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### Abstract Submitted for Iranian Congress of Gastroenterology and Hepatology - ICGH 2011 October 5-7, 2011

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### Category: 1 CLINICAL PRACTICE 1.1 Epidemiology W-F-001

### Prevalence of oral mucosal lesions in an adult Iranian population

Fariborz Mansour-Ghanaei<sup>1\*</sup>, Farahnaz Joukar<sup>1</sup>, Maryam Rabiei<sup>1</sup>, Alireza Dadashzadeh<sup>1</sup>, Ali Kord Valeshabad<sup>1</sup>

<sup>1</sup>Gastrointestinal & Liver Diseases Research Center (GLDRC), Guilan University of Medical Sciences *Introduction:*There is no other study about the epidemiology of all oral lesions in Iran and most of the conducted studies included only tumors and ulcers or biopsy specimens or just some of the oral lesions in dental patients. A great need is sensed in Iran for establishment of baseline data toward the prevalence of oral lesions in general population.To assess the prevalence and types of oral lesions in a general population in Rasht, Northern Province of Iran.

*Method*:In this cross-sectional study, 1581 persons with the age>30 years who were resident in Rasht, Iran were enrolled the study. A detailed questionnaire based on the world health organization (WHO) guidelines was filled for each individual that contained all required data in order to diagnosis of the lesions. Participants were divided into two groups with and without oral mucosal lesions. Demographic characteristics and clinical information were collected and compared between these two groups.

**Results:** The prevalence of mucosal lesions in our study was 19.4%. Our data demonstrated higher prevalence of oral mucosal lesions in males (55.8%) and young adults (30-40 years) (53.9%). The most common mucosal lesion among our participants was fissured tongue (3.4%), followed by Fordyce granules (2.2%), geographic tongue (2.1%), pigmentation (2.0%), Candida (1.6%), Recurrent aphthous (1.2%), Keratosis (1.2%), Traumatic ulcer (1.1%), Infected tooth-related Cyst (1.1%), Varices (1.1%), Herpes labial (1.1%), White plaque (0.4%), Lichen planus (0.4%), Effusion (0.3%), Leukoplakia (0.1%) and hemorrhage (0.1%). No case of malignant lesions was detected. No statistically significant difference was confirmed between two groups regarding smoking (cigarette and tobacco), opium consumption, medication and oral and dental hygiene (use of toothbrush, toothpick, dental floss, mouthwashes, number of filled or decayed tooth) (p>0.05).

Conclusion: Our data has provided baseline

information about epidemiologic aspects of oral mucosal lesions that can be valuable in organized national program targeting on oral health and hygiene in the society.

Send Date: 2011/06/27

Category: 1 CLINICAL PRACTICE 1.1 Epidemiology W-F-002

# Epidemiology of Inflammatory bowel diseases (IBD) in Iran:

A review article and comparative study with Asia Alireza Safarpour<sup>1\*</sup>, Seyed Vahid Hosseini<sup>2</sup>,

Davood Mehrabani<sup>3</sup>

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<sup>2</sup> Colorectal Surgery Research Center, Shiraz University of Med Sciences.

<sup>3</sup> Stem Cell and Transgenic Technology Research Center, Shiraz University of Med Sciences.

*Introduction:* The prevalence of inflammatory bowel diseases (IBD) is going to be stabilized in Western Europe and North America but has an increasing trend in developing countries in Asia. The epidemiology of IBD in the areas in which, incidence and prevalence are relatively low provides an opportunity for researchers to determine the unknown aspects of them. *Method:* In this review article, data bases such as Pubmed, Science Direct, Scopus and Medline were searched from 1970 to 2010. The epidemiological aspects which assessed in Iranian articles compared with the same subjects in other Asian countries. The total documented articles on IBD epidemiology were 21 and 52 in Iran and Asia, respectively.

**Results:**According to present review, CTLAgene polymorphism and male/female ratio in ulcerative colitis, the incidence of extra intestinal manifestations, extent of intestinal involvement and family history in both ulcerative colitis and Crohn's disease in Asia and Iran seems to be different.

In contrast, the incidence of primary sclerosing cholangitis in IBD patients, association of NO2/CARD15 mutation and Crohn's disease as C3435-T allele and ulcerative colitis are nearly the same. *Conclusion:* The rate of IBD has increased significantly in Iran as other Asian countries during the last decade, and an exact, well designed,

population based, multi regional epidemiologic study is mandatory due to substantial demographic and characteristic variability in IBD patients in our region.

Send Date: 2011/07/18

### Category: 1 CLINICAL PRACTICE 1.1 Epidemiology W-F-003

### Prevalence and Risk Factors of Gastro-esophageal Reflux Disease in Urban Population of Mashhad

Hassan Vossoughinia<sup>1</sup>, Alireza Shariati<sup>1\*</sup>, Siavash Abedini<sup>1</sup>, Mohammad-Taghi Shakeri<sup>1</sup>, Mohammad-Javad Shariati<sup>1</sup>, Reza Bakhtiyari<sup>1</sup>, Reza Etemad Eslami<sup>1</sup>, Ali Aminizadeh<sup>1</sup>, Ashkan Pooyan<sup>1</sup>, Ashkan Hatami<sup>1</sup>, Arash Aryan<sup>1</sup>, Ali Ghannadzadeh<sup>1</sup>

<sup>1</sup> Medicine Faculty, Mashhad University of Medical Sciences

*Introduction:* Gastro-esophageal Reflux Disease (GERD) is a chronic and common disease which characterize with heartburn and regurgitation. In last couple of decades lots of attention has been paid to GERD and studies have shown that its prevalence is increasing. In Iran a few studies conducted to evaluate GERD prevalence in the population but neither of them has been done on the north east of Iran. The aim of our study is to evaluate prevalence rate of GERD and its risk factors in Mashhad population.

*Method:* This is a cross sectional case control study using a questionnaire. The modified Mayo Clinic questionnaire distributed between 2500 randomly selected people (50 cluster of 50 participants each, randomly selected based on power bill code). The questionnaire include questions about patient characteristics (age, gender, marital status and education) , and history of regurgitation and heartburn in last year. Based on the collected data participants divided into two groups, patient and control. Participants with the history of GERD in last year and having symptoms at least once a week were put in the Patient group and the rest in the Control group. The rate of risk factors was evaluated in two groups.

**Results:** Of 2500 distributed questionnaires 1685 successfully recalled. 51 participants were excluded from the study for the following reasons: pregnancy,

history of surgery on the GI and age under 18. From total number of 1634 (56% female, mean age 51.3 years, range 18 to 90) 420 participants had criteria for patient group and the rest formed control group. The calculated prevalence of GERD is 25.7% in our samples. The risk factors with significant effects are smoking, NASIDs (p<0.001), excessive eating (p<0.001), chronic disease (p<0.001), tea drinking, GERD in the spouse (p<0.001), Weekly Fast food eating (p<0.001) and asthma (p<0.001). Prevalence in the past 2 month was similar to that in the 12 month.(p<0.001)

*Conclusion:* GERD prevalence in the residents of Mashhad is above the average in other cities of Iran. However risk factors are similar to those reported in other studies

Send Date: 2011/07/20

### Category: 1 CLINICAL PRACTICE 1.1 Epidemiology

W-F-004

### Gender Role in Irritable Bowel Syndrome: A comparison of IBS module (ROME III) between male & female patients

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*Introduction:* Irritable bowel syndrome (IBS) is a widespread chronic health condition, characterized by a defined symptom complex in the absence of any biochemical or pathological structural abnormalities. We conducted a gender difference analysis by comparing findings for men and women to determine

whether or not significant differences exist.

*Method:* This single-center study was conducted in Tehran, Iran during 2009-2010. IBS was diagnosed on the basis of Rome III criteria. Finally 144 patients were confirmed to have IBS and recruited to the study. A simple 10 point objective questionnaire was used.

**Results:** A total number of 144 IBS patients including 44 (33.5%) males and 100 (69.5%) females with the mean age of 37.50 (SD=11.50) years, were assessed. The only differently observed symptom was nausea which was significantly more prevalent in females (49% vs. 18.2%, p<0.001). The commonest subtype of IBS in male patients was diarrhea predominant IBS (IBS-D) (38.6%); while, constipation predominant IBS (IBS-C) was the most frequent type among females (38%). Moreover, the frequency of loose, mushy or watery stools within last 3 months was also significantly more common in males [2.11 (SD=1.67) vs. 1.37 (SD=1.50), p=0.009].

*Conclusion:* Gender differences can be defined as male–female differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions and the responses to those diseases and conditions. Hereby, we report that gender is important in IBS. Although the debated finding of more women with IBS-C was confirmed, more men than women appeared to have IBS-D, according to ROME III criteria.

Send Date: 2011/07/21

Category: 1 CLINICAL PRACTICE 1.1 Epidemiology W-F-005

Evaluvation of Neoadjuvant Chemotherapy on locally advanced Gastric Cancer: A Meta-alysis

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*Introduction:* The incidence of gastric cancer has reduced, though; it is the 4th common cancer and 2nd

cause of cancer death worldwide. To treat patiens with unresectable gastric cancer by neoadjuvant chemotherapy we can downstage and resect the tumors.The end-points are the evaluation of Neoadjuvant Chemotherapy on R0 resection rate of the tumors and 3-year survival rate of patients.

*Method:*All published trials of Neoadjuvant chemotherapy for locally advanced gastric cancer were searched. Only Ovid database and only English written language articles from 2008 to 2011 were included in our search strategy.

**Results:** In our study 5 trials were included. A total of 131 patients with locally advanced gastric cancer were enrolled. The 3-year survival rate with neoadjuvant chemotherapy was 53% (95%CI: 43.4-62.2)

And R0 resection rate was 61% (95%CI:54.06-68.5). *Conclusion:* According to the results it seems that neoadjuvant chemotherapy can improve survival rate and R0 resection rate of locally advanced gastric cancer.

Send Date: 2011/07/21

Category: 1 CLINICAL PRACTICE 1.1 Epidemiology W-F-006

### MEFV mutations in Iranian Azeri Turkish Patients with familial Mediterranean fever Mortaza Bonyadi<sup>1\*</sup>

<sup>1</sup>Natural Sciences, University of Tabriz

*Introduction:* Familial Mediterranean fever (FMF) is an autosomal recessiveautoinflammatory disorder with more than 60 disease-associated mutations in the responsible gene

*Method:* Five hundred and twenty-four unrelated patients were tested for 15 known mutations in the MEFV gene using amplification refractory mutation system-polymerase chain reaction and polymerase chain reaction-restriction fragment length polymorphism methods.

*Results:* Thirty-five different genotypes were characterized among the studied patients. Of the alleles investigated, the most common mutation was p.M694V (42.4%), followed by p.V726A (17%), p.E148Q (16.2%), and p.M680I (c.2040G>C)

(15.2%). The p.R761H mutation (4.7%) was found to be the most frequent among the rare mutations. *Conclusion:* The results show the diversity and the frequency of the mutations in the Iranian Azeri Turkish FMF patients. The p.R761Hmutation is rather prevalent in Azeri Turks; therefore Send Date: 2011/08/11

### Category: 1 CLINICAL PRACTICE

1.1 Epidemiology

W-F-007

### Prevalence of Hepatitis D Virus Infection among HBV Infected Patients in Qom Province, Center of Iran

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<sup>5</sup> Gastroenterology and Liver Research Center, Baghiatallah University of Medical Sciences, Tehran, Iran *Introduction:* Hepatitis D virus (HDV) is a defective RNA virus that depends on the hepatitis B surface antigen (HBsAg) of hepatitis B virus for its replication, developing exclusively in patients with acute or chronic hepatitis B. There is little data available regarding the routes of HDV transmission in Iran. The risk factors for acquiring HDV infection in some studies in Iran are blood transfusion, surgery, family history, Hejamat (traditional phlebotomy), tattooing, war injury, dentistry interventions and endoscopy. We planned this study to determine the prevalence of hepatitis D in the general population of Qom province and potential risk factors for acquiring HDV.

*Method:* The present study is a cross-sectional study. A total of 3,690 samples were collected out of 7 rural clusters and 116 urban clusters. HBs-antigen was measured at the lab and if the test was positive, anti-HDV Ab would investigate. Ten teams, each consisting of 2 trained members, were assigned to conduct sampling and filling the questionnaires. The data were analyzed using the SPSS software.

**Results:** Totally, 48(1.3%) suffered from hepatitis B and just one HBsAg positive case had HDV infection. The prevalence rate of hepatitis D infection in Qom Province was 0.03%. The prevalence rate of hepatitis D infection in HBsAg positive cases was 2%. Our anti-HDV Ab positive case had history of tattooing, surgery history and dental surgery history. There was no significant relationship between tattooing, surgery history and dental surgery history and hepatitis D infection.

*Conclusion:* The prevalence rate of hepatitis D in Qom is low. This research showed that the prevalence of HDV in Qom province is the lowest rate in Iran like the similar study in Babol (North of Iran). Send Date: 2011/08/13

Category: 1 CLINICAL PRACTICE 1.1 Epidemiology W-F-008

### Hepatitis C virus infection in HIV positive attendees of Shiraz Behavioral

Diseases Consultation Center in southern Iran

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*Introduction:* The aim of this study was to determine the prevalence of HCV co-infection and its correlation with demographic and risk factors among HIV-infected individuals attending Shiraz Behavioral Diseases Consultation (SBDC) Center in southern Iran.

*Method:* In a cross-sectional study, 226 consecutive HIV-positive patients who referred to SBDC Center from April 2006 to March 2007 were interviewed face-to-face to record demographic data and risk factors of HIV transmission. A 10 ml sample of venous blood was drawn from every subject and tested for HCV-antibodies by third generation enzyme linked immunosorbant (ELISA) and recombinant immunoblot assays (RIBA). All samples were also analyzed by qualitative reverse transcriptase

polymerase chain reaction (RT-PCR) for detection of HCV-RNA.

**Results:** The study population consisted of 214 men (94.7%) and 12 women (5.3%) with a mean age of  $35.6\pm7.9$  years. The most prevalent risk factor was imprisonment (88.9%) followed by injecting drug use (79.2%). The prevalence of HCV infection was 88.5% by ELISA and 86.7% by RIBA, while HCV viremia was detected in 26.1% of the patients. HCV-antibody positivity was significantly associated with gender, age, marital status, occupation, injecting drug use, and history of imprisonment. It was inversely related to "having an infected or high risk sexual partner". In the logistic regression model, the predictors of HCV-positivity were injecting drug use (OR=24.9, P=0.004) and imprisonment (OR=21.4, P<0.001).

Conclusion: Prevalence of HCV infection among HIV-positive individuals in our region is very high and there is a need for stricter preventive actions against transmission of HCV among this group of patients. Send Date: 2011/08/17

### Category: 1 CLINICAL PRACTICE

1.1 Epidemiology

W-F-009

### The prevalence of hepatitis C infection in general population of two villages of Fars province

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Introduction: Hepatitis C virus (HCV) infection is a major blood-borne infection with silent epidemic and major global public health problem and diverse prevalence worldwide. To determine the prevalence of HCV infection in general population of two villages, Farmashkan and Akbarabad, of Kavar city, Fars province in Iran, and evaluate the real risk factors in these areas.

Method: A cross-sectional study was performed during 3 years from July 2007 to April 2010. All of Iranian participants aged equal or above 7 years old

evaluated for HCV antibody with were enzyme-linked immunosorbent assay (ELISA).PCR is being done right now.

Results: Fifteen out of 6095 (2218 men and 3877 women with minimum age of 7 years and maximum of 95 years old, mean±SD age of 34.58±17.29) participants were anti-HCV positive (prevalence 0.24%). The highest prevalence was seen in age  $\leq 12$ years old (1%). A statistically significant correlation was found between blood transfusion and presence of anti-HCV antibody (p=0.000). Those with a history of blood transfusion had fifteen fold higher risk for anti-HCV positivity (odds ratio 15.54; 95%CI= 4.89-49.41). No statistically significant correlation was found among other variants and positive anti-HCV

Conclusion: Due to non-significant correlation between other variants and anti-HCV+ except blood transfusion, further evaluation for detection of risk factors is recommended. Moreover, it is emphasized that the donated bloods be evaluated with PCR and the importance of sterility of instruments in medical and non- medical conditions and education of transmission routes be taken into account. Send Date : 2011/08/18

### Category: 1 CLINICAL PRACTICE 1.1 Epidemiology

W-F-010

### **Epidemiologic profile and clinical** characteristics of inflammatory bowel disease in northeast of Iran: a 7 year review

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Introduction: Few studies have been done in Iran about inflammatory bowel disease (IBD). In this study, we tried to determine the epidemiologic and clinical characteristics of IBD in northeast of Iran.

Method: This was a retrospective study in a 7 year

period of time (since 2005 until 2012). This study included all the patients who had approached to a private gastroenterology clinic in Mashhad and were diagnosed as IBD.

Data were collected from the patients' electronic files, encoded and then entered in SPSS. These Data included age, gender, type of disease (Ulcerative colitis and Crohn's disease), extension of intestinal disease and also extra-intestinal manifestation.

**Results:** A total of 364 patients including 183 females (50.3%) were evaluated. Mean age of the patients was  $34.3 \pm 13.04$  years. Male to female ratio was 0.58 for Crohn's disease and 1.07 for ulcerative colitis. 13.5% had Crohn's disease and 86.5% had ulcerative colitis. The most common sites of involvement were pancolitis, proctitis and then left-sided colitis. For Crohn's disease, the most common presentation was terminal ileitis. Among extra-intestinal manifestations, sclerosing cholangitis had the highest frequency and was found in 12 (3.4%) patients.

*Conclusion:* This study shows that in northeast of Iran, the disease is most common in the third decade of life and it almost has the same frequency in males and females. The most common extra-intestinal presentation is primary sclerosing cholangitis. Send Date: 2011/08/18

Category: 1 CLINICAL PRACTICE 1.1 Epidemiology W-F-011

Prevalence of celiac dusease in osteoporotic patients in comparison to healthy subjects

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*Introduction:* There is an increased prevalence of osteoporosis among patients with celiac disease. However, the relative prevalence of celiac disease among osteoporotic and nonosteoporotic populations is not known, and the benefit of screening the osteoporotic population for celiac disease remains

controversial.

*Method:* We evaluated 200 individuals, 100 with and 100 without osteoporosis, from the rheumatology clinic in Imam Khomeini and Shariati Hospital by serologic screening for celiac disease. The clinical findings were evaluated in the both groups and were compared together.

**Results:** 2 (2%) of 100 patients with osteoporosis and 1 (1%) of 100 patients without osteoporosis tested positive by serologic screening for celiac disease. All patients with positive serologic test were female and the mean age was  $56.5\pm 6.4$  years. The prevalence of clinical findings in 2 patients with osteoporosis was more than 1 patient without osteoporosis.

*Conclusion:* The prevalence of celiac disease in osteoporosis is not high enough to justify a recommendation for serologic screening of all patients with osteoporosis for celiac disease; but in patients with endocrine autoimmune disease and gastrointestinal finding it is necessary to evaluate celiac disease. Send Date: 2011/08/20

### Category: 1 CLINICAL PRACTICE 1.1 Epidemiology W-F-012

### میزان پذیرش، تعداد نیروی انسانی و سطح بندی خدمات

### از دیدگاه پزشکان مرتبط با سلامت گوارش و کبد

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مقدهه: به منظور بررسی دیدگاه شاغلین پزشکی در زمینه گوارش و کبد در مورد تعداد نیروی انسانی و میزان پذیرش دستیاری، سطح بندی خدمات و نوع آن این تحقیق انجام شد.

روش بررسی: در کنگره انجمن متخصصین گوارش و کبد ایران در سال ۱۳۸۹ به وسیله پرسشنامه ای کتبی، نظرات شرکت کنندگان سوال شد. اطلاعات دموگرافیک، مدرک تحصیلی و سال دریافت آن، محل فعالیت و نوع فعالیت شغلی، و سوالاتی در مورد موضوعات فوق گنجانده شد. از ۲۰۰ پرسشنامه توزیع شده، ۱۲۴ پرسشنامه تکمیل و برگردانده شد.

یافته ها:متوسط سن پاسخ دهندگان ۴۳/۸۶ سال، ۶۰/۵ ٪ فوق تخصص و ۲۷/۱ ٪ تخصص داخلی داشته اند. ۲۷ ٪ بیش از ۱۱ سال و ۷۳ ٪ ۱۰ سال یا کمتر فارغ التحصیل شده بودند. ۴۲ ٪ در تهران و مابقی در خارج از تهران به فعالیت مشغول بوده اند. ۸/۵۰ درصد پاسخ دهندگان در استخدام دولت و ۵۸ درصد افراد به عنوان غیر هیئت علمی فعالیت داشته اند. ۴۳/۵ ٪ تعداد فعلی نیروی انسانی متخصص گوارش و کبد (نیم برای هر صد هزار نفر) را کافی و ۵۶ ٪ بیش از این تعداد را ضروری دانسته اند. ۴۸/۴ ٪ میزان پذیرش فعلی دستیاری گوارش و کبد را زیاد و ۸۵/۵۳٪ آنرا مناسب ارزیابی کرده اند. حدود ۹۰٪ با سطح بندی خدمات تخصصی گوارش و کبد در کشور موافق بوده و ۸۸/۷ درصد با طرح ارایه این خدمات در ۴ سطح موافق بوده اند.

نتیجه گیری: بخش مهمی از نیروی انسانی در بخش های غیر دولتی فعالیت می کنند. تمرکز نیمی از متخصصین در مرکز کشور ، نیاز به بررسی جدی دارد. تنظیم تعداد نیروی انسانی و میزان پذیرش برای ارائه خدمات در چهار سطح می تواند از اهداف راهبردی این رشته در کشور باشد. ارائه خدمات آموز شی پژوهشی و درمانی پیشرفته در معدودی از مراکز توانمندو گسترش خدمات ساده و اولیه در اقصی نقاط کشور از اصلی ترین اجزای این سطح بندی می باشند. Send Date: 2011/08/23

Sona Date: 2011/00/25

Category: 1 CLINICAL PRACTICE

1.2 Management strategies

W-F-014

### Application of Midazolam and Propofol in Esophagogastroduodenoscopy; a Triple-Blind, Randomized Controlled Trial

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Introduction: Use of intravenous sedatives became common in gastrointestinal endoscopy. This study is to evaluate the safety and efficacy of propofol and/or midazolam in induction of proper sedation in esophagogastroduodenoscopy (EGD) compared with a control group which does not receive sedation for EGD. Method: Four groups (A, B, C and D) of patients each of which consisted of 30 patients for whom esophagogastroduodenoscopy had been indicated were defined. For groups A, B, C and D, no sedative, midazolam, propofol and midazolam plus propofol were administered intravenously, respectively. The four groups were compared with each other regarding heart rate (HR), O<sub>2</sub>S (oxygen saturation), systolic blood pressure (SBP), diastolic blood pressure (DBP), duration of endoscopy (DE), patient compliance (CM), retrograde amnesia (RA), antegrade amnesia (AA), patient activity (PA), skin color (SC), patient consciousness (CS), blood flow (BF), respiration state (RS) and pain.

**Results:** Patient compliance (CM), retrograde amnesia (RA), antegrade amnesia (AA), patient activity (AC), patient consciousness (CS) and pain were significantly different in our patient groups. On the contrary, no significant difference was found among the four groups regarding heart rate (HR), oxygen saturation ( $O_2S$ ), systolic blood pressure (SBP), diastolic blood pressure (DBP), duration of endoscopy (DE), skin color (SC), blood flow (BF) and respiratory state (RS).

*Conclusion:* Based on our findings, on EGD no sedation is needed unless the patient feels anxious and therefore cannot cooperate appropriately. For this case, administration of propofol alone is prioritized over midazolam alone and propofol plus midazolam. Send Date: 2011/06/04

Category: 1 CLINICAL PRACTICE

1.2 Management strategies

W-F-015

### Effect of Synbiotic in the Treatment of Children with Functional Constipation Referring to Alzahra University Hospital in Isfahan, 2010

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*Introduction:* Constipation is one of the most common gastrointestinal disorders in children and in more than 90% of the cases there is no structural cause for which diagnosis of functional constipation is made. We compared mineral oil plus Symbiotic with mineral oil alone in the treatment of functional constipation in children.

*Method:* This controlled clinical trial was conducted in Isfahan in 2010. Children with functional constipation (Rome III) were included and randomized to receive symbiotic (1 tab Lactol /20 kg/d) plus mineral oil (1 ml/kg/d) or mineral oil alone for two months. Symptoms of constipation including frequency of deification, stool form, urgency, strain, incomplete evacuation, pain, and leakage of stool were assessed and compared before and after the study. After the study, the two groups were also compared in regards to subjective global improvement and adequate relief of symptoms. Data were analyzed with SPSS using t-Test, Chi-Squae, Mann-Whitney, and Wilcoxon tests and also multivariate analyses.

*Results:* During the study, 30 children were included

بیماریهای قلبی عروقی مطرح شده است. همچنین مطالعات ارتباط متناقضی بین دریافت فولات و خطر بروز سرطان کولون نشان داده اند.

**روش بررسی**: به منظور بررسی اثرات دریافت ناکافی فولات بر بروز و پیشروی سرطان کولون، مطالعات انجام شده از سال ۲۰۰۲ مورد بررسی قرار گرفت.

یافته ها: نتایج حاصل از مطالعات مختلف، از جمله متاآنالیز انجام شده در سال ۲۰۱۰ پیشنهاد می کند که ارتباط معکوسی بین دریافت فولات و خطر بروز سرطان کولون و جود دارد؛ که در راستای متاآنالیز انجام شده در سال ۲۰۰۵ است. نتایج نشان می دهد که دریافت بالای فولات خطر سرطان کولون را ۱۵ - ۸٪ کاهش میدهد. اخیراً چند مطالعه کار آزمایی بالینی در رابطه با نقش فولات در بروز سرطان کولون انجام شده است و نتایج حاصل از یک مطالعه نشان داده است که مکمل یاری ۵ میلی گرم فولات در روز به مدت سه سال با کاهش معنی دار بروز سرطان در ارتباط است. در صورتی که دریافت فولات در مقادیر پایین چنین اثری را نشان نداد.

**نتیجه گیری**: در مجموع می توان گفت که دریافت مقادیر کافی فولات چه به صورت مکمل یاری و چه در قالب غذاها می تواند خطر سرطان کولون را کاهش دهد؛ هرچند برای تعیین مقدار دقیق فولات موردنیاز برای دستیابی به این هدف به مطالعات بیشتری نیاز است.

Send Date: 2011/08/22

### Category: 1 CLINICAL PRACTICE 1.4 Outcome studies W-F-017

### **The prevalence of Hepatitis B virus infection in kavar - southern of Shiraz, Iran** Mohammadreza Fattahi<sup>1</sup>, Zahra Zonubi<sup>1</sup>,

Maryam Ardebili1\*, Abbas Rezaianzadeh1 <sup>1</sup> Gastroenterohepatology Research Center (GEHRC), Shiraz University of Medical Sciences, Shiraz, Iran Introduction: Hepatitis B virus infection is a common cause of chronic liver disease in Iran and other countries. It is one of the most prevalent public health problems worldwide, particularly in developing countries. The prevalence of hepatitis B virus infection in Fars, Southwest province of Iran is estimated to be 1.7% based on previous researches. Routine neonatal vaccination for hepatitis B virus infection prevention has been started since 1973 in Iran. The aim of current population based crosssectional study was to compare the prevalence of hepatitis B virus infection in vaccinated versus unvaccinated population of this area.

*Method:* We randomly selected 10352 subjects out of normal population of Kavar, a small town located in Southeast of Shiraz. Subjects enrolled in this study were older than 7 years. Serum samples were tested

in each group; all of them completed the study. The two groups were similar in age, sex, and baseline symptoms except stool frequency. After treatment, stool frequency increased in both groups (p<0.001) with greater increase in symbiotic group (p < 0.05). Frequency of hard/very hard stool and frequency of painful deification decreased in both groups similarly (p<0.001). Urgency was decreased in symbiotic (p<0.05) but not the mineral oil group. Strain decreased in both groups (p<0.001) but more decrease was seen in symbiotic group (p<0.05). Mucus in stool was decrease in both groups similarly (p<0.001). Incomplete evacuation and leak of stool decreased in both groups (p<0.05) with greater decrease in symbiotic group (p<0.05). Finally, overall symptoms in mineral oil group improved moderately in 36.7% and extremely in 40.0% of children. In the symbiotic group, overall symptoms improved moderately in 13.8% and extremely in 86.2% of children. According to multivariate analyses, among factors including age, sex, baseline constipation symptoms and groups, only receiving the symbiotic mineral oil was associated with greater improvement in overall symptoms (p=0.003, t=3.1). No severe side effects were observed in children.

*Conclusion:* These results indicated that adding symbiotic (Lactole) to the routine treatment of constipation in children (mineral oil) can significantly increase the global improvement in symptoms, without specific side effects. Further studies evaluating and comparing other symbiotic agents either alone or along with other standard treatments and longer follow-ups of children with constipation is warranted.

Send Date: 2011/08/04

Category: 1 CLINICAL PRACTICE 1.3 Evidence-based clinical practice W-F-016

### نقش محافظتی فولات در برابر سرطان کولون \*Sepide Mahluji<sup>1\*</sup>

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مقدمه: فولات به عنوان زیر گروهی از ویتامینهای گروه B کوفاکتور مهمی در سنتز DNA و مسیرهای متیلاسیون است. کمبود فولات که منجر به افزایش سطوح هموسیستئین در خون میشود، به عنوان ریسک فاکتور مستقل for hepatitis B surface Antigen (HBs-Ag) and antihepatitis B core Antibody(antiHBc-Ab) by Enzyme linked immunoassay (ELIZA).

*Results:* In our study 19.7% of subjects were younger than 18 years which for them routine neonatal vaccination against hepatitis B has been done that is almost compatible with the percentage of vaccinated population against hepatitis B in Kavar (24.55%).

The prevalence of hepatitis B surface Antigen (HBs-Ag) and antihepatitis B core Antibody (HBc-Ab) in vaccinated population were 0.88%(18 subjects) and 1.66%(34 subjects) respectively; and in unvaccinated population were 1.14%(95 subjects) and 6.56%(546 subjects) with p= 0.0001 for HBs-Ag and p=0.001 for HBc-Ab that were significant.

Conclusion: Although exposure rate was significantly decreased after vaccination(as manifested by significantly lower rate of Anti HBc Ab positivity, 1.66% in vaccinated versus 6.56% in unvaccinated population), the rate of hepatitis B virus infection was not decreased in the same rate (0.88%) in vaccinated versus 1.14% in unvaccinated population). This discrepancy may be indicate a significant role for vertical transmission of hepatitis B virus infection, which cannot be really affected by routine neonatal vaccination; although this theory needs further studies to be proven (Gastroenterohepatology Research Center at Shiraz University of medical Sciences is testing the families of HBs-Ag positive subjects to verify this theory.) Send Date: 2011/08/19

Category: 1 CLINICAL PRACTICE 1.4 Outcome studies W-F-018

### بررسی دیدگاه ها و نیازهای آموز شی پزشکان شاغل در زمینه سلامت گوارش وکبد

,Mehdi Saberifiroozi<sup>1</sup>, Shifteh Abedian<sup>1\*</sup> Reza Malekzadeh<sup>1</sup>,Mohammad Mehdi Mirnaseri<sup>1</sup>

<sup>۱</sup> مرکز تحقیقات گوارش و کبد، بیمارستان شریعتی، تهران مقدمه: به منظور بررسی دیدگاهها و نیازهای آموزشی پزشکان شاغل در زمینه گوارش و کبد، نظرات شرکت کنندگان کنگره سالانه انجمن گوارش و کبد ایران بوسیله پرسشنامه ای کتبی مورد بررسی قرار گرفت. روش بررسی: به وسیله یک پرسشنامه کتبی اطلاعات دموگرافیک، آخرین مدرک تحصیلی و سال دریافت آن، محل و نوع فعالیت، انواع اعمال آندوسکیی و نیاز به اموزش ان، دوره های تکمیلی فلوشیپ، تعداد کنگره ها، ازشرکت کنندگان در کنگره سال ۱۳۸۹ سوال شد. از ۲۰۰ پرسشنامه توزیع شده تعداد ۱۲۴ پرسشنامه تکمیل و برگردانده شد (۶۲٪).

یافته ها: ۱۰ مرد و ۱۷ زن با متوسط سن ۴۳.۸۶ سال ( تا ۲۵ سال)، ۷۵ نفر فوق تخصص و ۴۶ متخصص داخلی مشارکت داشتند. ۳۳ نفر در تهران فعالیت داسته اند. به ترتیب ۸۲، ۸۷، ۸۹، ۵۹، ۵۵، ۲۰ درصد افراد اعمال ویدئوآندوسکپی، ویدئوکولونوسکپی، کنترل خونریزی واریسی، کنترل خونریزی غیر واریسی، را برای بیماران خود انجام می دهند. در صورتیکه اعمال مانومتری و پی اچ متری مری، مانومتری آنورکتال، ایی آر سی پی، دیلاسیون تنگی مری و آشالازی، افراد انجام می شود. ۱۴ تا ۳۷ درصد شرکت کنندگان درخواست آموزش مداوم در افراد انجام می شود. ۱۴ تا ۳۷ درصد شرکت کنندگان درخواست آموزش مداوم در یک یا چند نوع از اعمال زیر داشته اند. ۷۵، ۵۹، و ۵۶ درصد افراد نیاز به گذراندن دوره های فلوشیپ پیشرفته اندوسونوگرافی، ایی ار سی پی و پیوند کبد را مورد تایید قرار داده اند. ۷۹٪ تعداد کنگره ها را کافی دانسته اند. ۲۰/۱۵٪ تمایل به تشکیل جلسات آموزش مداوم حضوری و ۴۷۹٪ به ارایه اموزش های غیر حضوری تمایل نشان دادند.

نتیجه گیری: طراحی و تهیه برنامه های آموزشی برای ارتقای مهارت افراد در اعمال شایع مانند آندوسکپی، کنترل خونریزی ها و کولونوسکپی بایستی با اولویت برنامه ریزی شود. با وجود پایین بودن میزان اعمال دیگر فوق تخصصی تقاضای آموزش برای انها کمتر از ۴۰ درصد می باشد که می تواند بدلیل کمبود امکانات، هزینه های بالا، و عوارض احتمالی این اعمال در مراکز کوچک باشد. راه اندازی و تقویت دوره های فلوشیپ بایستی مورد توجه جدی قرار گیرد.

Send Date: 2011/08/22

#### Category: 1 CLINICAL PRACTICE 1.5 Pharmacoeconomics W-F-019

# The effect of Probiotics in Iranian patients with irritable bowel syndrome:

a double-blind randomized-controlled study Homayoon Vahedi<sup>1\*</sup>, Elham Jafari<sup>1</sup>,

Shabnam Momtahen<sup>1</sup>, Aina Riahi<sup>1</sup>, Reza Malekzadeh<sup>1</sup> <sup>1</sup> Digestive Diseases Research center, Tehran University of Medical Sciences

*Introduction:* Probiotics are Live microorganisms which when administered in adequate amounts confer a health benefit on the host. We aimed to access the efficacy of probiotics for improvement of some IBS symptoms in a double-blind randomized trial.

*Method:* 160 eligible patients with normal lactose intolerant breath test were randomly assigned to receive Probiotics (n=80) or placebo (n=80), 2 cap /day during one month. Severity of abdominal pain and bloating compared before and after treatment.

**Results:** A total of 99 patients ended the trial, 64patients (80%) of probiotcs group and 35 patients (44%) of placebo group, abdominal pain and bloating reduced significantly in probiotics group but this reduction was not significant in placebo group. Improving effect of probiotics remained at least for one month in 85% of patients.

*Conclusion:* This is the first trial in Iran showed that probiotics can reduce the severity of pain and bloating in Iranian patients affected by pain and bloating predominant IBS and this effect will be remained at least for one month. Send Date: 2011/08/06

Category: 1 CLINICAL PRACTICE

1.5 Pharmacoeconomics

W-F-020

The direct medical costs of colorectal cancer in Iran

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*Introduction:* The treatment cost of cancers is one of the major issues globally and in Iranian health system. The high cost treatment of colorectal cancer, as one of the important cancers in Iran, has affected both patients and the government importantly. The aim of this study was to analyze the direct medical costs of colorectal cancer in Iran.

*Method:* This study is a retrospective analysis of all patients with colorectal cancer in Seyed-Alshohada hospital in Isfahan (a state-owned cancer hospital in Isfahan) between the years 1384 and 1389. The relevant data including age, sex, disease stage and treatment expenditures extracted from patients' profiles. Extracted data were analyzed using descriptive and inferential statistical methods (Kruskal-wallis) through SPSS software.

**Results:** The profiles of 435 patients were reviewed. But, considering inclusion and exclusion criteria, only 320 patients were included in the study. The results showed that the numbers of male patients (56/1%) are higher than the females. The average age of the patients were 56 years old which is significantly lower than many other countries. While 35.6 % of the patients categorized in stages I-III, 64.4% were in stage IV. As the stages of the disease were increased, the diversity and frequency of medical services were also increased considerably. The treatment costs of the patients varied significantly within and between the disease stages. 5FU/LV was the most chemotherapy regimen (42/5%) used for the patients. The average costs of treatment were 86 (22.5) Million Rials in stage I and 141(29.0) Million Rials in stage IV.

