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Toxicity evaluation of an antitumor marine compound (HESA-A) in mice and rats

M. Balali-Mood¹, A. Ahmadi², K. Balali-Mood³, T. Ghafghazi⁴, P. Rajabi⁵, M. Taher⁶

Abstract

Background and Aim: HESA-A is a marine biological compound that was recently patented in the Islamic Republic of Iran, revealed anti-tumor properties in-vitro and in-vivo. The objective of this study was to investigate the acute, sub-acute, and chronic toxicity of HESA-A in mice and rats.

Materials and Methods: The acute toxicity testing of HESA-A (0.5-18 g/kg) orally in different groups of mice and rats were undertaken. Sub-acute toxicity testing of the drug (10 g/kg/day for a week) on rats and chronic toxicity testing of different doses of HESA-A (1.25-5.00 g/kg/day for 30 days) on different groups of mice were carried out. Clinical abnormalities, changes in body temperature and weight, biochemical, haematological and pathological investigations were recorded.

Results: Acute toxic effects of HESA-A occurred after 10 g/kg and the LD50s were calculated as 16 g/kg and 18 g/kg for mice and rats, respectively. The body weight of rats taken 18 g/kg of HESA-A reduced significantly (P<0.05) at day 14 and after death. Sub-acute and chronic toxic effects of HESA-A in rats and mice were observed only in a few rats and in the mice taken 5 g/kg/day of the drug for 30 days. Drowsiness, vomiting, diarrhoea and convulsions were the common findings. The body weight of rats decreased significantly (P<0.05) from 200±21 g to 156±22 g at day 14. In few rats and in the group of mice that received 5 g/kg HESA-A daily for 30 days, mild infiltration of lymphocytes in the liver tissues were observed.

Conclusion: Based on the results, HESA-A has very little toxic effect on mice and rats.

Key Words: Toxicity; Acute; Chronic; Drug; HESA-A

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Macroscopic study of teratogenic effects of long term consumption of acetaminophen before and during pregnancy in mice fetuses

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Abstract

Background and Aim: Acetaminophen is routinely used during all stages of pregnancy for pain relief and lowering elevated body temperature. There is a little information about teratogenic effects of long term consumption of this drug. This study was designed to illuminate the teratogenic effects of the drug when taken before and during pregnancy.

Materials and Methods: 60 virgin female Balb/c mice were housed in an animal house with standard conditions, and were divided into 6 experimental groups (10 cases in each group). The first three experimental groups received orally 2800 mg/day of acetaminophen 10, 20 and 30 days before pregnancy and during the 10 days of early pregnancy. The other 3 experimental groups received 5600 mg/day of the drug during the same periods as the first experimental groups. In contrast, the two control groups, routine and positive, received normal saline and base of drugs in the same manner as the experimental groups, respectively. For coupling, three males and one female were used overnight. After coupling was done under standard conditions and the vaginal plug was observed, zero time of GD was identified. The female mice were dissected on GD18th and the respective fetuses were collected. Macroscopic observation was done through Olympus SZX Japan stereomicroscope. The obtained data was recorded in the frequency tables and analyzed by ANOVA and Tukey tests by means of SPSS software.

Results: This study showed that consumption of acetaminophen in the mentioned doses for 20 and 30 days before pregnancy and during the 10 days of early pregnancy can produce limb malformations such as limb deformity, reduction and asymmetry; and hand aplasia. Furthermore hemorrhage and absorption were seen in the fetuses.

Conclusion: with regard to the teratogenic effects of acetaminophen, it is recommended to avoid consumption of the drug for one or two months before pregnancy.

Key Words: Acetaminophen; Pregnancy; Teratogenic effects

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The role of intravenous magnesium sulfate as an adjunct in asthma attack management

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Abstract

Background and Aim: Magnesium is required for a wide variety of cellular activities. In this study we follow the effect of intravenous Magnesium Sulfate used for the treatment of acute asthma.

