

Contents

□ Extraction and discrimination between four proteases from Khorasan native fig tree (<i>Ficus carica</i>)	3
O. Rajabi, A. Varaste, J. Danaee Baghaki, A. Baratian, L. Jahangiri	
□ The relationship of Hirsutism with polycysticovary syndrome and hormonal disorders	4
R. Ghaderi, GhR. Sharifzadeh, R. Faramarzi, R. Faramarzi	
□ Predictors of left atrial clot in patients with mitral valve surgery- a case control study	5
A. Mirzaee, T. Kazemi	
□ Social and psychological characteristics of suicide attempters in comparison with normal individuals in Birjand	6
N. Mehran, G. Bolhari, AA. Asgharnejad Farid, MR. Miri	
□ Body mass index nomogram in 7-12 year old children in Birjand and comparing it with CDC	7
F.Taheri, SM. Hoseiny, SA. Saadatjoo	
□ Studying of clinical symptoms and precaution of oculomotor nerve palsy in diabetics	8
A. Ghorbani, A. Cheetsaz, SM. Noorian	
□ Evaluation of Patients Satisfaction in Hospitals under Iran University of Medical Sciences	9
H. Ansari, F. Ebadi, GhA. Mollasadeghi	
□ The Study of Knowledge, attitude and practice of diabetics to their illness	10
A. Javadi, M. Javadi, F. Sarvghadi	
□ Prevalence of ophthalmic problems in Birjand hospitals (1994-2001)	11
Gh. Yaqubi, SM. Hosseini	
□ A life- threatening rare complication in a six year old boy who underwent cardiac operation	12
M. Hashemzahi, M. Esmaili	

Extraction and discrimination between four proteases from Khorasan native fig tree (Ficus carica)

O. Rajabi*, A. Varaste**, J. Danaee Baghaki***, A. Baratian***, L. Jahangiri***

* Assistant Professor, Department of Medicinal Chemistry, Faculty of Pharmacy, Mashhad University of Medical Sciences, Mashhad, Iran

** Associate Professor, Department of Immunology, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

*** Student of Pharmacy, Faculty of Pharmacy, Mashhad University of Medical Sciences, Mashhad, Iran

Abstract

Background and Aim: The protease activity of fig latex has been reported in several articles. This study was carried out aiming at a comparison between proteases of the latex of Khorasan native fig tree and those of carica subspecies.

Materials and Methods: In this experimental study, four latex proteases (Ficins) were extracted using salt fractionation and chromatography on Mono-S column (Ion exchange media). Parameters such as activity, concentration and molar extinction coefficient were determined at least 3 times per sample. The different samples were compared according to activity and molar extinction coefficient, using ANOVA statistical analysis. $P < 0.05$ was taken as significant.

Results: These proteases were similar with regard to molar extinction coefficient, activity and molecular weight. Activity and molecular weight were determined by casein precipitation and SDS-PAGE respectively. Besides, the enzymes showed different properties as to retention time on cation exchanging column. This is supposed to be because of little differences in their primary structures and peptide maps. Protein concentration and the activity of latex was calculated to be 110 (mg/ml) and 242 (IU/ml) respectively. Agents having enzymatic activity were found in fraction III-VI. Molecular weight of Ficins III- VI was estimated at about 26.5- 121. A 1% solution of proteins of Fractions III- VI in 0.05 M NH_4CO_3 had a molar absorption coefficient ($\epsilon_{280 \text{ nm}}$) of about 22, 21.5, 21, 21.9 respectively. Enzymatic activity of Ficins (fractions III-VI) using casein substrate was 61.6, 62.7, 63.4 and 67.2 (unit/mol) respectively.

Conclusion: According to this study, latex of Khorasan native Fig tree is relatively similar to Calimyrna subspecies growing in California/USA among the four subspecies.