*Conclusion:* Colorectal cancer treatment attracts considerable amount of financial resources of the Iranian population each year. This is particularly important when taking into account that the treatment costs considered in this study obtained from a state hospital. Thus, it is reasonable to expect that the market price of colorectal cancer treatment in Iran is much higher than the figures presented in this study. Considering the fact that patients' age group in Iran is lower than many other countries, the results may encourage clinicians and health policy makers to consider preventive strategies which may possibly provide better value for money for managing colorectal cancer in Iran. Send Date: 2011/08/21

Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS

2.1 Cell/molecular biology/pathology W-F-021

### Diagnostic values of pepsinogens to discriminate gastritis, atrophic gastritis and corpus atrophic gastritis

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Introduction: Golestan province in northeast of Iran

has been known as a high risk area for helicobacter pylori (HP) infection as well as upper gastrointestinal (UGI) cancers. Gastritis (G), as an outcome of HP infection, is an important health problem in this area. Subtypes of G, including atrophic gastritis (AG) and corpus AG (CAG) were considered as risk factors for UGI cancers. Endoscopy, as the diagnosis of choice for these conditions, is an invasive procedure with low acceptance rate. So, considering a noninvasive method such as a serum marker may help for early diagnosis of the conditions and result in prevention and controlling UGI cancers. We conducted this study to evaluate the accuracy of pepsinogens I (PI) and II (PII) and the PI/PII ratio to discriminate G, AG and CAG.

Method: In this diagnostic accuracy study, patients with gastritis and its subtypes as well as normal individuals were recruited. Endoscopic biopsy and histopathological examination was done as gold standard for diagnosis of gastritis. Serum levels of PI and PII were assessed by quantitative enzyme linked immunosorbent assay (ELISA) method. Receiver operating characteristic (ROC) curve analysis was used to determine the accuracy of pepsinogens for identifying G, AG and CAG.

**Results:** A total number of 69 normal individuals with mean age of 43 years and 126 gastritis patients with mean age of 47 years were recruited (P=0.1). 46 percent of normal group and 47% of patients were male (p=0.9). The area under ROC curve (AUC) and its 95% confidence interval (CI) for PI to discriminate G, AG and ACG were 69% (61-77), 79% (71-88), 83% (73-93), respectively. The AUC (95% CI) PI/PII ratio to distinguish G, AG and ACG were 68% (60-76), 77% (68-86), 89% (81-98), respectively.

*Conclusion:* The accuracy of PI and PI/PII ratio was acceptable for distinguishing G, AG and CAG with the highest accuracy for CAG. So, pepsinogens may be useful for conducting screening programs in high risk areas. The epidemiology and burden of disease in the population as well as the main goal of the program should be considered to make the best decision in the community level.

Send Date: 2011/07/14

#### DUODENAL DISORDERS

2.2 Dyspepsia W-F-022

### **Comparison of domperidone and** pyridostigmine in treatment of dyspeptic symptoms in patients with functional dyspepsia: a randomized clinical trial Javad Shokrishirvany<sup>1</sup>, Esrafil Shad<sup>1\*</sup>,

Hassan Taheri<sup>1</sup>

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Introduction: Various drugs with unsatisfactory result were suggested for functional dyspepsia. This study was designed to evaluate the efficacy of domperidone and pyridostigminea in patients with functional dyspepsia.

Method: This clinical trial performed on 117 patients with functional dyspepsia (basis on ROME II criteria) for comparing the effect of four weeks of treatment with domperidone 10 mg TDS, pyridostigmine 60 mg TDS and placebo. VAS score was used for scoring eight individual upper GI symptoms (fullness, early satiety, gnawing, nausea, vomiting, belching bloating and epigastric pain) before and at the end of treatment.

**Results:** The total score decreased from 24 to 13 but in ANOVA test there was significant differences in 3 of 8 symptoms score between three groups: bloating, early satiety and nausea (p=0.039, p=0.006 & p=0.016; respectively). With post Hoc Test, domperidone were more effective than pyridostigmine in nausea (p=0.024,) placebo had superiority in controlling of bloating than pyridostigmine (p=0.042) domperidone was more effective than placebo in relieving bloating (p=0.023). domperidone was more effective than pyridostigmine and placebo In improvement of early satiety (p=0.038, p=0.014; respectively). In total GI symptoms domperidone had more efficacy than other two treatment (p=0.045).

Conclusion: Dompridone and pyridostigmine would be usefull in improving early satisty and nausea. But were similar with placebo in controlling of epigastric pain, fullness, belching and gnowing. Send Date: 2011/07/20

#### Category: 2 ESOPHAGEAL-GASTRIC AND

ESOPHAGEAL-GASTRIC AND Category: 2 DUODENAL DISORDERS 2.2 Dyspepsia

#### W-F-023

## Correlation of dyspepsia with quality of life in Qashqui migrating nomads, Southern Iran

Fariba Moradi<sup>1</sup>, Seyed jalil Masoumi<sup>2\*</sup>, Davood Mehrabani<sup>3</sup>, Najaf Zare<sup>4</sup>, Ahmad Mostaghni<sup>5</sup>, Mehdi Saberi-Firouzi<sup>5</sup>, Ali Montazeri<sup>6</sup>

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<sup>5</sup> Gastroenterohepatology Research Center, Shiraz University of Medical Sciences, Shiraz, Iran

<sup>6</sup> Iranian Institute for Health Sciences Research, Tehran, Iran *Introduction:* Functional dyspepsia is a highly prevalent gastrointestinal disorder that can present many clinical dilemmas in patient management. Although not life-threatening, the symptoms are long-lasting, interfere with daily activities and have a significant impact upon the quality of life. This study investigates the correlation of dyspepsia and quality of life in Qashqai migrating nomads in Fars province, southern Iran.

*Method:* In summer 2009, 784 Qashqai migrating nomads aged 25 years or older were enrolled using a multiple-stage stratified cluster random sampling method. The questionnaire of Rome II diagnostic criteria for dyspepsia was used for diagnosis of dyspepsia. For about 50% of them, SF 36 questionnaire was also completed.

**Results:** The prevalence of dyspepsia was 29.9%. The dyspeptic patients were classified as having ulcer-like (27.9%), dysmotility-like (26.2%), or unspecified dyspepsia (45.9%). Difference in SF36 questionnaire domains was significant in dyspeptic patients in comparison to non-dyspeptic ones.

*Conclusion:* Dyspepsia had a high prevalence in Shiraz, southern Iran and its relation to quality of life was very high.

Send Date: 2011/08/12

Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS

### 2.2 Dyspepsia

#### W-F-024

### **Prevalence of dyspepsia in Qashqui migrating nomads, Southern Iran** Seyed jalil Masoumi<sup>1\*</sup>, Fariba Moradi<sup>2</sup>, Davood Mehrabani<sup>3</sup>, Najaf Zare<sup>4</sup>,

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*Introduction:* Dyspepsia is a common disorder that occurs in approximately 25 percent (range 13 to 40 percent) of the population each year can present many clinical dilemmas in patient management. Although not life-threatening, the symptoms are long-lasting, interfere with daily activities and have a significant impact upon the quality of life. This study was performed to evaluate the prevalence and risk Factors of dyspepsia and its relation to life style in Qashqai migrating nomads in Fars province, southern Iran.

*Method:* In summer 2009, 784 Qashqai migrating nomads aged 25 years or more were enrolled using a multiple-stage stratified cluster random sampling method. A questionnaire consisting of demographic factors, lifestyle data and gastrointestinal symptoms was completed for each participant. The questionnaire of Rome II diagnostic criteria for dyspepsia was used for diagnosis of the disease.

**Results:** Among dyspeptic patients (29.9%), 27.9% had ulcer-like; 26.2%, dysmotility-like and 45.9% had unspecified dyspepsia. The prevalence was higher in females, water-pipe smokers, NSAIDs users, and in those with psychological distress, recurrent headache, anxiety, nightmare and past history of gastrointestinal disease. Dyspepsia had an inverse relationship with consumption of pickles, fruits and vegetables and with duration of meals. Subjects with dyspepsia symptoms were more likely to restrict their diet, take herbal medicine, use

over-the-counter drugs, consult with physicians, and consume medication advised by their friends.

*Conclusion:* Dyspepsia had a high prevalence in Shiraz, southern Iran and was associated with several demographic factors, life style, and health-seeking behavior.

Send Date: 2011/08/12

Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS 2.2 Dyspepsia

W-F-025

Pattern of serum ghrelin level related to meal-time: A comparison between functional dyspeptic patients and normal population

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<sup>1</sup> Gastroenterohepatology Research Center (GEHRC), Shiraz university of Medical Sciences, Shiraz, Iran *Introduction:* Functional dyspepsia (FD) is the most common type of dyspepsia that implies when a complete diagnostic evaluation has been performed and obvious structural gastrointestinal disease has been excluded. Ghrelin which is a ligand of growth factor receptor is synthesized mostly in gastric mucosa. It has a wide range of function in gastrointestinal tract including motor activity, control of appetite and healing of mucosa. The level of ghrelin is increased pre-prandial and decreased postprandially. The aim of this study was to compare the change of serum ghrelin level at different times between patients with functional dyspepsia and control group and investigate if any differences observed between those two groups, maybe this hormone possibly has a role in inducing FD.

*Method:* 18 subjects with functional dyspepsia and 8 normal subjects as a control group were enrolled in this study. Blood samples were collected 5 times , 30 minutes before special breakfast, exactly before, 30,60 and 90 minutes after breakfast. Radioimmunoassay was done for determination of total ghrelin in serum.

**Results:** The mean age of patients and control group were  $33.3 \pm 9.8$  and  $24.7 \pm 1.2$  respectively. This difference was statistically significant. (p=0.022).

Serum level of ghrelin in the two groups under study, control and patients was checked. Ghrelin level 30

minutes after breakfast was significantly higher in patients compared to controls (751 vs. 576.9 p=0.033). Although compared to controls, patients had a higher mean of ghrelin at other times, only 30 minutes after breakfast the difference was significant. Also patients had a higher level of ghrelin at all times compared to controls, except 90 minutes after breakfast and shape of the curve was different in the patients and controls after 60 minutes of study.

Figure 1: Serum Ghrelin level in functional dyspeptic patients and control group



Group 1:Control Group 2:patients

*Conclusion:* Highest level of serum ghrelin in both group was 30 minutes pre-meal time. Then serum level of ghrelin decreased just before meal time until 30 minutes after meal time.after that the level of serum ghrelin increased. Although statistically significant differences of serum ghrelin level between two groups was only at 30 minutes after meal, but after 30 minutes till 90 minutes of serving breakfast, pattern of the curve which showed changing of serum ghrelin level in different times related to meal time was different between two groups as showed in figure 1. This time(30 till 90 minutes after meal) was the time that dyspeptic group became symptomatic . Different pattern of changes in serum ghrelin level in functional dyspeptic patients compared to normal control group in the time which dyspeptic group became symptomatic, open a new window of possibilities that Ghrelin as a hormone may have an important role in inducing symptoms in patients with functional dyspepsia. Send Date: 2011/08/18 Abstracts of Iranian Congress of Gastroenterology and Hepatology- 2011

### Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS 2.4 Reflux disease - pathogenesis W-F-026

### Correlation of quality of life with gastroesophageal reflux disease in Qashqai migrating nomads in Southern Iran

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Introduction: Gastroesophageal reflux disease (GERD) is one of the most common gastrointestinal diseases encountered in daily practice. GERD symptoms are troublesome and disrupt physical, social and emotional well-being of many patients. This cross-sectional study was carried out on Qashqai migrating nomads of Fars Province in southern Iran to determine how GERD affects their quality of life. Method: 748 subjects older than 25 years were interviewed to complete two questionnaires. One consisted of questions on gastroesophageal reflux symptoms. The second questionnaire was the Short Form Health Survey (SF-36). This generic healthrelated quality of life instrument consists of 36 items divided into eight dimensions. It has a 0- to 100-point scale where higher scores show better functioning and well-being.

**Results:** Of 748 Qashgai migrating nomads who participated in the study, 717 subjects completed the GERD questionnaire, while 371 subjects completed the SF-36 questionnaire. For all dimensions of SF-36, the mean score was consistently lower in patients with GERD when compared to non-GERD subjects (p<0.001). The dimension most frequently

impaired was role-physical (40.9 vs 77.3) followed by role-emotional (44.7 vs 77.5), physical functioning (66.9 vs 84.6), and general health (46.8 vs 63.8). Quality of life impairment was associated with the frequency (p<0.05) but not the severity of GERD. *Conclusion:* Health-related quality of life, as measured by SF-36, was significantly associated with presence of GERD in Qashqai migrating nomads of Fars province in southern Iran. All dimensions of SF-36 were meaningfully impaired in GERD patients in comparison with the non-GERD group.

Send Date: 2011/08/15

### Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS 2.5 Reflux disease-diagnosis

W-F-027

#### **Status of GERD in Iran**

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مقدمه: یدیده بازگشت محتویات آغشته به اسید از معده به مری (GERD) که در افراد سالم تنها پس از پرخوری شدید و یا خوردن غذاهای ناسازگار صورت می گیرد در بعضی به علت شل بودن دریچه میان مری و معده (LES) این پدیده به طور مکرر صورت گرفته و باعث سوختگی و زخم شدن مری می شود که در صورت تداوم بیشتر، این پدیده منجر به ایجاد زخم عمیق و تنگی مری و ضایعات Barrett's ونهایتاً سرطان مری می شود. نشانه های بالینی GERD در کشورهای غربی (آمریکاو شمال اروپا) تا حدود ۲۰٪ و در جنوب اروپا ۱۰ تا ۱۵٪ و در کشورهای آسیایی حدود ۵٪ گزارش شده است. در چند مطالعه ای که در ایران انجام شده است (از طريق مصاحبه تلفني ويارو دررو توسط افراد غير پزشک) شيوع باليني اين ناراحتی مورد توجه بوده است و آماری در حدود ۴۰٪ جمعیت گزارش شده است. از آنجا که حساسیت تشخیصی علائم بالینی GERD در حدود ۶۰٪ می باشد، تعیین شيوع علائم بالينى درمردم نمى تواند نشانگرواقعى آنچه كه درمرى مى گذرد باشد. بنابراین مطالعه GERD بدون مطالعه اندوسکوپی ناقص و گمراه کننده است. با توجه به این امر به منظور مطالعه کامل بالینی و اندوسکو پی بیماران مبتلا به GERD و جلوگیری از بروز و ثبت اختلاف نظر در مشاهدات بالینی و اندوسکو پیک به تنهایی مسئوليت انجام يژوهش را بعهده گرفت.

روش بررسی: بیمارانی را که توسط کادر آموزشی واحد بیماریهای گوارشی دانشگاه علوم پزشکی شیراز (بیمارستان نمازی و شهید فقیهی) در درمانگاه بیماریهای گوارشی دیده شده بودند و برای EGD آماده شده بودند مورد بررسی قرار داد. طی مدت ۹ ماه (خرداد تا اسفند ماه ۱۳۸۸)، ۶۷۳ بیمار سر پایی (۱۶ تا ۸۴ ساله) که برای ناراحتی های گوارشی به درمانگاه گوارش مراجعه کرده بودند، مورد مطالعه این تحقیق قرار گرفتند. از این تعداد ۳۶۵ بیمارزن با سن متوسط ۴۳ سال و ۲۰۸ بیمار مرد با سن متوسط ۴۶ سال بودند.

یافته ها: وجود علائم بالینی Heart burn and regurgitation) GERS) در گروه زنان ومردان یکسان و برابر ۳۰ ٪ بود ولی و جود زخمهای سطحی در زنان که علائم بالینی ترش کردن داشتند ۶/۹٪ و در زنانی که فاقد علائم بالینی بودند ۸/۰٪ بود. آسیب های مری در زنان همه خفیف و از جمله A و B طبقه بندی لوس آنجلس بودند. در مردان با علائم بالینی GERD زخم و آسیب ها عمیق ترو به طور واضح شایع تربود، ۲۰٪ در مردان با علائم بالینی و ۴٪ در مردان بدون علائم بالینی. **نتیجه گیری**:بنابراین تعداد قابل توجهی از زنان که علائم بالینی (GERS) داشتند در گروه DERD قرار می گیرند . شیوع بسیار کمتر Hiatal Hernia در گروه زنان نیز از یافته های بسیار جالب این تحقیق است که مورد بحث قرار خواهد گرفت دیز از یافته های بسیار جالب این تحقیق است که مورد بحث قرار خواهد گرفت Send Date: 2011/08/20

Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS 2.7 Reflux disease - complications W-F-028

Comparison of spirometric and oscilometric indices befor and after treatment of Gastroesophageal reflux disease in a group of patients with no respiratory symptoms Seyed Jalal Hashemi<sup>1\*</sup>, Esmaeil Eidani<sup>2</sup>, Masoomeh Hosaini askarabadi<sup>1</sup>

<sup>1</sup> GI ward, Ahvaz - Jondishapoor University

<sup>2</sup> pulmonology ward, Ahvaz - Jondishapoor University *Introduction:* Gastroesophageal reflux disese (GERD) is a common chronic condition that carries a risk of respiratory disorders including asthma . Anti reflux therapy appears to be useful is improvement of asthma symptoms and pulmonary functional tests.whoever the significant of respiratory abnormalities in patients without symptomatic asthma is a matter of debate .Oscilometry is an objective and sensitive tools for evaluation of airway resistance and may be abnormal in patients with normal spirometry . The main purpose of this study is comparison between spirometry and oscillometry results in GERD after and before treatment .

*Method:* This study performed on thirty patients with reflux esophagitis (16 person grad B and 14 person in grad A) Without any pulmonary symptoms . patients receive omeprazol 40 mg twice a day for 12 weeks . pulmonary function tests and oscillometry were performed before and after treatment . impulse oscillometry (IOS) performed by force oscillation

instrument (JAEGER – Germany) and total respiratory resistance (R5), proximal respiratory resistance (R20), resonant frequency (Fres), and distal capacitive reactance (X5) of each patient were recorded.

*Results:* All parents had a normal spirometric results , while; 50% of them had an increased resistant of air wayes according to oscillometric finding , 60% of patients with abnormal aiway resistance had class B or C of esophagitis and 40% had class A.

After treatment only 16.3% of patients had abnormal oscillometry (P=0.004) Inspite of normal value of pulmonary function tests (including FEV1, FVC, FEV1/FVC) and mean FEEF (25-75%) befor therapy . the results significantly increased after treatment.(p=0.001). There was no differences in respiratory responces between patient with mild or sever classes of esophagitis.

*Conclusion:* Abnormal airway resistance may be present in GERD pateints even when there is no obvious respiratory symptoms. Anti reflux therapy may improve pulmonary function tests, and oscillometry can be shown abnormality of baseline parameters better than spirometry

Send Date: 2011/07/22

# Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS

2.8 Esophageal malignant disease W-F-029

Demographic, Clinical Features and Treatment Outcomes in 700 Patients with Achalasia in Iran

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<sup>1</sup> Digestive Disease Research Center, Tehran university of Medical Sciences

*Introduction:* Achalasia is the most recognized motor disorder of the esophagus. Because it is not a common disease, there is little information about it. Here, we report demographic, clinical features and treatment outcomes in 700 patients with achalasia that were referred and managed in our center from 1994-2009.

*Method:* Diagnosis of achalasia was made according to patient's clinical, radiographic, endoscopic and manometric features. A questionnaire was filed for each patient, that included patients age, sex, first symptoms, frequency of different symptoms,

presence of familial cases of achalasia, other accompanying diseases and treatment outcomes.

**Results:** In our study men were affected more than women. (54.3% vs. 45.7%). Mean age was about 38 years. Most frequent symptoms were : dyphagia to solids , dysphagia to liquids , active regurgitation , passive regurgitation , and weight loss.

*Conclusion:* Major clinical and demographic features of achalasia in Iran are almost the same as in reports from other parts of the world, but contrary to some reports, we found it more prevalent in men and also chest pain was more frequent in women Send Date: 2011/07/13

### Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS 2.8 Esophageal malignant disease

W-F-030

### 4-year survival rate of esophageal cancer radiation therapy center

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*Introduction:* Esophageal cancer in Iran as the sixth most common cancer and third most common cancer is one in east Azerbaijan. The aim of this study was to define the prognostic factors in esophageal cancer patients using univariate and multivariate methods.

Method: In this study, all patients with esophageal cancer registered in the Radiation Therapy Center Imam Reza (AS), of Tabriz university of medical sciences; during March 21, 2006 to March 21, 2010 were analyzed. All patients were followed up and vital status. The probability curves for survival were calculated according to the Kaplan–Meier Method, then compared by the Log-rank test. Multivariate analysis was carried out using the Cox proportional hazard model.

*Results:* Out of 114 patients, survival data was obtained on 107 patients including 60 males (56/1

percent) and 47 women ( 43/9 percent).The mean survival time in patients 15 / 2 ± 34/28 (95% CI: 57/32-12/24) months, respectively. Kaplan- Meier method showed survival rates at 1, 2, 3 and 4 years old respectively 70, 53, 39 and 39 percent. In multivariate analysis using Cox regression model, tumor stage, chemoradiotherapy status and place of residence independent variables associated the survival of patients were identified.

*Conclusion:* These variables as the most important prognostic factors in esophageal cancer patients. Therefore, early detection of cancer using screening programs can improve survival in such patients. Send Date: 2011/07/20

### Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS 2.8 Esophageal malignant disease

W-F-031

### Molecular insights of esophageal squamous cell carcinoma in Iran

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*Introduction:* Golestan Province in Northeastern Iran has one of the highest incidence of Esophageal Squamous Cell Carcinoma (ESCC) in the world with rates over 50/100,000 person-years in both sexes. While the etiological role for some carcinogens such as polycyclic aromatic hydrocarbons (PAHs) has been already shown (Abedi-Ardekani et al, 2010), the

main carcinogen(s) have not been fully identified yet. This study was aimed to assess the molecular profile of ESCC in Golestan.

*Method:* 160 histopathologically confirmed mucosal biopsies of ESCC cases from Golestan Case-Control Study (GCCS) as part of group of collaborative studies so called GastroEsophageal Malignancies in Northern Iran (GEMINI)( methods: Nasrollahzadeh et al, 2008). with at least 70% of tumor cells were selected for TP53 mutation analysis of exons 2 through 11. The analysis was performed by direct sequencing of PCR products. The mutation results from Golestan were compared with other geographic areas using the IARC TP53 mutation database (http://www.iarc.fr/p53). All statistical analyses were conducted by Stata Version 11. Two-sided P < 0.05 was considered as statistically significant.

**Results:** DNA was successfully amplified for all TP53 coding exons in 119/160. The mean age of the recruited patients was  $65.5\pm11$  with an equal sex distribution (F=50.4%). 54.6% were Turkmen. 43.4% reported drinking tea 4 minutes or more and 16% in less than one minute after pouring tea (hot drinkers). Only 4.2% of patients reported ever using alcohol. The use of tobacco or opium products in various forms was reported by 43.7%, among whom 17.6% reported using both substances. The majority of the subjects (71.4%) were from rural areas.

TP53 mutations were confirmed in 107 patients (89.9%) including nine patients with two and two patients with three different mutations (total: 120 mutations). The most common mutation type was G:C to A:T transitions (38.3%), one third of them at CpG dinucleotides, followed by G:C to T:A transversions (16.7%). The majority of the mutations (84.2%) were detected in exons 5-8.

Less than 10% of the mutations (7.5%) occurred at "hotspot" TP53 codons (codons 175, 245, 273 and 282 where 20% of known TP53 mutations occur in all cancers). Among the G:C to T:A mutations, 40% occurred at codons previously described as sites of PAH adduct formation which are commonly mutated in lung cancer of smokers.

A significant difference between the proportion of transition mutations at CpG dinucleotides (P=00.2). was found between Tehran (Sepeher et al, 2001; Biramijamal et al, 2001) and Golestan The overall pat-

tern of mutations in ESCC from Golestan was not statistically different from Henan Province (China).

Mutation types showed differences according to the temperature of tea consumption, with G:C to A:T mutations at CpG sites and Wild-type TP53 being significantly more common among hot tea drinkers (adjusted OR: 6.40, 95% CI, 1.16-35.16 and OR: 6.27, 95% CI, 1.04-37.69; respectively), suggesting an association between the temperature (and/or composition) of tea consumption and the presence and types of TP53 mutation.

*Conclusion:* ESCC tumors in people from Golestan Province show the highest rate of TP53 mutations ever reported in any cancer anywhere with a significantly different pattern from Tehran and closer to China. The heterogeneous mutation pattern is highly suggestive of a causative rolefor multiple environmental carcinogens, including PAHs. The temperature and composition of tea may also influence mutagenesis.

Send Date: 2011/08/01

### Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS

W-F-032

موضوع : ۲. ۸ بیماریهای بدخیم مری

گزارش فاز اول کوهورت ۵۰٬۰۰۰ نفری گلستان

الهام جعفری، اکرم پورشمس <sup>،</sup> هومن خادمی <sup>،</sup> ملیر ضا سجادی<sup>، \*</sup> ، اکبر فاضل تبار ملکشاه <sup>۳</sup>، گوهر شاد گوگلانی<sup>۳</sup>، رضا ملک زاده<sup>\*</sup> <sup>ا</sup>دانشیار ، مرکز تحقیقات گوارش و کبد، دانشگاه علوم پزشکی تهران ، ایران آیژوهشگر ، مرکز تحقیقات گوارش و کبد، دانشگاه علوم پزشکی تهران ، ایران

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<sup>†</sup>استاد، مرکز تحقیقات گوارش و کبد، دانشگاه علوم پزشکی تهران، ایران مقدمه : سرطان سلول سنگفرشی مری در شرق گلستان یکی از بالاترین میزان های بروز رادر جهان دارا می باشد. برای شناسایی علل آن مطالعات مقطعی ومورد - شاهدی متعددی انجام شده است. با توجه به برتری مطالعات کوهورت (همگروهی) برای شناسایی عوامل خطر ساز بیماری ها، اجرای یک مطالعه کوهورت آینده نگر با پیگیری ده ساله مورد توجه قرار گرفت.

**روش کار** : ۶۸۰۲۴نفر از ساکنان شرق استان گلستان در محدوده سنی ۷۵–۴۰ سال به مطالعه دعوت شدند. در روستاها تمام افراد و در شهر گنبد به طور تصادفی، به روش خوشه ای سیستماتیک بر اساس شماره خانوار ، انتخاب شدند.

**یافته ها:** جمعاً ۵۰۰۴۵ نفر مراجعه کردند که ۲۱۲۴۱ نفر مرد (۴۲٪) و ۲۸۸۰۴ نفرزن (۵۸٪) بودند. میانگین سنی افراد مراجعه کننده ۹/۱± ۵۲/۱۲ سال و ۲۳/۹٪ آنان شهری و ۷/۶۷٪ روستایی بودند. **نتیجه گیری**: شرق استان گلستان هنوز از مناطق بروز بالای سرطان سلول سنگفرشی مری در جهان به شمار می رود. انجام مطالعه کوهورت بلند مدت ده ساله به کاهش بروز این بیماری از طریق شناخت وکنترل عوامل خطر ساز آن کمک می نماید.

تاریخ ارسال : ۱۲/۰۴/۱۳۹۰

#### Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS

2.9 Other esophageal disorders

### W-F-033

### Ethanolamine oleate in resistant idiopathic achalasia: A novel therapy

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Introduction: Idiopathic achalasia (IA) is a chronic disease without definite therapy. Ethanolamine oleate (EO) has multiple biological effects, including inflammatory activities. We investigated the efficacy of EO injection in selected patients with IA.

Method: 136 patients with IA evaluated prospectively. We evaluated the efficacy of EO injection in 13 patients with IA that are resistant to or poor candidate of pneumatic balloon dilation and/or cardiomyotomy at the Digestive Disease Research Center, Shariati Hospital, Tehran, as the major referral center for achalasia in Iran in an interventional study. Diluted EO was injected in divided dose into each of four quadrants of lower esophageal sphincter, using a standard sclerotherapy needle. Injection was repeated at two and four weeks after first injection. The patients were evaluated with achalasia symptom score (ASS) and timed barium esophagogram (TBE) before and after injections. Good response was defined as decrease in ASS  $\geq$  50% of baseline and decrease in height and volume of barium  $\geq 50\%$  of baseline in TBE, at 1.5 months after last injection. Any side effects were recorded.

Results: All patients (13 cases) had good ASS (decreased > 50%) and good TBE (decreased in height and volume of barium > 50%) response rate.Mean ASS decreased from  $11.38 (\pm 1.5)$  to 3.23 $(\pm 1.96)$  at 1.5 months after last injection (p=0.001). Mean volume of barium in TBE decreased from 81.38 (±51.11) ml to 40.69 (±61.22) ml at 1.5 months after last injection (P=0.016). The mean duration of follow up was 17.83 ( $\pm$ 1.12) months. Relapse was occurred in 6 patients, all successfully was treated by one re-injection.

Conclusion: This study indicates that EO is well tolerated and potentially effective in patients with IA that might be explained by the local inflammatory properties of EO. Since presented data are too preliminary to support the routine use of EO in the treatment of all patients with IA, its use in selected cases can be considered. Send Date: 2011/07/13

#### Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS

2.10 Acid peptic disease (includes NSAIDS - but NOT H.pylori)-epid emiology W-F-034

### Comparison of continuous infusion of Pantoprazole versus oral Omprazole for prevention of ulcer rebleeding

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Introduction: PPIs have a prolonged and significant effect on gastric acidity therefore; represent a rational choice for prevention of ulcer rebleeding. After endoscopic homeostasis in patients with peptic ulcer bleeding, rebleeding occurs in 20% of patients. Rebleeding remains the most important determinant of clinical outcomes and prognosis. We designed a trial comparing of continuous infusion of Pantoprazole versus oral Omprazole for prevention of ulcer rebleeding.

Method: 94 cases with GI bleeding due to duodenal or gastric ulcer with major sign of recent bleeding were treated with epinephrine injection and electroquagulation. Inclusion criteria were patients with active bleeding ulcer, visible vessel ulcer, adhesion clot ulcer. After homeostasis was achieved, they were randomly assigned to receive intravenous Pantaperazole (80 mg intravenous bolus followed by an infusion at a rate of 8 mg per hour) or oral Omeprazole (80mg Po initially and followed by 80mg BID) for 72 h.The primary end-point was the rate of rebleeding and outcomes.

**Results:** There were no statistically significant differences between the groups in rebleeding rate (p=0.21) transfusion requirement (p=0.26), Hospital days (p=0.24), mortality (p=1), but there were significant differences between the groups with regard to the need for emergency surgery (p=0.04).

*Conclusion:* Infusion Pantoperazol is not superior to oral Omeprazol as an adjunct treatment to endoscopic injection therapy in high-risk bleeding ulcers. Send Date: 2011/07/21

Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS

2.12 Acid peptic disease (includes NSAIDS - but NOT H.pylori)- diagnosis and treatment W-F-035

### The Value of Stool Antigen Test, Urea Breath Test, Rapid Urease Test, Serology, and Histology in Diagnosis of Helicobacter Pylori Infection

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*Introduction:* The purpose of this study was to compare the validity of five diagnostic tests of helicobacter pylori including stool antigen test (SAT), urea breath test (UBT), rapid urease test (RUT), serology, and histology.

*Method:* A total of 94 patients who had indication of endoscopy were entered into the study and the five tests performed for each patient. When the results of at least two tests (except serology) were positive, helicobacter pylori infection was considered to be positive. The sensitivity, specificity, positive predictive value, negative predictive value, accuracy, and area under Receiver Operating Characteristic Curve of these five tests was determined.

*Results:* The sensitivity, specificity, positive predictive value, negative predictive value, accuracy, and area under Receiver Operating Characteristic Curve of the tests were as below respectively: SAT: 96%, 83%,

98%, 96%, 91%, 0.897; ; UBT: 89%, 73%, 92%, 90%, 82%, 0.892; RUT: 93%, 75%, 95%, 94%, 86%, 0.831; Histology: 89%, 78%, 93%, 91%, 85%, 0.881; Serology: 50%, 54%, 46%, 61%, 52%, 0.563.

*Conclusion:* Stool antigen test is the most accurate test for helicobacter pylori infection diagnosis before eradication of this bacteria. Send Date: 2011/08/05

Category: 2.13 Gastroduodenal malignancies W-F-036

#### بقاء بیماران مبتلا به سرطان معده

دکتر مرتضی قوجازاده'\* ، دکتر محمد حسین صومی ۲ ، دکتر علی اصغر پوری ۲

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مرحر - سیاح بیادریه ی تورین و بانا مساعا عو (پرسای بریز مقدمه: سرطان معده بعلت وضعیت خاص آناتومیك خود هم دیر علامت می دهد و هم زود به ارگانهای مجاور دور و نزدیك خود دست اندازی می كند و این دو امر مهم موجب گردیده كه بیماران در مراحل پیشرفته خود مراجعه كنند. با توجه به شیوع نسبتاً بالای سرطان معده و بقای كم، هدف از مطالعه حاضر بررسی میزان بقادر بیماران مبتلا به سرطان معده می باشد.

روش بررسی: در این پژوهش کلیه بیماران مبتلا به سرطان معده ثبت شده در مرکز ثبت تومور استان آذربایجان شرقی در فاصله سالهای ۸۹- ۸۷ بررسی و اطلاعات مربوطه استخراج گردید. آخرین وضعیت سلامت بیماران از طریق بازخوانی پرونده بیماران و یا پیگیری تلفنی انجام گرفت. برای تحلیل داده ها از روش کایلان مایر و مدل وایبل استفاده گردید.

یافته ها: میانگین سنی افراد مبتلا ۱۱/۵۳ ± ۱۹/۸۳ سال بود. حدود ۲۲ ٪ بیماران مرد بودند. از بین علائم (شکایت) بیماران درد اپی گاستر با ۶۲ ٪ ، کاهش وزن با ۶۹ ٪ و بی اشتهائی با ۵۱ ٪ شایع ترین علائم بیماران و آسیت با ۹ ٪ و لنفادنو پاتی با ۵ ٪ نادرترین علائم بیماران بودند. از نظر محل تومور آنتر ۲۵ ٪ کاردیا ۴۵ ٪ و انحنای کوچك با ۲۰ ٪ بیشترین محل درگیری و انحنای بزرگ با ۹ ٪ و مادان و توع ۸/۵ ٪ کمترین درگیری را نشان می دادند. از نظر هیستولوژی ۳۶ ٪ موارد از نوع روده ای و ۲۹ ٪ موارد از نوع منتشر بودند. بقا یکساله ۴۲ ٪، سه ساله و پنج ساله به ترتیب ۷۱ و ۱۰ ٪ بود. میانه طول عمر بیماران ۱۵/۸ ماه بود

**نتیجه گیری**: بقا بیماران بسیار پایین بوده و ارائه آموز شهای لازم جهت مراجعه سریع بیماران پیشنهاد می گردد

Send Date: 2011/07/22

### Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS

2.13 Gastroduodenal malignancies

W-F-037

Peer review of gastric cancer in Iran

Abstracts of Iranian Congress of Gastroenterology and Hepatology- 2011

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Introduction: In Iran gastric cancer is the most common cancer in male and it is reported to be the third cancer after Breast and Colorectal cancers in female .The incidence of gastric cancer in Iran is 14.5 cases/100,000 population in men and 8.2/100,000 in women. Mean age at diagnosis is 52.5 years.

Method: Gastric cancer is the second leading cause of cancer deaths in men and the third in women. The relatively high rate of gastric cancer in Iran appears to be mainly due to dietary factors, and there are etiologic and epidemiologic differences among regions of the country.

**Results:** Although type of surgical resection may vary from center to center, D2 dissection is increasingly preferred in experienced clinics, with an associated mortality of about 5.2%.

Conclusion: Adjuvant chemoradiotherapy is widely used. Few chemotherapy regimens are used in advanced disease. Gastric cancer remains an important public health problem in Iran. With the adoption of healthier dietary practices and screening programs in endemic areas, the mortality from gastric cancer is expected to decrease. Send Date: 2011/07/22

Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS 2.13 Gastroduodenal malignancies W-F-038

بررسي وضعيت افسردگي و اضطراب در بيماران مبتلا به سرطان معده

مرتضى قوجازاده'\*، محمد حسين صومى ، على اصغر پورى

ٰ کروہ فیزیولوژی دانشکدہ پزشکی، دانشگاہ علوم پزشکی تبریز ً مرکز تحقیقات بیماریهای گوارش و کبد، دانشگاه علوم پزشکی تبریز مقدمه:افسردگی و اضطراب بر وضعیت عملکرد، کیفیت زندگی، مدت بستری و حتى پيامدهاى درمانى بيماران مبتلابه سرطان معده تاثير منفى دارد وارزيابى و درمان این دو اختلال در این بیماران حایز اهمیت است. این پژوهش با هدف ارزیابی افسردگی و اضطراب در بیماران مبتلا به سرطان معده انجام شد.

