved by histopathology of primary. The study excluded pediatric cancers because the number of cases registries at time of study were few and can't give us accepted statistical figures to reflect true situations of cancer in pediatrics. Cancers are equal prevalence in male and female. In this surveillance study statically we analyzed the date which were collected for cancer. There was no previous local study conducted for comparison, but our data compare with National Iraqi Ministry of Health (MOH) and Iraqi Cancer Registry Center (ICRC) report for years 2011 – 2018. The data based contains information regarding the age, sex, address, date of diagnosis, primary cancer site, histological type, most valid diagnostic method, and Surveillance, Epidemiology, and End Results (SEER) stage. All cancer cases were reported based on the 12 cancer types. Of those cases lung cancer prevalent as most common cancer diagnosed, mean±SD 21.9±4.5, followed by, breast, bladder, leukemias and prostate. Liver and pancreas, head and neck cancers with skin cancers represented the lowest cancer types. Among ages of cancer diagnosis, the leukemias, colorectal and lymphoma were mostly evented in young age peoples. Head and neck cancers, prostate and bladder were mostly presented in old age group. Regarding gender, cancer can affect both, but some cancers are specific for one sex. The characteristics of the study population n = 1364 (54 missing\*[due to ISIS war and other reasons]) (659 males and 705 females) were statistically calculated. The approximate percentage of men and women diagnosed with cancers were 48.3% and 51.7%, respectively. Our finding indicated that there was no statistically significant association between males and females for getting cancer disease (P> 0.05). In male, the commonest type of cancer was lung cancer 29.4%, followed by bladder and prostate as 18.2%, 14.6%, respectively. In female the highest three cancer type in this study were breast, lung and bladder as 29.6%, 16.5%, 15.7%, respectively. About 967 peoples died from cancer in period 1<sup>st</sup> of January 2011 to 1<sup>st</sup> of June 2018. Data showed approximate percentage of people died from lung, bladder, breast, and leukemias cancers were 26.2%, 22.4%, 10.9% and 8.5%, respectively. Cancer affects different parts of the human body in different proportions and it is multi-factorial conditions. Cancer can also affect both men and women, but some cancers are sex related diseases. In some cancers, the prevalence occurs largely in men higher than in women, or the opposite. Lung recorded as most common cancer types regarding prevalence and death rate. Breast cancers are in the first place recorded in female. In relation to age, the concluding age ranged from 2<sup>nd</sup> – 6<sup>th</sup> decade. More than half cancer patients' died throughout period of study, which mirrored to low education, low socioeconomic, low health quality and bad services, decrement of tools and equipment, anti-cancer chemotherapy drugs and anti-cancer management options unavailability, low staff numbers and training, in this part of Iraq (Khalid Obiad Mohsin Almohammadawi, Haider Saadon Qasim Alhilfi, Ahmed Salih Hussien Alshewered. Epidemiological data of 1418 Cancer Cases of Inpatient in Al-Sadder Teaching Hospital, Misan Province from 2011-2018 (Surveillance Study). *Medical Science*, 2018, 22(93), 455-461)

## ANALYSIS

### **Taking Care of Critical Burned Patients: Nursing Practice**

Alves Ana Isabel, Freitas Carlos, Viveiros Abel, Barreto Luis, Goncalves Ricardo, Jardim Rui, Pereira Juan, Sousa Alexandra, Ascensao Ana Filipa, Ribeiro Leonardo, Jardim Ana Cristina

Burns are injuries caused by agents that result in varying levels of tissue loss and cause physical and emotional damage to patients and their families. The burned patient needs health care from a multiprofessional team, including differentiated nursing care in order to have a functional physical and psycho-social recovery as soon as possible. Analyze the complexity of taking care of a burned patient in critically care. Systematic review of the literature, using the keywords "nurse care", "burn patients", "critical care"; using the PICO method. Between 2011/2017 ten electronic databases were selected, including the analysis of seven articles. The analyzed studies revealed that for the treatment and monitoring of the sick burned patient there is a need for the understanding of the pathophysiological mechanisms involved in such a pathological process. It is the competence of the nurse to participate in all stages, from the first visit until the end of the treatment. It is fundamental to maintain knowledge and skills updating in order to contribute to the reduction of the complications and mortality associated with the burned patient. The lesions resultants of burns are responsible for irreversible sequels and even death. It is essential to supply a care nursing team.