Key Words: Fig latex; Ficin; Purification; Enzymatic activity

The relationship of Hirsutism with polycysticovary syndrome and hormonal disorders

R. Ghaderi *, GhR. Sharifzadeh **, R. Faramarzi ***, R. Faramarzi ****

* Assistant Professor, Department of Dermatology, Birjand University of Medical Sciences, Birjand, Iran

** MSc. of Epidemiology, Birjand University of Medical Sciences, Birjand, Iran

*** General Practitioner, Birjand University of Medical Sciences, Birjand, Iran

**** Student of Medicine, Birjand University of Medical Sciences, Birjand, Iran

Abstract:

Background and Aim: Hirsutism is defined as the excessive growth of thick dark hair in locations where hair growth in women is usually minimal or absent. There are many causes for hirsutism; such as hormonal disorders (ovarian and adrenal diseases) and tumoral diseases. This study was conducted to determine the relationship between hirsutism and hormonal disorders and polycystic ovary syndrome (PCOS) among high school and college female students.

Materials and Methods: This case-control study (35 cases and 35 control ones) was done to evaluate the relationship between hirsutism and hormonal disorders by measuring of sex hormones (testosterone and 17- α - hydroxy progesterone) and ultasonography of ovary. Data was analyzed through SPSS software, Chi- Square, logistic Regression analysis and t test at the level $\alpha=0.05$.

Results: Mean testosterone level in the case and control groups were 0.63 ± 0.33 ng/ml and 0.37 ± 0.15 ng/ml respectively ($P < 0.05$). 13 (37.1%) girls of case group and 4 (11.4%) of the control group had PCOS ($P = 0.017$, OR=4.6). The 17- α - hydroxy progesterone level was abnormal in 10 (28.6%) of the case group and 2 (5.7%) of the control group ($P = 0.02$, OR= 6.6).

Conclusion: According to the results there is a significant relationship between hirsutism and PCOS and adrenal disorders. A further investigation (clinical trials) is recommended.

Key Words: Hirsutism; Polycysticovary syndrome (PCOS); Sex hormones

Predictors of left atrial clot in patients with mitral valve surgery-a case control study

A. Mirzaee*, T. Kazemi**

* Assistant Professor, Department of Cardiac Surgery, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

** Assistant Professor, Department of Cardiology, Faculty of Medicine, Birjand University of Medical Sciences, Birjand, Iran

Abstract

Background and Aim: Rheumatic heart disease (RHD) is a serious health problem in developing countries. Mitral stenosis is one of the most prevalent forms of RHD and one of the causes of systemic thromboembolism in Iran. The present study was conducted to evaluate the relationship between left atrial clot and mitral valve disease.

Materials and Methods: This case-control study was done on all patients who had undergone mitral valve surgery during 5 years in Ghaem hospital. Patients who had left atrial thrombus (LAT) were in the case group and patients with no LAT and no history of thromboembolism in the control group. Personal history, clinical examination, electrocardiography (ECG) and Echocardiography (Echo) were compared in the two groups. Then the data were analyzed using SPSS software and statistical χ^2 and t test. Thus $P < 0.05$ was taken significant level.

Results: There was no relationship between sex and LAT [females 45.1% in case, 47.33% in control group, $P = 0.25$]. The patients in the case group were older (mean age in the case 37.24 years, in the control group 32.23 years, $P = 0.01$). Atrial fibrillation (AF) (74.5% in the case, 63% in the control group, $P < 0.001$) and severe mitral stenosis (88.57% in the case, 65.49% in the control group, $P = 0.25$) were risk factors for LAT but severe mitral regurgitation was more in the control group (25.93% in the case, 39.6% in the control group, $P = 0.05$).

Conclusion: According to the results of the present study, it is recommended that patients with severe mitral stenosis, AF and at old age take prophylactic anticoagulation so that the risk of thromboembolism would decrease in them.