Materials and Methods: In this clinical trial, which was undertaken in the emergency ward of Vali-e Assre Hospital under BUMS, 37 Patients with acute asthma and Fischle Severity Score (FSS) ≥ 4 at arrival were enrolled. All the patients received 2 puffs of salbutamol spray, 300mg of IV hydrocortisone and 5 lit/min nasal O₂. After informed consent of the subjects to an additional treatment, they were randomly divided into two groups namely "case" and "control". The "case" was treated by 1.2 g intravenous magnesium sulfate and the "control" received placebo. After the administration, FSS was determined at 20, 40, and 60 minute intervals. The obtained data were analyzed employing statistical tests, i-e T-test, Chi-Square, and Wilcoxon rank-sum test at the significant level P≤0.05.

Results: The 37 patients were randomly grouped into 19 (cases) and 18 (control). The mean Mg serum level was 2.19±0.50mg/dl in the cases and 2.23±0.51mg/dl in the controls (P>0.05). FSS before and after 1-hour treatment dropped from 4.84±0.76 to 4.39±0.53 in the cases but it decreased from 4.6±0.52 to 3.7±0.56 in the control group. Statistic analysis showed the reduction in FSS in the cases and controls; 1.39±0.64 and 0.67±0.32, respectively (P<0.05). The therapeutic response time of 26.3% of the cases was 20 minutes compared to 0% of control group (P<0.05).

Conclusion: Administration of 1.2 g of IV magnesium sulfate accelerates the improvement of the clinical symptoms when used as an adjunct to standard therapy in patients with severe, acute asthma.

Key Words: Acute disease; Asthma; Magnesium sulfate

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The effect of a training curriculum on attitude of female students about breast self examination by using health belief model (HBM)

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Abstract

Background and Aim: Breast self examination (BSE) is the best way for breast cancer screening, but most women do not have a positive attitude toward it. The purpose of this study was to evaluate the effect of a training curriculum on BSE attitude of the female students of Shahid Hasheminezhad Teacher's Training College in the year 2000.

Materials and Methods: In this before and after clinical trial, 84 suitable undergraduate female students were selected by stratified random sampling. Before training, the baseline attitude of all of the students was evaluated (pretest) and then two training sessions consisting of theory and instruction on breast cancer and its diagnostic methods were held. Practical method of BSE was also held twice a week. Three days after training (post test) and one month later (consistency test) BSE attitude was evaluated again. Attitude was measured through a questionnaire by using Champion health belief model (HBM). According to the acquired score, the attitude of the students was classified into three categories: positive, uncertain, and negative.

Results: Data analysis indicated that before training, 44% of the subjects had positive attitude about BSE while after three days (post test) 94% and after one month (consistency test) 97.6% of the subjects had positive attitude. The mean attitude score in posttest and consistency test was higher compared with pre-test) in each aspect and in general). Also, there was a significant difference between attitude score in pretest with that in post test and with consistency test (P<0.0001).

Conclusion: This training plan had significant and positive impacts on BSE attitude. Because positive attitude is necessary to do BSE, it is suggested that in training sessions the positive aspects of BSE and increase positive attitude be emphasized.

Key Words: Training; Attitude; Female students; Breast self examination; Health belief model

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The influence of performing "The Health Communication Plan" in suburban villages on the health knowledge and attitude of rural women

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Abstract

Background and Aim: Access to stable social development requires the cooperation of all members of a community. Providing and improving health standard is one of the most fundamental dimensions of human social evolution, which more than the other aspects of development demands public cooperation. Health communicators are the forerunners of this cooperation, who have voluntarily set out having the public participate in providing and elevating the level of community health. The present study aimed at determining the effect of performing "The Health Communication Plan" by health communicators in suburban villages on the health knowledge and attitude of rural women.

Materials and Methods: In this relatively experimental study, knowledge and attitude of 121 females (15-49 Yrs), who were under the supervision of health communicators in four suburban villages (as the case group)-before and after performing the health communicator plan- were compared with those of 49 females (15-49 Yrs) who were in other four suburban villages (as the control group) lacking health communicators under two rural health centers. Data were collected through questionnaires and interviews. The data were analyzed by means of paired t-test and "sign" at the significant level P≤0.05.