روش بررسی: دریک مطالعه مقطعی به منظور ارزیابی اضطراب وافسر دگی در ۸۷ بیمار بسترىمبتلابهسرطان معده درمركز آموزشى ـ درماني امام رضا تبريز درسال ١٣٨٩ انجام شد. برای ارزیابی افسردگی و اضطراب به ترتیب از آزمون افسردگی بک و آزمون خودسنجی اضطراب زونگ استفاده شد. داده ها با استفاده از آزمون رابطه مجذور کای وبااستفادهاز نرم افزار SPSS.17 مورد بررسی قرار گرفت.

**یافته ها**: فراوانی اضطراب و افسردگی در این بیماران به ترتیب ۲۶.۷ درصد و ۴۷ درصد بود. اضطراب وافسر دگی در زنان و در گروه سنی ۴۵ تا ۵۵ ساله فراوانی بالاتری داشت. نتیجه گیری: فراوانی اضطراب و افسردگی در بیماران مبتلا به سرطان معده بالا بودلذا لازم است در کنار درمان های روتین ، مداخلات خاص روانی جهت بهبود وضعیت روانی نیز بر این بیماران انجام بگیرد.

Send Date: 2011/07/30

#### Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS

2.13 Gastroduodenal malignancies W-F-039

### **Establishment of a Population-Based Registry of Premalignant Gastric Lesions** in Shiraz University of Medical Sciences from 2006 to 2011

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Introduction: A Population-Based Registry covers all residents in a given geographic area within a given time period. It intends to include all with the disease in the population. Even if it fails to include "all" cases, intention rather than performance defines the term. Gastric cancer is usually diagnosed in an incurable stage and premalignant changes are well-known risk factors for it, though the aim of establishing a population-based registry is to build a reliable data source which will be of considerable help to find a way for early diagnosis, better management and follow-up of premalignant lesions that hopefully decrease progression to gastric cancer.

Method: Registry is managed by Gastroenterohepatology Research Center (GEHRC) at Shiraz University of Medical Sciences. A governing committee consists of a head, 2 other faculty members and an appointed

manager who are responsible for decisions regarding budget allocations and other purposes. The geographic area is all pathologic lab and clinics affiliated to Shiraz University of Medical Sciences. The designed questionnaire includes a consent form, basic history data, nutritional history data, risk factors, related procedures, medical therapy, and follow-up data. Establishment process has two parallel setting phases. In the first phase all recorded pathology data as any of gastric premalignant lesions in defined pathologic laboratories is collected from 2006 to 2011. Then the collectors contact patients and ask for an appointment. In the interview the questionnaire is completed and blood samples are taken. The gathered data are entered in the designed and computerized data base. Two blood samples which is extracted DNA are kept in -70 while four others is kept in -20°. In the second phase, all patients with gastric premalignant lesions who referred to defined clinics are referred to the registry office to fill the questionnaire and ask to do another endosopy as follow-up next year.

**Results:** The premalignant gastric lesion registry of Shiraz University of Medical Sciences has started to register patients with premalignant gastric lesions. Till now approximately 95 patients have been registered. Conclusion: It is hoped that establishment of population-based registry of premalignant gastric lesions help to determine the incidence, prevalence, demographic characters and causes of morbidity and mortality ,to facilitate future researches aimed to identify etiology, new management and treatment options, to monitor the time trends and the course of premalignant gastric lesions until developing cancer, to evaluate whether the surveillance practice of patients with these premalignant lesions matches their cancer risk and to investigate the progression and regression of these premalignant lesions that all can be used to devise a definite follow-up model for these patients.

Send Date: 2011/08/16

Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS 2.13 Gastroduodenal malignancies W-F-040

### The correlation between tissue expression of vascular endothelial growth factor (VEGF) and angiogenic marker CD34 in Gastric Adenocarcinoma

Ezzat Haj Mola Rezaee<sup>1\*</sup>, Kamran Ghaffarzadehgan<sup>2</sup>, Hanieh Hosseinnezhad<sup>3</sup>, Hamid Reza Sima<sup>4</sup>, Sepideh Ghadri<sup>5</sup>, Mohammd Naser Forghani<sup>6</sup>, Tahoora

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*Introduction:* As a major worldwide cause of morbidity and cancer-related deaths, gastric cancer needs molecular-based approaches for predicting clinical outcome and guiding treatment strategies. CD34 is a glycoprotein which present in the vascular endothelium is a new biomarker for the evaluation of angiogenesis quantification and tumor development. CD34 were supposed to have relationship with the others angiogenic markers like vascular endothelial growth factor (VEGF).We aimed to investigate the

correlation of CD34 and VEGF tissue expression in gastric adenocarcinoma and their relationship with clinicopathological features.

*Method:* Thirty-two patients with gastric adenocarcinoma who had undergone gastrectomy at Mashhad university hospitals were enrolled. Clinicopathological and epidemiological characteristics were reviewed. CD34 and VEGF were assessed using immunohistochemical staining. Data were analyzed by SPSS software.

**Results:** VEGF and CD34 were positive in all and 26 (81.2%) of patients, respectively., With regard to tumor subtypes classification, the tissue expression of VEGF and CD34 were reported in 72% and 77% of intestinal type and 28% and 23% of diffuse type tumors, respectively. No significant relationship was shown between age, gender, stage and location of tumor with expression of CD34 and VEGF, although there was a significant correlation between expression of VEGF and grade (p=0.008). We failed to find a significant correlation between tissue expression of CD34 and VEGF in Gastric Adenocarcinoma.

*Conclusion:* Tissue expression of VEGF may be helpful in predicting the malignant behavior of gastric adenocarcinoma. Further studies are needed to confirm any relationship between CD-34 and VEGF in this area.

Send Date: 2011/08/19

Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS 2.13 Gastroduodenal malignancies W-F-041

### Serum IL-18 correlates with serum VEGF in gastric carcinogenesis and they may be utilized in early diagnosis of gastric adenocarcinoma

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*Introduction:* As a pro-inflammatory cytokine, IL-18 is an important mediator in chronic gastritis. The role of IL-18 in gastric cancer is controversial and dual; anti-cancer effects by immune cell stimulation and pro-cancerous effects by induction of invasion, migration and metastasis of tumor cells and also angiogenesis. IL-18 may cause cancer cells to escape from immune system by regulating the expression of some markers such as vascular endothelial growth factor (VEGF). This study was aimed to investigate the correlation of serum level of IL-18 and VEGF in patients with normal mucosa, precancerous lesions and intestinal type adenocarcinoma.

Method: Fifty-eight non-tumoral patients with normal gastric mucosa (n=10), chronic H.pyloriassociated gastritis (n=33), atrophic gastritis and metaplasia (n=12) and low dysplasia (n=3) plus 41 patients with intestinal-type were included. Clinicopathological and epidemiological characteristics were reviewed. The serum level of IL-18 and VEGF were assessed using ELISA. Data were analyzed by SPSS (Version 16) at the significant level of p<0.05. Results: Serum level of IL-18 and VEGF were significantly higher in adenocarcinoma in comparison with non-tumoral (p = 0.04 and p = 0.02, respectively). An overall increasing pattern was seen in the serum level of both IL-18 and VEGF from mild gastritis to adenocarcinoma. (p = 0.03 and p = 0.05, respectively). A significant correlation was observed between increasing level of serum IL-18 and VEGF in different steps from normal mucosa to adenocarcinoma (p =0.01, Pearson correlation=0.23).

*Conclusion:* Serum level of IL-18 correlates with serum VEGF in gastric carcinogenesis and they may be utilized in early diagnosis of gastric adenocarcinoma. Further studies may assess diagnostic value of IL-18 and VEGF gene expression in this area. Send Date: 2011/08/19

Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS

2.13 Gastroduodenal malignancies

W-F-042

IL-18 607C/A gene polymorphism might be utilized as a useful biomarker in diagnosis of gastric adenocarcinoma

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*Introduction:* Gastric cancer is the second leading cause of cancer-related death worldwide and the most

common gastrointestinal cancer in Iran. IL-18 plays an important role in chronic gastritis; however its role in gastric cancer is controversial and dual; anti-cancer effects by immune cell stimulation and pro-cancerous effects by induction of invasion, migration and metastasis of tumor cells and also angiogenesis. We aimed to assess the IL18 607C/A and IL18 137G/C gene polymorphism in patients with gastric adenocarcinoma and non-tumoral individuals as well as its relation with histological grade and tumor stage. Method: One hundred and sixty-seven cases including 71 patients with gastric adenocarcinoma that had undergone gastrectomy and 97 non-tumoral individuals in which gastric cancer was ruled out by gastroscopy and biopsy were enrolled. Demographic and epidemiological characteristics and patient survival data were reviewed. Histological type and grade and tumor stage (TNM) were determined by single expert GI pathologist. H pylori infection status IL18 607C/A and IL18 137G/C gene polymorphism were assessed by ELISA and Arms-PCR, respectively. Data were analyzed using SPSS software version 16.

**Results:** Patient with gastric adenocarcinoma expressed significantly more IL18 607C/A gene comparing with non-tumoral group (p =0.002). No significant difference was found in IL18 137G/C gene expression between patient with gastric adenocarcinoma and control group (p=0.6). There were no significant relationship between IL18 607C/A and IL18 137G/C gene expression and histological grade and T and N stage of tumor.

*Conclusion:* IL18 607C/A gene polymorphism might be utilized as a useful biomarker in diagnosis of gastric adenocarcinoma. Further studies are needed to show any potential role of these biomarkers in prediction of tumor behavior and patients prognosis. Send Date: 2011/08/19

Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS

2.13 Gastroduodenal malignancies W-F-043

Tissue expression of Fas (Apo1/CD95) might be utilized as a predictor of tumor behavior in gastric adenocarcinoma Samaneh Boroumand Noghabi<sup>1\*</sup>, Kamran Ghaffarzadehgan<sup>2</sup>, Reyhaneh Zoghian<sup>3</sup>, Hamid Reza Sima<sup>4</sup>, Hanieh Hosseinnezhad<sup>3</sup>, Jalil Tavakol Afshari<sup>5</sup>, Vahideh Hosseinzadeh<sup>6</sup>, Hamid Reza Raziee<sup>7</sup>, Mostafa Jafarzadeh<sup>8</sup>, Elahe Andakhshideh<sup>6</sup>, Masoud Sajjadi<sup>6</sup>

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*Introduction:* As a member of TNF-family receptors, Fas (Apo1/CD95) and its ligand (FasL) play critical roles in apoptosis as well as immune system-tumor counter attack. Although, Fas/FasL tissue expression has been shown to have a prognostic impact in some malignancies, there are conflicting reports about the correlation of their expression and gastric cancer behavior. We aimed to evaluate the relations between tissue expressions of these molecules and clinicopathological characteristics of patients with gastric adenocarcinoma.

*Method:* Thirty newly diagnosed cases of gastric adenocarcinoma who had undergone gasterectomy at Mashhad University of Medical sciences hospitals were enrolled. Clinical and pathological characteristics were reviewed. Fas and FasL tissue expression in paraffin-embedded tumor specimens were measured by Immunohistochemical staining. Data was analyzed using SPSS version 17.

**Results:** Nineteen patients (63%) were male with mean age of 62.5. 19 patients (63%) did not express Fas while 23 patients (79.3%) expressed FasL. Diffuse type gastric cancers expressed Fas less than intestinal type (p=0.049). Fas expression was lower in high-stage tumors (p =0.038) and tumors with lymph node metastasis (p =0.004). There were no significant relation between Fas expression and tumor grade, location (cardia/non cardia) and history of H.pylori infection. FasL expression had no relation with any of the studied variables.

*Conclusion:* Tissue expression of Fas might be utilized as a predictor of tumor behavior in gastric adenocarcinoma. Further studies with larger sample size are needed to confirm this idea. Send Date: 2011/08/19

Category: 2 ESOPHAGEAL-GASTRIC AND DUODENAL DISORDERS

2.13 Gastroduodenal malignancies

W-F-044

### Serum CCL5/RANTES level might be utilized as a predictive marker of tumor behavior and prognosis in patients with gastric adenocarcinoma

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*Introduction:* Gastric cancer is the second leading cause of cancer-related death worldwide and the most common gastrointestinal cancer in Iran. CCL5/RANTES is one of the most potent angiogenic factors, and plays an important role in tumor growth, invasion, and metastasis. We aimed to assess the CCL5 serum level in patients with gastric adenocarcinoma and its relation with histological grade and tumor stage as well as the disease prognosis.

*Method:* Seventy-four patients with gastric adenocarcinoma that had undergone gastrectomy and 96 non-tumoral individuals in which gastric cancer was ruled out by gastroscopy and biopsy were enrolled. Demographic and epidemiological characteristics and patient survival data were reviewed. Histological type and grade and tumor stage (TNM) were determined by single expert GI pathologist. H pylori infection status and CCL5 serum level were assessed by ELISA. Data were analyzed using SPSS software version 16.

**Results:** Patient with gastric adenocarcinoma had significantly higher serum CCL5 level comparing with control group (p<0.001). Higher CCL5 serum levels were associated with lower histological differentiation (p<0.001), higher depth of tumor invasion (p=0.022), more frequent nodes involvement (p=0.028). Overall survival of patients with CCL5 levels above 70671 pg/ml was significantly lower than those with lover values than this cut-off (p=0.043).

*Conclusion:* Serum CCL5 levels might be utilized as a predictive marker of tumor behavior and patient prognosis. Further studies are suggested to assess tissue expression of CCL5 receptors and its gene polymorphisms. Send Date: 2011/08/19 Category: 3 H.PYLORI 3.2 Pathogenesis: microbial factors W-F-045

### Relation between serum leptin and helicobacter pylori infection in patients with dyspepsia

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*Introduction:* Relationship between leptin and some gastrointestinal (GI) diseases have been proved during recent years. This study was conducted to assess the relationship between serum leptin level and Helicobacter pylori (HP) infection in patients with dyspepsia.

*Method:* The study population included patients with dyspepsia that fulfilled the ROM II criteria and did not have any abnormal finding on endoscopic evaluation. After recording demographic data, a biopsy was taken from the stomach for assessing HP infection and blood samples were taken for measuring leptin serum level via ELISA method.

**Results:** Totally, 153 patiens were recruited. Mean age of participants was 43.12 (24-96) years. There was a significant positive relationship between age and serum leptin level (p=0.03). The mean level of serum leptin was higher in females comparing to males (p=0.03). The results of univariate and multivariate analysis showed that serum leptin level was significantly lower in HP positive patients than HP negative ones (p<0.001).

*Conclusion:* Our findings confirm the result of some previous studies suggesting HP infection may reduce serum leptin level. Reducing body fat mass due to worsening of symptoms by eating which compels the patient not to eat and releasing cytokines from the injured gastric epithelium are possible explanations of this effect. Determination of the exact relationship between these variables in future studies may reveal newer aspects of their roles in physiology and pathogenesis of GI diseases.

Send Date: 2011/07/28

### Category: 3 H.PYLORI

3.4 Diagnosis

### W-F-046

### Does Helicobacter pylori eradication in patients with duodenal ulcer need a diagnostic test?

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*Introduction:* The damage caused by Helicobacter pylori infection and NSAIDs accounts for most cases of duodenal ulcers (DU). Treatment of Helicobacter pylori infection reduces the recurrence of DU cases to a large extent, and if the infection is left untreated, the natural trend of DU occurs in the form of recurrences. During the past recent years, the prevalence of H. pylori in the community and its consequent role in causing DU has reduced. The purpose of the present study is to investigate the role of this factor in causing DU, and determine, on prevalence basis, whether H. pylori can be treated in DU cases without any diagnostic test.

*Method:* The present study was conducted in 2008-2009 and the subjects who underwent endoscopies for DU diagnosis were studied for H. pylori by means both RUT and histopathology procedures, and if the results of both were positive, the patients were considered as infected with Helicobacter pylori. The patients were asked about NSAID/ASA use, whereby taking one dose of NSAID/ASA during the month preceding the study was considered as intake.

**Results:** 127 subjects were investigated in this study of which 53 (41.7%) were female and 74 (58.3% were male). The mean age of the subjects was  $41.39\pm15.359$ . Of the 127 patients, there were 80 (62.99%) in whom only H. pylori was the cause of DU, 4 (3.15%) who only had a history of NSAID/ASA use, 37 (29.1%) in whom both factors played a role, and 6 (4.72%) in whom both factors were negative.

Altogether, in 117 (92.1%) of the patients the result

was H. pylori positive. There was no significant difference between the rate of H. pylori prevalence among the persons who had and did not have a history of NSAID/ASA use.

*Conclusion:* Given the high prevalence of Helicobacter pylori in patients with DU in Ghom Province, Iran, whether such patients had a history of NSAID/ASA use or not, this study showed that DU patients can receive empirical therapy for H. pylori. Send Date: 2011/07/17

Category: 3 H.PYLORI 3.4 Diagnosis W-F-047

### Accuracy of diagnostic tests for Helicobacter Pylori infection

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*Introduction:* The diagnosis of Helicobacter pylori infection has been made through invasive and non-invasive methods. The present study was carried out to evaluate and compare the accuracy of three non-invasive and one invasive methods of H.pylori infection diagnosis.

*Method:* A total of 108 dyspeptic patients older than 12 years old who were not previously treated for H.pylori infection, were selected to undergo upper GI- endoscopy. Histology was considered as a gold standard diagnostic test. Urea breath test and Biopsy-based tests included histologic examination and rapid urease test were done in endoscopic unit. Serology and stool antigen detection test were done elsewhere using ELISA method. Sensitivity, specificity, positive and negative predictive value were calculated. The tests' results were assessed by McNemar test.

*Results:* According to histologic method 56 patients had H.pylori infection. Sensitivity and specificity was 89% and 71% for the rapid urease test, 94% and

52% for serology, 90% and 82% for the urea breath test, and 46% and 80%, respectively, for the stool antigen test. Rapid urease test and urea breath test, if done in combination together had the most diagnostic accuracy.

*Conclusion:* Rapid urease test and urea breath test in combination together showed acceptable diagnostic reliability.

Send Date: 2011/08/01

Category: 3 H.PYLORI 3.4 Diagnosis W-F-048

### survey on results of helicobacter stool antigen test with pathologic achievements in children with peptic disease

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*Introduction:* Helicobacter pylori had been proposed as an effective factor in peptic diseases in past decades. This agent has a strong role in pathogenesis of chronic gastritis and peptic ulcer; therefore introducing simple and cost effective tests are important for diagnosis of H.pylori infection .We measure the sensivity, specifity, positive and negative predictive value of stool antigen test in children infected with H.pylori.

*Method:* In a cross sectional survey during 1 year,96 patients with abdominal pain referred to gastrointstinal clinic in 17- shahrivar hospital in Rasht from April 2009 to march 2009.1 had been studied . Stool antigen test and endoscopy was performed for all patients in same laboratories .Other data had been collected and entered in SPSS software for analysis.

**Results:** Among 96 patients ,52.1%(50 cases)were boys and 47.9%(46 cases) Were girls.Stool antigen test result was positive in 34 subjects(35.4%)was negative in 62 subjects(64.6%).On the other hand only 33 children (34.4%)had positive pathology results according to H.pylori infection .Sensivity, specifity,positive and negative predictive value of stool antigen test were 72.72%, 84.12%, 70.5%, 85.4% respectively.

*Conclusion:* According to negative predictive value of this test ;we can make this decision that if the test result become negative , in 85.4% of cases the infection will be rules out. Send Date: 2011/08/05

Category: 3 H.PYLORI

3.5 Management strategies W-F-049

### Detection of A2142C, A2142G, and A2143G Mutations in 23s rRNA Gene Conferring

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*Introduction:* Clarithromycin resistance in Helicbacter pylori has been found to be associated with point mutations in 23s rRNA gene leads to reduced affinity of the antibiotic to its ribosomal target or changing the site of methylation. The aim of this study was to determine the most important point mutations in 23s rRNA gene in H. pylori that are closely related to clarithromycin resistance among such isolates.

*Method:* Sixty three H. pylori isolates, obtained from gastric biopsy speciemens in Kerman, Iran, were used to evaluate their susceptibility to clarithromycin by disk diffusion test, and to detect the most common point mutations in 23s rRNA gene associated with clarithromycin resistance by Polymerase chain reaction-amplification and restriction fragment length polymorphism (PCR-RFLP) and 3'-mismatch PCR.

*Results:* 31.7% of the H. pylori isolates were resistant to clarithromycin, and each of the resistant isolate had at least one of the most common point mutations in 23s rRNA gene associated with calrithromycin resistance.

*Conclusion:* According to our results three common point mutation in 23s rRNA gene in H. pylori are closely related to clarithromycin resistance. There was an absolute relation between 23s rRNA gene point mutations and clarithromycin resistance in this study. Helicbacter pylori resistance to clarithromycin can cause failure in the eradications of the bacteria. The resistance of the bacteria is expanding in most parts of the world including Iran. Send Date: 2011/05/25 Category: 3 H.PYLORI 3.5 Management strategies

W-F-050

Comparison of helicobacter pylori eradication rate with four different quadruple regimens in dyspeptic patients.

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*Introduction:* Helicobacter pylori (HP) was discovered long time ago, but it has only been in the past several years that the diagnosis and treatment of this organism has gained wide acceptance. The optimal regimen should have high efficacy, tolerable side effects, simple dosage and should be economical. Intensive efforts are being made to identify such an optimal regimen, but there are many obstacles hindering the achievement of this goal. This study aimed at comparing the rate of HP eradication with 4 quadruple regimens in dyspeptic patients.

*Method:* In this open-label randomized clinical trial, 270 patients with positive rapid urease test result were randomized in these four groups: the group "A" who received omeprazole+amoxicillin+bismuth subcitrate+clarithromycin for 2 weeks (73 patients); the group 'B" who received omeprazole+tetracy-cline+bismuth subcitrate+metronidazole for 2 weeks (46 patients); the group "C" who received om eprazole+amoxicillin+bismuth subcitrate+furazolidone for 2 weeks (64 patients); and the group "D" who received omeprazole+amoxicillin+bismuth subcitrate+furazolidone/metronidazole interchange-ably each one for one week (87 patients). Six-week after treatment halt, the compliance, eradication and complication rates were evaluated in each group.

**Results:** The compliance was "complete", 'good" or "poor" in 83.6%, 11% and 5.5% in group A, 87%, 6.5% and 6.5% in group B, 90.6%, 4.7% and 4.7% in group C, and 86.2%, 11.5% and 2.3% in group D, respectively (p=0.683). HP was eradicated in96.3%, 87%, 79.7% and 79.3% of the patients in groups A, B, C and D, respectively (p=0.506). Overall complications were present in 37%, 63%, 32.8% and 28.7% of patients in groups A, B, C and D, respectively; significantly higher in group B (p=0.001). Abdominal pain was significantly more frequent in group B comparing with the other groups. Vomiting was reported significantly more frequent in group C comparing with the other groups. The other complications were comparable between the four groups.

*Conclusion:* The rate of compliance and HP eradication was similar in four quadruple regimens; however due to difference in rate of complications, A or D regimens are recommended. Send Date: 2011/07/20

Category: 3 H.PYLORI

3.5 Management strategies T-S-051

### The study of two sequential therapies for patients with gastric and duodenal ulcer infected helicobacter pylori

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*Introduction:* Prevalence of Helicobacter pylori (Hp) infection in adults varies in different parts of the world depending on the social and economic standards of the population. While the prevalence among the middle-aged population in developing countries is about 80%, it is only 20-50% in developed countries. The sequential regimen is a novel, promising therapeutic approach for Hp eradication. We aimed to compare two sequential quadruple regimens based on Azithromycin and Ofloxacin.

*Method:* In this open-label randomized clinical trial, 150 patients with H.pylori positive peptic ulcer disease were randomized in tow groups of 75 cases each. Group A treated with quadruple regimens based on Azithromycin and other group (B) treated with regimens based on Ofloxacin. The eradication, compliance and complication rates were compared in two groups.

**Results:** Mean patients' age was  $39.3\pm 1.2$  within the age range 18 to 85 yrs. There were 47(62.7%) male and 28(37.3%) female patients in group A while 50(66.7%) male and 25(33.3%) female patients in group B. There was no significant difference

considering type of peptic ulcer in the two groups.

The compliance was "complete", 'good" or "poor" in 94.7%, 1.3% and 4% in group A and 96%, 1.3% and 2.7% in group B respectively (p=0.91). HP was eradicated in 89.3% in group A and 85.3% in group B (P=0.31). There was no significant difference in H.pylori eradication and compliance rates in the two groups.

*Conclusion:* According to our study, we could conclude that there's no superiority using four drug regimen based on Ofloxacin compared to Azithromycine based regimens but the eradication was higher than 85% in each group. Each regimen could be prescribed considering drug complication rates in different patients.

Send Date: 2011/07/20

Category: 3 H.PYLORI

3.5 Management strategies T-S-052

### Comparative of standard anti Helicobacter pylori therapy with and without N-Acetylcysteine

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*Introduction:* For eradication of helicobacter pylori (H. pylori), many regimens is offered. H. pylori is resistance to Metronidazole and duration of treatment is long. N-Acetylcysteine is sulfidrile component and mucolytic effect. It decreases stomach's mucous barrier and viscosity and increases efficacy of antibiotics.

*Method:* 173 patients were randomly assigned to three treatment groups. 54 patients received quadruple therapy (azithromycine 250 mg, amoxicillin 500 mg, bismuth subcitrate 250 mg and omeprazole 20 mg) bid for 1 weeks (A group), 57 patients received the same dosage of those agents plus N-Acetylcysteine tab 600 mg for 1 week (B group) and 62 patients received the same dosage of those agents for 1 week (A group). Eradication was assessed 4 weeks after treatment by stool antigen

assay. Infection was considered eradicated if patients tested negative.

**Results:** The rate of H. pylori eradication in groups A and B was 66.7% and 66.7% respectively (p=1). The rate of H. pylori eradication in groups A and C was 66.7% and 82.3% respectively (P=0.053). The rate of H. pylori eradication in groups B and C was 66.7% and 82.3% respectively (P=0.053). The cure rates in the 7days+ N-Acetylcysteine treatment was not significantly different with standard 7 and 14 treatment. **Conclusion:** N-Acetylcysteine is mucolytic agent. It can to decrease stomach's mucose barrier and viscosity and increases efficacy of antibiotics. But according to this study, this treatment method don't have significant different with others methods. Send Date: 2011/07/31

Category: 3 H.PYLORI

3.5 Management strategies

T-S-053

### The efficacy of NSAIDs in shortening the H Pylori eradication period

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*Introduction:* Helicobacter pylori (H. pylori) colonizes not only on the surface of mucous membrane but also beneath the surface mucous gel layer (SMGL). Since Na-Diclofenac decreases the secretion of SMGL, we examined this drug as an adjuvant therapy to a quadruple therapy for H Pylori eradication.

*Method:* One hundred and seventy-two patients were randomly assigned to three groups. 54 patients received azithromycine 250 mg, amoxicillin 500 mg, bismuth subcitrate 250 mg and omeprazole 20 mg) BID for 1 week (A group) and 65 patients received the same dosage of those agents plus Na Diclofenac tab, 100 mg daily for 1 week (B group). 62 patients

received the same quadruple therapy (for 2 weeks C group), Eradication was assessed 4-6 weeks after completion of treatment by H pylori stool antigen assay.

**Results:** The rate of H. pylori eradication in groups A and B was 66.7% and 82.1% respectively (p = 0.062). The rate of H. pylori eradication in groups B and C were similar; 82.1% and 82.3% respectively (p = 0.987).

*Conclusion:* Na Diclofenac seem to be effective in shortening two weeks anti H Pylori regimens. More investigations must be done to better clarify the efficacy of NSAIDs for this purpose.

Send Date: 2011/07/31

Category: 3 H.PYLORI 3.5 Management strategies T-S-054

> **Comparative of standard 14-day and 7- day for eradication of Helicobacter pylori** Akbar Arjmandpoor<sup>1\*</sup>, Fariba Arjmandi<sup>2</sup>,

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*Introduction:* Although quadruple combination therapy containing a proton pump inhibitor (PPI) and three antibiotics is considered as a standard regimen for the first-line anti-Helicobacter pylori treatment, there are still debates on the ideal duration of treatment. Shorter treatment duration should improve compliance to therapy and keep an acceptable H. pylori eradication rate. The aim of this study was to compare the efficacies of 7-day and 14-day quadruple therapy.

*Method:* 116 patients were randomly assigned to two treatment groups. 62 patients received quadruple therapy (Azithromycine 250 mg ,Amoxicillin 500 mg, Bismuth subcitrate 250 mg and Omeprazole 20 mg) bid for 2 weeks (A group), 54 patients received the same dosage of those agents for 1 week (B group) Eradication was assessed 4-6 weeks after treatment by stool antigen assay. Infection was considered eradicated if patients tested negative. **Results:** The rate of H. pylori eradication in groups A(14- day) and B(7- day) was 82.3% and 66.7% respectively (p=0.053). The cure rates in the standard 14 days treatment was better than standard 7 days treatment.

*Conclusion:* A 7-day quadruple therapy with Azithromycine, Amoxicillin, Bismuth subcitrate, and Omeprazole is not effective for eradication of H. pylori compared with the standard 14-day quadruple therapy.

Send Date: 2011/07/31

Category: 3 H.PYLORI

3.5 Management strategies T-S-055

# Comparison between different regimen for H pylori eradication in Iran-shiraz

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*Introduction:* Helicobacter pylori is a gram-negative organism that induces gastric infection. The infection causes chronic gastritis and may lead to peptic ulcer disease (PUD). H pylori is also associated with gastric adenocarcinoma and low-grade gastric lymphoma, referred to as mucosa-associated lymphoid tissue (MALT) lymphoma. Eradication of the infection will prevent the recurrence of the majority of such disease. Multiple regimens have been evaluated for Helicobacter pylori therapy but the optimal therapeutic regimen has not yet been defined. We evaluated different combined treatment in Iran – from 1388 to1390 in the patients who was referred to Namazi Hospital.

*Method:* 952 patients who as APD (NUD, DU, GU) were treated with different regimen(single .double ,triple, quadruple drug) for H pylori and then referred to Namazi hospital for confirmation of eradication with UBT were evaluated.

**Results:** 952 patients who were enrolled in H pylori eradication test (UBT), most of them were in BAMO group (108 pts.) with response rate about 75.5%. [p- value=0/003] Other groups contain BTMO (31pts.) BACO (25 pts.) BAFO (10 pts.) with response rate about 80%, 88%, 90% respectively. [p-value=0/003]. From the patients who received triple therapy, most of them were in BMO (34 pts.)
BAO (33pts.) AMO (32 pts.) with response rate about 67%, 87%, 81%, respectively. [p-value =0/003] {Chi square test}.

*Conclusion:* The intention-to-treat H pylori eradication with routine regimen BTMO is less than other quadruple therapy in this local study. So further investigation need for best regimen with the most response rate in Shiraz city.

A=Amoxicillin B=Bismuth M=Metronidazole T=Tetracycline C=Clarithromycin O=Omeprazole Send Date: 2011/08/22

Category: 4 INTESTINAL

4.1 Enterocyte biology/pathology and nutrient/water transport/electrolyte transport

T-S-056

# The effects of vitamin E on small intestine mucosal injuries in burned rats

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<sup>1</sup> Motahhary Hospital, Urmia University of Medical Sciences <sup>2</sup> Medical College, Urmia University of Medical Sciences *Introduction:* Vitamin E is a fat soluble agent that protects cells from damage of free radicals by neutralizing them. The aim of this study was the evaluation of vitamin E effects on small intestine mucosal changes in burned rats.

**Method:** Mature male rats (n=32) with weight range of  $260 \pm 10$  gram were used. After induction of general anesthesia, a determined area of the skin of the back region was exposed to 95°C water for 8 seconds in order to producing wet burns. The evaluated four groups in our study were: rats without burning, rats without burning treated with vitamin E 300 mg/kg/day till 15 days, burned rat without medication and burned ones treated with vitamin E 300 mg/kg/day till 15 days. All of the rats were euthanized at the fifteenth day by ether inhalation. The samples were prepared from the beginning of small intestine and were smeared by Hematoxylin and Eosin staining.

**Results:** Statistical analysis revealed that in the burned rats received vitamin E, intestinal villuses were higher than the burned ones without vitamin E treatment, and this was near to results of unburned rats and this was statically significant (p<0.05). Also the intestinal lumen diameter in burned rats

medicated by vitamin E was lower than the burned ones without medication (p<0.01). There were no significant differences between study groups in intestinal diameter and muscular layer thickness.

*Conclusion:* The results show that vitamin E is effective on intestinal villuses height and lumen diameter and its consumption at the time of burning can protect intestine mucosa from injuries. Send Date: 2011/06/04

Category: 4 INTESTINAL

4.2 Coeliac disease/malabsorption syndromes and food enteropathies

T-S-057

# The prevalence of celiac disease in patients with IBS

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*Introduction:* The prototype of diffuse small intestinal disease which presents with malabsorption is Celiac disease (Celiac disease). Typical form presents in childhood, but atypical forms are more common in adults & may presents with intestinal & extra intestinal manifestations. One of the intestinal presentations, common in general population, is s imulation of Irritable bowel syndrome (IBS). The aim of this study was to determine the value of Antiendomysial Ab IgA in predicting celiac disease in patients with IBS.

*Method:* Patients full fill the Rome 3 Criteria from April 2007 -2009 in subspecialty clinics of Ahvaz Jundisapur University of medical sciences enter the study. After exclusion of differential diagnosis of IBS screening for CD were done by Anti tTG IgA & Anti gliadine Ab IgA. CD was confirmed by duodenal biopsy according to the modified Marsh classification in patients with positive test results. The data was collected & analyzed by  $x^2$  & t-test by SPSS version 19. *Results:* 465 patients entered the study, 40 & 31 of them had positive test for Anti gliadine Ab IgA & Anti tTG IgA respectively .Biopsy of 2nd portion of duodenum showed marsh 1 or greater in 11 patients .All of them responded to gluten free diet.

*Conclusion:* Celiac disease is a common condition in patients with IBS. All patients should be screaned

for celiac disease befor marked as IBS. Send Date: 2011/07/21

Category: 4 INTESTINAL

4.2 Coeliac disease/malabsorption syndromes and food enteropathies

T-S-058

# The Efficacy of Herbal Medicine " Lax-asab" in Treating Constipation-a Randomized Controlled Clinical Trial

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*Introduction:* Chronic constipation is a common disorder and its treatment is unsatisfactory in many patients. We designed this study to introduce a new herbal protocol (Lax-asab) for treatment of chronic constipation which has higher efficacy and lower side effects and price in comparison with other currently available chemical and herbal protocols.

*Method:* 40 patients with chronic constipation from Emam Reza academic hospital in Tabriz-Iran were randomly enrolled.Data was collected by check lists and the efficacy of "lax-asab" was compared with placebo and determined by a symptom scale during and after stopping the study.We use Descriptive statistics,Chi-square and Fisher's Exact test by SPSS.16.

**Results:** Mean of weekly defecation times in intervention group was  $5.33\pm0.7$  and in placebo was  $2.14\pm0/69$  (p=0.012).Diarrhea side effect was 0.66 in intervention group (p=0.09).Other side effects was not seen in both of them.

*Conclusion:* Our study show we can use this experimental herbal drug in treating patients with chronic constipation with high efficacy, low side effects and price.

Send Date: 2011/07/21

### Category: 4 INTESTINAL

4.2 Coeliac disease/malabsorption syndromes and food enteropathies T-S-059

# Normal total Duodenal Intraepithelial Lymphocytes, CD3+ and CD8+ T-Cells in Celiac Patients of Isfahan, Iran

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Introduction: Although increased numbers of duodenal intraepithelial lymphocytes (IEL) is a key histological finding in celiac disease (CD), this may vary by the geographic area and type. There are some borderline histology and sero-negative CD cases which might be differentiated with other causes of duodenal immunological reactions by measuring the mean percentages of IEL expressing abTCR, gdTCR, CD3, CD4, and CD8. This study was conducted to measure and compare total and CD3 + and CD8+ IEL in celiac patients and healthy controls in Isfahan, Iran. Method: Definite CD patients (17 cases) and age- and sex-matched healthy controls (22 cases) were included and duodenal biopsies were taken. H&E staining was done and monoclonal antibodies were used by immunoperoxidase staining method.

**Results:** The immunoperoxidase staining showed higher mean of total IEL in CD cases compared with controls (40 vs. 19, P = 0.001). The upper normal limit of CD3+ intraepithelial T-cells was 20% while it was 14% for CD8+ T-cells. In addition, The H&E staining method showed cut-off of 34% for IELs in CD cases.

**Conclusion:** This study suggests that total IEL of > 34% and CD3+ IEL > 20% by immunoperoxidase staining technique, might be considered as MARSH I among general population in Isfahan, Iran. Since this cut-off level may differ according to the subtype of IEL, genetic backgrounds, and by changing socioeconomical status, it is logical to determine normal values in each area and to use immunoperoxidase staining technique to measure subtypes of IEL in suspicious cases of CD.