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### **Effect of the time interval between administering midazolam and ketamine on delirium after gynecologic surgeries: A randomized parallel clinical trial**

Hashem Jarineshin, Fereydoon Fekrat, Saeed Kashani, Mehrdad Malekshoar, Majid Vatankehah

Ketamine as a dissociative agent can induce dreaming and hallucinations during revival, which have limited its use in adults. The co-administration of midazolam, however, has been clearly shown to attenuate the perceptual abnormalities and thought disorders induced by ketamine. The aim of this study was to evaluate the latency interval effect midazolam and ketamine on post-anesthetic delirium after minor gynecologic surgeries. A randomized parallel double blinded clinical trial. The study was conducted from September 2015 to March 2016. A total of 100 women undergoing minor gynecological surgeries were randomized into 4 groups. The median age of the patients was  $31.08 \pm 8.99$ . In this trial, the groups were defined according to the time intervals of 0, 2.5, 5, and 7.5 minutes between the administration of midazolam (0.05 mg/kg) and ketamine (1.5 mg/kg). Delirium was measured by the degree of comfort, speech impediment, and delirium level. The data were analyzed in SPSS software by chi square and t tests. Our primary endpoint was the extent of midazolam's administration time lag effect on ketamine's post anesthetic delirium level. The incidence of delirium in all participants according to degree of comfort or tranquility, speech impediment, and delirium were 6%, 17%, and 22%, respectively. The comparison among groups showed no significant difference between the time interval of injections and the degree of tranquility and speech impediment, while the time interval and degree of delirium showed significant differences between group 1 and 3, group 2 and 3, and group 2 and 4. An increased time interval between administration of drugs to 5 minutes meaningfully decreased the delirium level but a latency interval of greater than or less than 5 minutes did not show any significant effects on delirium. According to our findings, it is better to administer midazolam 5 minutes before ketamine in order to effectively decrease the incidence of delirium.

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## RESEARCH

### **Investigating the nutritional status of iron deficiency in youth girl students**

Tahere Etesamifard, Seyed Mohammad Mahdi Hazavehei, AkramKarimi-Shahanjarini, Aliasghar Vahidinia, Hossein Esfahani, Ghodrattollah Roshanaei

Iron deficiency is a nutritional problem, especially in adolescent girls. Therefore, the present study aims to investigate the nutritional status of iron deficiency prevention in this population group; So that the results are used to reduce this nutritional problem. This is a descriptive cross-sectional study that was conducted on 700 peoples of high school girl students in Iran. Data was collected using a standard food frequency questionnaire (FFQ) and its validity and reliability were already measured. 292 peoples among whom the students who completed the FFQ questionnaire randomly were selected to have CBC and ferritin serum test. Nutritionist IV software (N4) and SPSS 18 software, at 95% confidence level are used for data analysis. The results of the study showed that the mean age of students was  $14.34 \pm 14.9$  years and most of their fathers had diploma education; as with mothers, most of them had a high school diploma. Most of the fathers were employees and most of mothers were housewives. Most of the students were the second child of the family, and 65.3% of students lacked a family history of iron deficiency. The results of the study also showed that 43.6% of Students who filled the FFQ questionnaire were with nutritional iron deficiency and 43.5% of all students undergoing blood tests suffered from iron deficiency. The findings of the present study indicate the inadequate iron intake status and high frequency of iron deficiency in the study population. Therefore, paying more attention to nutritional patterns and improving healthy lifestyle are advised to change their nutritional status.

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### **Epidemiological data of 1418 Cancer Cases of Inpatient in Al-Sadder Teaching Hospital, Misan Province from 2011-2018 (Surveillance Study)**

Khalid Obiad Mohsin Almohammadawi, Haider Saadoon Qasim Alhilfi, Ahmed Salih Hussien Alshewered