Results: After performing health communicator plans, the mean of rural women's health knowledge and attitude had increased and there was a significant difference between pre and post interventions in the two groups (P≤0.001). Comparing the means of the two groups revealed a significant difference (P≤0.001).

Conclusion: Regarding the findings of the study and the positive effect of performing suburban health communicator plan on the health knowledge and attitude of rural women, it seems that suburban health communicators are very helpful and effective in improving the knowledge and attitude level of rural women. Thus, performing the plan all over rural health centers is recommended.

Key Words: Health communicators; Knowledge; Attitude; Suburban villages

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Study of smoking effects on cardiac conduction defects in patients with acute inferior myocardial infarction

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Abstract

Background and Aim: Smoking stimulates adrenergic depletion in circulation and, theoretically, it can increase incidence and prevalence of cardiac conduction defects. In this study we wanted to know if smoking affected cardiac conduction defects in patients with acute inferior myocardial infarction (MI).

Materials and Methods: In this cross-sectional study, 40 smokers and 40 non-smokers with acute inferior MI who were admitted in the department of cardiology of Ghaem Hospital in Mashhad were studied for cardiac conduction defects by randomized sampling method. Data gathering was through observation and interview. The obtained data was analyzed employing statistical chi-square test with $P \leq 0.05$ as the significant level.

Results: In this study rate of AV conduction defects in the inferior MI was 27.5% and 17.5% for smokers and non-smokers respectively. These values regarding bundle branch blocks were 15% and 12.5% in smoker and non-smoker groups, respectively. The differences in the above mentioned values were not significant statistically.

Conclusion: Probably smoking does not have any effect on the prevalence of cardiac conduction defects in acute inferior MI; however, more extensive studies are warranted.

Key Words: Smoking; Cardiac conduction defects; Acute inferior MI

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The comparison of the personality factors and locus of control in multiple sclerosis (MS) patients and normal people

MN. Farahani¹, M. Ahlami²

Abstract

Background and Aim: Multiple sclerosis (MS) is a kind of chronic disease of the central nervous system and the most common neurological disorder of it. The disease is the result of damage to the myelin tissue manifested in various symptoms. This study was aimed to compare the five big personality factors and locus of control in patients with MS syndrome and these items in normal individuals.

Materials and Methods: In this causal-comparative study, 42 MS patients and 42 normal individuals participated, who were all matched with respect to sex, age, marital status and academic level. The Five Big Personality Factors Questionnaire (Gardoon) and Locus of Control were employed. The data was analyzed using independent t-test at the significant level $P \leq 0.05$.

Results: The mean of neuroticism factor in MS patients and normal individuals was 28.40±8.77 and 23.21±5.44, respectively. The mean of dutifulness factor in the patients was 50.83±6.66 and in normal ones it was 54.21±3.64 ($P<0.005$). The mean of Chance locus of control dimension in MS patients was 28.33, and in normal ones it was 22.78, which was significant ($P<0.005$). There was not any statistically significant item among the other dimensions in the locus of control and the big five factors.

Conclusion: MS patients, in comparison with normal ones, were statistically significant with respect to Neuroticism and dutifulness dimensions. MS patients scored higher than normal ones in Neuroticism, but their dutifulness dimension was lower than their healthy counterparts. However, in the Chance locus of control dimension, the MS patients received higher scores than normal individuals.

Key Words: Multiple sclerosis (MS); Five big personality factors; Locus of control

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The determination of small for gestational age prevalence and some of its risk factors in newborn infants of Birjand hospitals (2004)

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Abstract

**Background and Aim:** Small for Gestational Age (SGA) prevalence is one of the most important indicators of health, Hygiene, and socioeconomic status of society. SGA markedly increases mortality and morbidity in infancy. In addition, psychologic and physical complications will increase in the individuals as they grow up. The purpose of this study was to determine the prevalence of SGA and its risk factors.