Key Words: Left atrium clot; Mitral stenosis; Atrial fibrillation

Social and psychological characteristics of suicide attempters in comparison with normal individuals in Birjand

N. Mehran*, G. Bolhari**, AA. Asgharnejad Farid***, MR. Miri****

*MSc. in Clinical Psychology, Imam Reza Hospital, Birjand, Iran

** Psychiatrist, Faculty of Psychology, Iran University of Medical Sciences; Member of Tehran Psychiatric Institute, Tehran, Iran

*** PhD in General Psychology, Faculty of Clinical Psychology, Iran University of Medical Sciences; Member of Tehran Psychiatric Institute, Tehran, Iran

**** PhD in Health Education, Faculty of Paramedical Sciences. Birjand University of Medical Sciences. Birjand, Iran

Abstract

Background and Aim: Suicide is one of the major health problems in the world and it is necessary to study and define it in Iran. The purpose of this study was to describe social and psychological characteristics of suicide attempters in comparison with normal individuals.

Materials and Methods: In this case- control study, 50 individuals (35 females, 15 males) who had referred, because of a suicide, attempt to two emergency centers in Birjand city and 50 normal individuals (35 females, 15males) of the personnel of Birjand University of Medical Science (personnel of Imam Reza hospital) as the case and control groups respectively. In order to collect data the questionnaire of WHO concerning prevention plan of suicide, including demographic information, social/individual characteristics, mental health test, Beck depression inventory, hopelessness, anger, and social support was used. The data were analyzed through descriptive and inferential statistics such as Chi-Square, average computing, independent t-test using SPSS software. $P < 0.05$ was defined as significant.

Results: With respect to an attempt to suicide, we can mention the followings as the most common type: using drugs (39 People, 72%) using poisonous substances (6 People, 12%), and self burning (5 people, 10%). According to the present research, most of women cited family problems, conflict with husband, family and friend's vicissitudes, mental problems as reasons for suicide attempting (31 persons, 62%). The most important reasons in males' suicide attempt was related to problems of military service and mental disorders (8 individuals, 16%). The level of depression, hopelessness, and anger was significantly more than that of normal individuals among suicide attempting group ($P < 0.05$). Besides suicide attempting group enjoyed less mental health. With respect to social support there was not a significant difference between the two groups.

Conclusion: Suicide attempt is higher among people under 30, and it is even higher among married women. Besides, depression, as a psychological disorder, brings about attempting to suicide.

Key Words: Social and psychological characteristics; Suicide attempt; Birjand

Body mass index nomogram in 7-12 year old children in Birjand and comparing it with CDC

F.Taheri*, SM. Hoseiny**, SA. Saadatjoo***

*Assistant Professor, Department of Pediatrics, Faculty of Medicine, Birjand University of Medical Sciences. Birjand, Iran

** Instructor, Faculty of Medicine, Birjand University of Medical Sciences, Birjand, Iran

***Instructor, Faculty of Nursing & Midwifery, Birjand University of Medical Sciences, Birjand, Iran

Abstract

Background and Aim: Body mass index (BMI) is the most useful index used to screen children obesity. Since height and weight are determined by genetic, racial and environmental factors, body mass index can differ from one population to another. The aim of this study was to prepare the normogram of (7-120year old) children body mass index (BMI) in Birjand and to compare it with that of with the center of disease control (CDC).

Materials and Methods: This cross-sectional, descriptive, analytic study was performed in 2002 on 1928 primary school students, including 1010 boys and 918 girls, who were selected through two- stage sampling (cluster and systematic). Their height and weight were measured. Body mass index (BMI) was defined as weight- Kg / Height-m². The relevant percentiles of BMI for sex and age were established and compared with CDC percentiles.

Findings: The BMI percentiles of 7-12 year old children in Birjand were significantly lower than CDC. Mean percentile of BMI among girls of most age groups under study was 10-25 percentiles of the CDC and below 10 percentile of CDC for boys.

Conclusion: Regarding the results of this study which is much below CDC, there is a difference between CDC normograms and BMI of Birjand children. This difference can be attributed to racial differences and some environmental factors. It is recommended that the regional normograms should be developed through more comprehensive studies, so that they could be used for the assessment of weight disorders among Iranian children.