This study was conduct for evaluate the epidemiologic indices of 1418 patients diagnosed with cancer in Misan province, Iraq, all patients admitted to Al-Sadder Teaching Hospital from 2011 to 2018. All case eventually proved by histopathology of primary. The study exclude pediatric cancers because the number of cases registries at time of study were few and can't give us accepted statistical figures to reflect true situations of cancer in peditriatics. Cancers are equal prevalence in male and female. In this surveillance study statically we analyzed the date which were collected for cancer. There was no previous local study conducted for comparison, but our data compare with National Iraqi Ministry of Health (MOH) and Iraqi Cancer Registry Center (ICRC) report for years 2011 – 2018. The data based contains information regarding the age, sex, address, date of diagnosis, primary cancer site, histological type, most valid diagnostic method, and Surveillance, Epidemiology, and End Results (SEER) stage. All cancer cases were reported based on the 12 cancer types. Of those cases lung cancer prevalent as most common cancer diagnosed, mean $\pm$ SD  $21.9 \pm 4.5$ , followed by, breast, bladder, leukemias and prostate. Liver and pancreas, head and neck cancers with skin cancers represented the lowest cancer types. Among ages of cancer diagnosis, the leukemias, colorectal and lymphoma were mostly evented in young age peoples. Head and neck cancers, prostate and bladder were mostly presented in old age group. Regarding gender, cancer can affect both, but some cancers are specific for one sex. The characteristics of the study population  $n = 1364$  (54 missing\*[due to ISIS war and other reasons]) (659 males and 705 females) were statistically calculated. The approximate percentage of men and women diagnosed with cancers were 48.3% and 51.7%, respectively. Our finding indicated that there was no statistically significant association between males and females for getting cancer disease ( $P > 0.05$ ). In male, the commonest type of cancer was lung cancer 29.4%, followed by bladder and prostate as 18.2%, 14.6%, respectively. In female the highest three cancer type in this study were breast, lung and bladder as 29.6%, 16.5%, 15.7%, respectively. About 967 peoples died from cancer in period 1<sup>st</sup> of January 2011 to 1<sup>st</sup> of June 2018. Data showed approximate percentage of people died from lung, bladder, breast, and leukemias cancers were 26.2%, 22.4%, 10.9% and 8.5%, respectively. Cancer affects different parts of the human body in different proportions and it is multi-factorials conditions. Cancer can also affect both men and women, but some cancers are sex related diseases. In some cancers, the prevalence occurs

largely in men higher than in women, or the opposite. Lung recorded as most common cancer types regarding prevalence and death rate. Breast cancers are in the first place recorded in female. In relation to age, the concluding age ranged from 2<sup>nd</sup> – 6<sup>th</sup> decade. More than half cancer patients' died throughout period of study, which mirrored to low education, low socioeconomic, low health quality and bad services, decrement of tools and equipment, anti-cancer chemotherapy drugs and anti-cancer management options unavailability, low staff numbers and training, in this part of Iraq.

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## ANALYSIS

### **The effect of self-care program based on Orem model on the self-esteem of patients undergoing hemodialysis**

Fahime Shojaei Shad, Mozghan Rahnama, Hosien Shahdadi, Abdolghani Abdollahimohammad

Hemodialysis patients are subject to various psychological problems including diminished self-esteem and personal independence, reducing their compliance to the treatment. Self-care is one of the solutions for reducing dependence and acquiring independence. Therefore, this study has been conducted with the aim of determining the effect of self-care program based on Orem model on the self-esteem of patients undergoing hemodialysis. The present research is a clinical trial study, in which 59 patients undergoing hemodialysis visiting the center for special diseases in Zabol City were randomly assigned into intervention and control groups after available sampling and ensuring they had the inclusion criteria. The data collection instrument consisted of demographic information questionnaire, researcher-made questionnaire for self-care behaviors of hemodialysis patients according to Orem model, and Rosenberg self-esteem scale, which were completed before and after the intervention. After data collection, they were analyzed by SPSS 22. According to independent t-test, before the intervention there was no significant difference between the intervention and control groups in terms of self-esteem score. However, after the intervention, the mean self-study score increased from 21.30 to 25.30 in the intervention group, which was statistically significant. This change according to Cohen coefficient was determined as 1.37 ( $p < 0.001$ ). Self-care program based on Orem model can be effective to enhance the self-esteem of patients undergoing hemodialysis through promoting self-care power and reducing dependence. This program which has been designed based on educational needs and with a scientific model approach is recommended as a nursing intervention in these patients.

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### **The relationship between pain experience with mindfulness and psychological hardiness in chronic patients**

Ameneh Shaykh, Najla Anvari

Today, chronic pain is heard as one of the main complaints of individuals, and many people who practice routine work constantly complain of their physical pains. Thus, the purpose of this study was to examine the relationship between pain experience with mindfulness and psychological hardiness in chronic patients. The present study was a descriptive-correlational study in which 150 patients with chronic disease were selected through a sampling method from the community of patients visiting Zabol medical centers. The instrument was a McGill Pain Experience Questionnaire, Kentucky Mindfulness Scale and Psychological Hardiness test. In this research, the data were analyzed with the aid of SPSS software using Pearson correlation and multiple regression. The findings showed that there is a relationship between the aspects of "observation", "performance with awareness or concentration" and "admission without judgment mindfulness", and the components of "struggle, commitment and control" psychological hardiness with pain experience of chronic patients. Additionally, the aspects of mindfulness and psychological hardiness simultaneously predict 0.32 of the pain experienced by chronic patients. According to the results, in order to reduce pain experience in chronic patients, mindfulness and psychological hardiness comprehensive educational programs are necessary through health centers.