**Materials and Methods:** This descriptive and analytical study was carried out on 950 singleton neonates born alive in Birjand maternity hospitals that whose gestational age of pregnancy was well defined. Information was collected by questionnaire and standard measurement of weight was done by German Seca scales. Weight and height and head circumference were measured by a metric tape. The data was analyzed by SPSS software, Chi-Square and Fisher Exact Test; and P≤0.05 was considered as the significant level.

**Results:** Prevalence of SGA was 24.3% and its prevalence significantly increased (P<0.05) in female neonates, housewife mothers (compared with employed one), term neonates (compared with preterm ones), hypertensive mothers (compared with normotensive) and in mothers with chronic illnesses such as hypertension, epilepsy and kidney disease (compared with healthy mothers). But there was no significant relationship between SGA prevalence and parents' literacy, mother's age, living place, passive smoking and prenatal visits.

**Conclusion:** Higher prevalence of SGA in Birjand is probably related to socioeconomic status and race.

**Key Words:** Small for gestational Age; Risk factors; Prevalence

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Common infections of elderly patients admitted in Bou Ali Sina teaching hospital

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Abstract

Background and Aim: In spite of incredible progress in the prophylaxis, diagnosis and treatment of infectious diseases in the elderly, still 30% of the death in these patients is attributed to infections. Immunodeficiency, physiological changes in various organs, lack of classic signs and symptoms of infection such as; fever, leukocytosis, have made difficulties in diagnosis and treatment of such patients. The aim of this study was to describe the most common signs and clinical symptoms of infection in the elderly and to determine the most prevalent infection sites.

Materials and Methods: In this descriptive study, by referring to Bou Ali Sina teaching hospital, clinical and paraclinical records of the elderly patients (over 65 Yrs) were investigated between 2000 and 2001.

Results: We studied 240 cases; 48.3% females and 51.7% males. The hospitalization period of 59.6% patients was one week. Frequency of admission in 55.2% cases was 2-3 times a year. The most common complaints were weakness (15.6%), gastrointestinal (12.8%), respiratory (12.4%), and urinary (9.9%) symptoms. Also in 31.2% there were localized findings of infection. In 73.5% of the patients an underlying disease was diagnosed. Final diagnoses of admitted patients were Pneumonia (20%), genitourinary tract infection (19.5%), sepsis (13.3%), brucellosis (4.17%), tuberculosis (2.5%), meningitis (2.08%) and other infectious and non infectious diseases (18.75%). The mortality rate among them was about 0.04%. The cause of death in 6 cases was sepsis, in one case urinary tract infection and myocardial infection, in one, opium poisoning, and one bacterial pneumonia due to old tuberculosis.

Conclusion: It seems that infection is one of the most common causes of elderly patients' hospitalization. Attention to the clinical findings, especially weakness and loss of power can reveal the initiation of systemic infection. In such a situation early medical care can reduce mortality of the patients, while the presence of underlying diseases (e.g. heart, lung, kidney …) in the process of management should be considered.

Key Words: Elderly patient; Infection; Infectious diseases

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Lower limb varicose veins and their relationship with risk factors in nurses of the Birjand University of Medical Sciences Hospital's

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Abstract

Background and Aim: Kinds of job and body posture during work are among main risk factors for varicose veins. Among different jobs, nursing needs high mobility, long time standing and tiring physical positions that are necessary in performing nursing duty. This survey aimed at determining lower body organs varicose veins prevalence and its relationship with some risk factors among registered nurses in Birjand University of Medical Sciences Hospital's

Material and Methods: In this descriptive- analytical survey, all registered nurses (including nurses and auxiliary nurses) worked in Imam Reza and Valiyye-Asr hospitals were chosen as the research population. Sampling was done by numeric method and 124 people who were willing to participate in the research were surveyed. After primary surveys, library studies, and making a questionnaire, all of the samples were examined and low body organs veins were tested and varicose severity was determined through CEAP scale. Subjects' height and weight were also measured and demographic information and other variations were recorded. The obtained data were analyzed through SPSS software, Chi-Square, Exact Fisher Tests, and one-way variance analysis at the significant level P<0.05.