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#### Category: 4 INTESTINAL

4.2 Coeliac disease/malabsorption syndromes and food enteropathies

T-S-060

# Prevalence of Celiac Disease in Type 1 Diabetic children and adolescents in Eeast Azarbaijan

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*Introduction:* Celiac disease (CD) is a chronic enteropathy caused by hypersensitivity to gluten. Most studies have shown more prevalence of CD in the patients with Diabetes Mellitus type 1. The prevalence of CD among DM1 patients is unknown in Iranian children. The aim of this study is the prevalence survey of celiac disease in type 1 diabetic children in East Azarbaijan.

*Method:*In a cross-sectional descriptive study, based on entrance and exit criteria 135 children with Diabetes Mellitus type 1 referring to Tabriz children hospital endocrine department and clinic from 2006 to 2008 were selected. The serumic level of A-tTG-A-IgA and AEA-IgA were measured. In the case that A-tTG-A either AEA was high, distal duodenal biopsy was preformed. The data was analysed using SPSS, ver 16 software.

**Results:** 28 of 135 patients with diabetes mellitus type 1, were serologically positive for celiac. Four of 28 (%14.28) seropositive patients were A-tTG-A positive, Ten (%35.71) of them were AEA positive and Fourteen (%50) were A-tTG-A and AEA positive. Confirmed celiac prevalence based on biopsy was %6.8.

*Conclusion:* Celiac Disease in diabetic patients (DM1) is common. Screening of celiac disease with serologic tests in diabetic patients is necessary for the purpose of early diagnosis and prevention from severe complications of celiac disease. Send Date: 2011/08/05

#### Category: 4 INTESTINAL

4.2 Celiac disease/malabsorption syndromes and food enteropathies

T-S-061

### **Prevalence of osteopenia and osteoporosis in Patients with celiac disease** Azita Ganji<sup>1\*</sup>, Mohammad Reza Hatef<sup>1</sup>, Abbas

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*Introduction:* Celoac disease is an autoimmune disorder which cause malabsorption in genetically susceptible patients with ingestion of gluten. Celiac is not limited to gastrointestinal system and can make different sign and symptom in other organs. Malabsorption of calcium and vitamin D can cause osteomalacia and secondary hyperparathyroidism . Celiac is not a rare disease anymore and are more frequent in middle east. We expect to have 1% of celiac in general population. The aim of this study was to determine Prevalence of osteopenia and osteoporosis in patients with celiac disease in Iranian population.

Method: Individuals with intestinal and extara intestinal problem who had positive serologic testing for antitissue transglutaminase or antiendomysial antibody were offered endoscopic duodenal biopsy to confirm the diagnosis of celiac disease .Biopsy proven celiac patients between 20 to 70 y/o of any sex were enrolled. Exclusion criteria was :1) Using drugs such as corticosteroid, anticonvulsant, heparin, cyclosporine, statins, B blocker, 2) Neoplasms 3) Metabolic disorder such as diabetis, hyperthyroidism , cushings and immobility. After taking informed consent, we evaluated 71 patients with celiac disease . All enrolled patients had undergone BMD measurement of the hip, femoral neck, and spine using dual-energy x-ray absorptiometry using a QDR-4500W densitometer (osteocore 2,) with bone densitometry with DEXA scan. Routine laboratory tests, including a complete blood cell count, serum 25-hydroxyvitamin D, parathyroid hormone (PTH), and alkaline phosphatase, were performed.

*Results:* 72 patients with celiac disease between 20 to 70 years old with mean age of 33 years old had bone densitometry. 66 % were female and 33% were male.

41 (54%) out of them had normal bone density in spine and 17(23.6%) had osteopenia and 14 patients (19.4%) had osteoprosis. In femoral neck 36 patients (50%) had normal bone densitometry and 25 (33.3%) patients had osteopenia and 11(15.3%) patients had osteoporosis.

*Conclusion:* The prevalence of osteoporosis among celiac disease is much higher than general population (48%). The prevalence of osteoporosis is high enough to justify a recommendation for screening of all patients with celiac disease for osteoporosis. Send Date: 2011/08/15

Category: 4 INTESTINAL

4-2 Coeliac disease/malabsorption syndromes and food enteropathies

T-S-062

# The prevalence of Celiac Disease in Iranian children with Functional abdominal pain

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*Introduction:* Celiac disease (CD) is a chronic inflammatory disorder of the small intestine induced in genetically susceptible people by the irritant gluten and possibly other environmental cofactors. It is characterized by a diverse clinical heterogeneity that ranges from asymptomatic to severely symptomatic. However, clinical features of Iranian children with CD are still unknown and there is scant information about atypical presentation of celiac disease (CD) from Iran. The aim of this study was to determine prevalence of CD in Iranian children with chronic recurrent abdominal pain (RAP) or functional abdominal pain (FAP).

*Method:* In this cross-sectional study, 301 children affected by functional abdominal pain (FAP) were screened for CD by antitransglutaminase antibody (tTG IgA). These antibodies were measured by enzyme linked immunosorbent assay. Diagnosis of CD was confirmed by duodenal biopsy that was scored according

to the Marsh classification in cases that were positive for tTG antibody.

**Results:** A total of 301 children (138 male, 163 female) with (FAP) were studied. Endoscopic duodenal biopsy was taken for patients with positive and borderline tTG test. Two out of 301 cases were IgA deficient and celiac disease was suspected for one of them based on histological findings. Fourteen out of 299 patients with normal IgA had abnormal tTG titer; intermediate ranges (16-23 U/ml) and positive ranges (=or>24 U/ml) were detected in 6 and 8 cases, respectively. CD was suggested in 2 out of 6 patients with intermediate and 2 out of 8 patients with positive ranges of tTG (1.33% based on histological findings).

*Conclusion:* The prevalence of celiac disease in children with FAP is estimated 1.3% (nearly 2 times higher than normal population in Iran). It can be recommended that all children with FAP should be screened for celiac disease particularly in those with lower growth curve.

Send Date: 2011/07/27

Category: 5 IBD

5.1 Basic/pathogenesis/pathology/ T-S-063

# The association between serum 25 (OH) vitamin D concentrations and

inflammatory bowel diseases (IBD) activity

Hassan Vossoughinia<sup>1</sup>, Siavash Abedini<sup>1\*</sup>, Ahmad Khosravi-Khorashad<sup>1</sup>, Maryam Sahebari<sup>1</sup>, Farid Farrokhi<sup>2</sup>, Keyvan Haghighi<sup>2</sup>, Asieh Hatefi<sup>1</sup>, Javad

Pournaghi<sup>1</sup>, Hamid-Reza Sima<sup>1</sup>, Abbass Esmaeizadeh<sup>1</sup>, Hassan Saadatnia<sup>1</sup>, Faraneh Abdolhosseinpour<sup>3</sup>

<sup>1</sup>Medicine Faculty, Mashhad University of Medical Sciences <sup>2</sup> Pathology Department, Razavi Hospital

<sup>3</sup> Dentistary Faculty, Mashhad University of Medical Sciences *Introduction:* Inflammatory bowel diseases (IBD) are probably immune mediated diseases of unknown etiology affecting the gastrointestinal tract. In addition to genetic susceptibilities, one of the important environmental factors contributes to autoimmune diseases like IBD is vitamin D. Furthermore, the evidence points to vitamin D deficiency and its receptor dysfunction cause exacerbation of experimental IBD .Our aim was to

evaluate the correlation between serum 25(OH)D concentration of IBD patients with IBD activity.

*Method:* Sixty patients who had confirmed diagnoses of IBD were recruited for a cross sectional study. Most of the identified factors that can interfere serum 25 (OH) D concentrations were considered and excluded. Disease activity assessed using validated questionnaires, Including Truelove for Ulcerative Colitis and crohn disease activity index (CDAI) for Crohn's. Serum 25 (OH) D concentrations were determined by chemiluminescent assay.

**Results:** Mean serum 25(OH) D was  $13.1 \pm 11.1(ng/ml)$  in IBD patients in our study. Almost 95% of patient were vitamin D insufficient or deficient (<30 ng/ml). Forty one percent of IBD patients had active disease. Vitamin D deficiency was not associated with IBD activity. )p=0.238 with chi-square test).However, vitamin D deficiency was significantly associated with having IBD related surgeries. (p=0.001 with T test).

*Conclusion:* Although most of our patients had inadequate vitamin D, serum vitamin D concentration was not associated with disease activity. However, vitamin D deficiency was associated with surgical treatment in these patients. Send Date: 2011/07/20

Category: 5 IBD 5.1 Basic/pathogenesis/pathology/ T-S-064

#### Correlation between immunologic markers of ulcerative colitis and psychological distress Hafez Fakheri1, Mehran Zarghami<sup>1\*</sup>

<sup>1</sup>Zare Hospital, Mazandaran University of Medical Sciences *Introduction:* Many studies have investigated the effects of psychological factors on disease activity in patients with ulcerative colitis (UC). On the other hand, some studies have shown a correlation between some immuno-biological markers such as perinuclear antineutrophilic cytoplasmic antibody (P-ANCA) and some distinct psychobiologic subtypes in UC, but the results are inconsistent. If this correlation exists, the presence of these biomarkers can help in selecting those patients who need more psychological care and also may explain why some studies failed to show the relationship between disease activity and psycholog-

ical distress. So, we designed a study to determine the association between 2 immuno-biological markers (p-ANCA and c- ANCA) and depressive symptoms, healthy anxiety and personality traits.

*Method:* One hundred and eight patients with UC entered the study. P-ANCA and c-ANCA were determined by Enzyme-Linked Immunosorbent Assay (ELISA). Depressive and anxiety symptom and personality traits were measured by Center for Epidemiologic Studies-Depression (CES-D) scale, Hospital Anxiety Depression (HAD) scale and Revised Eysenck Personality Questionnaire, respectively. Pearson correlation was used to assess the relationship between p-ANCA/c-ANCA and psychological distress.

*Results:* Our results showed that 81.5% of the patients suffered from anxiety, 43.5% suffered from depression and 75% suffered from introvert personality.

No patient was positive for p-ANCA. Sixteen patients (14.8%) had positive c-ANCA test, but the correlation between positive c-ANCA and anxiety, depression or introvert personality was not statistically significant and did not statistically differ between those with or without positive c-ANCA test.

**Conclusion:** According to our results, the presence of c-ANCA could not distinguish a special psychological subtype of the patients. Since no patient was positive for p-ANCA, the correlation between positive p-ANCA and psychological distress could not be assessed. However, the high prevalence of anxiety, depression and introversion and their role in the clinical course and outcomes of the disease shows the need for early psychological intervention in those with UC.

Send Date: 2011/08/17

Category: 5 IBD

5.1 Basic/pathogenesis/pathology/

T-S-065

#### **Serum retinol in ulcerative colitis : correlation with disease activity and inflammatory cells** Mohammad hossein Somi<sup>1</sup>, nasim abedi manesh<sup>1\*</sup>,

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Introduction: vitamin A deficiency in patients with inflammatory bowel disease (IBD) is contributing to defective intestinal homeostasis. To assess serum retinol and its correlation with disease activity. Furthermore to determine the correlation of serum retinol and systemic inflammatory cells numbers with clinical disease activity.

Method: A total of 48 patients with ulcerative colitis (UC) were enrolled in to the cross-sectional pilot study.Patients were in remission according to the Truelove-Witts scale. Serum retinol was assessed by HPLC. Heparinized blood samples were collected for complete blood count and lymphocyte phenotyping by flow-cytochemistry and flow-cytometric analysis respectively.

Results: Approximately 55% of our patients were VA deficient (serum retinol  $< 30 \ \mu g/dL$ ).Serum retinol levels were negatively correlated with clinical disease activity (p=0.033, r=-0.329). There was a positive correlation between serum retinol and peripheral CD4+ and CD8+ numbers (r=0.355, r=0.335) respectively. Neutrophil to lymphocyte (N/L) ratio and percentage of neutrophil were directly associated with disease activity while there was a significant negative correlation between systemic CD4+ T cell numbers and disease activity.

Conclusion: Mild vitamin A deficiency is common in ulcerative colitis in remission and there is an association between serum retinol and clinical disease activity; likewise, the correlation between systemic inflammatory cells numbers and disease activity is noticeable.

Send Date: 2011/08/18

Category: 5 IBD 5.2 Etiology /epidemiology T-S-066

#### A Case-Control study on the risk factors of IBD in Iranian patients

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<sup>1</sup> Medical Sciences, University of Tehran

Introduction: Ulcerative colitis (UC) and Crohn's disease (CD) are chronic inflammatory bowel diseases (IBD) with uncertain etiology thought to be triggered by interactions between various environmental, genetic and immunologic factors. Role of different risk factors in IBD are controversial.

*Method:* The aim of this study is to determine the possible risk factors in a group of Iranian patients with IBD. One hundred and sixty-three consecutive cases of UC and 95 cases of CD were included. Age and sex matched controls were randomly selected. A total of 489 controls for UC and 285 controls for CD were enrolled. A standard record concerning demographic and characteristic features, BMI, infantile nutrition, smoking habit, measles in childhood, measles vaccination, history of appendectomy and tonsillectomy, OCP, and drugs use was completed. Logistic regression analysis was used to evaluate potential confounding variables.

**Results:** A statistically significant protective effect for smoking in UC was found (OR=0.18 95%CI=0.064-0.504, p<0.05). The risk of UC increases with prolonged exposure to OCP (OR=0.99, 95%CI=0.98-0.99, p<0.05). In patients with CD, 15 cases (15.8%) reported a previous history of appendectomy compared with 19 controls (6.7%)(OR=2.6, 95% CI= 1.2-5.4, p<0.05). Tonsillectomy was reported by 16 patients (16.8%) with CD compared with 25 controls (8.8%) (OR= 2.1, 95% CI= 1.07-4.1, p<0.05). The logistic regression analysis showed that both appendectomy and tonsillectomy are risk factors in CD. No association with other variables was found for either disease.

Conclusion: Current smoking was a significant protective factor in UC. We observed a relationship between duration of OCP use and UC. Duration of using OCP in UC cases was significantly more than controls. Both appendectomy and tonsillectomy were risk factors in CD in this study. Send Date: 2011/08/02

Category: 5 IBD 5.2 Etiology /epidemiology T-S-067

**Osteoporosis: frequency and risk factors** 

#### in a group of patients with ulcerative colitis refering to gastroentrology clinic Khadijeh Hatami<sup>1</sup>, Mitra Ameli<sup>2\*</sup>, Fatemeh Kia-kojuri<sup>2</sup>, Mahmoud reza Khansari<sup>1</sup>,

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*Introduction:* Osteoporosis have been reported but underestimated in patients with Ulcerative Colitis (U.C). The aim of this study was to evaluate frequency of low Bone Mineral Density (B.M.D) in patients with U.C and healthy subjects, and to estimate possible risk factors for low B.M.D, that deserves attention in planning treatment programs for these patients.

*Method:* This is a descriptive cross-sectional study. Two groups, 33 patients (mean age and SD: 42.9±15.8), Male/Female ratio: 1/3 and 33 age, sex matched healthy subjects were studied. B.M.D, relative to age standardized mean (z-score) was measured by dual energy X-ray absorptiometry at the lumbar spine and left femoral neck, in patients and controls and results of B.M.D were compared. Patients were divided in the following groups: patients with osteoporosis ( $Z \le -2$ ), osteopenia  $(-2 \le Z \le -1)$  normal(Z and  $\ge -1$ ). Assessment of CRP, Hemoglobin, Body Mass Index (B.M.I), duration and extension of disease, crypt distortion in microscopic exam and the effect of taking Azathioprine and corticosteroid was performed in all 3 groups and results were compared. Data were analyzed by SPSS software using non parametric method.

**Results:** The rate of Osteopenia and osteoporosis was 36.6% and 24.24% respectively in U.C. group versus 27.27% and 3.03% in controls (p=0.005). In U.C. group femoral neck B.M.D was significantly lower than healthy subjects (p=0.04). Patients taking Azathioprine had significantly higher B.M.D than patients who were not.None of other possible risk factors which were assessed showed significant difference between B.M.D of osteoporotic, osteopenic and normal cases.

*Conclusion:* Patients with U.C have reduced B.M.D in femoral neck. We found lower B.M.I in U.C patients compared to healthy subjects, but we didn't

find significant correlation between low B.M.I as a predictor of low B.M.D in U.C patients. B.M.D is higher in patients taking Azathioprine probably by increasing duration of remission.When planning managing programs, evaluation of femoral neck B.M.D is recommended in patients with U.C, this is more important in patients who are not taking Azathioprine.

Send Date: 2011/08/07

Category: 5 IBD

5.2 Etiology/epidemiology

T-S-068

### Establishment of a Population-Based Registry of Inflammatory Bowel diseases in Fars, Kohgilooye and BoyrAhmad, South Provinces of Iran

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*Introduction:* Inflammatory bowel diseases (IBD) are debilitating diseases that lead to a variety of problems in patient's everyday life as well as a huge burden for the health care system. Since this group of diseases are multifactorial and complex, long-term, longitudinal studies are clearly needed for their better understanding. A Population-Based Registry covers all residents in a given geographic area within a given time period. It intends to include all with the disease in the population. Even if it fails to include "all" cases, intention rather than performance defines the term. The aim of establishing this registry is to build a reliable data source which will be of considerable help in future planning of the health care resources needed to deal with IBD and to enable the investigators to test their theories on origin and/or treatment of the diseases.

*Method:* Registry is managed by gastroenterohepatology research center (GEHRC) at Shiraz University of Medical Sciences. The geographic area is two provinces of Iran, Fars, Kohkilooye and BoyrAhmad,

The governing committee which consists of a head and 2 other faculty members and an appointed manager who will be responsible for decisions regarding budget allocations and use of data. The designed questionnaire includes a consent form, basic history data, risk factors, related procedures, medical therapy, and follow-up data. Establishment process has two parallel phases: In the first phase, the data is collected from many sources including annual hospital discharge data, referral from university affiliated physicians and private practices, pathologic reports, death certificates, self referral and insurance system data. Then registry office contacts patients to book an appointment. In the interview, the questionnaire is completed and blood samples are taken. The gathered data is reviewed for confirming the diagnosis of IBD and data are entered in the designed and computerized data base. Blood samples are taken, DNA is extracted and will be kept at -70, another serum sample will be kept at -20°. In the second phase, follow up interviews will be done by phone or in person yearly .The new IBD patients are also being registered. This phase will continue indefinitely to include the new incident cases. Recruitment of the new cases is being done by regular reminders to all referral sources.

**Results:** The Inflammatory bowel disease registry of Shiraz University of medical sciences has started to register patients whose diagnosis were confirmed to be Inflammatory bowel diseases.

Till now approximately 300 patients have been registered from Fars province.

*Conclusion:* By retrospective and prospective data collection methods, this central database of IBD cases will determine incidence, prevalence and demographic characters of IBD in a defined population, facilitate future researches to identify etiology, disease process, new treatment options, factors affecting prognosis, recurrences, optimal health care, morbidity and mortality of IBD, and at last but not least provide educational and social support for patients by educational materials and organizing NGOs. Send Date: 2011/08/16

Category: 5 IBD 5.3 Genetics

T-S-069

# MEFV Common Mutations in Iranian Azeri Turkish Patients with ulcerative colitis

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*Introduction:* Ulcerative colitis (UC) and Crohn disease (CD) constitute the two major forms of chronic inflammatory bowel disease (IBD) with unknown etiology. It is suggested that environmental factors and genetic background are important factors in disease susceptibility and patient's response to therapy. Since there are similarities between FMF and IBD, the responsible gene for FMF (MEFV), has been introduced as a modifier gene for IBD.

*Method:* In the present study, 139 unrelated patients referred with UC compatible symptoms and also 200 matched controls were screened for the five most common MEFV mutations (E148Q, V726A, M680I, M694I, and M694V) by applying PCR-RFLP and ARMS-PCR techniques.

**Results:** Thirty one (22.3%) patients and 52 (26%) control individuals had one of the studied mutations. All studied types of MEFV mutations except M694I and V726A could be detected in the patients. E148Q and V726A mutations were only observed in the control group. E148Q was the most frequent mutation observed in this cohort. There was a significant difference between the two groups regarding M694V mutation (p=0.002).

*Conclusion:* Although the role of M694V mutation in UC susceptibility seems to be significant among the Iranian Azeri Turkish patients, studies in a large number of UC and control series and also studies on further MEFV mutations are needed to determine the definite relationship between MEFV mutations and UC. Send Date: 2011/07/20

Category: 5 IBD 5.5 Treatment T-S-070

Alexithymia in patients with irritable bowel

# syndrome and therapeutic effect of emotional awareness on the symptoms and severity

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*Introduction:* The strong evidences for the role of psychological factors in Irritable bowel syndrome (IBS) are supporting the categorization of this syndrome as a psychosomatic disorder. Somatization may be a key point in its manifestation. We examined the role of emotional awareness on the symptoms and the severity in these patients.

*Method:* Patients were selected according to ROME IV criteria for IBS and randomly divided to two groups. Both groups received standard medical care for the syndrome, while the intervention groups were educated to increase conscious awareness about their emotions and level of arousal after two sessions focusing on eight basic emotions. Patients then recorded their emotional amalgam, three times a day for one month. Severity of pain (measured by visual analogue scale) and the frequency were recorded before and after the intervention.

**Results:** Two groups were matched by gender and age. Patients with IBS scored significantly higher in all aspects of Alexithymia comparing to healthy controls (Difficulty identifying feelings, difficulty describing feelings and externally oriented thinking). The mean frequency of symptoms significantly decreased from  $5.4\pm1.9$  to  $3.7\pm2.6$  episodes per week in the intervention group and from  $4.9\pm2.4$  to  $1.9\pm2.5$  in the controls, with a significant effect for the intervention. The severity for pain was also decreased significantly in both groups, significantly affected by the intervention.

*Conclusion:* Emotional awareness may promote the effects of pharmacological treatment in patients with IBS. Send Date: 2011/07/20

Category: 5 IBD 5.5 Treatment T-S-071 Nonadherence to treatment in 500 inflammatory bowel diseases patients; prevalence and reasons Meghedi Chaharmahali<sup>1</sup>, Homayoon Vahedi<sup>1\*</sup>, Mohammad Bagheri<sup>1</sup>, Mohammad Reza Ghadir<sup>1</sup>, Shadi Kolahdouzan<sup>1</sup>, Naser Ebrahimi Daryani<sup>1</sup>, Reza Malekzadeh<sup>1</sup>

<sup>1</sup> Medical Sciences, University of Tehran *Introduction:* Nonadherence with medication in inflammatory bowel diseases (IBDs) increases the risk of colorectal cancer and clinical relapses. The purpose of this study was to find probable reasons of nonadherence to treatment among IBDs patients in a group of Iranian patients.

*Method:* In 9 months a total of 500 patients were enrolled in the study (225males, 275females; 150Crohn's disease (CD), 341Ulcerative colitis (UC), 9Intermittent).Patients were interviewed about their nonadherence behaviors. After collecting answers, we analyzed answers using factor analysis.

**Results:** The overall rate of nonadherence was reported 33.3 % (27.6% intentional nonadherence, 5.7% unintentional nonadherence). (33.6%) had at least one relapse after discontinuing treatment. The most reason of intentional nonadherence reported by patients was: discontinuing the treatment after recovering symptoms (42.7%). The most frequent unintentional nonadherence reason was forgetfulness (5.2%). There were patients who didnt visit their gastroenterologist on time and they just refilled drugs from drugstore, which the most reason reported was; these clinics were too far and hard for them to access. We didn't find any significant relationship between nonadherence and demographic factors.

**Conclusion:** We expected to find pregnancy as a factor of increasing women's nonadherence. But there was no difference between males and females and nonadherence. The reasons for nonadherence are multiple and widespread. They could be different form one population to another. If we could determine the reasons of nonadherence then it will be possible to find the strategies for reducing or preventing them.

Send Date: 2011/08/02

Category: 5 IBD 5.7 Management T-S-072

> Depressive mood and disease activity in inflammatory bowel disease

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*Introduction:* Some mood disorders are more prevalent in chronic medical conditions compared to the general population. The relationship between inflammatory bowel disease (IBD) and psychiatric disorders has been raised an area of interest for investigation. In this study, we aimed to assess the probable relationship between depression and disease activity in patients suffered from inflammatory bowel disease (IBD) in Golestan province, Northeast of Iran.

*Method:* During February 2008 to February 2010, fifty patients recently diagnosed as IBD cases attended to Golestan Research Center of Gastroenterology and Hepatology (GRCGH), Northeast of Iran. Simple Clinical Colitis Activity Index (SCCAI) was used to evaluate the disease activity. Beck Depression Inventory (BDI) was used to assess the severity of depressive symptoms. Depression was assumed when the BDI score was 13 points or higher. Data were analyzed using SPSS-16 software. Chi-square and Pearson correlation test were used to assess the relationship between variables. P-value less than 0.05 considered significant.

**Results:** Sixteen cases (32%) had depressive characteristics. Simple Clinical Colitis Activity Index and Beck score were not significantly different between the two sexes. There was a non-significant correlation between Simple Clinical Colitis Activity Index, Beck score and age.

*Conclusion:* We reported a relatively high percent of depression in IBD patients, although no significant relationship was seen. Mental health should be considered more in the routine evaluation of IBD cases. Send Date: 2011/07/14

Category: 5 IBD 5.7 Management T-S-073

> Anemia in Inflammatory Bowel Disease cases, Northeast of Iran Taghi Amiriani<sup>1\*</sup>, Reza Mohammadi<sup>1</sup>, Sima Besharat<sup>1</sup>, Gholamreza Roshandel<sup>1</sup>, Mahsa Besharat<sup>1</sup>, Honey Sadat Mirkarimi<sup>1</sup>

<sup>1</sup> Golestan University of Medical Sciences, Golestan Research Center of Gastroenterology and Hepatology Introduction: Anemia is a common complication of inflammatory bowel disease (IBD). One third of IBD patients suffer from recurrent anemia. Both iron deficiency (ID) and anemia of chronic disease contribute most to the development of anemia in IBD. The prevalence of anemia in IBD is high (30%) and prevalence of ID is even higher (45%). Anemia in patients with IBD results primarily from iron deficiency because of chronic intestinal blood loss from inflamed mucosa, although in active disease more complex mechanisms involving absorption are also important. In this study, we aimed to assess the prevalence of anemia in patients suffered from inflammatory bowel disease (IBD) in Golestan province, Northeast of Iran.

*Method:* During February 2008 to February 2010, 131 ulcerative colitis patients were registered in the IBD data bank, Golestan Research Center of Gastroenterology and Hepatology (GRCGH), Northeast of Iran; from whom 50 were new cases (less than 2 years past from the diagnosis). Simple Clinical Colitis Activity Index was used to assess the severity of bowel disease. All 50 cases were requested to give blood samples. Data were analyzed using SPSS-16 software. Chi-square and Pearson correlation test were used to assess the relationship between variables.

**Results:** Mean age ( $\pm$ SD) of the studied subjects was 38.74 ( $\pm$ 15.4) years (range=17-86 years) and they had mean ( $\pm$ SD) hemoglobin of 12.64 $\pm$  2.92 gram/dl. There was no significant relationship between hemoglobin level and the activity index of the disease.

*Conclusion:* There was an acceptable level of hemoglobin in our IBD patients with no correlation to the activity of disease, but further studies with larger sample size are needed to evaluate this condition. Send Date: 2011/07/14

Category: 5 IBD 5.7 Management T-S-074

Serum level of 25-hydroxy vitamin D in Ulcerative colitis

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*Introduction:* Vitamin D deficiency is common among patients with inflammatory bowel disease, even when the disease is in remission. This study was designed to evaluate the serum level of 25-hydroxy vitamin D in patients suffered from ulcerative colitis and the control group in Golestan province, Northeast of Iran.

*Method:* In this case-control study, serum samples of 60 patients with definite histopathologic diagnosis of Ulcerative Colitis were recruited. Control group was selected among healthy blood donor. 25(OH)-D3 performed by ELISA method (ids- UK). Data were entered into SPSS-16 software and analyzed by t-test and Chi-square.

**Results:** The mean serum levels of vitamin D in patients was significantly lower compared to control group (P-value <0.01). Differences of 25-OH-D3 were statistically significant between the two sexes, in both groups. All cases in proctitis group had normal vitamin D levels, while only 20% of rectosigmoiditis group had normal levels of vitamin D and in pan-colitis group, this figure had reached to zero. The difference was statistically significant (P-value <0.01).

*Conclusion:* It can be concluded that serum levels of vitamin D in patients with ulcerative colitis is low and inflammatory bowel disease can be a target for specific vitamin D therapy. Send Date: 2011/07/14

Category: 5 IBD 5.7 Management T-S-075

## Effect of vitamin A supplementation on white blood cell subtypes in patients with ulcerative colitis

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Introduction: Ulcerative colitis (UC) is a disease of unknown etiology caused by an inappropriate mucosal immune response to antigens from the intestinal flora. Its etiology has not yet been resolved, but immunological and genetic factors are known to play a very important role. Active UC is often associated with elevated peripheral blood granulocytes and imbalanced inflammatory cells (CD4,CD8 Th cells). As these cells are major sources of inflammatory cytokines, selective changes of these cells in patients with UC should alleviate inflammation. According to the anti inflammatory role's of vitamin A, we decided to evaluate the effect of vitamin A supplementation on circulatory white blood cell (WBC) subtypes and inflammatory cells in this study. Method: Fourty three patients with ulcerative colitis were included in a before and after, interventional survey in a university health clinic of Tabriz. All participants were at clinical remission stages. The severity of disease activity was assessed by colitis activity index (CAI). Vitamin A supplement was injected twice (50000 IU) with two weeks interval. Study period was considered 45 days. Total WBC count was performed by using an automatic blood cell counter. The serum levels of hs-CRP were evaluated by immunoturbidimetry.CD4 and CD8 T cells were analysed by flow cytometry.

**Results:** In UC, neutrophil lymphocyte ratio (NLR) and hs-CRP levels positively correlated with CAI (p< 0.05). There was a negative correlation between CD4 T-cell and CAI (p=0.01). We found no significant effect of vitamin A supplementation on CD4 and CD8 T-cell subsets, neutrophil and monocyte count after supplementation.NLR and hs-CRP levels decreased not considerably, while platelet count decreased significantly (p= 0.004).

*Conclusion:* Vitamin A supplementation seems to have a slight effect on peripheral inflammatory cells. Send Date: 2011/08/18

Category: 5 IBD 5.7 Management T-S-076

برر سی کیفیت زندگی و سطح استرس رو حی در بیماران کولیت السروز و ارتباط آن با عوامل دموگرافیک و بالینی نسیم عابدی منش\*'، محمد حسین صومی'،

علی رضا استاد رحیمی<sup>۲</sup>، سعید عابدی منش<sup>۳</sup>

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مقدمه: کولیت السروز یک بیماری التهابی مزمن روده است. این بیماران دچار مشکلات جسمی، روانی واجتماعی زیادی می شوند که ممکن است این مشکلات باعث اختلال درروند کیفیت زندگی آنان گردد. به همین منظور پژوهش حاضر با هدف تعیین وضعیت استر س روحی وکیفیت زندگی در بیماران کولیت السروز در مقایسه با افراد سالم و ارتباط آن با عوامل دموگرافیک و بالینی صورت گوفته است.

روش بررسی: این پژوهش یك مطالعه توصیفی - همبستگی میباشد. در این تحقیق ۵۳ بیمار مبتلا به كولیت السروز مراجعه كننده به كلینیك تخصصی شیخ الرئیس در سال ۱۳۸۹ به روش نمونه گیری در دسترس و گروه كنترل از بین افراد سالم در جامعه به شكل جور شده از نظر سن و جنس با گروه بیمار انتخاب شدند. اطلاعات با استفاده از پرسشنامه سلامت عمومی و كیفیت زندگی ۳۶ سئوالی (فرم کوتاه ) گرد آوری شد. سطح استرس با استفاده از پرسشنامه استرس كوهن ارزیابی گردید. مشخصات دموگرافیك و بالینی بیماران نیز جمع آوری گردید. با استفاده از محاسبه ضریب همبستگی اسپیرمن، آزمون تی و آنالیزواریانس مورد تجزیه و تحلیل قرار گرفت.

یافته ها: یافته ها نشان داد کیفیت زندگی در بیماران کولیت السروز در مقایسه با افراد سالم پایین می باشد (۲۰۰۶-۹). بسیاری از حیطه های کیفیت زندگی با سطح استرس همبستگی معنی دار دارد . سطح استرس در بین بیماران زن بالاتر از مردان بود. شدت بالینی بیماری ، طول دوره و دفعات عود بیماری و سطح استرس از عوامل پیش گویی کننده کیفیت زندگی در این بیماران می باشند (۲۰۰۰). نتیجه گیری: با توجه به یافته های پژوهش ، حیطه های کیفیت زندگی بیماران التهاب روده نسبت به افراد سالم پایین تر بوده و باسطح استرس روحی، شدت بالینی بیماری ، طول دوره و دفعات عود بیماری آنها رابطه دارد وکولیت السروز بر جنبه های مختلف زندگی بیماران اثر گذاشته است.

Send Date : 2011/08/18

Category: 6 COLONIC AND ANORECTAL DIS-ORDERS

6.1 Malignant disease - pathogenesis T-S-077

## Impaired perforin-dependent NK cell cytotoxicity and proliferative activity of peripheral blood T cells is associated with metastatic colon cancer

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*Introduction:* Patients with metastatic colon cancer often have defects in the percentage and function of peripheral blood NK cells, and T cells. The aim of this study was to investigate in more detail not only the percentage but also the activation status and function of NK and T cells in patients with metastatic colon cancer(n=15) in comparison to control group(n=15).

*Method:* The percentage of peripheral blood CD3-CD56+ NK cells, and CD3+CD56- T cells as well as the expression of the perforin within these cells were analyzed by flow cytometry. The functional capacity of NK cells was evaluated by the flowcytometric cytotoxicity assay, while the proliferative activity of T cells was measured by the lymphocyte proliferation assay (LPA) to mitogen phytohemagglutinin (PHA).

**Results:** The results obtained in this study have revealed a new aspect of NK and T cell dysfunction that is not, as commonly reported about colon cancer. Interestingly, a significant number of the investigated patients had a higher percentage of NK cells that did not lead to improved NK cell cytotoxicity as a result of the detected defect in the NK cell cytotoxic mechanism of tumor cell lysis. Also, Perforin expression was decreased in metastatic patients. Moreover, we observed that in metastatic colon cancer patients in comparison to control group was in hyporeactive status T cell proliferation and decrease of perforin expression.

*Conclusion:* The novel finding in this study of metastatic colon cancer patients in compared with control group is the impaired functional capacity of NK cell, which was recently shown to be primarily responsible for preventing metastasis, and hyporeactive status of T cells, possibly resulting from persistent antigenic stimulation. Likely, these results are correlated with decrease of perforin expression within NK and T cells. It appears that the observed dysfunction of NK and T cells in patients with metastatic colon cancer prior to therapy point to the need to supplement chemotherapy with appropriate immunotherapeutic

agents in order to overcome the immunosuppression associated with advanced malignancy. Send Date: 2011/08/19

Category: 6 COLONIC AND ANORECTAL DIS-ORDERS

6.2 Malignant disease - diagnosis/histopathology T-S-078

# Evaluation of P53 gene mutation and abnormal P53 protein accumulation in colon adenocarcinoma by Immunohistochemistry method

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*Introduction:* Colorectal cancers and at the head of it, adenocarcinoma is one most frequent causes of mortality due to cancers in the world. Colorectal adenocarcinoma is accompanied with different alterations at the genetic level of the cell. among them, are mutations of P53 gene. The occurrence of this mutation is the introduction of irreversible malignant changes of the cells and are diagnostic by different procedures namely immunohistochemistry one. The purpose of this study is the survey on positive cases of colorectal adenocancinoma, for P53 protein by the immunohistochemistry procedure.

*Method:* 100 paraffin blocks with diagnosed as colorectal adenocarcinoma were collected; and from all blocks, the 4 micron sections were prepared, and after deparaffining immunohistochemistry staining with the help of antibody single specific anti P53, avidin biotin steroptovidin procedure performed on all specimens. In every specimens nucleus and cytoplasma staining in more than 10% of cells of the specimens, it was regarded as positive results. In all positive cases, with segregation the sexes, and in two groups patients over and under 50 years defined and compared with the statistic method (chi square).

**Results:** The positive staining was 60% in all patients, for protein P53. Between two sexes, in all the rates, there were not any significant statistic difference. The P53 positive rate in female patients over 50 years were clearly more than the male

patients over 50 years. (p value=0.03)(orderly were 100% and 73.1%). This rate, also, in patients over 50 years in both male and female were significantly higher than patient below 50 year.

*Conclusion:* The results of our study were as near as the other previous studies; (among the higer rate being in the older patients). According to this study, between two sexes, from pointview of P53 positive rate, there was not any significant difference. (however, in over 50 years age group, this rate was more in female). More studies are suggested in future with more and newer specimens and also applying additional parameters like feeding diets and women's hormone situation.