*Medical Science*, 2018, 22(93), 468-472

### **The comparison of life quality and mental health of mothers having epileptic child with mothers having normal child**

Ameneh Shaykh

Epilepsy, as a physiological brain disease, causes many problems for the affected child and his or her families, especially their mothers and their main caregivers. Therefore, the aim of the present study was to compare the quality of life (QOL) and mental health of mothers having epileptic child with mothers having normal child. The present research was carried out using a causal-comparative methodology. All of the mothers having epileptic child with mothers having normal child in Zabol city, a total of 30 subjects were selected using convenience sampling method for each group. Research instruments included the Goldberg's Mental Health Questionnaire and the World Health Organization Quality-of-Life Scale (WHOQOL). In this research, the obtained data were analyzed using MANCOVA in SPSS software. The results showed that there is a significant difference between mothers having epileptic child and mothers of normal child in terms of the mental health variable as well as components of role limitation due to physical health problem, role limitation due to emotional problem, emotional health, bodily pain, and general health of quality of life. Considering that mothers of children with special needs need to receive counseling and psychotherapy services in order to overcome their problems, it is essential to involve them in educational programs to expand their awareness about coping strategies to deal with the problems of epileptic children.

*Medical Science*, 2018, 22(93), 473-477

## RESEARCH

### **Association between death anxiety and various aspects of spiritual experiences among elderly people in Iran**

Mina Taghiabadi, Kiana Babaie, Tayebe Mehrabi, Shima Shaermoghadam, Seyed Reza Mirhafez

Death anxiety is considered as one of the complicated, significant and multi-dimensional issues in old age. Understanding this behavior and its different aspects will help to choose a better solution in order to confront it. This study was conducted to examine the association between death anxiety and different aspects of spiritual experiences in order to determine the mechanisms of spirituality impact on death anxiety. This cross-sectional study is a descriptive-analytical research which was conducted on 190 elderlies attending Neyshabur health care centers during 4 months of fall and winter 2016. Participants answered two questionnaires about spiritual experiences (16 items) and death anxiety (27 items). Data was analyzed by SPSS, 16 using analytical and descriptive statistics (Pearson correlation coefficient, mean and standard deviation). The results showed that among subscales of spiritual experiences, the fear of sufferings after death and fear of sudden death had the highest and lowest frequency (41.5% and 9.3%), respectively. Contact with God constituted a major part of daily spiritual experiences among elderly (48.6%). A significant and reverse association was only observed between contact with God and fear of suffering after death. The study shows that contact with God, through certain religious rites or in a form of a personal experience, could diminish death anxiety among elderly since it displays reliance on a higher power. This finding could be used to reinforce this correlation for reducing various stressors during this period of life and achieving mental health among elderlies.

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## ANALYSIS

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### **The effect of yoga on the severity of symptoms of restless leg syndrome: a randomized controlled trial**

Ghazal Mohamadi, Fariba Ebtekar, Daem Roshani, Mohammad Fathi

Restless leg syndrome is a sensory motor disorder that is more common in patients with type 2 diabetes and leads to sleep disorders, lack of control of blood sugar, increased complications, and mortality. *Objective:* the present study was conducted in order to determine the effect of yoga on the severity of symptoms of restless leg disorder in patients with type 2 diabetes. The present randomized, one way blinded clinical trial study was conducted with pre-test and post-test and control group; the statistical population included 114 patients with type 2 diabetes admitting to Tohid Medical Clinic affiliated to Kurdistan University of Medical Sciences. Patients were randomly assigned to two groups of control and intervention in blocks of four using state direct software. Required data was collected through a demographic questionnaire, a four-item questionnaire about restless leg syndrome screening, and a questionnaire of 10 standard questions about the severity of restless leg syndrome. After completing the questionnaire at the beginning of the study, the intervention group received yoga training for 8 weeks in 60-minute sessions. At each session, the intervention group subjects received training pamphlets and a home checklist for conducting and recording homework; additionally, only routine treatments were provided to the control group. At the end of the eighth week, the severity of restless leg syndrome was again measured in two groups. Collected data was analyzed using SPSS 20 and Chi-square, t-test, Independent T, and paired t test. There turned out to be a significant difference between mean restless leg syndrome before and after yoga training in the intervention group. ( $P=0.00$ ).