Results: All the 124 subjects were female, 71.8 percent of whom were academic nurses and 28.2 percent were auxiliary nurses. Their mean age was 32.7 years and their mean employment time was 10.3 years, mean working hours per week was 185 hours for nurses and 171 for auxiliary nurse's subjects mean weight and height were 62.02 kg and 159.12 cm. Out of 124 cases, 68.3% had B.Sc., 30.9% had diploma and 1.6 % had post-graduate studies. A vast majority of the subjects (87.8%) were married and 12% were single. Out of 124 cases, 43.5% had mild (grade 1), 18.5% moderate (grade 2) and 3.2% had severe (grade 3) varicose veins, 34.7 percent of them had no signs of varicose veins. Statistical analysis showed significant relationship between varicose veins severity and job level (P=0.000), number of pregnancies (P=0.000), number of deliveries (P=0.000), marriage status (P=0.05), education level (P=0.000), weight (P=0.01), working time length (P=0.000), standing time length (P=0.003), sitting (P=0.002), walking (P=0.05) and heavy objects lifting during work. But there was no significant statistical relationship between varicose veins severity and monthly work hours, height, surgical history, chronic diseases, hormone therapy, oral contraceptive use and number of abortions.

Conclusion: This survey revealed that varicose veins prevalence in employee nurses is high and it has relationship with weekly work hours and body posture during work. Varicose vein is one of the trombotic risk factors and can cause several mental and physical complications and thus professional disability. It therefore is necessary to control the risk factors by a good preventive implementation.

Key Words: Low organ vein varicose, Risk factors; Nursing

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Abstract

Background and Aim: Prostate gland is one of the most important exocrine gland in the male genital system, whose neoplasms are very common in Iran and other countries. The incidence of the disease is not the same among different racial communities. Therefore, epidemiologic studies can be useful in our country. This study was aimed to determine the epidemiologic characteristics of prostate neoplasms registered in the pathology laboratories of Birjand.

Materials and Methods: In this periodic sectional descriptive study, all the pathologic documents related to prostate neoplasm registered in the pathology labs of Birjand from 1992 to 2002 were reviewed. The information present in the documents including age, living area, clinical and pathologic diagnosis, type, and grading of cancer were registered in the reviewing forms. Then the microscopic slides related to these tumors were reviewed. The gathered data was analyzed by means of Chi-Square and Fisher Exact tests and $P \leq 0.05$ was considered as a minimum level of significance.

Results: Among 911 cases of the reported neoplasm of the prostate gland, 72 cases (7.19%) were prostate cancer and 839 cases (92.1%) were benign prostatic hyperplasia (BPH). The highest incidence of prostate cancer belonged to the ninth decade of age (80-90 Yrs). Of the cancer cases, 91.7% were adenocarcinoma and 8.3% were transitional cell carcinoma (TCC). The mean ages of patients with BPH and prostate cancer were 67.18 ± 25.8 and 70.75± 10.83 years, respectively. The frequency of prostate neoplasm recorded in the pathology labs increased between 1992 and 2002 but the relative frequency of prostate cancer had a decreasing trend.

Conclusion: Based on the results of this study and regarding the high frequency of prostate neoplasms and their undesirable effects, it is suggested that for a better publicizing of the disease by introducing of the risk factors such as smoking, high fat diet, race, geographical and environmental factors, as well as the initial clinical symptoms. More epidemiologic studies are required to understand regional risk factors and to find new screening methods for the early diagnosis of prostate cancer.