Send Date: 2011/08/08

#### Category: 6 COLONIC AND ANORECTAL DIS-ORDERS

6.2 Malignant disease - diagnosis/histopathology T-S-079

#### Synchronous Polyps in patients with colorectal cancer

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**Introduction:** The frequency of synchronous adenomatous polyps in patients with colorectal cancer has been appraised to be 15%-50%. This study was performed to estimate the accompaniment of synchronous polyps in patients with colorectal cancer. *Method:* In this retrospective study, previously prepared questionnaires were used to collect the essential information from the medical records of patients with colorectal cancer admitted during 1999-2009 for whom total colonoscopy has been done. The information required including age, gender, presence or absence of synchronous polyps, location of polyps, location of cancer, size of polyps and number of polyps were extracted.

**Results:** Totally 173 patients with colorectal cancer enrolled in this study and total colonoscopy revealed 52(30.1%) synchronous polyps. The mean age of patients was  $57\pm13$  years and 53% (92) of them were male. Rectum with 71(41%) cases was the most common involved area of colorectal cancers, following by sigmoid colon (37 cases,21.4%) and ascending colon (30 cases,17.3%). Sigmoid colon with 14 cases (26.9%) was the most common involved area for synchronous polyps, following by descending colon(10 cases,19.2%) and ascending colon (10 cases,19.2%).Most of the synchronous polyps (38.5%) were <5 mm in size and 19 cases (36.5%)5-10 mm in size.67.3% of the synchronous polyps were found to be single ,11(21.2%) patients had two polyps and multiple polyps was reported in 6(11.5%) patients .Most of the polyps were found before performing surgery 30(57.7%) and the rest of reported polyps were revealed after operation.

*Conclusion:* In conclusion, considering the high incidence of synchronous polyps in patients with colorectal cancer in our region, it is ideal to perform a preoperative total colonoscopy in each patient with colorectal cancer. If not possible, a postoperative colonoscopy should be carried out to find synchronous lesions in order to help improving surveillance of these patients. Send Date: 2011/08/10

Category: 6 COLONIC AND ANORECTAL DIS-ORDERS

6.3 Malignant disease - management T-S-080

### Evaluation of metastatic to resected lymph nodes ratio and factors that affect it in gastric cancer patients

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<sup>1</sup> Gastrointestinal & Liver Diseases Research Center (GLDRC), Guilan University of Medical Sciences *Introduction:* Gastric carcinomais as the first leading

cause of gastrointestinal cancer-related mortality. Lymph node status has been considered as the major determinant of gastric cancer recurrence for patients undergoing a curative gastrectomy. Metastatic lymph node ratio (MLR), namely the number of metastatic lymph nodes to the total number of resected lymph nodes, has also been found to be an important prognostic factor. Therefore, we decided to survey the relationship between MLR and clinicipathologic features of the patients.

*Method:* Medical records of patients with gastric cancer undergoing gastrectomy from years 2004 to

2009 were studied. Information such as demographic data, tumor location, histologic grade and stage of disease and MLR were analyzed. Patients with other pathologic reports (other than adenocarcinoma), gastrectomy with positive R1 and R2 margins and also patients who did not undergo lymph node dissection, were excluded.

**Results:** Of 70 patients with mean age of 60.93 years old, 84% were male. There was a significant relationship between MLR and age of the patients (p=0.01), metastatic lymph node number (p<0.001) and stage of the disease (p<0.001). It means that in younger patients with high lymph node metastasis and higher stages of the disease, the MLR is higher. However, we did not find any relationship between MLR and sex, grade, and location of the tumor.

*Conclusion:* MLR is a valuable prognostic factor in predicting the patients and the disease natural history. Send Date: 2011/07/23

### Category: 6 COLONIC AND ANORECTAL DIS-ORDERS

6.4 Other colonic and anorectal disorders T-S-081

# Study of relationship between colorectal polyps and body mass index in Qom center of Iran

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*Introduction:* It seems that the most of colorectal cancer are origin of a neoplasm called adenomatous polyp. Different factors are involved in creating adenomatous polyps. Epidemiologic studies have shown that a significant number of risk factors exist for colorectal adenomas Such as red meat and alcohol, smoking and obesity. In this study we decided that investigate the prevalence of colorectal polyps in

people with high body mass index and the relationship between body mass index and colorectal polyps.

*Method:* This descriptive analytical study was performed. In this study subjects about their age, weight, medical history, family medical history, gastrointestinal symptoms, and colonoscopy findings were recorded and assessed. Population was patients were admitted to Hazrat-e-Masumeh hospital with gastrointestinal symptoms and have been undergoing colonoscopy in Qom while November 2008 to January 2009.

**Results:** In this study, among 511 patients, 69 patients (14 percent) have polyp and 442 patients (86 percent) were in the control group. In patients with polyps, 2 percent underweight, 33 percent of normal weight, 38 percent overweight and 26 percent were obese and in control group, 5 percent underweight, 39 percent normal weight, 35 percent overweight, and 21 percent were obese. In the study of relationships between obtained data and according to square test and the coefficients can be claimed that between body mass index and colorectal polyps, there is no significant relationship.

*Conclusion:* Analysis of data for this study didn't find a significant relationship between colorectal polyps and body mass index. Send Date: 2011/07/17

#### Category: 6 COLONIC AND ANORECTAL DIS-ORDERS

6.4 Other colonic and anorectal disorders T-S-082

#### Frequency of Urinary Tract Infection and Nocturnal Enuresis in Children with Chronic Functional Constipation

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*Introduction:* There are controversial results about the role of chronic functional constipation in disorders of the urinary tract like urinary tract

infection (UTI) and enuresis. Constipation may cause UTI and enuresis due to the uninhibited bladder contraction. The aim of this study was to investigate the frequency of UTI and nocturnal enuresis in children with chronic functional constipation.

*Method:* We included 120 children (73, 60.8% female) with chronic functional constipation according to Rom III criteria in the study. Detailed past and present history of UTI or symptoms pointing to this diagnosis and enuresis was obtained. Urinalysis, urine culture and abdominal ultrasonography were performed for all patients.

**Results:** The mean age of the patients was  $7.4\pm3.2$  year (range, 1-15 year). 75% of the patients had constipation for more than one year. The most common urinary symptoms were dysuria (15%), urinary frequency (12.5%), and dribbling (4.1%). The frequency of nocturnal enuresis and daytime enuresis were 22.5% and 3.3%, respectively. Pyurias were seen in 11 (9.2%) patients that all of them were female. Of these patients urine culture were positive in 7 (5.8%) cases; E.coli in 5 (71.4%), S.aureus and Enterobacter each in one (14.3%). All organisms were sensitive to ciprofloxacin. Urinary tract ultrasonography was normal in these patients.

*Conclusion:* Urinary symptoms especially nocturnal enuresis was found in a significant number of children who had chronic functional constipation but UTI is not more common than general population. Therefore, we suggest that nocturnal enuresis should be questioned in children with chronic functional constipation, but screening for UTI is not recommended in these patients.

Send Date: 2011/08/17

#### Category: 6 COLONIC AND ANORECTAL DIS-ORDERS

6.4 Other colonic and anorectal disorders T-S-083

### The normal range and related factors of the intraepithelial lymphocyte in the colon mucosa of healthy individuals in Kurdistan province of Iran

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# Abstracts of Iranian Congress of Gastroenterology and Hepatology- 2011

<sup>2</sup>Private Clinic, Kurdistan University of Medical Science *Introduction:* Increased number of intraepithelial lymphocytes (IEL) in the colon mucosa is an important criterion for the histological diagnosis of lymphocytic colitis.

As we had found a very high percentage of lymphocytic colitis (but not collagenous colitis) diagnosis in patients with chronic non bloody diarrhea in our previous investigation in Kurdistan providence(39.13%), we decided to determine the average range of IEL in the different parts of colon in patients without chronic diarrhea in order to clarifying if this high percentage of diagnosis refers to a real high prevalence of lymphocytic colitis in this area or comes from a higher count of IEL between normal people of this area without any relation to lymphocytic colitis.

*Method:* In this cross sectional study 150 patients with an indication for colonoscopy other than chronic diarrhea were enrolled. We took biopsies from different parts of colon (ascending, transverse and descending colon). These biopsies were stained with Hematoxylin and Eosin Staining; and the number of IEL in all patients was counted by a singular pathologist.

**Results:** The mean of IEL in each 100 epithelial cells was  $(15/5 \pm 2/8)$ ,  $(12/8 \pm 2/5)$  and  $(11 \pm 2/6)$  in ascending, transverse and descending colon respectively. There was no significant difference in IEL count between different age, sex, and educational groups. Also people in rural and urban areas had similar count of IEL in this study.

*Conclusion:* This study revealed that the mean number of IEL in Kurdistan providence of Iran was similar to word and there was not any significant relation between IEL count and socioeconomic status of people. Also more proximal parts of colon had higher IEL count than distal parts. Send Date: 2011/08/22

Category: 7 LIVER 7.3 Metabolic/genetic disorders

T-S-084

Effects of Coenzyme Q10 on biochemical markers of hepatic necroinflammation in patients with non alcoholic steatohepatitis Ali Bahari<sup>1\*</sup>, Mohammad Hashemi<sup>2</sup>, Sara Shafieipour<sup>3</sup>, Noralla Hashemzehi<sup>4</sup> <sup>1</sup> Department of Internal Medicine, Mashhad University of Medical Sciences, Mashhad, Iran.

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*Introduction:* Nonalcoholic steatohepatitis is a common liver disease that can progress to cirrhosis. Currently, there is no established treatment for this disease.

Method: We randomly assigned 55 adults with nonalcoholic steatohepatitis(NASH) to receive CoQ10 60mg daily (30subjects) or vit E 800 unit daily (25 subjects) for 3 months to assessment the effect of CoQ 10 versus vit E on BMI, ALT, AST, ALK-P, PT, Bilirubine, ALB, Ferritin, TG, Total Cholestrol, FBS, Serum Insuline, LDL, HDL, total Anti Oxidant Capacity before and after intervention. Results: In CoQ10 group there was a significant improvement in weight and BMI (P value=0.001), AST, ALT, TAC (p-value<0.0001), Ferritin, Total bilirubin, GGT (p value<0.01), HDL (p value<0.05). In vit E group there was a significant improvement in AST, ALT, TAC, Ferritin, GGT, HDL(p value<0.01) but no significant difference in between the other parameters. There was seen no significant difference in CoQ10 and vit E in improvement any demographic and biochemical parameters.

*Conclusion:* Our study assigned that 60 mg CoQ10 is effective on improvement of noninvasive liver parameters in NASH, but not superior than 800iu vit E. Neither CoQ10 and nor vit E ara effective in insulin resistance but we suggest longer duration treatment and with larger dosage. We also suggest a larg study with biopy control for the assessment the effect of CoQ10 in NASH.

Send Date: 2011/07/21

Category: 7 LIVER 7.3 Metabolic/genetic disorders T-S-085

Effect of aerobic exercise on changing in seromic level of liver enzymes and liver echogenicity in patients with non alcoholic fatty liver disease Manouchehr khoshbaten<sup>1</sup>, Nasrin Gholami <sup>2\*</sup>,

Yagoub Salek Zamani<sup>3</sup>, Javad Rashid<sup>3</sup>, Yusof Hoshyar3, Afag Garjani3 <sup>1</sup> Liver and Gastrointestinal Diseases Research Center, Tabriz University of Medical Sciences, Tabriz, Iran <sup>2</sup> Liver and Gastrointestinal Diseases Research Center, Tabriz University of Medical Sciences, Tabriz, Iran <sup>3</sup> Liver and Gastrointestinal Diseases Research Center, Tabriz University of Medical Sciences, Tabriz, Iran Introduction: NAFLD has various prevalence in different parts of the world, though 20-30% prevalence has been reported in epidemiologic studies in western countries. Since obesity and low physical activity are main risk factors for the development of NAFLD, life style modification considering weight loss and physical activity is thought to be as important alternative for treatment of this disease and to prevention of cirrhosis that will manifest consequently if it is not treated.

*Method:* 90 patients diagnosed by ultrasound as NAFLD was evaluated in a clinical trial, they were evaluated in case (A) and control groups (B). The effect of aerobic exercise on changing in liver enzymes and liver echogenicity was assessed in case group and compared with control group which were only on medical therapy.

**Results:** The mean age in the sample group was  $37.6\pm8.3$  in the 17-56 yrs age range. 29 patients (64.4%) were male and 16 patients (35.6%) were female in group A, while 28 (62.2%) male and 17 (37.8%) female patients were in group B. In group A, fatty liver was in stage I in 26 (57.8%) cases, stage II in 17 (37.8%), and stage III in 2 (4.4%). In group B, fatty liver was in stage I in 30 (66.7%) patients, in stage II in 14 (31.1%), stage III in 1 (2.2%). There was no significant difference between the two groups evaluating fatty liver changes (p=0.23).But there was significant difference in liver enzymes changes in group A (ALT p=0.0001 AST (p=0.01)

**Conclusion:** Considering the present study, we can suggest that a controlled aerobic exercise schedule can be helpful in the association of medical therapy in the treatment of NAFLD.

Send Date: 2011/07/21

Category: 7 LIVER 7.3 Metabolic/genetic disorders T-S-086

# Relation of alanine aminotransferase level with severity of atherosclerosis and metabolic syndrome in patients with non-alcoholic fatty liver disease

Manouchehr khoshbaten<sup>1</sup>, Lili Abbaszadeh<sup>1\*</sup>, Maryam Zaareh<sup>1</sup>, Faranak Dordaei<sup>1</sup>, Javad Rashid<sup>1</sup>, Elham

Ramazanzadeh<sup>1</sup>, Nasrin Gholami<sup>1</sup>, Koorosh masnadi<sup>1</sup> <sup>1</sup> Liver and Gastrointestinal Diseases Research Center, Tabriz University of Medical Sciences, Tabriz, Iran Introduction: The prevalence of non-alcoholic fatty liver disease (NAFLD) is increasing worldwide because of the rise of obesity and diabetes mellitus prevalence. This condition is closely related to insulin resistance and markers of oxidative stress and endothelial dysfunction. There have been evidences indicating that elevated level of serum alanine aminotransferase (ALT) may reflect metabolic syndrome and general atherosclerosis in NAFLD patients; however, the data are not conclusive. This study aimed at evaluating possible association between serum ALT level with severity of atherosclerosis and metabolic syndrome in patients with NAFLD.

*Method:* In this analytic-descriptive cross-sectional setting, 309 patients with sonographically diagnosed NAFLD were recruited in Tabriz Imam Reza Teaching centre during a 2-year period of time. Serum level of alanine aminotransferase (ALT) was measured in all patients and accordingly, they were allocated in two groups: with normal level of serum ALT (<40U/L); or with elevated level of serum ALT (>40U/L). The right and left carotid IMTs were measured and the maximum reading in both sides was reported as the final result. The sonographic grading of NAFLD was also performed. Data were compared between the two groups with normal and elevated levels of serum ALT.

**Results:** There were 166 cases with normal and 143 cases with elevated levels of serum ALT. There was not a significant association between the elevation of serum ALT level and the carotid IMT. Frequency of cases with abnormal fasting blood sugar, increased serum triglyceride and abnormally low serum high density lipoprotein was significantly lower in the group with elevated level of serum ALT. Frequency of patients with central obesity and hypertension was not significantly different between the two groups. Percentage of cases with metabolic syndrome was

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significantly and independently higher in the group with elevated level of serum ALT (39.2% vs. 22.3%; p=0.001). Association between elevated level of serum ALT and grade of NAFLD was not independently significant.

*Conclusion:* Elevated level of serum ALT is associated with metabolic syndrome and majority of its components in NAFLD patients; however, this association was not apparent with sonographic grade of NAFLD or carotid IMT. Send Date: 2011/07/21

Category: 7 LIVER 7.3 Metabolic/genetic disorders T-S-087

### بررسی فراوانی نسبی هیپوتیروئیدیسم در بیماران مبتلا به کبد چرب غیر الکلی

Eskandar Hajiani<sup>1\*</sup>, Seyed Jalal Hashemi<sup>1</sup>, Hajieh shahbazian<sup>2</sup>, mohamad Salehvand<sup>1</sup> <sup>1</sup> GI ward, Ahvaz-Jondishapoor University

<sup>2</sup> Diabetes Investigation Center, Ahvaz-Jondishapoor University **مقدمه**: کبد چرب غیر الکلی یک بیماری مزمن کبدی است که در افرادی که سابقه مصرف الكل ندارندولي يافته هاي هيستولو ژيک كېد آنها مشابه افرادي است كه الكل مصرف كرده اند ديده مي شود و به صورت رسوبات ماكروويز يكولار چربي، نکروز پراکنده، التهاب، مالوری بادی و فیبروز در بافت کبدی خود را نشان می دهد. رابطه بین کبد چرب غیر الکلی و بیماریهایی مثل دیابت، هیپرلیپیدمی و چاقی شناخته شده است. اختلالات تست های کبدی در اختلالات و بیماریهای تیروئید از دیرباز مورد توجه بوده است ولی هنوز معلوم نشده است که آیا بین اختلالات كارتيروئيد مثل هيپوتيروئيدي وكبد چرب غير الكلى ارتباطي وجود دارد یا خیر ؟ هدف از مطالعه اخیر بررسی یافته های بالینی و فاکتورهای خطر وابسته به بيماران مبتلا به كبد چرب غير الكلى و به طور اختصاصي بررسي فراواني نسبي هييوتير وئيديسم دربيماران باكبد چرب غير الكلي در استان خوز ستان مي باشد. روش بررسی: جهت انجام مطالعه کلیه بیمارانی را که در خلال سالهای ۱۳۸۴ تا ۱۳۸۵ هجری شمسی با تشخیص کبد چرب غیر الکلی در کلینیک تخصصی گوارش تحت درمان قرار گرفته بودند مورد بررسی قرار گرفتند . تمامی بیماران دارای سونوگرافی دال بر کبد چرب در غیاب سایر علل شناخته شده بیماری کبدی مانند هياتيت B ، هياتيت C و يا مصرف الكل داشتند . فاكتورهايي مانند سن، جنس، چاقی، اختلال کارکرد کبدی و اختصاصاً اختلال تیروئیدی و اختلال چربی خون در این بیماران مورد بررسی قرار گرفت.

**یافته ها**: از ۲۰۰ بیمار بررسی شده ۸۲ نفر مذکر و ۱۱۸ نفر مونث بودند. میانگین سنی بیماران ۴۲ سال با انحراف معیار SD ا¥t و طیف سنی از ۵۴–۳۰ سال شامل می شدند. به طور کلی میانگین سنی (بر حسب سال)، 25<BMI(۶۰٪) ، اختلال کارکرد کبدی (۸۰٪)، دیابت (۴۴/۵٪) ، هیپوتیروئیدی (۲۷/۵٪) و اختلالات چربی خون (۶۹٪) فاکتورهایی بودند که در بیماران مبتلا به NAFLD متمایز بودند. شیوع هیپوتیروئید، در زنان مبتلا به NAFLD ، ۲۰/۵٪ و در مردان ۲۳/۱۷٪ بود. همچنین در بیماران مورد مطالعه ما، شیوع دیابت در زنان مبتلا به NAFLD نسبت به مردان به طور بارزی بیشتر بود و اختلال عملکرد کبدی در مردان مبتلا نسبت به زنان شیوع کاملاً بالاتری داشت که اینها از دیگر نتایج مهم این مطالعه هستند. بررسی های آماری حاکی از اهمیت این فاکتورها در ابتلا به NAFLD و ایجاد زمینه سازی جهت ابتلامی باشند.

نتیجه گیری: اختلالات متابولیک از قبیل چاقی، دیابت و اختلالات چربی خون به طور مرتبط با هم و هیپوتیروئیدی به عنوان فاکتورهای خطر در بیماران NAFLD و در زنان شیوع بیشتری داشتند.

Send Date: 2011/07/21

Category: 7 LIVER 7.3 Metabolic/genetic disorders T-S-088

### Sampling Error in Histopathology Findings of Nonalcoholic Fatty Liver

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Sepanlou<sup>1</sup>, Reza Malekzadeh<sup>1</sup>, Masoud Sotoudeh<sup>1</sup> <sup>1</sup> Digestive Diseases Research Center, Tehran University

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*Introduction:* Many clinical trials and natural history studies on nonalcoholic fatty liver disease (NAFLD) and nonalcoholic steatohepatitis (NASH) rely heavily on liver histology to define their endpoints. There are many indications that the liver is not uniformly involved in NAFLD thus sampling error is a major concern.

*Method:* Samples from a forensic autopsy series were studied. Subjects with NAFLD were identified. Specimens were taken from three different parts of each liver. Degree of steatosis, hepatocyte ballooning, lobular inflammation, portal inflammation, and fibrosis was recorded. A NASH activity index (NAI) which is the sum of scores of histologic features was also calculated. The agreement between the three samples from each liver was studied.

**Results:** Nine-hundred and forty-five autopsies were performed, 896 were suitable for histologic evaluation and 283 had NAFLD. Of these, 146 livers were available to our study of which 438 samples were taken. Fibrosis (intra-class correlation=0.87), lobular inflammation (kappa=0.83), and portal inflammation (kappa=0.83) were fairly uniformly

distributed in the damaged liver. Steatosis was less uniform (kappa=0.64), and hepatocyte ballooning was least uniformly distributed (kappa=0.57). The ICC for NAI was 0.86 indicating good agreement.

*Conclusion:* The individual histologic features of NAFLD and NASH are not uniformly distributed in the liver. Hepatocyte ballooning is especially non-uniform. Such non-uniformity should be taken into account when interpreting results of studies relying on paired biopsies. A summary score such as NAI is less affected by sampling error. Send Date: 2011/07/25

Category: 7 LIVER 7.3 Metabolic/genetic disorders T-S-089

# A Report of Iranian Hereditary Hemochromatosis Patients: Baseline Characteristics, Laboratory Data and Gene Mutations

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*Introduction:* Hereditary hemochromatosis (HH) is the most common autosomal recessive disorder between white people which is characterized with excessive abnormal uptake of iron from the gastrointestinal tracts. Recently, mutation studies have focused to detect the responsible genes for HH. According to rare prevalence of HH and lack of appropriate mutation studies in Iran, we aimed to assess 12 Iranian HH patients.

*Method:* In this cross-sectional study, 12 HH patients were recruited who were referred to Firoozgar Hospital, Tehran, Iran. In addition to the clinical assessments, a complete laboratory evaluation,

imaging modalities, histopathologic assessment, atomic absorption spectrophotometry and gene mutation study were performed. The genetic study for HFE gene mutation was examined for all of the patients since 2006 while non-HFE mutation was conducted since December 2010 (only for two of them). **Results:** Twelve patients were evaluated consisting of 11 men and 1 woman with the mean age of 39.58+12.68 yr. The average of atomic iron loads was 13.25±4.83 fold higher than normal standards. Four patients had heterozygotic mutation of H63D (33.3%), while, out of two evaluated patients for Non-HFE mutation, only one was homozygote mutant for TFR2 gene. There was not any significant difference either in the iron load of liver (P=0.730) and heart (P=0.730) or serum concentration of ferritin (P=0.755) and TIBC (P=0.530) between the mutant and non-mutant HH cases.

*Conclusion:* In contrast to other studies, C282Y mutation was not detected in any of our Iranian HH patients. While, heterozygotic mutations of H63D (HFE) and TFR2 (non-HFE) genes were found to be more common in these patients. Similar to previous reports, these mutations were not found to be significantly associated with severity of presentation in HH patients.

Send Date: 2011/07/31

Category: 7 LIVER

7.3 Metabolic/genetic disorders T-S-090

### Adding aerobic exercise to low-caloric diet increases the effect of therapy in patients with nonalcoholic steatohepatitis

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*Introduction:* Nonalcoholic Steatohepatitis (NASH) is part of a broad spectrum of nonalcoholic fatty liver

disease. To date, no medical treatment has been proven. We aimed to compare the effect of aerobic exercise along with diet and diet alone on serum aminotransferases levels, anthropometric indices, and cardio respiratory fitness in patients with NASH.

Method: Twenty-three NASH patients with the age of range of 25 to 50 years old were randomly divided in two groups and underwent aerobic exercise along with diet (n=12) or diet alone (n=11). In this study, low-caloric diet in both groups included 500 kilocalories of energy less than estimated daily energy requirement. In addition to diet, the first group were participated in aerobic exercises consisted of walking, jogging and running, for a period of 8 weeks, 3 days a week with 55–60% heart rate reserve. Serum aminotransferase levels, anthropometric indices, and peak oxygen consumption were measured before and after eight weeks of the intervention. Data were analyzed by Paired Samples and Independent-Samples T Test, at a significance level of P < 0/05.

**Results:** Although, no significant difference was noted in patients on diet alone, serum ALT and AST levels were significantly decreased in patients underwent diet and exercise. Anthropometric measurements were decreased and peak oxygen consumption was increased significantly in both groups; however, there were significant difference between two groups in variables WC, WHpR, WHtR and VO2 peak.

*Conclusion:* Aerobic exercise along with low-caloric diet may be more effective than low-caloric diet alone-in treatment of patients with nonalcoholic steatohepatitis.

Send Date: 2011/08/19

Category: 7 LIVER

7.4 Hepatotoxicity/alcohol - regeneration - apoptosis T-S-091

# TB Drugs hepatotoxisity, Abundance and outcome (7 years study on 324 patients with smears positive TB in Qazvin)

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#### of Medical Sciences

*Introduction:* Hepatotoxicity is a major concern during treatment of tuberculosis. Its prevalence range from 1- 4% in developed countries to 11.5% in developing countries and more in some countries such as India. Mortality appears to 5%, but can be prevented by early detection. This study was conducted to reveal prevalence and outcome of drug-induced hepatitis in smear positive tuberculosis patients taking anti-TB drug therapy in Qazvin, central of Iran.

*Method:* This observational descriptive retrospective cross-sectional study was done on 324 patients(newly diagnosed cases) with smear positive TB taking anti-TB drugs as 6 months classic regimen, DOTS method (isoniazide+ rifampin+ pyrazinamide+ ethambutol or streptomycin for 2 months and then isoniazide +rifampin for 4 months) during 2004-2010.

**Results:** Mean age of the cases was 42±12.1 y/o (mean $\pm$  SD). 194 cases (60%) were female and the remaining were male. drug-induced hepatitis were seen in 16 cases (4.9%). mean age of affected cases was 52 y/o. liver enzyme had begun to rise 13-45 days after drug therapy (mean=25.25), the altitude of enzyme rise were 287-605 i.u. the enzyme level returned to normal after 14-43 days (mean=23.45) after drugs discontinuation. There was no mortality. *Conclusion:* the prevalence of drug-induced hepatitis in our study was 4.9%. Although it was seen more in females and, age over 50 years but no statistically significant relations were found between drug-induced hepatitis and sex or age of the patients. With base line and 2 week periods Liver enzyme check and rapid drugs discontinuation in raised cases in this study, was not observed any mortality. Send Date: 2011/05/19

Category: 7 LIVER

7.5 Cirrhosis and complications: basic aspects T-S-092

Etiology of chronic liver disease in patients admitted in the Shariati Hospital Tehran during 2000-2009 Shifteh Abedian<sup>1\*</sup>, Mehdi Saberifiroozi<sup>1</sup>, Reza Malekzadeh<sup>1</sup>

<sup>1</sup> Digestive Disease Research Center, Shariati Hospital, Tehran, University of Medical Sciences, Tehran, Iran *Introduction:* Chronic Liver diseases (CLD) especially liver cirrhosis (LC) is one of the most important causes of death in Iran. 39 percent of patients admitted in Shariati hospital during 2000-2004, have had chronic liver diseases, cirrhosis and hepatic failure. We decided to compare the etiologic causes of CLD and LC admitted in this large referral hospital during two time periods of 2000-2004 and 2004-2009.

*Method:* The discharge sheets of 5880 patients had been admitted in Shariati hospital GI ward during two 5 years periods of 2000-2004 and 2004-2009 were reviewed. The final diagnosis and etiology of chronic liver disease and /or chronic liver failure on the basis of ICD-10 extracted and evaluated statistically.

**Results:** Among the 956 patients in the 1st group during 2000-2004 period, the rate of the most common etiologic agents were hepatitis B virus (41.1%),cryptogenic cirrhosis(21.96%), Autoimmune Hepatitis (12.97%), HCV (11.71%),and primary biliary cirrhosis(PBC)(5.12%). While among 861 patients in the 2nd period, during 2005-2009, the rates of the most common agents were HBV (29.5%), cryptogenic cirrhosis (27.75%), HCV (15.91%), AIH (15.79%), and PBC (4.64%).

*Conclusion:* The rate of HBV has decreased and cryptogenic and HCV have increased in this group of patients. These changes may be due to improvements in the sanitation status and the rising rate of obesity and metabolic syndrome in our community. We suggest more study in other referral centers. Send Date: 2011/08/22

Category: 7 LIVER

7.6 Cirrhosis and complications: clinical aspects T-S-093

### Effect of non-alcoholic fatty liver disease on carotid artery intima-media thickness as a risk factor for atherosclerosis

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Introduction: The prevalence of non-alcoholic fatty

liver disease (NAFLD) is increasing worldwide secondary to the rise of obesity and diabetes mellitus (DM) incidence. There are various non-invasive methods for determining the atherosclerosis, of non-invasive assessment of carotid which. intima-media thickness (CIMT) by high-resolution carotid Bmode ultrasonography is widely used in this regard. This study aimed at evaluating the effect of NAFLD on CIMT as a risk factor for atherosclerosis. Method: In this case-control setting, 151 subjects divided to three groups: Group 1 including 49 patients with NAFLD and DM; Group 2, including 50 nondiabetic NAFLD patients; and the controls including 52 normal subjects. The right and left CIMTs and its maximum reading (CIMTmax) were measured by a skilled sonographist blind to the grouping. Demographic and other atherosclerosis risk factors were compared between groups, as well. The sonographic grading of the NAFLD was determined in group 1.

**Results:** Median CIMTmax was significantly higher in the case 1 group comparing with that in the case 2 and control groups (0.6mm, 0.5mm and 0.4mm, respectively, p < 0.001). This difference between the case 1 and case 2 groups was not significant after adjusting for age and previous history of hypertension and hyperlipidemia (p=0.089). Between the case 1 and control groups, the difference was again significant after controlling the confounders (p=0.018). Similar result was attained in comparison between the case 2 and control groups (p=0.043). Comparing the median CIMTmax between the patients in case 1 group with and without elevated liver function tests, there was no significant difference (0.6 mm in both groups, p=0.402). Comparing the median CIMTmax between the patients in case 1 group according the sonographic grading of NAFLD, there was no significant difference (0.5mm, 0.6 mm and 0.6 mm in grade 1, 2 and 3, respectively; p=0.438).

*Conclusion:* Based on our findings, there is a significant association between the presence of NAFLD and atherosclerosis. This association was independent from the DM presence. The grade of NAFLD and elevated lever function tests had no effect on severity of atherosclerosis.

Send Date: 2011/07/15

#### Category: 7 LIVER

7.6 Cirrhosis and complications: clinical aspects T-S-094

Predicting Factors of Rebleeding and Mortality in Variceal Bleeding in Patients Hospitalized in Gastroenterology Ward of Emam Khomeini Hospital 2007-2008

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*Introduction:* Esophageal variceal bleeding is associated with high mortality rate and hospitalization costs. By diagnosing predicting factors of rebleeding

at admission, with sufficient actions, we can minimize the mortality and rate of rebleeding. The aim of this study is to determine predicting factors of rebleeding and death in patients hospitalized because of variceal hemorrhage.

*Method:* In a case control study, 100 patients with variceal bleeding were studied whom were admitted at Emam Khomeini Hospital from June 2007 to May 2008. There demographic characteristics were age, gender, etiology, CTP classification and various clinical, laboratory and endoscopic criteria of patients were recorded. Patients were divided into case and control groups (with and without variceal bleeding). Predictive values of all criteria were surveyed.

**Results:** 32 patients with age (mean±SD)  $54.22\pm19.81$  and 68 with age (mean±SD)  $49.88\pm16.42$  were in case and control group, respectively. There was no relation between age, gender, treatment (p=0.30), etiology (p=0.68), concomitant disease and portal hypertension with rebleeding. Size of varices (p=0.046), encephalopathy (p<0.05), ascites (p<0.005), bilirubin seric level and CTP classification (p<0.005) had predictive effect on rebleeding. Of patients, 12 were CTP class A, 59 CTP class B and 29 CTP class C. CTP and bilirubin sensitivity with the aid of ROC evaluation was found >85% and >62%, respectively. No deaths were seen in the period oh hospitalization.

*Conclusion:* Determining the class and grade of the CTP at admission in patients with variceal bleeding, will afford useful prognostic information. In this study, patients with CTP class B were strongly susceptible for rebleeding. Also, we found that there

is correlate between the higher bilirubin, severity of ascites, encephalopathy and rebleeding rate. In these patients intensive care is recommended. Send Date: 2011/07/20

### Category: 7 LIVER

7.6 Cirrhosis and complications: clinical aspects T-S-095

### **Evaluation of frequency of Etiology and clinical profile of liver Cirrhosis in GI clinics of Ahvaz city in 1377-1386** Eskandar Hajiani<sup>1\*</sup>, Seyed Jalal Hashemi<sup>1</sup>,

A Ahmadzadeh<sup>1</sup>

<sup>1</sup> GI ward, Ahvaz - Jondishapoor University *Introduction:* Liver cirrhosis is the end-stage of many different chronic liver diseases. Limited data exists on the epidemiology, natural history and complications of liver cirrhosis in Ahvaz city. In a Cross-sectional study we retrospectively evaluated 165 patients in our set up from 1377 to 1386.

*Method:* Patients having an evidence of cirrhosis of liver on ultrasound examination of abdomen were enrolled. The diagnosis was based on clinical, functional and morphological data, and the etiological profile was established by determining viral markers, autoimmune markers and by metabolic screening. All those patients who were not confirmed to be cirrhotic excluded from this study. All cases were studied to determine the etiological factors, complications and prognosis of disease. All data were recorded on a questioner.

**Results:** Total 165patients were studied, 114(67%) males and 51(33%) females. Their mean age was 47 years. Majority of patients (63.6%) had HBV infection, (29.9%) had Autoimune Hepatitis, (13.6%) HCV infection,(1/8%) had Wilson's disease and no etiological factors were recorded in (23%) patients. Ascites was present in (32%) cases, splenomegaly in (29%), esophageal varices in (38%), acute variceal hemorrhage in (8%), hepatic encephalopathy in different grades in (1%), fundal varices in (2%), peptic ulcer in (8%) and hepatocellular carcinoma in (6%) patients. All patients with acute variceal episode(s) were adequately and timely treated in GI department. When cirrhotic patients were grouped into child-Pugh's classification, (19%) were in class 'A' category, (30%) in class 'B' category, and (51%)

#### in class 'C' category.

*Conclusion:* HBV infection was the major risk factor for cirrhosis in our study. Ascites was the commonest complication. Patients with child-Pugh's class 'C' cirrhosis were more frequent than patients with child-Pugh's class 'B' and 'A'. A multidisciplinary approach for prevention and control of ever increasing HBV infection must be adopted and to make the public awareness through the mass media about its drastic complications, and possible modes of its transmission. Send Date: 2011/07/21

Category: 7 LIVER

7.6 Cirrhosis and complications: clinical aspects T-S-096

### Correlation between MELD Score and Child-Pugh-Turcott Score in Patients with End Stage Liver Disease

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*Introduction:* MELD Score and Child-Turcotte-Pugh score are used to assess the prognosis of chronic liver disease, mainly cirrhosis.Although the Child-Turcotte scoring system was the first of scoring in stratifying the seriousness of end-stage liver disease,MELD score is used increasingly to assess patients for liver transplantation.We wanted to find a relationship between these scoring systems to examine patients survival more precisely.

*Method:* In a cross sectional study we collect the data from 105 cases of end stage liver disease caused by viral hepatitis, autoimmune hepatitis and other causes from Emam Reza academic hospital-Tabriz-Iran from January 2007 to February 2011 .Relationship between two scoring systems was appreciated by calculating the correlation coefficient by SPSS.16.

*Results:* Strong correlation between MELD score and Child-Turcotte-Pugh score shows in this study (P<0.001), so that according to the results of regression test in 70 percent Child-Turcotte-Pugh score variations related to the MELD score variations.

Conclusion: The present study demonstrates that

although MELD score was the primary predictor of overall survival in multivariate analysis, the relationship between these scoring systems shows we can use both of them to predict patients' prognosis with equal accuracy. Send Date: 2011/07/21

#### Category: 7 LIVER

7.6 Cirrhosis and complications: clinical aspects T-S-097

> مقایسه اثر کلینیکی متوتروکسات و کلشی سین در درمان سیروز صفراوی اولیه: یك مطالعه متاآنالیز محمد حسین صومی<sup>(\*</sup>، مرتضی قوجازاده<sup>۲</sup>،

على اصغر پورى'، محمد امين محمد زاده قره باغى ً

<sup>ا</sup>مرکز تحقیقات بیماریهای گوارش و کبد، دانشگاه علوم پزشکی تبریز ۲ گروه فیزیولوژی دانشکده یزشکی ، دانشگاه علوم پزشکی تبریز

<sup>7</sup> دانشجوی پزشکی عضوانجمن علمی دانشکده پزشکی، دانشگاه آزاد اسلامی تبریز معدمه: بیماری سیروز صفراوی اولیه یکی از بیماریهای گروه خود ایمنی کبد و مجاری صفراوی است که اغلب با اور سودزوکسی کولیك اسید (UDCA) تحت درمان قرار می گیرد با توجه به عدم پاسخ مناسب در تعدادی از موارد داروهای مختلفی نظیر کلشی سین و متوتروکسات در کنترل علائم آن مورد استفاده قرار گرفته اند مطالعه حاضر بصورت یك مطالعه فراتحلیلی جهت مقایسه اثرات کلینیکی متوتروکسات و کلشی سین طراحی شده است.