Key Words: Body mass index (BMI); Children; Obesity; CDC

Studying of clinical symptoms and precaution of oculomotor nerve palsy in diabetics

A. Ghorbani*, A. Cheetsaz**, SM. Noorian***

* Assistant Professor, Department of Neurology, Faculty of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran

** Assistant Professor, Department of Neurology, Faculty of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran

*** Assistant Professor, Department of Neurosurgery, Faculty of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran

Abstract

Background and Aim: Oculomotor palsy (Third cranial nerve) in diabetic patients is presented with ophthalmoplegia with pupil sparing. Other factors which can mimic third nerve palsy consist of compressive lesions such as posterior circulation aneurysm. Although these lesions are associated with ophthalmoplegia with pupil involvement, in some cases pupil sparing is not a reliable symptom in ischemic neuropathy.

Materials and Methods: In this prospective study, of all patients who were admitted 84 cases with ischemic oculomotor palsy underwent medical treatment at diabetes research center and outpatient Neurology department of Isfahan University of medical sciences. All patients were followed up for one year. Then, the data was analyzed by SPSS package.

Results: In regard to kind of oculomotor palsy all patients were categorized into four groups. Group I: Consisting of complete ophthalmoplegia without pupil involvement in which pupil remains intact throughout the study. Group II: having complete ophthalmoplegia associated with pupil involvement and absence of aneurysm, was confirmed through the four vessels angiography. But no evidence of aneurysm was detected. In group III and IV with incomplete palsy; two cases of subarachnoid hemorrhages, and two cases of un-ruptured aneurysm.

Conclusion: This study indicated that lack of pupil involvement is not a reliable symptom of diabetic ischemic oculomotor palsy. But incomplete ophthalmoplegia should be considered as an alarming sign of existing aneurysm.

Key Words: Diabetes; Third nerve palsy; Pupil involvement

Evaluation of Patients Satisfaction in Hospitals under Iran University of Medical Sciences

H. Ansari*, F. Ebadi**, GhA. Mollasadeghi***

* Staff Member, Department of Orthopedic, Faculty of Medicine, Iran University of Medical Sciences, Tehran, Iran

** Associate Professor, Department of Health Service, Iran University of Medical Sciences, Tehran, Iran

***Associate Professor, Department of Anesthesiology, Faculty of Medicine, Iran University of Medical Sciences, Tehran, Iran

Abstract

Background and Aim: Assessing patient contentment with health care is necessary for improving hospitals services. To gain this end, the most important factors (such as hospital environment, offered nursing service, health care, accommodations, nutrition, and hospitalization. With these criteria we compare hospitals with each other. This study was done to determine patient satisfaction rate in four hospitals under Iran University for medical sciences.

Materials and Methods: In this descriptive study, totally 1260 patients from outpatient clinic, Emergency, and inpatients wards were interviewed. In order to assess the clients, contentment the standardized questionnaire of health care ministry was used.

Results: Total score of patients, satisfaction of outpatient clinics was 67.3%, of emergency services 80.7%, of hospital services 72.2%, and of emergency admission 86.5%.

Also, in the present study the clients' contentment with physical and psychological care was 87.1% and 69.7% respectively. Over all contentment with hospitalization, accommodations of hospitals were 80.1%. The level of satisfaction of discharge services of the hospitals under study was 38.6%. Discontentment of clients with the expenses, especially those referring to emergency ward (contentment level 43.9%) was outstanding. On the whole, the most contentment concerned nursing services (85.1%) and the least contentment referred to discharge ones (38.6%).

Conclusion: Some hospital services are far from desirable level yet, and especially most discontentment deals with paying expenses when being discharged. In order to achieve a unique assessment, a nation-wide study and analyzing its results is recommended.

Key Words: Hospital; Patient satisfaction; IUMS

The Study of Knowledge, attitude and practice of diabetics to their illness

A. Javadi*, M. Javadi**, F. Sarvghadi***

* Academic Member, Department of Social Medicine, Qazvin University of Medical Sciences, Qazvin, Iran.