Key Words: Epidemiology; Neoplasm; Prostate; Cancer

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The relationship between level of stress and hypertension- overcoming strategies

Z. Farajzadeh¹, S. Kaheni², SA. Saadatjoo³

Abstract

Background and Aim: Hypertension is one of the most important health threatening risk factors in human beings, especially in developing countries such as Iran. It is a multi-factorial disease developed due to introduction of various environmental and genetic factors. Stress and coping strategies are among the causing and accelerating factors of hypertension. The aim of this study was to determine the relationship between level of stress and coping strategies on one hand, and hypertension on the other.

Materials and Methods: The present study is a descriptive–analytical one conducted on 120 patients who had referred to heart and internal medicine clinics of Valyye-Asr Hospital and were selected through sequential sampling. The data of study was gathered through personal characteristics forms, paykel questionnaire of important life events scale, jaloepies coping strategies scale, and interviewing. Also blood pressure, height, and weight were measured by employing a standard method. Finally, the data was analysed by means of frequency distribution table, Chi-Square, t-test, Pearson correlation coefficient, and logistic regression at the significant level of $P \leq 0.05$.

Results: The results indicate that in gender, marital status, level of education, household income, and level of stress points of view there was no significant difference between those who had hypertension and those who didn’t. However, there were significant differences on the residence of the subjects ($P=0.004$), body mass index ($P=0.02$) ineffective stress coping strategy ($P=0.01$), and emotion-based coping ($p=0.01$) between the patients with hypertension and those not having the disease. In addition, this study showed that blood pressure increased with aging and that those unaffected by hypertension were mostly villagers and used emotion-based coping strategies.

Conclusion: According to the findings of the research, there is no significant relationship between level of stress and problem-based hypertension coping strategy. However, there is a significant relationship between hypertension and ineffective coping strategy. Also those unaffected by hypertension mostly use emotion-oriented coping strategy.

Key Words: Hypertension; Stress; Stress coping strategies

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Prevalence of behavioral disorders among school children of Birjand

T. Khazaie¹, M. Khazaie², MA. Khazaie³

Abstract

Background and Aim: In the present study, common behavioral disorders in children including habitual disorders, incontinence, stutter, and their relationship to familial problems at the beginning of school has been studied chiefly aiming at identifying incompatible children and even those at risk having weak performance at school setting and prompting their treatment.

Materials and Methods: The study was a descriptive-analytical one whose population were all students of Birjand at the beginning of school, (1420), referring to register at the educational assessment bases. The method of sampling was purpose-based. The samples studied were children with one of the disorders such as incontinence, habitual disorders, and stuttering reported by parents. 110 of them were selected randomly. Data collection tool was a questionnaire having several sections including DSM III.

Results: 32% of children referring to the assessment bases suffered, at least, from one of the above disorders. The rate of habitual disorders was 12.5%, nocturia 11.9%, and stuttering 7.6%. This proportion was also present in the selected sample, whose disorders had been confirmed, at approximately the same rates. There was a significant difference in the rate of disorders between the two genders. There was significant relationship between the age and education of father on one hand, and children’s behavioral disorders on the other; but there was none between those of mother’s and behavioral disorders of their children. Also, there was a significant relationship between children’s order of birth, family economy, addiction of parents, manner of the family's contact with the child, and behavioral disorders (p=0.05).

Conclusion: Assessing the level of psychological health of children in the assessment bases and providing psychological health service at schools and also educating parents and instructors in order to prevent behavioral disorders and to diagnose and treat them timely seems necessary.

Key Words: Behavioral; Problems; Children; Prevalence

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The assessment of possibility of using public data as a source of cancer registration.

Sh. Semnani¹, S. Besharat², N. Abdolahi², Gh. Roshandel², A. Danesh³, A. Hosseini³, D. Roshandel⁴, MJ. Kabir⁵

Abstract

Background and Aim: Cancer registration based on hospital information, clinically and partaclinically derived data from health centers and labs, may have some shortcomings in recording all cancer cases, especially in the developing countries. Thus, in this study we tried to assess the possibility of using public data concerning cancer incidence among their relatives as a complementary source of community-based cancer registration.