روش بررسی: در این مطالعه با جستجودر منابع مختلف پزشکی۵۰ مقاله مرتبط با موضوع به دست آمد تنها مطالعاتی وارد متا آنالیز شدند که به صورت کار آزمایی بالینی در بیماران مبتلا به سیروز صفراوی اولیه با شرایط کلینیکی مورد نظر بودند بیماران به صورت تصادفی به دو گروه تجربی و شاهد تقسیم شده و از داروهای کلشی سین و متوتروکسات استفاده کرده بودند نتایج با استفاده از نرم افزار CMA.2 مورد بررسی و تجزیه و تحلیل آماری قرار گرفتند.

یافتهها: متو تروکسات و کلشی سین هردو آلکالن فسفاتاز را کاهش داده بودند ولی تغییرات متو تروکسات نسبت به کلشی سین ازلحاظ آماری معنی دار بود. (P=۰/۰۳) ودر مورد آلانین ترانسفراز هردو کاهش داده بودند که این تفاوت از لحاظ آماری معنی دار نبود (P=۰/۲۳).

**نتیجه گیری**: در بیمارانی که به داروی اور سودزوکسی کولیك اسید (UDCA) پاسخ نداده بودند متو تروکسات و کلشی سین می توانند سطح آنزیمهای کبدی را بهبود بخشندولی تغییرات آلکالن فسفاتاز در متو تروکسات بهتر از کلشی سین بود.

Send Date: 2011/08/18

#### Category: 7 LIVER

7.7 Viral hepatitis: basic aspects

T-S-098

Prevalence of HIV coinfection with HCV

#### and HBV in Kerman city during 2010

Mohammad Javad Zahedi, Sodaif Darvish Moghaddam<sup>1</sup>, Mohammad Mehdi Hayatbakhsh Abasi<sup>1</sup>, Maryam Parniyan<sup>2</sup>, Mohammad Javad Zahedi<sup>1\*</sup>

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*Introduction:* Infection with HIV, HCV and HBV is common worldwide. These viruses have similar routs of transmission; through blood products, sharing of needles for drug injections and sexual activity. Therefore, confection with these viruses is common. Coinfection with HCV and HBV in HIV positive patients may lead to hepatic complications and consequently decreased life expectancy. This study was designed to assess the prevalence of HCV and HBV coinfection in HIV positive patients in Kerman, Iran during 2010.

*Method:* In this cross sectional study, 165 HIV positive patients were evaluated for demographic features and history of high risk behaviors. The patients were tested for HBS Ag, and HCV Ab by using EIA method. Statistical analysis were performed by SPSS 18 software.

**Results:** Out of total 165 HIV positive patients 82.4% were men and 17.6% were women with a mean age of  $40.4 \pm 9$  years. The prevalence of HCV and HBV coinfection were 73.8% and 3.7% respectively. A simultaneous coinfection of three viruses was 1.8%. The main risk factors for HCV coinfection were history of being in jail and drug injections.

*Conclusion:* Prevalence of HIV- HCV coinfection in Kerman city is much more common than other studies, due to high prevalence of injecting drug users in this study.

Send Date: 2011/07/02

Category: 7 LIVER 7.7 Viral hepatitis: basic aspects T-S-099

# Development of a SYBR Green Real time multiplex RT-PCR technique for simultaneous detection of HCV and GBV-C Co-infection in plasma samples

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*Introduction:* HCV and GBV-C belong to the Flaviviridae family of viruses and GBV-C is the closest virus to HCV genetically. Accumulative research is in progress all over the world to clarify clinical aspects of GBV-C. Possibility of interaction between HCV and GBV-C and also its consequence with other liver diseases are the most important clinical aspects which encourage researchers to develop a technique for simultaneous detection of these viruses. In this study a SYBR Green Real time multiplex RT-PCR technique as a new economical and sensitive method was optimized for simultaneous detection of HCV/ GBV-C in HCV positive plasma samples.

*Method:* After designing and selection of two pairs of specific primers for HCV and GBV-C, SYBR Green Real time RT-PCR technique optimization was performed separately for each virus. Establishment of mulitiplex PCR was the next step. Finally our technique was performed on positive and negative plasma samples.

**Results:** 56 non cirrhotic HCV positive plasma samples (29 of genotype 3a and 27 of genotype 1a) were collected from patients before receiving treatment. 20.6% of genotype 3a and 18.7% of genotype 1a showed HCV/ GBV-C coinfection. As a result, 19.6% of 56 samples had HCV/ GBV-C coinfection that was compatible with other results from all over the world.

*Conclusion:* SYBR Green Real time multiplex RT-PCR technique can be used to detect HCV/GBV-C co-infection in plasma sample. Furthermore, with application of this method more time and cost could be saved in clinical-research settings.

Send Date: 2011/07/21

Category: 7 LIVER

7.7 Viral hepatitis: basic aspects

#### T-S-100

# A Population-based Seroepidemiological Study on Hepatitis E Virus in Iran

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*Introduction:* Little is known about HEV seroprevalence and its determinants in Iran. Considering the fact that Iran is among the countries in which HEV infection is endemic, a large-scale population based study in this regard is justified.

*Method:* This survey was conducted in 2006 in Tehran and Golestan Provinces, Iran. Stored sera of subjects were tested for serological markers of anti-HEV. The baseline data were recorded in structured questionnaires. Weighted seroprevalence and weighted logistic regression coefficients were calculated.

*Results:* A total of 1423 samples were included. The overall seroprevalence in two provinces was 7.4%. Age with an odds ratio equal to 1.59 (95% CI: 1.26-2.02) and history of traditional phlebotomy with an odds ratio equal to 2.28 (95% CI: 1.13-4.60) were independent predictors of HEV seropositivity.

*Conclusion:* Considering the high rate of HEV seroprevalence in Iran, further studies on the cost-effectiveness of vaccination among vulnerable groups are mandatory.

Send Date: 2011/07/25

Category: 7 LIVER

7.8 Viral hepatitis B: clinical aspects T-S-101

# Comparison between efficacy of ,lamivudine ver. Interferon in treatment of Hepatitis B

Mohsen Akhondi-Meybodi<sup>1\*</sup>, Azar Rabei<sup>1</sup> <sup>1</sup> Shahid Sadoughi University of Medical Sciences-Yazd, Iran *Introduction:* Hepatitis B is a global health problem that caucuses cirrhosis and hepatocellular cancer through the world .Because of great health problem treatment of hepatitis B is important. We evaluated the effect of lamivudine and interferon in the treatment of hepatitis B wild type and precormutant variant in Yazd 2007-2010.

*Method:* Patient with chronic hepatitis B who has elevated liver enzyme two times than normal ,who last from six month and elevated HBV DNA included .Patients who treated previously or have co-infected

with HCV or HIV and patients who diseased was progressed were excluded. Seventy patents divided in two groups one group received lamivudine 100 mg daily and other group received convention interferon five million unit every day.

**Results:** 70 patients were included. Negative result of HBV DNA was negative in 61.9% with interferon and 61.1% with lamivudine in wild type subgroup of Hepatitis b and negative HBV-DNA result was 64.3% in interferon treatment and 68.8% in patient that received lamivudine in precoer-mutant subgroup of hepatitis B.

*Conclusion:* Virological response was better in precore muton groups to lamivudine than interferon. Send Date: 2011/07/20

Category: 7 LIVER

7-8 Viral hepatitis B: clinical aspects T-S-102

> Frequency of YMDD mutations in patients with chronic hepatitis B untreated with antiviral Medicines

Seyed Hamid Moosavy<sup>1\*</sup>, Hussein Froutan<sup>2</sup>, Mohsen Nasiri Toosi<sup>2</sup>, Yasir Andrabi<sup>2</sup>, Hadi Ghofrani<sup>2</sup>, Hamid Vahedi<sup>2</sup>, Mehrnoosh Rezaee<sup>1</sup>

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*Introduction:* Investigators were suspicious YMDD mutations occurred only in patients who were treated by lamivudine. But YMDD mutations of hepatitis B virus gene (HBV DNA) in patients with chronic hepatitis B (CHB) untreated with antiviral medicines was reported in some studies. The aim of this study was to evaluate YMDD mutations in Iranian Patients with chronic hepatitis B (CHB) untreated with antiviral medicines.

**Method:** In a cross sectional study,151 adult patients with positive Hepatitis B surface antigen (HBs Ag) (78 asymptomatic hepatitis B virus carriers, 73 active chronic hepatitis B patients or cirrhosis patients) were evaluated for YMDD mutants. The patients who were treated with interferon in recent one year and Lamivudine or Adfovier before the study were excluded. YMDD mutations of HBV DNA were detected by PCR-RFLP (PCR Restriction Fragment Length Polymorphism) in single laboratory.

**Results:** The mean ( $\pm$ SD) of age of patients was 37 $\pm$ 4 years. Eighty one (54%) were male and 70(46%) were female. Eight cases (5.3%) out of 151 had YMDD mutations. The type of mutation in all of these patients was YSDD. There was no significant relationship between YMDD mutation and viral load and HDV Ab (p>0.05).

*Conclusion:* The mutant strains of the YMDD motif of HBV polymerase can be found in some patients without lamivudine treatment. However, in view of rather clinically insignificant YMDD mutation frequency, routine testing for YMDD mutations prior to antiviral therapy is not recommended in these patients.

Send Date: 2011/05/03

Category: 7 LIVER 7.8 Viral hepatitis B: clinical aspects F-T-103

> یافته های هیستوپاتولوژیک، ویرولوژیک و بیو شیمیائی در مبتلایان به هپاتیت B مزمن با آنتی ژن E منفی

Hasan Saadatnia<sup>1</sup>, Abbas Esmaeelzade<sup>2</sup>, Bahram Memar<sup>3</sup>, Kamran Ghaffarzadegan<sup>4</sup>, Azita Ganji<sup>5</sup>, Ahmad Khosravi<sup>1</sup>, Ali Mokhtarifar<sup>5</sup>, Hasan Vosoughinia<sup>1</sup>, Mahmood Farhoodi<sup>5</sup>, Davood Sharifi<sup>1</sup>, Moosarreza Hoseini5, Ali Bahari5, Hamid Reza Sima5, Faride Moradimoghaddam<sup>6</sup>, Mitra Ahadi<sup>1</sup> <sup>1</sup> ghaem Hospital Internal Medicine Department, Mashhad University of Medical Sciences (MUMS) <sup>2</sup> Emam Reza Hospital, Department of Internal Medicine, Mashhad University of Medical Sciences (MUMS) <sup>3</sup> Emam Reza Hospital Department of Pathology, Mashhad University of Medical Sciences (MUMS) <sup>4</sup> Razavi Hospital Pathologymedicine Department, Emam Reza University <sup>5</sup> Emam Reza Hospital Internal Medicine Department, Mashhad University of Medical Sciences (MUMS) <sup>6</sup> Ghaem Hospital, Mashhad University of Medical Sciences (MUMS) مقدمه: ویروس هیاتیت Bیکی از شایع ترین یاتوژنهای مزمن دنیاست. سالانه حدود یک میلیون نفر از حاملین مزمن به دلیل عوارض ناگوار ابتلاء به آن مثل سیروز و کار سینوم هپاتو سلولار فوت می کنند. در ایران اکثریت غالب موارد هپاتیت B از نوع

Hbe Ag منفی می باشند. با توجه به سیر بالینی و پیش آ گهی بدتر و نیاز به درمان

طولانی تری این نوع هپاتیت ،بنظر می رسد مطالعه جامعی که جنبه های مختلف یافته های آزمایشگاهی را در این بیماران بررسی کند، از ضروریات جامعه ماست . روش بررسی: این طرح بصورت آینده گر و بمدت یک سال بر روی تمامی بیماران مراجعه کننده به کلینیك گوارش بیمارستانهای دانشگاهی قائم (عج) و امام رضا (ع) که مبتلا به هپاتیت B مزمن با HBeAg منفی بودند، انجام پذیرفت.سطوح سرمی بارویروسی ثابتوسط PCR-RT و به روش تکمن صورت پذیرفت.ارتباط بین بارویروسی ،هیستوپاتولوژی کبد و آنزیمهای کبدی مورد بررسی قرار گرفت. نتایج: ۱۵۰ بیمار شامل ۱۱۰ مرد و ۴۰ زن با میانگین سنی و انحراف معیار ۲۸/۴۴ و این از در مطالعه شدند. AST نه تنها با درجه بافت شناسی همبستگی معنی ماری انشان داد (۲۰۰۰/۰۰ و ضریب همبستگی پیرسون = ۲۰/۴، ، بلکه با مرحله بافت شناسی کبد نیز دارای رابطه معنی داری بود (۲۰۴۰) ، بلکه با مرحله معبستگی اسپیرمن)، ثپانیز با درجه همبستگی معناداری داشت (۲۹۰/۰۰ و ری ضریب همبستگی اسپیرمن)، ثپانیز با درجه همبستگی معناداری داشت (۲۹۰/۰۰ و ر نشان نداد. در رگرسیون چندگانه AST پیشگوئی کننده مستقل درجه و سن را نشان نداد. در رگرسیون چندگانه AST پیشگوئی کننده مستقل درجه و سن ترمیم گیری کننده مستقل مرحله هیستوپاتولوژیک کبد بود. (۲۰۰۴ ما سطح را نشان داد در رگرار مواخ مامار مادر مین داری بود (۲۰۱۰ می داری درجه و سن مالی که AST ماند مستقل مرحله هیستوپاتولوژیک کبد بود. (۲۰۱۰ مان داد در حالی که AST مال مال ماد ماد ماد مینی داری بود (۲۰۱۰ می درجه و سن

با استفاده از معیار پیشنهادی جدید ۲۰dl/Iu در زنان و ۳۰dl/Iu در مردان برای تعیین سطح غیر طبیعی آمینو ترانسفرازها، AST (۳۰/۰=p) و بویژه ALT (۲۰۰۰ (p) دارای ارتباط کاملامعنی داری بامیزان فیبروز کبد (Stage) می باشند. ALT و AST با تعداد کپی ویروس در میلی لیتر ارتباط معنی داری را نشان نداد. (به ترتیب ۲۰/۰ = و ۲۰۱۲ (p=۰/۴۱۷ هر حاله الگاریتم تعداد کپی های ویروس همبستگی کاملاً معنی داری را نشان داد. (هر دو ۲۰۰/۰۰ ) سطح تصمیم گیری ۲۰۴ و ۵۰ به عنوان cutoff برای بارویروسی نیز ارتباط معنی داری را با ALT و AST (۲۰۰۰ - 9 در هر دو مورد) نشان داد.

نتیجه گیری: در بیماران با هپاتیت مزمن B (CHB) با HBe Ag منفی، احتمالا AST در مقایسه با ALT ارزش بالاتری برای پیش گوئی التهاب و نکروز بافت کبد دارد. بنظر میرسد سن بیماران به عنوان فاکتور مستقل در کنار معیارهای پیشنهادی جدید (در مقایسه با حد معمول H-th جهت آمینوترانسفرازها)، دارای برتری واضحی در رابطه با جدا نمودن مبتلایان با شانس بالاتر فیبروز کبد باشد. تایید این یافته ها نیازمند مطالعات با حجم نمونه بیشتر و ترجیحا انجام مطالعات تکمیلی در سایر نقاط ایران میباشد.

Send Date: 2011/07/23

Category: 7 LIVER 7.8 Viral hepatitis B: clinical aspects F-T-104

Intrahepatic IgD-positive B Cells population with Lower Serum APRIL Associated with Higher Liver Fibrosis in Chronic Hepatitis B

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*Introduction:* B cells represent as much as half of the intrahepatic lymphocyte population. IgD is expresses on mature B cells and it is not well understood whether IgD-positive B cells are phenotypically different with the stage of chronic hepatitis B. APRIL (a proliferation-inducing ligand, TNFSF 13a) is a member of the TNF superfamily that has co-stimulatory activity on B cells.

*Method:* IgD expression in liver biopsy has been carried out by immunohistochemisty and serum APRIL was performed with ELISA on 57 patients with chronic hepatitis B.

**Results:** The intensity and extended of IgD expression was scored and there was no difference in phenotypic expression of IgD receptor on B cells between all patients. We found a positive correlation between serum ALT, liver fibrosis stage and liver IgD expression with HBV DNA level (r=0.4, p=0.001; r=0.4, p=0.002 and r=0.3, p=0.01). Liver IgD expression revealed negative relationship with serum APRIL but positive with liver fibrosis stage (r=-0.26, p=0.04 and r=0.27, p=0.03).

*Conclusion:* Our preliminary results suggest decreased serum APRIL levels in chronic hepatitis patients in accompany with increased intrahepatic IgD-positive B cells associated with higher stage of liver fibrosis.

Send Date: 2011/07/23

Category: 7 LIVER 7.9 Viral hepatitis C: clinical aspects F-T-105

### The Impact of Illicit Drug Use on Spontaneous Hepatitis C Clearance: Experience from a Large Cohort Population Study

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#### of Medical Sciences

*Introduction:* Acute hepatitis C infection usually ends in chronic infection, while in a minority of patients it is spontaneously cleared. The current population-based study is performed on a large cohort in Golestan province of Iran to examine the demographic correlates of Spontaneous Hepatitis C Clearance.

Method: Serum samples used in this study had been stored in biorepository of Golestan Cohort Study. These samples were evaluated for anti hepatitis C Virus by third generation Enzyme-linked immunosorbent assay (ELISA). Subjects who tested positive were then invited and tested by Recombinant Immunoblot Assay (RIBA) and Ribonucleic Acid Polymerase Chain Reaction test (PCR). If tested positive for RIBA, subjects were recalled and the two tests were re-done after 6 months. Those subjects who again tested positive for RIBA but negative for PCR were marked as cases of spontaneous clearance (SC).

**Results:** 49,338 serum samples were evaluated. The prevalence of Chronic Hepatitis C Virus (CHCV) infection based on PCR results was 0.31%. Among those who had acquired hepatitis C, the rate of SC was 38%. In multivariate analysis, illicit drug use both Injecting Use (OR=3.271, 95% CI: 1.784-6.000, p-value<0.001) and Non-Injecting Use (OR=1.901, 95% CI: 1.068-3.386, p-value=0.029) were significant correlates of CHCV infection versus SC. *Conclusion:* Illicit drug use whether intravenous or non-intravenous is the only significant correlate of CHCV, for which several underlying mechanisms can be postulated including repeated contacts with hepatitis C antigen. Send Date: 2011/08/01

Category: 7 LIVER

7.9 Viral hepatitis C: clinical aspects F-T-106

#### Prevalence of Hepatitis C in Multi transfused Thalassemia major patients in Thalassemia clinic of Amol in 1363- 1383

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<sup>1</sup>Gastrointestinal,Liver and Digestive Diseases Research Center (GILDRC), Tehran University Of Medical Science,pardis hemmat, Tehran, Iran **Introduction:** This study attempts to evaluate seroprevalence of Hepatitis C(HCV), Hepatitis B(HBV)and Human immunodeficiency Virus (HIV) among patients with  $\beta$ -Thalassemia major receiving multiple transfusions in Amol thalassemia center.

*Method:* This is a cross-sectional study in which 371 Talassemia major patients were assessed for HCV Ab (by ELISA 3rd generation ), HBs Ag and HIV Ab . Patients with positive HCV Ab were checked for HCV –RNA and positive cases were considered as true infection .Patients were divided into 2 groups (before and after 1375) and the seropositivity of Hepatitis C was checked separately in order to evaluate the efficacy of donor blood screening program which started in 1375.

**Results:** HCV Ab and HCV – RNA were positive in 168 (45.3%) and 118 (31.8%) cases respectively . Before 1375,HCV- Ab was positive in 53.4% and HCV-RNA in 37.5% of cases in contrast with , 16% and 11.1% respectively after 1375. There were 2 positive HBs-Ag (0.53%) cases.None of the patients had positive HIV Ab .In spite of significant decrement of HCV infection after the screening program( P-V <0.005) , it is still high in comparison with other countries (16% versus 0.1%).

*Conclusion:* The sensitivity of HCV Ab EIISA must be improved or more sensitive and specific pre-transfusion screening tests (HCV-RNA) should be introduced in blood banks. Send Date: 2011/08/03

Category: 7 LIVER 7.9 Viral hepatitis C: clinical aspects F-T-107

Long term outcome of sustained viral response in hemophilic patients with chronic Hepatitis C

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*Introduction:* There are few published data regarding long-term outcome of hemophilic patients with chronic hepatitis C(HCV) who obtain sustained

virological response (SVR) to pegylated interferon (PEG-IFN) and ribavirin therapy. The objective of this study was to evaluate the durability of the virological response in these patients after 5 years of follow up.

*Method:* Thirty five patients (34 male) with mean age of  $26.20\pm8.48$  (13-48y) were treated with PEG-INF alfa 2a and ribavirin for 48 weeks from 2002 to 2003 in Iranian Hemophilic Center. HCV genotype determination was done in 20 patients of whom 12 were 1a (60%), 4 were 1b (20%) and 4 were 3a (20%). 33 patients accomplished the treatment and SVR was achieved in 27 patients (81.8%). Patients with SVR were followed for the next 5 years.

*Results:* Twenty five of 27 patients were available for 5 year follow up. HCV PCR was negative in all of these patients and no evidence of clinical or biochemical relapse was detected.None of the patients developes hepatocellular carcinoma.

*Conclusion:* This study reveals that combination therapy with PEG-INF and ribavirin in hemophilic chronic hepatitis C patients has been associated with a high rate of SVR (81%) and 100% durability of virological response with no clinical relapse. These data provoke the hypothesis that SVR is probably associated with HCV infection cure in this group. Send Date: 2011/08/05

Category: 7 LIVER

7.9 Viral hepatitis C: clinical aspects F-T-108

# Peginterferon alfa-2a plus ribavirin for treatment of hepatitis C infection in hemophilia and thalassemia patients (preliminary report)

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*Introduction:* Hemophilia and major thalassemia patients who receive regular blood transfusions are highly susceptible to chronic hepatitis C virus (HCV) infection, which results in great morbidity and increased mortality. Peginterferon alfa-2a plus

ribavirin is the standard regimen for treatment of individuals with chronic HCV infection, but there is limited evidence of its effectiveness in hemophilia and major thalassemia patients.

*Method:* A single center prospective cohort study was done from 2009 through 2011. A total of 51 patients, aged 16-53 years, chronically infected with HCV, anti-HCV treatment naive or previously treated, and seronegative for human immunodeficiency virus (HIV) and hepatitis B virus (HBV) were included. The subjects had absolute neutrophilic counts of at least 1500/mm3, hemoglobin  $\geq$ 12g/dL and platelet counts of ≥100,000/mm3. They did not have liver cirrhosis, hepatocellular carcinoma, and were not affected by any other liver diseases. HCV genotype 1 and genotype non-1 infected subjects received weekly subcutaneous peginterferon alpha-2a and weight adjusted daily oral ribavirin for 48 and 24 weeks, respectively. Negative HCV RNA at the end of treatment was considered to be the end of treatment response (ETR). Negative HCV RNA at 48 weeks (genotype 1) and 24 weeks (genotype non-1) post-treatment was considered as sustained virological response (SVR).

**Results:** 26 hemophila and 25 thalassemia patients were enrolled. Eight subjects were lost at follow-up in each group. ETR was achieved in 12 of 18 (67%) of hemophilia and 14 of 17 (82%) of thalassemia patients. SVR was achieved in 12 of 18 (67%) and 14 of 17 (82%) of hemophilia and thalassemia patients, respectively. No Relapse after ETR was seen. ETR and SVR were not significantly higher in thalassemia patients. Genotype, previous treatment, and age were not statistically significant independent predictive factors for ETR or SVR.

*Conclusion:* Efficacy of treatment of hemophilia and thalassemia patients with peginterferon alfa-2a plus ribavirin is similar to that in the general population with chronic HCV infection.

Send Date: 2011/08/17

Category: 7 LIVER 7.9 Viral hepatitis C: clinical aspects F-T-109

Relationship between interferon Apha and bone mass density in hepatitis C patients

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Introduction: Chronic hepatitis is a variety of liver dysfunctions with different causes and severities in which inflammation and necrosis last for at least 6 months. Choice treatment for all chronic viral hepatitis is interferon Alpha (IFN- $\alpha$ ). Decreasing bone mass density (BMD) may lead to some complications such as non-traumatic spontaneous fractures. Regarding the decreased bone mass complications and existed dilemma, we have done the current study to compare the BMD in chronic hepatitis patients before and after the IFN- $\alpha$  treatment. *Method:* In a cohort study 22 patients with chronic hepatitis need to treat with IFN- $\alpha$  were evaluated by BMD in a 6 months period. All the patients were examined by BMD before the treatment. The BMD result was recorded in information sheet. Six months after the treatment patients were evaluated again by BMD. All the necessary information such as age, sex, co-morbidity and another medication history were asked and recorded. IFN-a dosage was 3 million IU 3 times a week. The gathered data were entered SPSS14 and analyzed through Chi-Square and Wilcoxon to compare the means.

**Results:** Among 22 patients 21 subjects (95.5%) were male and 1 subject (4.5%) was female. Mean age was 34.04 $\pm$ 7.83 years and half of the subjects were in 30 to 35 years age group. The subjects had not significant difference in bone mass density indices (Z-score and T-score) before and after treatment with IFN- $\alpha$  (P-value>0.05). The bone mass density indices had not significant difference between different age groups of hepatitis C patients before and after treatment with IFN- $\alpha$  (P-value>0.05).

**Conclusion:** In the current, as mentioned above, IFN- $\alpha$  used in the treatment of Hepatitis C patients, had no significant effect on the BMD in them. To evaluate the long term effect of IFN- $\alpha$  its suggested to do more studies with longer duration, however, the BMD may improve when the inflammation been alleviated long term.

Send Date: 2011/08/21

Category: 7 LIVER 7.9 Viral hepatitis C: clinical aspects F-T-110

#### Is statin effective in treatment of hepatitis c patients with genotype 1 Ahmad Shavakhi<sup>1</sup>, Mohammad Minakari<sup>1</sup>, Naser Khamisi<sup>1\*</sup>

<sup>1</sup>Alzahra Hospital, Isfahan University of Medical Sciences *Introduction:* Statins my be helpful in treatment of non alcoholic steatohepatitis.we assessed the effect of Statins in combination with standard antiviral treatment on Hyperlipidemic genotype I HCV patients who had been referred to educational and Therapeutic Centers of Isfahan University of Medical Sciences from 2009-2010.

*Method:* Our study was a prospective clinical trial. All samples (n=40) were tested to confirm HCV viremia(Cobas Amplicor HCV Monitor test, version 2 Roche Diagnostics). patients weekly received 180  $\mu$ g PEG-INFa2a(Pegasys, roche Company) and ribaverin. 20 Hyperlipidemic hepatitis c Patients received 20 mg Atorvastatin (Farabi co,Tehran Iran) nightly for three months and placebo was prescribed for 20 control patients. Liver enzymes, CBC were checked monthly and TSH checked every three months. We also did quantitive HCV-RNA test in 4th, 12th week of therapy, at the end of treatment and 6 months after therapy for all samples.

**Results:** We didn't find any significant differences in the mean of HCV-RNA numbers in case and control groups in 4 th, 12th week of treatment, in the end of treatment and 6 months after treatment. In this study early response to treatment (EVR) in case and control were 80 and 70 % and end of treatment response were 90 and 95%. Sustain response to treatment (SVR) in case and control were 95 and 95% respectively.

*Conclusion:* There was no effect of statins on the mean of HCV virus number in this analysis. Further studies are necessary to examine the possible antiviral properties of statins and their potential role as adjuncts to standard HCV therapy.

Send Date: 2011/08/22

Category: 7 LIVER

7.10 Immunology - autoimmune liver disease F-T-111

> **Epidemiologic features of autoimmune hepatitis in Ahwaz** Seyed Jalal Hashemi<sup>1\*</sup>, Eskandar Hajiani<sup>1</sup>,

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*Introduction:* Autoimmune hepatitis (AIH) is defined as a kind of recurrent and unresolving hepatocellular inflammatory process with unknown etiology. It is a growing diagnosis in the setting of liver diseases in Iran. there is limited data on the epidemiology and clinical course of AIH in our region . so we studied clinical and epidemiologic characteristics of patients who diagnosed in GI and hepatology ward and clinics of Ahwaz jondishapoor university during 2005 to 2009.

*Method:* In this study the demographic and clinical and histological characteristics of patient with AIH were studied .The lag time between first presentation to diagnosis and its relation to the severity of disease evaluated also .The diagnosis of AIH made according to the scoring system of International autoimmune hepatitis group.

Results: A total of 106 patients (77 women and 29 men) was eligible for inclusion. the mean age was 34.8 y (9-62 y) the most common presenting symptom was fatigue (66.9 %) fallowed by loss of appetite (55.6 %), Icter (50.9%) and abdominal pain. 17.9 % of our patients presented with evidences of liver cirrhosis. 15 patients (14.1%) had overlap syndrome the most and common one overlap disease was PBC. 17 patients (16%) shows other autoimmune disorders among them lupus disease was the most common one. According to the duration of diagnosis after first presentation The patients divided into two groups: 1- early diagnosed (less than 6 mo) and 2- late diagnosed (after 6 mo). The degree of fibrosis was compared in the two groups. in early diagnose group 45% had stage  $\leq 2$ , 45% had stages 3 Or 4 and 9,1 % had stages > 4 of fibrosis scores . in the late diagnosis group 28% had stages  $\leq 2$ , 17% had stages 3 or 4 and 53, 6% had stages > 4(p=0.001). Inflammatory indices in biopsy samples (grading) was not different between two group (p=0.97). After starting therapy normalization of transaminases was achieved after 3.3 mo in early and after 3.1 mo in late diagnosed group (p=0.82).

*Conclusion:* Autoimmune hepatitis is not an uncommon disease in our region .The manner of presentation is the same as other regions. Early

diagnosis is very important to prevent complications. Treatment is effective even in cases with advance fibrosis.

Send Date: 2011/07/16

Category: 7 LIVER

7.10 Immunology - autoimmune liver disease F-T-112

# The Efficacy of Tacrolimus and Mycophenolate Mofetil in Refractory Autoimmune Hepatitis:

**Systematic Review and Meta-Analysis** Mohammadhossein Somi<sup>1\*</sup>, Mohammadreza Abdollahi<sup>1</sup>, Samaneh Esfahanian<sup>1</sup>, Aysan Gasemi Oskouyi<sup>1</sup>, Morteza Ghojazadeh<sup>2</sup>

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Introduction: Conventional treatment of autoimmune hepatitis consists of either prednisone alone or in combination with azathioprine. Ten to 20% of patients do not respond to or are intolerant of this treatment. Novel drug treatments include immunosuppressive drugs such as tacrolimus (TAC), mycophenolate mofetil (MMF), methotrexate and cyclosporine. So we conducted a systematic review of the literature to determine the efficacy of tacrolimus and mycophenolate mofetil in the treatment of steroid refractory autoimmune hepatitis. Method: All published articles from 1978 up to 2011 that were related to the topic were searched from the resources. We also conducted a manual search of the reference lists in the review articles. The censor date was up to April 2011. The inclusion criteria used were articles on patients with autoimmune hepatitis that were resistant to conventional therapy and then had our choice therapy. All calculations and statistical tests were performed using CMA ver.2.0 software.

**Results:** 12 related articles involving 230 patients that fulfilled our inclusion criteria were selected to be considered in the Meta-Analysis. There were three articles about tacrolimus and nine were about mycophenolate mofetil. The mean age in TAC group was  $56.39\pm4.13$  years and in MMF group was  $44.16\pm1.27$  years. In TAC group we had 23 patients that 19 were responded to the drug. The efficacy of TAC was 83%.The mean follow up period in TAC group was  $21.18\pm16$  months. In MMF group we had 207 patients that 140 were responded to the drug. The efficacy of MMF was 71.6%. The mean follow up period in this group was  $34.24\pm8.31$  months.

*Conclusion:* Tacrolimus and Mycophenolate Mofetil is effective and well tolerated by patients with autoimmune hepatitis who do not respond to, or are intolerant of, conventional immunosuppressive agents, and can be alternative choices for conventional therapy.

Send Date: 2011/07/21

#### Category: 7 LIVER

7.10 Immunology - autoimmune liver disease F-T-113

# 3 years Survival of Autoimmune hepatitis patients referring to Rasool Akram hospital and Tehran Hepatitis Center 2004-2010

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*Introduction:* Autoimmune hepatitis (AIH) is relatively common among chronic liver disease patients (11-23%) and is responsible for 6% of all liver transplantation worldwide. There are few studies concerning factors affecting these patients survival. This study aimed to examine AIH patients' survival and its related factors.

*Method:* In this historical cohort study records of all patients diagnosed as AIH via serological examinations, biopsies and ruling out other differential diagnosis, referring to Rasool Akram hospital and Tehran Hepatitis Center were evaluated. Patients with a history of medicine administration before definite diagnosis of AIH as well as those who were on other treatment regimens than our standard treatment regimen for AIH were excluded. Information regarding clinical conditions, laboratory data (AMA, ALKM-1, ASMA, ANA) and pathologic studies of all patients were assessed before and 3 years after beginning of the treatment.According to their AST level, patients were divided into 5 groups:

remission, responsive, relapse, nonresponsive and completely nonresponsive.

**Results:** 87 patients (72 females, 15 males) with the mean age of 33.5 years were enrolled. The mean time interval between start of the symptoms and definite diagnosis was 7.84 months. Coincidence of other autoimmune disease was seen in 18.4% of the patients. The 1, 6, 12, and 18 months survival probability of AIH patients were 67.4%, 91.1 %, 94.1% and 95.6% respectively. None of the clinical or laboratory variables had a significant relation with these patients survival.

*Conclusion:* In summary clinical and laboratory characteristics of AIH patients in our study were similar to those in other countries. We propose more investigations to be done regarding time of relapse of AIH patients and their survival.

Send Date: 2011/08/22

Category: 7 LIVER

7.11 Acute liver failure - transplantation/surgery F-T-114

**Causes and Risk Factors for Liver Injury Following Bone Marrow Transplantation** Rasoul Sotoudehmanesh<sup>1\*</sup>, SA Moosavi<sup>1</sup>, Ebrahim Sarsar<sup>1</sup>, Maryam Farsinejadmarj<sup>1</sup>

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*Introduction:* Liver injury is one of the major causes of morbidity and mortality following bone marrow transplantation (BMT). Determination of the factors that are likely to lead to liver injury may allow earlier diagnosis after BMT and may possibly its prevention and finally improve the prognosis.

*Method:* In this retrospective study, the risk factors predisposing to liver injury following bone marrow transplantation was evaluated. Medical records of BMT patients were reviewed, and results of serial liver function tests and HBV/HCV serology during the pre- and post-transplantation with 1-year follow up period were noted. Presence of liver injury was assessed and analyzed in 167allogeneic and 50 autologous BMTs, performed during 3 years.

**Results:** One-year survival was 85.7% (222 of 259 patients) for allogeneic BMT and 98.1% (104of 106 patients) for autologous BMT. The most frequent causes of liver injury were graft-versus-host disease

and drug hepatotoxicity for allogeneic BMT and drug hepatotoxicity for autologous BMT. Fulminant hepatic failure occurred in 5 allogeneic transplant recipients who had a pretransplantation HBV carrier and led to death. Multivariate regression analysis showed that the age of patients underwent BMT, fever, immunosuppressive therapy and the use of non-absorbable antibiotics were predictive risk factors for post-BMT liver injury.

*Conclusion:* Early diagnosis and proper treatment of sepsis, cautious use of non-absorbable antibiotics and immunosuppressive agents may have an important role for the prevention of post-BMT liver injury. Send Date: 2011/07/12

Category: 7 LIVER

7.12 Imaging - radiology (incl. interventional radiology)

F-T-115

# Doppler Parameters in Cirrhotic Patients with and without Esophageal Varices

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<sup>1</sup> Gastrointestinal & Liver Diseases Research Center (GLDRC), Guilan University of Medical Sciences *Introduction:* Portal hypertension is one of cirrhosis complications that leads to gastroesophageal varice formation. Bleeding from these varices has a high mortality rate. Upper gastrointestinal endoscopy is the gold standard procedure for varice diagnosis. There are some efforts to substitute endoscopy with noninvasive procedures including splenoportal doppler. The aim of this study was to compare doppler findings in cirrhotic patients with and without esophageal varices.