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### **Prevalence of Glaucoma in Iran: a systematic review and meta-analysis**

Hosien Shahdadi, Hosein Rafiemanesh, Abbas Balouchi, Mohammadnaem Aminifard

Glaucoma is a late-onset incurable disease and the major cause of incurable blindness in the world. Since Iran is in Asia, and has the highest number of glaucoma patients in the world, the disease should be followed in a particular manner. The present systematic review and meta-analysis was conducted with the aim of evaluating the prevalence of glaucoma in Iran. The prevalence of glaucoma is defined using international criteria and measured as the main outcome. Study selection, data extraction, and quality assessment were performed by two independent reviewers. PubMed, EMBASE, ISI Web of science, Scopus and national databases (SID, MAGIRAN) were searched for observational studies which evaluated the prevalence of glaucoma in the Iranian population from 1995 to July 2017. The meta-analysis method was used to estimate the overall prevalence. Hoy j tools were used for the quality assessment of studies. Of the 199 studies evaluated, 24 studies included meta-analysis. In 2017, the pooled overall prevalence of glaucoma in 35596 people was 3.75% (95% CI: 3.12, 4.37,  $I^2=96.16\%$ ). Based on the sub-group analysis in the random effect method, the prevalence of glaucoma in males and females were 3.57% (95% CI: 2.83, 4.32), and 2.52% (95% CI: 2.39, 3.27). Considering the high prevalence of glaucoma in Iran relative to regional and global standards, these findings can be used by health policymakers as the basis for planning decisions for the prevention, treatment, and examination of glaucoma patients in Iran.

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## RESEARCH

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### **Assessment of time intervals from the moment of arrival in the emergency department until performing primary angioplasty in patients with acute myocardial infarction in Northwestern Iran**

Yasin Hosseini, Amin Soheili, Kamal Khadem Vatani, Azad Rahmani

Door-to-balloon time is an important variable on the extent of the necrotic area, the severity of cardiac damage and the consequences of primary angioplasty in patients with acute myocardial infarction. This study aimed to determine the time intervals from the moment of arrival in the emergency department until performing primary angioplasty in patients with acute myocardial infarction was performed. This descriptive cross-sectional study was performed on 191 patients with acute myocardial infarction treated by primary angioplasty in the Madani hospital of Tabriz and Seyed-al-Shohada hospital of Urmia. In this study the sampling method was convenient and the data gathering tools were included a researcher-made checklist containing 15 items related to demographic characteristics, history of disease and risk factors, type of transmission, type of pain and myocardial infarction, general condition and time actions and causes of delayed. After determining the validity and reliability of the tools, the data were collected and analyzed by statistical software Spss/16. The mean age of participants was  $57.41 \pm 13.67$ . The mean time interval from the moment of arrival in the emergency department until requesting of the primary angiography  $66.62 \pm 66.67$  minutes, and from the moment of arrival in the emergency department until the transfer to the catheterization laboratory or Cath lab unit (Door-to-balloon)  $76.15 \pm 48.48$  minutes were obtained. There was a significant difference between the type of acute myocardial infarction and the mean door-to-balloon time ( $P= 0.008$ ). Also, there was no significant difference between the mean door-to-balloon time in the work shifts of the morning, evening and night ( $P = 0.66$ ). The mean door-to-balloon time in patients with acute myocardial infarction referred to the cardiac centers in northwestern Iran was within the standard range.

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## ANALYSIS

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### **The correlation between health literacy and quality of life in pregnant women**

Farideh Mogharab, Reza Inaloo, Shohreh Javadvour, Safieh Jamali, Neda Poornowrooz

Health literacy is an individual's capacity to obtain, interpret and understand basic health information necessary to make proper decisions in this area. This study investigated the correlation between health literacy and quality of life of pregnant women. This descriptive analytical study was conducted on 275 pregnant women admitted to the health centers in the city of Jahrom. Simple random sampling method was used. The World Health Organization Quality of Life - BREF (WHOQOL-BREF) instrument and Iranian Health Literacy Questionnaire (IHLQ) were used to collect data. Data were analyzed in SPSS using correlation coefficient and regression tests. Findings showed that there was a significant relationship between health literacy and quality of life of pregnant women ( $p= 0.0000$ ). Health literacy level had a significant relationship with education ( $p= 0.02$ ). However, there was no significant relationship between health literacy level and the variables such as age, job, place of residence, income, number of pregnancies, number of children and intentionality of pregnancy. Planning and designing appropriate educational programs on health literacy for pregnant women can develop health literacy skills in the society and can improve the quality of life of pregnant women.

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