Materials and Methods: In this descriptive study, along with the annual census in rural areas in March 2004 a survey was performed in Golestan province to identify public awareness about cancer incidents in their community. People were asked about history of cancer in their close relatives during the last five years. Those who reported cancer in their relatives were also asked to name the main organ that was involved. A similar list was retrieved from the cancer registry by the department of health in Gorgan and cases with upper GI (esophagus and gastric) cancer diagnosis, from 2002 to 2003, were selected for the study. Finally, these two lists were matched to examine the accuracy of the collected data. For the statistical analysis of the collected data in these two years (i.e. 2002 VS 2003) Chi- Square test was employed and P<0.05 was accounted significant.

Results: We included 137 upper GI cancers with rural residential and known address into our study. Out of 137 cancer cases only 35 (%25.5) cases were reported by the relatives and among them only 20 (%57.1) relatives correctly reported the location of the tumor. Although we found a difference in correctly reporting cancer incidents by year of diagnosis (more correct cases during the second year than the first year), it was not statistically significant.

Conclusion: We found that taking history from relatives is not a reliable source of information for cancer registration and recommend a nationwide cancer registry to record all cancer related information at the time of diagnosis. This strategy will reduce the need for performing retrospective surveys to collect cancer related information.

Key Words: Population-based cancer registry; Hospital-based cancer registry; Cancer; Relatives

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Physical activity in patients with colorectal cancer

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Abstract

Background and Aim: Cancer is the second leading cause of death after heart disease in the United States. Colorectal cancer is the 4th most common cancer in the world. Nearly one million new cases per year of this disease occur worldwide. High levels of physical activity are associated with reduced risk of some cancers such as colon and breast cancers. The aim of this study was to determine the physical activity habits of patients with colorectal cancer.

Materials and Methods: A cross sectional descriptive study was performed in selected wards (radiotrapy, chemotrapy, surgery, cancer clinic) of teaching hospitals in Tehran. A total of 170 patients were selected through a conventional sampling, and their demographic and physical activity habits were determined by completing a questionnaire. Chi-square and fisher exact test were used to analyze the data.

Results: Among 170 studied patients, 55.9% had colon cancer and 44.1% rectum cancer, 72.9% of the total patients had 6-10 hours physical activity per day and 71.2% had no recreational physical activity in their daily program. Eighty one per cent of the patients with colon cancer and 76% of the patients with rectum cancer had undesirable physical activity. There was a significant correlation between physical activity habit and age (P<0.05), education (P<0.001), and occupation (P<0.05).

Conclusion: According to the results of this study, it is recommended that people with low occupational activity such as carpet weaver must spend some time daily on recreational physical activities.

Key Words: Colorectal cancer; Rectum cancer; Physical activity

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A case report of liver Involvement during adult T-cell leukemia / lymphoma

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Abstract

T-cell leukemia virus type 1 (HTLV-1) is the first known human retrovirus which belongs to oncovirus family. The virus has limited geographical prevalence and the north of Khorasan is one of the areas with endemic virus (2.3-3%). Adult T-cell leukemia/lymphoma (ATLL) is a malignant proliferation of the activated CD4+ T lymphocytes and is only found in patients belonging to areas where retrovirus HTLV-1 is an endemic infection. Regarding the rare prevalence of ATLL in the infected people (2%-4%) and also the rare involvement of the liver during its course and the fact that it may wrongly be taken as other liver-involved diseases, a case of liver-involvement during ATLL is reported here. A 55 year old man with positive HTLV1 and involvement of liver during ATLL, who was admitted due to suffering from fever, anxiety, abdominal fullness, and anorexia. By means of sonography several hypoechoic foci were found in the liver. On microscopic examination of liver mass sample, infiltrations of large polymorphic lymphoid cells within sinusoids were seen. In immunohistochemistry with immunoperoxidase modality, CD45 RO (T lymphocyte marker) was positive and CD20 (B lymphocyte marker) was negative. In PCR, we observed Tax and Env genes related to HTLV-1 in the tumoral cells of liver tissue.

Key Word: Liver; Lymphoma; HTLV-1; ATLL