*Method:* 66 patients with documented cirrhosis were enrolled in our cross sectional study. All patients underwent endoscopy and an informational form was completed. Subsequently all of them referred to one radiologist to undergo splenoportal doppler. Laboratory information including platelet count was taken.

**Results:** Of 66 patients, 44 were men. 46 patients had esophageal varice. There was no significant relation between esophageal varices and any of doppler parameters. A negative correlation was found

between platelet count and spleen diameter and splenic vein diameter. A significant relation between varice formation and portal vein velocity (pvv) to splenic vein diameter also noted (P=0.05).

*Conclusion:* Endoscopy is still a gold standard procedure for detection of gastroesophageal varices in cirrhotic patients. Some splenoportal doppler parameters (eg: portal vein to splenic vein diameter) seems promising further investigation warranted. Send Date: 2011/07/23

#### Category: 7 LIVER

7.12 Imaging - radiology (incl. interventional radiology)

F-T-116

### FibroScan in patients with beta-thalassemia with and without hepatitis C: relation to

#### **T2\*magnetic resonance imaging and liver biopsy** Farhad Zamani<sup>1</sup>, Hossein Poustchi<sup>2\*</sup>, Masoumeh

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*Introduction:* The primary aim of this study was to evaluate the effect of iron overload, measured by T2\* Magnetic Resonance Imaging (T2\*MRI) and liver biopsy in thalassemic patients on the Transient Elastography(TE) and to determine whether this effect is mediated through fibrosis.

*Method:* 81 HCV-RNA positive thalassemic patients and 89 HCV-RNA negative thalassemic patients underwent T2\*MRI within three months of transient elastography (TE). In addition78 patients from the HCV-positive group underwent liver biopsy within three months of TE. All of the patients had laboratory measurement at the time of TE, including blood count, liver enzymes and liver function tests, ferritin, lipid profile, and blood sugar.

**Results:** In HCV PCR(polymerase chain reaction) negative patients, TE values were significantly higher in patients with severe iron load than in those with iron loads less than severe (mean $\pm$  SD, 6.6 $\pm$ 4.0 vs.

8.5±2.8, P value of Mann-Whitney U test<0.05). In HCV PCR positive patients, those patients with moderate to severe iron load had higher TE scores, but this difference did not reach statistical significance (p-value of Mann-Whitney U test=0.09). Stage and HAI (histologic activity index) did not differ significantly between patients with different iron load degrees while inflammatory grade was significantly higher in patients with moderate to severe iron load compared to patients with normal or mild hepatic iron load (7.1±3.0 vs. 8.7±3.5, P<0.05).Best model for prediction of ascending scores of TE in those who had liver biopsy is as follow: hepatic iron load, ALT, stage, gender, and bilirubin (adjusted R squared=.510). ROC curve analysis showed that TE is more accurate for the diagnosis of patients with cirrhosis (stage six) than patients with other stages of liver fibrosis (AUC=82%). A cut-off score of 10.55 had a sensitivity of 80%, specificity of 88.5%, and PLR of 6.95 for diagnosing cirrhosis in HCV PCR positive patients with beta thalassemia.

*Conclusion:* Although iron deposition may affect the results of TE in these patients irrespective of other factors, these changes in TE can be explained via biopsy parameters, and TE can serves as a promising noninvasive tool in evaluation of liver fibrosis in these patients.

Send Date: 2011/08/02

Category: 7 LIVER

7-3 Metabolic/genetic disorders F-T-117

# Hepatitis C Virus Genotyping among drug addicted Patients,Urima, West-Azerbaijan

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*Introduction:* More than 170 million people are currently infected by the hepatitis C virus (HCV), which represents a serious cause of chronic liver disease that may progress to cirrhosis liver and hepatocarcinoma. The aim of this study was to determine the prevalence of HCV among drug users referring to treatment center in Urmia, northwest of

Iran. Information about genotypes of hepatitis C virus (HCV) may have important to therapeutic implications. *Method:* A cross sectional study was conducted among 384 of drug addicted patients. ELISA testing for HCV antibody (HCV- Ab) was carried out. Positive anti-HCV samples were tested by RT-PCR. HCV genotypes were determined by restriction fragment length polymorphism of the 5'-untranslated region.

Results: Thirty-nine (60.9%) out of 64 anti-HCV-positive were HCV RNA positive. HCV genotyping by RFLP test showed that genotype 3 was the predominant genotype with 25 cases (64 percent) fallowed by 12 (30.8%) for type 1, and one for type 2. There was also a case with genotypes 1 and 3. The highest percentage of genotype 3 was among illiterates with 6 (75%). There was no statistical significant association between residency place and genotype. The highest proportion of genotype 3 belongs to Urmia with 18 cases (58.1%). 28 of HCV positive people stated heroin as the most used drug. Opium, Crack and Crystal were the other used drugs. Genotype 3 was observed among (%60.7) 17 cases of heroin users that were the highest percentage. However this was not statistically significant. Genotype 3 was more prevalent in intra-venous drug abusers with %68 (among 25 injection drug users HCV positive. There was no statistically significant relationship between being injection drug user and genotype (P=0.882)

*Conclusion:* The results show a high prevalence of HCV infection and predominance of genotype 3 followed by genotype 1 among drug users in west Azarbaijan. These findings highlight the need for harm-reduction strategies to reduce HCV transmission.

تاریخ ارسال : ۲۷/۰۴/۱۳۹۰

Category: 7 LIVER 7-13 Miscellaneous F-T-118

### Effects of obstructive sleep apnea syndrome on serum aminotransferase levels and insulin resistance

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- <sup>1</sup> Gastroenterology, Bandar Abbass
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- <sup>3</sup> Gastroenterology, Sbums

*Introduction:* Patients with obstructive sleep apnea (OSA) are at risk of developing the fatty liver as a result of being overweight. Several studies suggest that OSA per se could be a risk factor for liver injury; and ischemic hepatitis with OSA. The OSA is an independent risk factor for Insulin resistance. Therefore, we investigated liver enzymes and insulin resistance in patients with OSA, and compared with controls.

*Method:* Eighty-one consecutive patients with clinical suspicion of OSA were referred to the Sleep Unit of Masih Daneshvary hospital. On the basis of Polysomnography results patients were divided into two groups: The OSA and non-OSA cases, and also patients without OSA were used as internal controls. The Serum levels of liver enzymes were measured in all patients and abdominal ultrasound examination performed for screening the fatty liver and its grading. Insulin resistance was calculated via homeostasis model assessment (HOMA).

**Results:** The OSA was present in 41 and absent in 40 patients. Age, sex and body mass indices were not significantly different in two groups. The mean of alanine aminotransferase (ALT) was  $31.24\pm14.05$  IU/L in OSA and  $29.97\pm8.9$  IU/L in non-OSA (p=0.349) and aspartate aminotransferase (AST) was  $29.07\pm9.6$  IU/L in OSA and  $26.85\pm6.7$  IU/L in non-OSA (p=0.389). The mean of HOMA was  $2.05\pm18.2$  in OSA and  $1.5\pm0.54$  in non-OSA (p< 0.001).

*Conclusion:* This study shows that OSA, independent of overweight conditions, is not a risk factor for abnormal liver enzymes. However, the OSA per se seems to be associated with increase in insulin resistance and severity of fatty liver. Send Date: 2011/05/03

Category: 8 BILIARY 8.1 Bile acids-transport-cholestasis F-T-119

#### Study of lipoic acid role in prevention of liver and intestinal damage due to bile duct obstruction in rat

Mohammad Hossein Somi<sup>1\*</sup>, Hassan Kalagheichi azar <sup>1</sup>, Ghafour Mousavi<sup>2</sup>, Nser Ahmadi asl<sup>2</sup>, Mohammad Abstracts of Iranian Congress of Gastroenterology and Hepatology- 201.

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*Introduction:* There are many ongoing researches emphasizing on the role of free radicals in pathogenesis of cholestasis and associated liver damage. This is believed to be due to concentrated biliary acids which in turn, increase the rate of lipid peroxidation. Likewise, it is previously shown that the aggregation of biliary acids may induce lesions in hepatic and intestinal tissues. So it makes sense that antioxidants might have a preventive role in this regard. The lipoic acid is one the most potent known antioxidants which has received enthusiasm from the scientist. This study aimed at evaluating the effect of oral lipoic acid in prevention of bile duct obstruction induced liver and intestinal damage in a rat model.

*Method:* In this experimental study, 45 Wistar male rats were randomized in three 15-rat groups: group A (sham) consisted of rats underwent only laparotomy; group B (controls) consisted of rats underwent laparotomy plus induced-cholestasis; and group C (intervention) consisted of rats underwent laparotomy plus induced-cholestasis and received oral lipoic acid. Lesions of liver and intestine were assessed histopathologically as well as the hepatic and intestinal superoxide dismutase (SOD), glutathione peroxidase (GPX) and malondialdehyde (MDA) 2 weeks later.

**Results:** All the studied variables were significantly better in group A comparing with groups B and C. The median hepatic score was significantly lower (better) in group C comparing with that in group B (5 vs. 11; p=0.001). The median intestinal score was comparable between the two groups (2 in group B vs. 1 in group C; p=0.029). The median hepatic SOD (1.7 vs. 2.6; p=0.001) and GPX (2.8 vs. 3.6; p=0.009) and the median intestinal SOD (1.2 vs. 2.5; p=0.004) and GPX (2.6 vs. 3.3; p=0.014) were significantly higher (better) in group C than those in group B. The median hepatic (2.4 vs. 1.3; p<0.001) and intestinal (2.7 vs. 1.9; p=0.014) MDA were significantly lower (better) in group C than those in group B.

Conclusion: Based on our findings, oral lipoic acid is

effective against hepatic and intestinal injuries after bile duct obstruction in the rats. Send Date: 2011/07/20

Category: 8 BILIARY 8.2 Gallstones

#### F-T-120

### Concomitant Laparoscopic Common Bile Duct Exploration as a new Treatment Modality of CBD Stones in the New Millennium Shahram Nazari<sup>1\*</sup>

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*Introduction:* CBD stones are found in approximately 16% of LC. In the beginning of laparoscopic era, because of an obvious lack of expertise in laparoscopic surgery, if the diagnosis of choledocholithiasis was established during IOC, the surgeons preferred postoperative ERCP instead of conversion to open surgery. With increasing experience of laparoscopic surgeons, it seemed logical to develop a mini-invasive one-stage laparoscopic approach.

*Method:* This study evaluates our results of laparoscopic common bile duct exploration (LCBDE) in a series of 803 patients treated over 68 months and we evaluate the feasibility and safety LCBDE during LCs.

**Results:** CBD stones were demonstrated in 98 patients by routine IOC. For 7 patients, ERCP/ES was performed, with successful stone clearance after completion of LC. LCBDE was done in 91; all LCBDEs were completed laparoscopic. In 21 patients, CBD closed on a C-Tube and in 14 completed with T-tube insertion. In 31 cases no CBD drainage was performed.

In 84 cases flexible choledochoscopy was done. Laparoscopic choledochoduodenostomy and choledochojejunostomy was done in 24 and 1 cases respectively. The mean operative time was 90-130 minutes (mean 95), which is significantly greater than conventional LC (range 20-40 minutes, mean 30). LCBDE was performed without immediate or late complications.

*Conclusion:* There are no debates in the detection and the management of CBD stones in the era of LC. Concomitant LCBDE is a cost-effective, efficient, and minimally invasive modality in the management

of CBD stones. Recommendation: We believe that for surgeons familiar with open common bile duct exploration and laparoscopic cholecystectomy, the next logical step is laparoscopic exploration of the common bile duct at the time of cholecystectomy, which is safe and readily mastered. It is hoped that LCBDE will be adopted so that patients can undergo a single procedure to remove their gallstones and common bile duct stones in one approach. If the surgeon is not familiar with this approach of the appropriate instruments are not available, ERCP/ES is the treatment of choice. Send Date: 2011/05/15

Category: 8 BILIARY 8.2 Gallstones F-T-121

# Association between common bile duct stones and Thyroid dysfunctions

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*Introduction:* It has been previously shown that T4 reduces prorelaxation of sphincter of oddi. Besides thyroid dysfunction specialy hypothyroidism affects lipid metabolism and changes bile duct excretion rate. Recent studies revealed that the prevalence of diagnosed hypothyroidism is significantly higher in Common Bile Duct (CBD) stone patients compared with gall bladder stone patients. This study compares the prevalence of thyroid dysfunction among CBD stone patients with healthy controls considering confounding factors.

*Method:* 100 patients with CBD stones diagnosed by Endoscopic Retrograde Cholangio Pancreatography (ERCP) at Firoozgar hospital 2010-2011 and 100 controls among the same hospital staff and patients admitted for other reasons than CBD stone with normal Liver Functiom Tests (LFT) were enrolled. Pregnancy, carbamazepine and phenytoin consumption and having a history of previously diagnosed thyroid disease were considered as exclusion criteria for both groups. Fasting Blood Sugar, Trigelyceride, Cholesterol, LDL, HDL, LFT,

Thyroid Stimulating Hormone and T4 were checked in both groups. Blood samples from patients were taken before ERCP was done.Results of tests were assessed by an expert endocrinologist who was blind to both groups. Participants were divided into 5 groups according to their thyroid function: Normal, Subclinical hypothyroidism, hypothyroidism, subclinical hypothyroidism and hyperthyroidism. Results: There were 51 and 38 males and 49 and 62 females in patients and control groups respectively. The mean age and BMI of controls were  $43 \pm 13.34$ years and  $25\pm 3.67$  kg/m<sup>2</sup>, and  $59\pm 17.44$  years and  $25\pm 3.58$  kg/m<sup>2</sup> for patients. There was a significant relationship between thyroid dysfunction generally and CBD stones prevalence with a p.value of 0.012 and OR: 2.4 (CI: 1.25-4.7). Cochoran's test results of Gender and DM show that this relation is significant only in men (p =0.002) (30% VS 4%) and non diabetic participants (p=0.027) (17% VS 6.5%). Although univariate analysis showed a significant relation between CBD stone and thyroid dysfunction but after multivariate logestic regressions the best model for predicting CBD stone incidence were gender (p = 0.022), DM (p = 0.015), thyroid dysfunction (p = 0.005) and age>50 years old (p < 0.001).

*Conclusion:* To be concluded, CBD stone patients have a 2.4 fold higher risk of thyroid dysfunction and this risk is much higher in non diabetic men. Send Date: 2011/08/16

#### Category: 8 BILIARY

8.3 Malignant hepato-biliary diseases F-T-122

### Biochemical profile and tumor marker in bile fluid of patients with obstructive jaundice for differentiation between benign and malignant cholestasis

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with cholestasis due to billiary stone.

*Method:* Forty six patients with extra hepatic cholestasis (26 patients with choledocholithiasis and 20 patients with malignant cholestasis) were studied prospectively. Bile fluid was obtained by aspiration through ERCP catheter or percutaneus derainage in patients with choledocholithiasis and colangiocarcinoma respectively. Then concentration of biochemical profile: TG, cholesterol, Billirubin, LDH, and CA19-9 of bile fluid was measured in these two groups.

**Results:** Bile concentration of TG, cholesterol, HDL, direct bilirubin and CA19-9 were significantly higher in patients with benign cholestasis in comparison with malignant cholestasis: p=0.001, p=0.001, p=0.001, p=0.012, and p=0.03 respectively. Serum levels of AST, ALT, were nonsignificantly higher in patients with choledocholithiasis but serum total bilirubine and ALP were nonsignificalty higher in malignant cholestasis than choledocholithiasis.

*Conclusion:* Our study showed that measurement of bile fluid level of lipid profile speciallyTG, HDL and direct billirubin may be a useful complementary test in differentiation between malignant and being cholestasis.

Send Date: 2011/07/20

Category: 9 PANCREAS 9.2 Pancreatitis - experimental F-T-123

### Black grape seed extract effect in prevention of post Endoscopic Retrograde Cholangiopancreatography pancreatitis

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*Introduction:* Acute pancreatitis is one of the major complications of endoscopic retrograde cholangiopancreatography (ERCP), which is known as post-ERCP pancreatitis (PEP). Although the exact underlying cause of this entity is yet to be determined, the role of oxidative stress has been emphasized in several studies. Accordingly, using an antioxidant substance as a preventive mean seems reasonable.

Many different antioxidants have been introduced. The black grape seed extract is one of these novel potent antioxidants. This study aimed to evaluate the prophylactic effect of this substance against PEP in candidates of ERCP.

*Method:* In this triple-blind controlled clinical trial, 100 candidates of ERCP were recruited during a 11month period in Tabriz Imam Reza Hospital. These patients were divided randomly into two groups: the intervention group consisted of 53 patients who received prophylactic black grape seed extract (six 200-mg capsules every 8 hours before ERCP) and 47 controls receiving placebo in the same manner.Then both groups underwent ERCP.The rate of PEP was compared between these two groups.

**Results:** The intervention group was comprised of 16 males and 37 females with a mean age of  $63.6\pm15.2$ years vs. the controls including 19 males and 28 females with a mean age of 61.4±15.5 years (p=0.284 and 0.475, respectively). After ERCP, pain or exacerbation of epigastric pain was reported in 26.4% and 14.9% of patients in the intervention and control groups (p=0.158). Similar rates were 1.9% and 2.1% for the PEP (p=0.722); 22.6% and 21.3% for the hyperamylasemia (p=0.869); 94.3% and 100% for the "discharge in good condition" (p=0.245); and 3.8% and 0% for expiration (p=0.278), respectively. The mean serum amylase level increased significantly after ERCP in the control group (p=0.035) with borderline nonsignificant increase in the intervention group (p=0.053).

*Conclusion:* This study showed no benefit for the pre-ERCP administration of black grape seed extract in prevention of PEP; however, it seems that this approach may ameliorate the increase of serum amylase in receiving patients. Send Date: 2011/08/10

**Category: 9 PANCREAS** 

9.4 Pancreatitis-chronic (including hereditary pancreatitis)

F-T-124

Autoimmune pancreatitis mimicking cancer of the head of pancreas

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Abstracts of Iranian Congress of Gastroenterology and Hepatology- 2011

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*Introduction:* The primary presentation of autoimmune pancreatitis (AIP) as the cancer of the head of pancreas is rare in Iran and has not been reported previously in PUBMED site.

Case Reports: The patient was a seventy-year-old man with recurrent abdominal pain and jaundice, elevated Bilirubin and elevated Alkaline Phosphatase (ALKP) in association with the presence of heterogeneity of the head of pancreas and dilated intra and extra hepatic bile ducts in the abdominal CT scan. The common bile duct stent had been placed for him with the diagnosis of the head of pancreas cancer. The patient came back with continuation of recurrent abdominal pain and normal Bilirubin, ALKP and tumor markers, but remarkable elevated IgG4 and anti nuclear antibody. A biopsy was taken from heterogeneity of the head of pancreas under the guide of Endoscopic Ultra Sonography (EUS). Pathologic samples showed fibrosis associated with lymphoplasmacitic infiltration without the evidence of malignancy.

Finally, the patient was placed on the treatment of autoimmune Pancreatitis and the bile duct stent was taken out.

*Discussion :* AIP should be considered in suspected cases of cancer of pancreas. So the biopsy of pancreas helps us to differentiate these and prevents complications of the disease progression and unnecessary surgery. Send Date: 2011/07/17

Category: 9 PANCREAS

9.5 Malignant disease and endocrine tumors of the pancreas F-T-125

**Diagnostic Yield of EUS- FNA for Patients with Solid Pancreatic Neoplasm** Bijan Shahbazkhani<sup>1\*</sup>, Mahmoud Baghbanian<sup>1</sup>, Hadi Ghofrani<sup>1</sup>, Hossein Forutan<sup>1</sup>, Nasser Ebrahimi-Dariani<sup>1</sup>, Mohammad Jafar

Farahvash<sup>1</sup>, Mohammad Kalani<sup>1</sup>, Najmeh Aletaha<sup>1</sup> <sup>1</sup>Digestive Disease Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran Introduction: Endosonography is a distinct method in evaluating GI structural lesions, particularly Pancreatobiliary system. This procedure has made a fundamental change in the diagnosis of pancreatic mass lesion through providing fine needle aspiration. This study aims at evaluating the results and efficacy of EUS-FNA in patients with pancreatic solid mass. *Method:* The present study which is of a descriptive, prospective and case series nature has been studing patients with pancreatic solid mass referred to Imam Khomeini educational hospital in Tehran for duration of one year since November 2010. In order to determine the false negative cases, the patients have been fallowed form 6 to 12 months.

**Results:** EUS-FNA was carried on all 53 patients without any complication .The majority of whom was male (68%) and 81% had mass in the head of pancreas. The result of cytopathology revealed 36 (68%) Adenocarcinoma, 7 (13%) other malignancy like N.E.T., 3 (6%) benign lesion like autoimmune pancreatitis and 7 (13%) non-diagnostic cases. The frequency of non-diagnostic results was significantly high in masses smaller than 3cm (6 vs. 1: p<0.002). Patients with non-diagnostic result were younger than those with malignant cytopathology (52±7.5 vs. 66±7.5 years: p<0.001). Sensitivity, specificity, PPV, NPV and accuracy of this procedure concerning Adenocarcinoma were 88%, 100%, 100%, 70% and 90%, respectively.

*Conclusion:* Overall EUS-FNA was diagnostic in 87% of cases. EUS-FNA is an effective and safe procedure in histopathologic diagnosis of pancreas tumors. This procedure is recommended in all pancreatic mass cases including resectable and non resectable ones.

Send Date: 2011/08/09

Category: 10 NUTRITION 10.2 Nutrients and gut function F-T-126

The effect of different dietary oils on C.rodentium induced Colitis

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*Introduction:* Increasing evidence suggests that high dietary intake of n-3 fatty acids attenuate the inflammation in chemically induced colitis, but there is no study to evaluate the effect of different dietary oils on Citrobacter rodentium induced colitis. The aim of this study was to determine the effect of fish oil, canola oil, and safflower oil on Citrobacter rodentium induced colitis.

Method: Thirty-six mice were fed isocaloric diets varying only in fat composition for three weeks before and 10 days after Citrobacter rodentium inoculation. Mice were randomized into the following diet groups: a) standard chow diet, or b) a semi-synthetic diet, with 20% energy from the following lipid diets: safflower oil high in 18:2n-6, canola oil high in 18:1n-9 and 18:3n-3, and fish oil high in 20:5n-3, 22:6n-3. Mice were orally inoculated with 100µl of wild-type C. rodentium (formerly C. freundii biotype 4280), strain DBS100 (n=9/group). Control mice received 100µl of Luria broth (n=9/group). The distal colon was assessed for histopathology score, bacterial count, and some host immune response factors. Statistical significance was calculated using ANOVA followed by post hoc. P-value of <0.05 was considered significant.

**Results:** Fish oil prolonged the mice survival mildly followed by canola, and safflower oil. While the bacterial count was similar in all groups, the histopathology score was at minimum level in fish oil group followed by canola oil, safflower oil, and chow diet group (p<0.01). Also, fish oil reduced the inflammatory cell recruitment and the epithelial cell proliferation significantly (p<0.01). IL-10 was expressed at similarly low levels in colon tissues taken from uninfected mice, and IL-6 gene

expression was very low in all infected groups.

*Conclusion:* Our results indicate that in Citrobacter rodentium induced colitis model, the lower intake of n-6 to n-3 fatty acids ratio results in the less inflammatory response, whereas the Citrobacter rodentium count is not affected by dietary fatty acid intake. Future studies are recommended to evaluate the effect of these dietary oils on transgenic mice to be able to address the exact mechanism of action of these oils.

Send Date: 2011/07/22

### Category: 10 NUTRITION

10.2 Nutrients and gut function F-T-127

# Efficacy of probiotics in lactose intolerance patients in Shiraz, Southern Iran

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Mohammad Sadegh Khosravi<sup>3</sup>, Fariba Moradi<sup>4</sup>, Najaf Zare<sup>5</sup>, Mehdi Saberi-Firouzi<sup>6</sup>

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*Introduction:* The prevalence of lactose intolerance was reported 3-90 percent in different parts of the world. Unabsorbed lactose in large intestine causes digestive problems including bloating, flatulence, nausea, diarrhea and abdominal pain. In the recent years, many studies have been done to find a way to decrease the symptoms such as prescription of probiotics. They are live microorganism that have beneficial effects in reduction of symptoms, some diseases and improve the microbial balance of the host. The aim of this study is to determine the efficacy of probiotics in patients with lactose intolerance in Shiraz, Southern Iran.

Method: 54 Referral patients from Motahari Clinic

or Gastroenterology Research Center of Shiraz University of Medical Sciences were enrolled. The patients were asked to eat 20 g lactose and after 30 minutes until 3 hours were examined for lactose intolerance using a breath hydrogen test. The clinical and demographic information of all patients were recorded. Probiotic yogurt was administered for patients with lactose intolerance symptoms for 3 weeks and again underwent the breath hydrogen test (Group 1). A control group was considered of patients with lactose intolerance symptoms but received a non-probiotic yogurt identically.

**Results:** In patients of control group, the breath hydrogen test did not show any significant change but in the other group, the change was statistically significant (p=0.011).

*Conclusion:* It seems that probiotics may be effective in treatment of lactose intolerance based on breath hydrogen test. A longer time of follow up may provide the opportunity to follow the symptoms too. Send Date: 2011/08/12

### Category: 10 NUTRITION

10.2 Nutrients and gut function F-T-128

### case report: Severe Neurological Crises after Interruption of NTBC Treatment in 3 Patients with Hereditary Tyrosinemia Type 1

Naser Honar<sup>1\*</sup>, Mohsen Dehghani<sup>1</sup>, Mahmood Haghighat<sup>1</sup>, Mohammad-Hadi Imanieh<sup>1</sup>, Sara Japoni<sup>1</sup> <sup>1</sup> Gastroenterology and Hepatology Research Center, Shiraz University of Medical Sciences, Shiraz, Iran *Introduction:* Tyrosinemia type 1 is a hereditary disorder that results from deficiency of the enzyme Fumaryl acetoacetate hydroxylase. This disorder involves multiple organs including liver, kidney and peripheral nerves. Studies indicate that the outcome and prognosis of tyrosinemia type 1 significantly improves after introduction of NTBC [2-(2-nitro-4-trifluoro-methyl-benzoyl)-1,3 cyclohexanedione]. Case Reports: Patient A: A 2.5 years old boy was presented with hepatomegaly since 8 months of age. NTBC was started at the age of 8 months. The patient was referred to Pediatric Gastroentrology and Hepatology ward at Nemazee hospital, Shiraz for pre transplant evaluation. During this time, his parents mistakenly discontinued NTBC treatment. Finally he

developed lethargy, floppiness and mechanical ventilation was started due to respiratory distress. Treatment with NTBC was introduced again and abdominal respiration continued. After 72 hours, he received liver transplantation but developed respiratory arrest and expired. Patient B: A 3.5 years old healthy boy developed abdominal protrusion since 8 months of age. After 6 months hepatomegaly was detected. NTBC medication was started immediately after diagnosis of tyrosinemia type1. After NTBC interruption by the parents, the patient developed respiratory insufficiency and diaphragmatic paralysis, and mechanical ventilation was immediately started. Treatment with NTBC was started again. The patient developed partial improvement and slowly regained normal neurological functions and recovered after 2 months. Patient C: A 2 years old boy was referred to a pediatric hepatologist at his 1st month of age due to nausea, vomiting, fever, diarrhea, abdominal protrusion and Cholestasis. After receiving paraclinical results tyrosinemia was diagnosed. NTBC treatment was introduced at 6 months of age. Before admission NTBC treatment was interrupted by his parents. Subsequently after 3 weeks, he developed abdominal pain, irritability, muscle weakness, diaphragmatic paralysis and two episodes of tonic generalized convulsion. After admission due to respiratory failure, intubation and mechanical ventilation was started and NTBC medication was introduced again. After 2 weeks mechanical ventilation was stopped but NTBC treatment continued. The patient finally regained normal neurological functions and recovered.

Discussion: Before the NTBC era, 42% of children with tyrosinemia type 1 developed neurologic crises. NTBC abolishes hepatic and neurologic complications and protects against the development of hepatocellular carcinoma with treatment within the first months of life. A report demonstrated that interruption of NTBC treatment in one patient developed acute neurologic crises and concluded that discontinuity of medication in tyrosinemia type 1 patients can be life threatening. The current report indicates interruption of NTBC can induce severe neurologic crises, diaphragmatic paralysis and even death. In conclusion, due to the side effects caused by the interruption of NTBC, parents and family members should be informed to consult their physician before discontinuing the medication. Send Date: 2011/08/17

Category: 10 NUTRITION 10.2 Nutrients and gut function F-T-129

> Vit B<sub>12</sub> deficiency, a real problem in elderly in Shiraz

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*Introduction:* Vit B12 deficiency is common in elderly population. That is due to malabsorption of cobalamine in food. This deficiency can induce some problem such as hematologic and neuropsychiatric disorder, with non-specific signs and symptoms. Therefore in elderly population, B12 deficiency is of the important differential diagnosis that every physician should pay attention. To see prevalence of deficiency of cobalamine in subjects over 50 years old in our region.

*Method:* From 340 subjects over 50 years old, that chase randomly from all area over the city, Shiraz, 5cc whole blood was taken in fasting condition. Then serum was separated and stored at minus 20 cc. Serum folate and cobalamine was measured by radioimmunoassay and homocystein was determined by ELISA. We consider serum cobalamine level below 200 pg/ml as deficient and below 100 pg/ml as severe deficiency with clinical significance. Serum homocystein over 21.3µmol/ml is also considered as abnormal.

**Results:** Cobalamine level was below 200 pg/ml in 36.2%, and below 100 pg/ml in 12.4%.Cobalamine deficiency plus metabolic evidence (cobalamine below mean and homocystein over 21.3  $\mu$ mol/ml) were seen in 5.25% of samples.

*Conclusion:* Prevalence of cobalamine deficiency is 36.2% and severe deficiency of cobalamine with clinical significance is 12.4% in subjects over 50 years old in city, Shiraz. Therefore prevalence of cobalamine deficiency is high in elderly and should be considered in clinical practice. Send Date: 2011/08/18

Category: 13 ONCOLOGY-BASIC

13.2 Molecular biology/genetics/pathology F-T-130

Modeling genetic determinants of nucleotide excision repair and PAH-DNA adduct level among non-smokers in a high risk area for esophageal squamous cell carcinoma

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*Introduction:* The aim of this study was to develop a genetic model to explain inter-individual variability in the blood level of polycyclic aromatic hydrocarbon (PAH)-DNA adducts and nucleaotide excision repair (NER) capacity.

*Method:* Among participants in the Golestan Cohort Study, 111 female non-smokers were randomly selected. Twenty-one SNPs in 14 genes related to xenobiotic metabolism and 13 SNPs in 9 DNA repair genes were studied. NER capacity was evaluated by the comet assay, and DNA adduct level was measured by 32p-postlabelling. Multivariate regression was used to assess the simultaneous effects of the number of mutant SNPs in each gene, NER capacity, and environmental exposures on the PAH-DNA adduct levels. Models were compared by Akaike's information criterion (AIC).

**Results:** The model including environmental exposures, phase 1 xenobiotic metabolism SNPs and NER capacity had the lowest AIC. Among all SNPs, NA2 (b=-0.21; p<0.05), myeloperoxidase (b=-0.17; p<0.05) and ERCC-5 genes (b=0.15, p<0.05) had significant associations with PAH-DNA adduct levels. NER capacity itself was affected by a polymorphism in the methylenetetrahydrofolate

### reductase gene (b=0.41, p< 0.01).

*Conclusion:* A combination of environmental factors, number of polymorphisms in phase 1 xenobiotic metabolism genes and DNA repair capacity can best explain inter-individual variability in PAH-DNA adduct levels.

Send Date: 2011/07/24

### Category: 13 ONCOLOGY-BASIC

13.2 Molecular biology/genetics/pathology F-T-131

### CXCR4 is Expressed at Low Level on Atrophic Lesions and its Expression is Increased Along With Progression to Metaplasia and Adenocarcinoma

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*Introduction:* Stromal derived factor-1 (SDF-1 or CXCL12), a member of the alpha chemokines (CXC) and the ligand for the CXCR4 receptor, has been shown in the past to be an effective chemoattractant for various CXCR4-expressing cells. SDF-1 is secreted by stromal and endothelial cells in bone marrow, lung, skeletal muscle, liver, kidney and brain. It is therefore important for metastasis of cancer cells to these organs. Recent studies have shown that CXCR4 plays an important role in cancer development and tumor growth, apoptosis inhibition, angiogenesis promotion, cellular proliferation, invasion and cancer metastasis in many cancers.

*Method:* Herein, we studied the expression of CXCR4 on gastric samples from patients with precancerous lesions (atrophy, metaplasia and dysplasia) and gastric adenocarcinoma as well as human gastric carcinoma epithelial cell line (AGS) by employing RT-PCR, immunehistochemistry (IHC)

and Fluorescence Activated Cell Sorting (FACS) techniques.

**Results:** RT-PCR data show that CXCR4 is highly expressed on AGS cells. This was confirmed by IHC and FACS as CXCR4 is detected in cell membrane and cytoplasm of AGS cell line. More importantly, we found that CXCR4 is strongly expressed on primary gastric cancer cells from patients, but not on normal gastric cells from normal individuals (as detected by IHC staining and RT-PCR). Furthermore, our data show that CXCR4 is expressed at low level on atrophic lesions and its expression is enhanced along with progression to metaplasia and adenocarcinoma.

*Conclusion:* In conclusion; we present evidence that CXCR4 is expressed on gastric carcinoma and thus CXCR4 may be a suitable marker for diagnosis of gastric cancer. In addition, we demonstrate for the first time that CXCR4 expression is enhanced as premalignant lesions progress to malignant tumors, indicating that targeting CXCR4 could be a new approach for treatment of gastric cancer. Send Date: 2011/07/30

#### Category: 13 ONCOLOGY-BASIC

13.2 Molecular biology/genetics/pathology F-T-132

### Immunohistochemistric evaluation of HER-2/neu overexpression in 101 cases of gastric carcinoma using tissue microarray

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*Introduction:* HER-2/neu overexpression hasproved predictive value in breast cancer patients, responding to Trastuzumab. We wanted to investigate the frequency of HER-2/neu overexpression in gastric

carcinoma and its correlation with clinicopathologic variables.

*Method:* 101 patients with adenocarcinomas of stomach and gastroesophageal junction were included in this study.Biopsy specimens were assessed by immunohistochemistry (IHC) staining for HER-2/neu,using tissue microarray method (TMA).

*Results:* Mean age of patients was 60.13±11 (32-82) years. Male to female ratio was 2.4:1. HER2/neu overexpression was positive in 13 cases (12.9%). The frequency of HER2/neuoverexpression in tumors  $\geq$ 5cm was significantly higher than tumors< 5cm (20% vs. 2.4%; p=0.01). There was no statistically correlation between significant HER2/neu overexpression and other pathological featurs such as grade, stage,lymph node involvement, tumor location, histopathological type, nor with age and sex. Conclusion: The prevalence of HER-2/neu overexpression in our study was slightly lower than the range found in most of the other published studies. There was a significant correlation between tumor size and HER-2/neu protein overexpression. But it hasn't any correlation with other pathological featurs of tumor. Send Date: 2011/08/01

Category: 13 ONCOLOGY-BASIC

13.2 Molecular biology/genetics/pathology F-T-133

The Relationship between Size of colon Adenocarcinoma and Lymph Node Involvement

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*Introduction:* Involvement of lymph nodes is an important prognostic factor in most cancers,

including colorectal cancers. Recent studies have been showed that invasion to blood and lymphatic vessels may predict involvement of lymph nodes but the number of involved nodes has been less studied. The aim of this study was to determine the relationship between the size of colorectal adenocarcinoma and lymph node involvement.

*Method:* In this cross-sectional study, 116 patients were enrolled with colorectal cancer from Rasoul-e-Akram and Mehr Hospitals in 2002-2008. Data analysis was performed by SPSS-15 software. Results were expressed as frequency, percent, and mean  $\pm$ SD. We used Chi2, student test and correlation tests for statistical analysis.

**Results:** 54.3% of patients were male and 45.7% were female. Mean age of them was  $59.4\pm 12.9$  years. Mean size of tumor (longest diameter) was  $5.4\pm 2.2$  (range: 1.5 to 12) cm. Mean number of involved lymph nodes was  $4.9\pm 3.5$  (range: 1-14). There was no correlation between number of lymph node involvement and tumor size. There was no correlation between lymph node involvement and type of tumor or age, sex, location and depth of tumor. Poorly differentiated tumors significantly correlated to lymph node involvement (p=0.001).