** Academic Member, Department of Social Medicine, Qazvin University of Medical Sciences, Qazvin, Iran.

*** Academic Member, Department of Internal Medicine, Tehran University of Medical Sciences, Tehran, Iran.

Abstract

Background and Aim: Diabetes is a complex metabolic disease. While the disease has a natural proneness, environmental factors such as like life style, weight, tension, diet and knowledge of people about it have a decisive role in its incidence. This study was done to determine the KAP of diabetic to their disease.

Materials and Methods: This KAP study was conducted at Boali Sina health center. 212 diabetics were interviewed through a structured questionnaire. The data was analyzed using χ^2 test, variance analysis, t test and correlation coefficient.

Results: The knowledge of 85.3% of the clients about the disease was weak, 14.2% moderate and 0.5% good. 9.7% of them had a weak attitude. The attitude of 16.7% was moderate and that of 28.6% was good. There was a significant relationship between patients knowledge and attitude ($P<0.0001$) on one hand and their knowledge and practice ($P<0.01$) on the other. This means that patients' attitude and practice will improve if there is an increase in their knowledge.

Conclusion: Having more knowledge about diabetes results in a better attitude and practice of the clients concerning their illness and this, by itself, has an important role in the disease control.

Key Words: Diabetes; Knowledge; Attitude; Practice; KAP

Prevalence of ophthalmic problems in Birjand hospitals (1994-2001)

Gh. Yaqubi*, SM. Hosseini**

* Assistant Professor, Vitreoretinal Fellowship, Department of Ophthalmology, Faculty of Medicine, Birjand University of Medical Sciences, Birjand, Iran

** MSc in Biostatistics, Faculty of Medicine, Birjand University of Medical Sciences, Birjand, Iran

Abstract

Background and Aim: Information on the causes of hospitalization is essential to plan a better use of resources. According to certain hospital and WHO records cataract is the most important cause of blindness (%50) in the world. So, this study was conducted to determine the prevalence of eye disease among Imam-Reza hospital clients.

Materials and Methods: In this retrospective study hospitalized clients in ophthalmology center of Birjand Imam-Reza hospital were assessed (1994-2001). Data were collected from patients' files. These data included demographic information, medical diagnoses and other necessary data which were recorded in ICD-10 in a questionnaire and because the data was scattered very much it was collected in 8 categories and then analyzed.

Results: The findings of this study showed that 523 patients were hospitalized (for 543 eye problems). Of these 45.5% were females and 54.5% were males. Eye surgery was the most important reason for hospitalization and among eye diseases cataract was the most prevalent (60%). Glaucoma was 3.7% and had more complications than cataract. Medical treatment was administered to 7.3% of patients. Except two cases of endophthalmitis, which occurs after cataract surgery and one fungal keratitis, other cases responded to medical treatment. 2.6% of patients had nasolacrimal duct obstruction and 3.1% underwent plastic surgery. 11.6% had eye trauma and 30.3% had retinal detachment.

Conclusion: This study allowed to estimate the burden of hospitalization and the cause of admission considering priority. In this study we did not have retinal detachment after cataract surgery but exogenous endophthalmitis was higher in our patients. Ocular trauma has noticeably reduced in recent years. The most common cause of hospitalization was cataract; so it is necessary to do another survey to determine possible risk factors in clients suffering from cataract.

Key Words: Epidemiology; Ophthalmic diseases; Hospital; ICD-10

A life- threatening rare complication in a six year old boy who underwent cardiac operation

M. Hashemzahi*, M. Esmaili**

* Assistant Professor, Department of cardiovascular surgery, Faculty of Medicine, Birjand University of Medical Sciences, Birjand, Iran

** MSc in Nursing, Qaeem Hospital, Mashhad, Iran

Abstract

The primary determinants of success of a cardiac operation are events in the operating room. However, some patients who are seriously ill when they leave the operating room can survive and have a good long-term result when postoperative care is appropriate and intensive. Conversely, ill-advised interventions early after operation can put at risk those who would otherwise convalesce normally. For this reason we report a rare complication due to central venous cannulation and management.

Key Words: Cardiac operation; Complication; Central vein