*Conclusion:* There is no correlation between tumor size and number of involved lymph node in colorectal cancer. However, poor histopathologic grade is associated with lymph node involvement. Send Date: 2011/08/0

Category: 13 ONCOLOGY-BASIC

13.2 Molecular biology/genetics/pathology F-T-134

### Investigation of plasma vascular endothelial growth factor & complement C3a level in patients with colorectal cancer in southern Iran

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Davood Mehrabani<sup>1</sup>, Seyed Taghi Heydari<sup>3</sup> <sup>1</sup>Gastroenterohepatology Research Center (GEHRC), Shiraz University of Medical Sciences, Shiraz, Iran <sup>2</sup>Gastroenterohepatology Research Center (GEHRC), Shiraz University of Medical Sciences and Digestive Disease Research Center, Shariati's Hospital, Tehran University of Medical Sciences, Tehran ,Iran 3 Department of Biostatistics, Shiraz University of Medical Sciences, Shiraz, Iran *Introduction:* Colorectal cancer is a major cause of worldwide morbidity & mortality and is the second most common cause of cancer death. Colorectal cancer is often diagnosed at a late stage with poor prognosis. Vascular endothelial growth factor (VEGF) is a neo-angiogenesis with great importance for tumor growth, which has a direct effect on vascular endothelial cell proliferation and migration. C3a is also diagnostic factor in determining colon cancer. The aim of the study was to measure the VEGF and C3a level in patients with colorectal cancer.

*Method:* One hundred and ten patients with colorectal cancer, including 66 Men and 44 women. (At an average age of 54 years) were enrolled into the study. VEGF and C3a level of 110 patients with colorectal cancer were determined using ELISA method. Only 55 Patients with elevated serum VEGF and C3a were followed up after 3 months, because of death of the rest.

*Results:* our result demonstrate that C3a is a suitable diagnostic tumor marker in patients with colorectal cancer. A combination of the serum tumor markers C3a and VEGF can significantly increase the pre-operative diagnostic. VEGF and C3a serum level slowed significantly difference pre- and post – treatment (mean 509.1 pg/ml, 480pg/ml; 2.5 ng/ml 2.3 ng/ml) (p=0.8) (p=0.002).

*Conclusion:* Combination VEGF and C3a are useful markers to predict future metastasis, survival, and response to the treatment. Send Date: 2011/08/17

### Category: 14 ONCOLOGY-CLINICAL

14.1 Malignant disease - epidemiology - screening and prevention

F-T-135

### Diagnostic Value of Fecal Calprotectin as a Screening Biomarker for Gastrointestinal Malignancy

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*Introduction:* The protein calprotectin constitutes approximately 60% of the soluble cytoplasmic proteins in neutrophilic granulocytes and has been

found in increased concentrations in feces from symptomatic patients with gastrointestinal (GI) cancers (including colorectal and gastric malignancies), inflammatory bowel disease, and certain infections. Calprotectin in feces seems to be a more sensitive marker for GI cancers than fecal occult blood, but its specificity may be too low for screening of average risk populations.

This study aims at evaluating the diagnostic value of fecal calprotectin as a screening biomarker of gastrointestinal malignancies.

*Method:* In a case-control study, 100 patients with GI malignancies (50 patients with colorectal cancer and 50 patients with gastric cancer) and 50 controls were recruited from Imam Reza and Sina hospitals of Tabriz University of Medical Sciences, during a 24-month period.

One to two weeks after the last endoscopy/ colonoscopy, 5gr of fecal specimen was collected by the patient and examined by ELISA method for quantitative measurement of its calprotectin content. The results were compared between the three groups.

**Results:** The mean fecal calprotectin level was 109.1±105.3 (2.3-454.3, median:74), 241.1±205.2 (3.4-610.0, median:19.3) and 45.9±55.1µg/g (1.3-257.1, median:19.3) in gastric cancer, colorectal cancer and control group, respectively. The mean level of fecal calprotectin was the highest in patients with colorectal cancer and the lowest in the controls (p<0.001). This difference still remained after adjusting for age. The optimal cut-off point for fecal calprotectin was  $\geq 75.8\mu g/g$  for distinguishing colorectal cancer from normal cases (sensitivity and specificity of 80% and 84%, respectively). This value was  $\geq 41.9\mu g/g$  for diffrentiating gastric cancer from normal cases (sensitivity and specificity of 62%).

*Conclusion:* Our results revealed that fecal calprotectin might be a useful and noninvasive biomarker for discriminating colorectal cancer from non-malignant GI conditions.

However, due to low sensitivity and specificity, this biomarker may not help physicians distinguishing gastric cancer cases from healthy subjects. Send Date: 2011/07/15

### Category: 14 ONCOLOGY-CLINICAL

14.1 Malignant disease - epidemiology - screening and prevention

F-T-136

### A Meta-analysis of Epidemiology of gastric cancer in Iran

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*Introduction:* Gastric cancer is still an important health problem in Iran. The aim of this meta-analysis is studying the incidence of gastric cancer, its sub types and male to female ratio in Iranian population. *Method:* After an extensive search in almost all English and Persian medical databases for epidemiology of gastric cancer in Iranian population, we find 173 articles. These articles were appraised by three individuals independently. The articles that have our factors to be concerned in the meta-analysis have been selected. The data was analyzed by CMA.2 software.

*Results:* The incidence of gastric cancer in Iranian population was 23.9 per 100000 in males and 10 per 100000 in females by ASR. Adenocarcinoma has the most incidence and followed by lymphoma. The male to female ratio was 2.4:1.

*Conclusion:* According to its high incidence, developing a gastric cancer early detection program is seriously recommended. Send Date: 2011/07/21

Category: 14 ONCOLOGY-CLINICAL

14.1 Malignant disease - epidemiology - screening and prevention

F-T-137

Physical Activity and Reduction in the Risk of Colorectal Cancer: a Population-Based Case-Control Study

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Introduction: The incidence and mortality rates for colorectal cancer (CRC) are among the highest of all malignancies worldwide. The possible association of physical activity with reduced risk of various types of cancer has generated much interest recently. The goal of this research was, examining the relationship between physical activity and CRC in Isfahan, Iran. Method: We designed a double-blind, populationbased case-control study with 100 cases and 100 controls. Newly diagnosed male and female cases of CRC, aged 30 to 82 were included into the study, which were referred to Poursina Hakim Institute in Isfahan, Iran, between the years 2006 to 2008. Data on recreational, occupational and household physical activities was obtained based on a Modified version of Kriska Standard Physical Activity Questionnaire. Samples were matched based on age and sex. Multivariable logistic regression was used to estimate the Odds Ratio.

**Results:** After adjustment for marital status, body mass index (BMI), cigarette smoking, hormone replacement therapy (HRT), educational status, past history of cancer and family history of cancer, we found odds ratio of 0.83 for the relationship between recreational activity & colorectal cancer in the two groups (p=0.03, 0.95% CI=0.692, 0.985), but there was no significant association between CRC and occupational (p =0.232) and household activities (p =0.226).

*Conclusion:* Recreational physical activity is associated with reduced risk of colorectal cancer but occupational and household physical activities are not. Send Date: 2011/08/05

Category: 14 ONCOLOGY-CLINICAL 14.2 Diagnosis of malignant disease F-T-138

Gastric carcinoid tumor with normal (gastritis) endoscopy

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*Introduction:* Carcinoid tumors arise from gastrointestinal neuroendocrine cells and can be subdivided into well differentiated &poorly

differentiated tumors. They can involve stomach, intestine, appendix, colorectal and lung. In former they accounted for 2% of all gastrointestinal carcinoids, but in more recent studies, 10% to 30% of all carcinoids are reported in the stomach. They can be sub classified into 3 distinct groups: those associated with chronic atrophic gastritis/pernicious anemia (type 1)70%-80%, those associated with Zollinger-Ellison syndrome (ZES) with multiple endocrine neoplasia type I (MEN I) (type 2) 5%, and sporadic NETs of the stomach (type 3)15-20%.

*Case Report:* Patient is a 53-years old woman with epigastric pain, bloating and sometims night pain from 5-6 months ago. Physical examination is N.I. In her F.H her father had gastric cancer and died at his 62 years old. Lab data (CBC, LFT, Biochemistry) are N.L. In endoscopy, moderate gastritis in antrum was seen and B.X was taken.pathological report in two different centers with expert pathologists after IHC revealed carcinoid tumor. CT scan, reported thickness of lesser curvature of the stomach without metastasis.

Discusion: Increased use of endoscopy and advances in imaging have led to a relative increase in detection of gastric carcinoid tumors. Based on upper gastrointestinal studies using single contrast technique Balthazar et al had reported four different radiographic patterns of carcinoid tumors, Single intramural defect, large gastric ulcer, multiple gastric polyps and polypoidal intraluminal lesions . Endoscopic finding were studied and evaluated in patients with gastric carcinoid tumors.patients had a single or multiple mass(nodule) in stomach. Overall in endoscopy results, mass or nodule had reported in stomach in over world study, but in presented case report, endoscopy detected only gastritis in antrum and abdominal CT scan reported thickness of lesser curvature. Therefore we suggest that in patients with risk factor and positive family history although endoscopy was near normal or gastritis without mass, B.X is mandatory and probably CT scan or endosonography is complementary. Send Date: 2011/08/17

### Category: 14 ONCOLOGY-CLINICAL

موضوع: ١٢. ٢ عوارض بعد از جراحي

اروزیون معده ناشی از باند (Band Erosion)، عارضه مهم و خطیر جایگذاری باند قابل تنظیم معده Laparoscopic Adjustable Gastric Band (LAGB) ، برای درمان چاقی . گزارش موارد و درمان آندوسکوپیک آن احسان اکبری۱\*

#### <sup>۱</sup> علوم پزشکی، علوم پزشکی مشهد

مقدمه : اروزیون معده ناشی از باند (Band Erosion): عارضه ای مهم و خطیر از جایگذاری حلقه قابل تنظیم معده با روش لاپاراسکوپیک (LAGB) است که برای درمان چاقی انجام می شود . این عارضه نادر بوده و با درد اپی گاستر ، تهوع و استفراغ همراه است و بایستی توسط عمل جراحی برداشته شود. در این پژوهش به بررسی فراوانی این عارضه با انجام آندوسکوپی پرداخته شده است و اصول درمان آندوسکوپیک آن مورد بحث قرار می گیرد.

گزارش مورد: برای تعداد ۶۳۰ بیمار که استاندارد های قابل قبول مجامع علمی برای درمان جراحی چاقی را داشتند، توسط همکار جراح LAGB تعبیه شد. کلیه بیماران از نظرو جود علائم گوارشی پیگیری شدند. تعداد ۵۳ بیمار بعلت علائم و عوارض فوقانی گوارش کاندید آندوسکوپی شدند . در ۲۱ بیمار (سه درصد کل بیماران) اروزیون ناشی از باند معده دیده شد که در ۱۸ مورد توسط اقدامات آندوسکوپیک ، بند از معده خارج گردید و بیماران با حال عمومی خوب مرخص شدند. در دو بیمار درمان آندوسکوپیک ناموفق بود که باند توسط جراح با عمل جراحی خارج شد.

**نتیجه گیری**: اروزیون معده ناشی از باند از عوارض مهم و خطیر LAGB است و درمان آندوسکوپیک یک روش موفق غیر تهاجمی است که می تواند جایگزین درمان جراحی گردد. تاریخ ارسال ۲۰٬۵/۱۳۹۰

### Category: 15 NERVE GUT AND MOTILITY

15.2 Brain-gut and gut-brain axes - neuro-hormonal - neural-immune and visceral sensitivity F-T-140

### The Incidence of Irritable Bowel Syndrome in Women Undergoing Hysterectomy

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*Introduction:* Many studies confirm the high prevalence of IBS and its impact on the working life, social activities and well-being of sufferers. The results of previous investigations have shown an increased incidence of IBS after gynecological surgeries such as hysterectomy. However, most of these studies did not use validated symptom-based criteria like Rome II. The aim of this study was to

assess the incidence of IBS in women undergoing hysterectomy and tubular ligation (TL).

*Method:* Participants were patients of Alzahra and Taleghani hospitals of Tabriz University of MedicalSciences.Three hundred thirty six healthy women were included in the study.One hundred seventy two of cases underwent TL and 164 of them had hysterectomy.Patients were assessed every 3 months after having aforementioned surgeries, during a 12-month period. IBS was evaluated using a questionnaire based on Rome II criteria. Individuals diagnosed with Irritible Bowel Syndrome, based on this criteria, underwent complementary evaluations by gasteroenterologist for IBS confirmation.

**Results:** The mean age of patients underwent TL was  $37.85\pm 5$  years; and  $47.14\pm 6.57$  years in hysterectomy group. During 12 months after surgeries, 19 (11%) patients in TL group and 19 (11%) in hysterectomy group had abdominal pain (> 12 weeks) with at least two symptoms of IBS; However, IBS was confirmed in 9 (5%) patients of TL and 13 (8%) patients of hysterectomy groups (p > 0.05). In both groups of study, the most prevalent symptoms along with abdominal pain were chronic constipation and abnormal stool passage. The least prevalents were diarrhea and passage of mucus. There were no significant differences in prevalence of symptoms among IBS positive patients of two groups.

*Conclusion:* Our results suggest that gynecological surgeries (TL and Hysterectomy) could predispose patient to IBS. Therefore awareness of physicians and gynecologists about this issue may prevent unnecessary surgeries. Send Date: 2011/07/15

Category: 15 NERVE GUT AND MOTILITY 15.5 Functional gastrointestinal disorders (clinical management)

F-T-141

### Anxiety, depression, and quality of Life in Irritable Bowel Syndrome Subtypes Raika Jamali<sup>1\*</sup>, Arsia Jamali<sup>2</sup>, Abdollah

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Introduction: Irritable Bowel Syndrome (IBS) is a common gastrointestinal disorder that affects Quality of life (QOL). IBS subtypes may have different expression of the symptoms of depression and anxiety with different outcomes on QOL indices. The aims of study are: 1) to compare anxiety and depression symptoms and QOL between IBS subtypes, 2) to determine the factors independently associated with QOL in IBS patients, 3) to access the correlation between generic QOL (WHOQOL-BREF) with disease specific QOL tests (QOL-IBS). Method: Two hundred and fifty IBS patients (121 males) referred to gastroenterology clinic and 250 controls were included. IBS and its subtypes were defined according to ROME 3 criteria. "WHOQOL-BREF", "QOL specific for IBS", "Stait-Trait Anxiety Inventory," and "Beck Depression Inventory-2" questionnaires were used for evaluation of QOL, Anxiety, and Depression symptoms.

**Results:** The mean depression scores were higher in mixed subtype than constipation subtype however, QOL, psychological and social relationships scores were lower in mixed subtype than constipation subtype. (All P values<0.05) Factors associated with QOL-BREF scores were symptom severity, anxiety, and depression symptoms. (Regression coefficients = -0.2, -0.31, and -0.28 respectively; All P values < 0.001). There was correlation between WHOQOL-BREF and QOL-IBS scores. (R2 = 0.79; P value < 0.001)

*Conclusion:* QOL was not affected by IBS subtype. Proper management of disease, anxiety, and depression symptoms in IBS patients may affect their QOL. WHOQOL-BREF and QOL-IBS questionnaires were correlated and either test might be applied for evaluation of QOL in IBS patients. Send Date: 2011/05/30

Category: 15 NERVE GUT AND MOTILITY 15.5 Functional gastrointestinal disorders (clinical management)

F-T-142

### Comparison the effects of doxepin, nortriptyline and placebo on diarrhea-predominant irritable bowel syndrome: a triple-blind, randomized, placebo-controlled trial

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*Introduction:* Irritable bowel syndrome is important because of its high prevalence, substantial morbidity, and enormous costs. Several trials have demonstrated benefits of tricyclic antidepressants for irritable bowel syndrome, especially when pain is a prominent symptom but the efficacy of antidepressants in irritable bowel syndrome is controversial. The aim of this study was to compare the effects of doxepin, nortriptyline and placebo on diarrhea-predominant irritable bowel syndrome.

*Method:* Seventy-five patients with IBS according to Rome III criteria were treated for 2 months. The patients were randomly assigned to one of three groups treated with doxepin, nortriptyline or placebo.Subjects were assessed clinically one month and two months after treatment. The symptoms and adverse effects of the drugs were recorded in the questionnaire.

**Results:** Improvement in abdominal pain and bloating in doxepin group was significantly higher than nortriptyline and placebo groups (p=0.001 and p=0.012, respectively). Improvement in diarrhea in nortriptyline group was significantly higher than other groups (p=0.018). The mean of improvement degree of the patients after 2 months of treatment in doxepin group, nortriptyline group and placebo group were 2.56, 2 and 0.6, respectively(p<0.05).

**Conclusion:** Doxepin or nortriptyline is effective for treatment of diarrhea-predominant irritable bowel syndrome in a period of two months. Doxepin is more effective than nortriptyline for treatment of diarrhea-predominant irritable bowel syndrome. Send Date: 2011/07/22

Category: 16 IMMUNOLOGY/MICROBIOLOGY 16.1 Host defence mechanisms - immune reactions F-T-143

### Single nucleotide polymorphisms in IFN-α receptor1 gene and its association with outcome of combination therapy in Iranian HCV infected patients

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**Introduction:** Hepatitis C virus (HCV) is one of the main reasons for chronic liver disease and hepatocellular carcinoma. Combination therapy with Pegylated interferon- $\alpha$  (IFN- $\alpha$ ) and ribavirin has become the gold standard for treatment of HCV infection, although the achievement of sustained virological response (SVR) has not been very satisfactory. The treatment outcome depends on viral genotypes and host genetic polymorphisms in the genes involved in the IFN- $\alpha$  signaling pathway. The aim of this study was to identify host genetic polymorphisms of IFN- $\alpha$  receptor 1(IFNAR1) gene associated with the efficacy of IFN-based combination therapy.

*Method:* Participants were treated with pegylated interferon- $\alpha$  and ribavirin during therapy. Subjects with undetectable HCV RNA at week 72 were considered to achieve SVR. Subjects with detectable HCV RNA at week 24 were considered as non-responders. DNA was extracted from collected peripheral blood mononuclear cells (PBMCs). Four single nucleotide polymorphisms (SNPs) belong to IFNAR1 gene were detected in 30 Iranian healthy volunteers and 270 chronic hepatitis C patients. Genotypes were assessed by TaqMan assays and analyzed with related software. This analysis compares genotypes for participants with an SVR to non-responder.

*Results:* Logistic analysis revealed that low viral load, viral genotype 3 and a lower degree of liver fibrosis but none of studied SNPs were significantly associated with SVR.

Conclusion: Genetic polymorphisms in IFNAR1 gene were not associated with SVR. In contrast the efficacy of recombinant therapy was largely dependent on viral factors and liver fibrosis. Send Date: 2011/07/21

### Category: 19 ENDOSCOPY AND IMAGING 19.1 Endoscopy - Upper GI F-T-144

# Double pylorus in a cirrhotic patient: A case report and review of the literature

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*Introduction:* Double pylorus is an uncommon condition that is characterized by two communicating channels between gastric antrum and the first part of duodenum. Endoscopically, two separate openings of the pylorus can be seen leading to the duodenum, most of them were complication of peptic ulcer disease, although it may also be a congenital condition.

*Case Report:* A 66 year old cirrhotic gentleman was referred to the endoscopy ward for evaluation of cirrhosis and possibility of esophageal varices. The patient was asymptomatic and looked healthy; he had no history of epigastric pain, previous gastrointestinal bleeding or peptic ulcers. In endoscopy double orifices in pylorus lead to duodenal bulb with multiple erosions and deep anterior ulceration was found. Double pylorus is a rare finding which most of the times is an incidental finding during endoscopy or radiology. The male: female ratio is about 2:1 and the mean age of the patients was 59.6 years. It may be acquired or congenital .Acquired form is more common than congenital form that is usually results from a gastric ulcer eroding through and creating a fistula between the lesser curve of the gastric antrum and duodenal bulb near the anatomic pylorus .Rarely it has been described in patients with malignant ulcers. The reasons for development of the fistula remain unclear, but many systemic diseases, long history using corticosteroids, NSAIDs, and alcohol consumption may be associated with it. The true incidence of congenital double pylorus may be underestimated, because great majority of them may remain undetected for decades of life. It's etiology probably is the failure of the pyloric lumen to recanalize during the early stage of embryonic life .A congenital origin depends on normal histology in both channels that shows the presence of mucosa, lamina propria, and muscularis mucosa, with no signs of chronic penetrating ulcer or chronic gastritis. Furthermore, it seems that congenital duplications usually are located in the greater curvature rather than lesser curvature.

**Discussion:** Our case had a deep peptic ulcer at anterior wall of the bulb, which makes the possibility of a peptic etiology for the additional opening to the duodenum more likely. On the other hand the round or regular shape of the rim of the two openings may be in favor of a congenital etiology .In either case double pylorus itself and particularly in combination with cirrhosis is a rare finding. To our knowledge only one other case of double pylorus and cirrhosis is reported in the literature.

Send Date: 2011/08/16

# Category: 19 ENDOSCOPY AND IMAGING 19.1 Endoscopy - Upper GI

F-T-145

### Simethicone for the Preparation before Esophagogastroduodenoscopy-Updated Data on Patient's Satisfaction and Duration of the Procedure

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<sup>2</sup> Poursina Hakim Research Institute, Medical Student Research Center, Isfahan University of Medical Sciences <sup>3</sup> Poursina Hakim Research Institute, Department of Gastroenterology, Isfahan University of Medical Sciences *Introduction:* The presence of air bubbles and foam in stomach and duodenum during esophagogastroduodenoscopy (EGD) is a common problem which can lead to decreased diagnostic accuracy, prolonged endoscopy time, and decreased patient's tolerance. We evaluated the effectiveness of simethicone in reducing the amount of gastric and duodenal foam/air bubbles, duration of endoscopy procedure, and patients' satisfaction during EGD.

*Method:* Patients who were candidates of elective EGD received 40 mg chewable tablet of simethicone (n = 90) or placebo (n = 83), with 30mL water, 15–30 min before the EGD. Foam/air bubbles during endoscopy were assessed and graded on a 4-point scale by a single endoscopist, and the duration of endoscopy procedure was recorded. Patients' satisfaction with the endoscopy was scored from 0 to 10.

**Results:** The amount of gastric foam/air bubbles was significantly lower in the simethicone group compared with the placebo group (P = 0.002). No difference was found between the two groups with regard to duodenal foam/air bubbles (P > 0.05). Duration of endoscopy was, on average, one minute shorter in the simethicone group compared with the placebo group (P < 0.001). Patients' satisfaction with the procedure was the same in the two groups. No adverse effect was observed with simethicone.

*Conclusion:* Administration of simethicone prior to EGD reduces the amount of gastric foam and bubbles significantly and provides better visibility for evaluating the mucosa. It also decreases the duration of endoscopy. Further trials are required to find the optimal dosage and timing, as well as the final effect of the drug on diagnosis of pathological lesions. Send Date: 2011/08/05

### Category: 19 ENDOSCOPY AND IMAGING 19.1 Endoscopy - Upper GI F-T-146

### **Comparison of viscose and spray lidocain efficacy for through anesthesia in endoscopy** Ahmad Shavakhi Shavakhi<sup>1</sup>,

Mohamad Minakari<sup>1</sup>, Fatima Asaf<sup>1\*</sup> <sup>1</sup>Alzahra Hospital, Isfahan University of Medical Sciences Introduction: lidocaine should be used for diagnostic upper gastrointestinal (GI) endoscopy in deeply sedated patients, investigators recommend.Many endoscopists prefer of lidocain gel and othee preffer lidocaine spray. Probably The efficacy of local anesthesia is very important for an easy endoscopy not only for patients butalso for endoscopist . This study was down to comparison of two form of lidocaine (Gel and spray) that used befor endoscopy Method: This is a clinical trial study that conducted in Alzahra Isfahan hospital in 2009. With use of special sample size formula we selected 135 patients that candidate fro endoscopy. This patients were randomly selected in two groups . In the first group we use spray and in second group we use lidocain gel for local anesthesia. After 30 minutes we evaluated of deep anesthesia for two groups. The data collected with special check list and entered to computer and analyzed By spss soft ware.

**Results:** Exellent Patients satisfaction for spray and gel was 21.5% and 20% respectively. relative patients satisfaction for lidocaine spray and gel was 41.5% and 52.3% and there is no statistically difference between two form of lidocaine (P=0.46), also anxiety in gel group was less than spray group (p<0.05). **Conclusion:** According to idea of patients and endoscopist no difference between spray and gel and physicians can apply any form of lidocaine for local anesthesia according to patients preference. lidocain gel may be better for anxious patient.

Send Date: 2011/08/22

### Category: 19 ENDOSCOPY AND IMAGING 19.4 Endosonography F-T-147

# Endoscopic Ultrasonography Findings in Patients with Achalasia

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*Introduction:* Patients with achalasia may have a thicker muscularis propria layer than normal subjects. The aim of our study was to determine the prevalence of increased muscle thickness in patients with achalasia measured by endoscopic ultrasonography (EUS) and evaluation of its relationship with disease characteristics.

*Method:* During one year period we studied 16 nonachalsia patients and 16 consecutive achalasia patients before pneumatic dilation. Esophageal muscle thickness was measured at EGJ, 5th, and 10th Cm far from EGJ. Patients' symptom scores and their relieves were evaluated 1, 3 and 6 months after treatment.

**Results:** Nearly all patients with well-defined achalasia, revealed an increase in the muscle thickness relative to controls. There was a correlation between the thickness at 5, 10th Cm above the EGJ and the age of patients with achalasia. None of symptom scores, mean lower esophageal pressure, disease duration and response to treatment were correlated with rate of increase in muscle thickness. **Conclusion:** Increased esophageal muscle thickness by EUS is likely to be an important marker of achalasia. Send Date: 2011/07/12

### Category: 19 ENDOSCOPY AND IMAGING 19.4 Endosonography F-T-148

# Incidental findings on upper gastrointestinal endoscopic ultrasonography

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*Introduction:* The issue of incidental findings in medicine gains attention due to rapid progress in accurate diagnostic technologies and the aging population. The aim of this prospective study was to assess the frequency and clinical significance of incidental findings on upper gastrointestinal endoscopic ultrasonography (EUS).

*Method:* Patients who referred for upper gastrointestinal EUS, were consecutively enrolled to take part in this prospective study. Any coincidental abnormality found during the standard EUS was considered an incidental finding. Significant incidental findings were defined as abnormalities that required further medical, surgical or endoscopic intervention including surveillance.

**Results:** In 552 patients who underwent EUS, 44 IF were detected in 41 patients (7.4%). Twenty four abnormalities had high clinical significance. The frequency of IF increased significantly with increasing age (p=0.001). The most frequent If were gallstones, subepithelial lesions and pancreatic lesions.

*Conclusion:* Incidental findings on EUS are not uncommon in clinical practice and might be a clue to a significant pathology. The appropriate extent of evaluation in a standard EUS procedure warrants further research to be defined. Send Date: 2011/07/12

Category: 19 ENDOSCOPY AND IMAGING 19.4 Endosonography F-T-149

### Impact of EUS in Patients with Thickened Wall Stomach in CT scan

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Introduction: Endoscopic ultrasound (EUS) is often used in patients who have gastric wall thickening in

computed tomography (CT). However

*Method:* All patients referred for endoscopic ultrasound because of thickened gastric folds on CT were included. UGIE followed by EUS performed in all patients. Data were recorded prospectively.

**Results:** Twenty-eight patients enrolled the study. The mean  $\pm$  SD age was 50.8 $\pm$ 15.9. The prevalence was higher in men (60.7% were male). Most of the patients (78.6%) had symptoms. Ten patients (35.7%) finally diagnosed as gastric neoplasm. The presence of dyspepsia or constitutional symptoms is correlated with the presence of gastric abnormality. Eleven patients (39.3%) had normal UGIE, and 17 patients (60.7%) had normal EUS. If UGIE was abnormal (17 patients), EUS was abnormal in 10 (58.8%) cases. In all patients with normal UGIE (11 patients), the EUS was normal. Accuracy, specificity, sensitivity, positive predictive value and negative predictive value of EUS for detecting a lesion in thickened wall stomach on CT were: 89.3%, 88.8%, 90.0%, 81.8% and 94.1% respectively.

*Conclusion:* In all patients with normal EUS, UGIE is normal. The presence of symptoms predicts or increases the likelihood of abnormal EUS. In patients with thickened gastric wall in CT, UGIE should be done before EUS.

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# Category: 19 ENDOSCOPY AND IMAGING 19.4 Endosonography

F-T-150

### Endoscopic Ultrasonography in Patients with Chronic Liver Disease: A Case-Control Study

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*Introduction:* The portal system and azygos vein are the main drainage systems during portal hypertension. We aimed to compare the diameter of these veins by EUS in patients with and without chronic liver disease.

*Method:* During one year, patients with chronic liver disease were enrolled as study group. Patients undergoing endoscopic ultrasonography (EUS) for other reasons in the same period served as controls. In

cases with chronic liver disease, the relationship between the degrees of hepatic dysfunction (Child-Pugh class), history of variceal bleeding, presence of hyponatremia, thrombocytopenia and endoscopic grading of varices with the size of the portal, splenic and azygos veins on EUS were assessed.

Results: In the study period, 63 patients (20 female and 43 male) with chronic liver disease and 85 control subjects (42 female and 43 male) were enrolled. Mean age of cases and control were  $45.60 \pm$ 14 and  $48.5 \pm 15$  respectively. The most common cause of chronic liver disease was post-necrotic cirrhosis due to hepatitis B virus. Patients with chronic liver disease had significantly higher mean portal, splenic and azygos vein diameters than the control group (p<0.001). With azygos, portal and splenic vein diameters of 10, 11 and 9 mm, sensitivity for the diagnosis of portal hypertension was 66%, 71%, 66% while specificity was 94%, 99% and 99% respectively. Splenic and portal vein dilation and thrombocytopenia were significantly correlated with variceal bleeding (p < 0.05).

*Conclusion:* EUS allows the collection of valuable quantitative data from the portal system for the diagnosis of portal hypertension and in the follow up of patients with chronic liver disease. Send Date: 2011/07/12

### Category: 19 ENDOSCOPY AND IMAGING 19.5 Enteroscopy F-T-151

### Acute pancreatitis as a complication of peroral double-balloon enteroscopy: A case report Najmeh Aletaha<sup>1\*</sup>

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*Introduction:* Double-balloon enteroscopy (DBE) is a new technique for evaluation small intestine. DBE was initially developed by Yamamoto et al, in Japan. Potential complications include perforation, pancreatitis, and gastrointestinal bleeding. The overall complication rate is stated as being about 1.7%. Hyperamylasemia after per oral DBE was reported in approximately half of the patients, and with 1–8% developing pancreatitis. In this paper, we report a case that developed acute pancreatitis after DBE. This was the first case of acute pancreatitis in our hospital.

Case Report: A 26-year-old's man was referred to our hospital for evaluation of obscure GI bleeding. He had melana seven times from 2.5 y ago. For this reason, three times had been hospitalized. He received red blood cell transfusion in 2 times of the previous hospitalization due to severe bleeding and decreased hemoglobin level (7.5 g/dl). In the first endoscopy one clean base linear ulcer was reported in greater curvature of antrum. Biopsy from ulcer was performed and injection with epinephrine was done. Despite medical management, bleeding was repeated several times later. Then, to identify the cause of bleeding five times endoscopy and three times colonoscopy performed. In first rectosigmoidoscopy, upper to sigmoid was full of tarry stool and therefore colonoscopy was not continued. After this period, in 2 sessions colonoscopy was done that one of them up to hepatic flexure and other up to cecum were normal. But in all these studies the origin of bleeding was not found. Barium follow through of the small intestine also failed to show any lesions. RBC scan & meckel's scan was normal too. Therefore, the source of gastrointestinal bleeding was suspected to be small intestine and thus he was referred to our hospital. Forty days had passed from the last gastrointestinal bleeding. In new admission in our hospital his hemoglobin was 10.5 g/dl. On the next day of his admission, written informed consent was obtained from him and he underwent per oral double balloon endoscopy. DBE under anesthesiologist supervised was done. The total time of the procedure was 130 min. the source of GI bleeding was not found. At the most distal site, the small intestinal mucosa was marked with a tattoo by a submucosal injection of sterilized ink through an injection catheter. A few hours later the procedure, the patient complained from severe abdominal pain. The pain was generalized that was most intense in the left upper quadrant. An abdominal examination revealed moderate LUQ tenderness. His laboratory findings were as follows: white blood cells,  $16,100/\mu$ L; serum amylase, 550 U/L (normal up to 100 U/L). Abdominal CT revealed an inflammation of the body of pancreas. There was amount fluid around the

spleen. Surgery consult was done. The next day, Laparoscopic surgery was recommended to be done to exclude bowel perforation and the probability of finding the source of bleeding. Diagnostic laparoscopy was done. All the small intestine was investigated. No perforation was seen. Small amount of reactive fluid in the abdomen was seen. In distal of ileum there was a Meckel's diverticulum about 1.5 cm. Mini laparatomy was done and Meckel's diverticuli resected and anastomosis was done. Pathology confirmed ectopic gastric tissue.

Discussion: Post-DBE pancreatitis has been recognized as a complication. In diagnostic procedures, pancreatitis is the most common and most severe complication. The first post-DBE acute pancreatitis was reported by Honda et al in 2006. Acute pancreatitis is a feared complication of oral DBE (51 cases of acute pancreatitis have been described in the literature to date, one of them fatal). The underlying mechanism of pancreatitis in these cases is unclear. Pancreatic duct obstruction by direct pressure of the papilla with the inflated balloon, an increase in duodenal intraluminal pressure caused by the overtube and gastrointestinal shortening technique, the reflux of duodenal contents into the pancreatic duct due to intraluminal hypertension caused by the inflated balloon, or traumatic injury or ischemia due stretching and shortening of the proximal small bowel have been discussed as possible mechanisms. Send Date: 2011/05/18

Category: 20 THERAPEUTIC ENDOSCOPY/IN-TERVENTIONAL PADIOLOGY 20.1 Biliary and pancreatic stenting F-T-152

The effect of adding gentamicin to contrast media for prevention of cholangitis after biliary stenting; a randomized controlled trial

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*Introduction:* Cholangitis is the most common infectious complication of ERCP. Prophylactic addition of aminoglycosides to contrast medium was

effective in reducing cholangitis in in-vitro studies but results of clinical trials are conflicting. We studied the effect of intracontrast gentamicin in reducing the rate of post-ERCP cholangitis in patients with obstructive jaundice.

*Method:* All patients with obstructive jaundice underwent endoscopic biliary stenting at the Shariati Hospital, Tehran between December 2009 and October 2010 were enrolled. 10 mg gentamicin or distilled water, added to each 10cc contrast medium during ERCP. Intravenous antibiotics were given before and after the procedure in all patients. After ERCP and stent deployment, patients were followed for 72hrs for symptoms and signs of cholangitis.

**Results:** A total of 114 patients were eligible for the study. Fifty seven patients were included in each group. Cholangiocarcinoma was the most prevalent diagnosis. The obstruction was relieved in all patents by stenting. Five patients in each group (8.8%) developed cholangitis. There was no significant difference in the incidence of cholangitis between the two groups (p=1.000).

*Conclusion:* With adequate drainage of obstructed biliary tract by proper stenting, adding gentamicin to contrast media has no significant effect in reduction of post-ERCP cholangitis.

Send Date: 2011/08/05

### Category: 20 THERAPEUTIC ENDOSCOPY/IN-TERVENTIONAL PADIOLOGY

20.2 Enteral dilatation and stenting (esophagus - stomach - duodenum - colon)

F-T-153

### Achalasia Endoscopic Visual Scale (Achalasia EVS): A Grading Method Predicting Long-term Outcome of Pneumatic Dilation in Patients with Achalasia

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Introduction: Pneumatic dilation (PD) is a reasonable nonsurgical option for management of achalasia. Few methods have been used to predict long-term efficacy of PD but, with some limitations, hazards, and expenses. This study was designed to evaluate the potential of a new grading method, Achalasia Endoscopic Visual Scale (EVS), for predicting long-term outcome of PD in patients with achalasia.

*Method:* In a prospective study, 65 patients with definite achalasia underwent PD, consecutively. Based on the amount of Mucosal Tearing (MT) after PD, patients were graded from 1to 4 and for lower esophageal sphincter opening (LES opening) from A to D (LES doesn't open by air insufflations to LES is open spontaneously without air insufflations with a diameter of 11 mm or more). A validated symptom score questionnaire were used before PD and one, six and twelve months after PD. Annual visits were performed thereafter in order to detect any symptom recurrence and need for re-intervention.

**Results:** Sixty patients (58.3% female) with mean age of  $39.9 \pm 18.9$  years completed the study. The mean of symptom free survival of PD was 58.9±6.2 months (95% CI: 46.6-71.1) in all patients. Mean (95% CI) symptom free survival with MT grade 1 to 4 were 36.5±6.3 (24.1-49.0), 68.8±10.3 (48.5-89.1), 79.8±10.1 (59.8-99.8), and 30.0±0.0 months, respectively; P = 0.014. Mean symptom free survival based on LES opening grading of A to D were 30±4.2, 52.0±7.9, 53.6±8.2, and 51.4±7.0 months, respectively; p=0.256.

Conclusion: Achalasia EVS based on new MT classification is a strong independent predictor of long-term symptom free survival of PD. Multi-centric studies are required to find intra- and inter-observer variations of this grading system and to incorporate LES opening and clinical factors in formula for more precise prediction of the PD prognosis.

Send Date: 2011/08/05

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