In The name of God

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پلاتینیوم

طلایی

نقره ای

برنز

Code: DA-24026
ICGH 2024-001
Category: 1.1 Epidemiology

The association between depression, stress, and anxiety with gastrointestinal symptoms among nurses in Guilan, Iran

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Introduction: The significant overlap of psychological disorders in both functional and organic gastrointestinal (GI) diseases highlights the complex and interconnected relationship between the brain and the gut. This study investigated the association between depression, anxiety, and stress with GI symptoms among nurses

Materials and Methods: This cross-sectional study was conducted on 460 nurses from different hospitals of the Guilan University of Medical Sciences, Rasht, Iran, in 2024. All individuals' clinical characteristics, demographical data, and GI symptoms were recorded. Stress, anxiety, and depression were assessed using the Hospital Anxiety and Depression Scale (HADS) questionnaire. All data was analyzed using SPSS version 16 with a significant level of <0.05

Results: The mean age of participants was 30.08±7.43 years, and most nurses were females (n=441). According to the results of the HADS evaluation, the mean scores of depression, anxiety, and stress were 2.50±4.53, 4.57±5.59, and 3.30±5.32, respectively. The prevalence of GI symptoms, depression, anxiety, and stress among nurses was 16.7%, 10.2%, 25.4%, and 4.1%, respectively. The frequency of depression and anxiety was significantly higher among nurses with more years of experience (P<0.05). Among those with fixed shifts and upper education, anxiety was more prevalent. The most frequent GI symptoms among nurses was abdominal pain (5.9%). Our findings showed that depression, anxiety, and stress were significantly associated with GI symptoms (P<0.05). The study revealed a significant association between years of experience and the likelihood of experiencing depression (OR=2.11, 4.27-1.37: 95% CI, P=0.037) and anxiety (OR=1.76, 95% CI: 1.11-2.77, P=0.016) among nurses

Conclusion: The study revealed an association between depression, anxiety, and stress with GI symptoms among nurses that have been increased by years of working. Interventions targeting these factors can improve nurses' mental status and well-being

Send Date: 2024/08/18

Code: DA-24124
ICGH 2024-002
Category: 1.1 اپیدمیولوژی

Epidemiology of Hepatitis B in Lorestan Province, West of Iran during the years 2007-2020

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Introduction: Background and Objective: Viral hepatitis is a global health problem, and infection with the hepatitis B virus (HBV) is one of the most significant health concerns. There are 360 million people with chronic HBV infection, and 600,000 people die each year due to acute hepatitis, hepatocellular carcinoma (HCC), and cirrhosis caused by HBV. The aim of this study is to investigate the epidemiology of hepatitis B in Lorestan province during the years 2007-2020.

Materials and Methods: In this study, 160 patients with hepatitis B who visited healthcare centers from 2007 to 2020 in Lorestan province were examined. Their disease was confirmed using the HBsAg test, and 30 patients were excluded from the study due to incomplete records and unavailability. Statistical analyses were performed using SPSS version 19 software.

Results: This study showed that out of 130 patients studied, 53.1% (69 individuals) were male and 46.9% (61 individuals) were female, with a mean age of 39.8 ± 16.8 years and a range of 9 to 82 years. The majority of patients were observed in the age group under 30 years (36.2%, 47 individuals) and 30-49 years (33.1%, 43 individuals). The most common occupations among them were homemakers (34.6%, 45 individuals) followed by unemployed individuals (17.7%, 23 individuals), and the least common occupations were drivers and healthcare personnel, each accounting for 3.1% (4 individuals) in terms of hepatitis B. The highest prevalence of HBV was observed in individuals with a high school diploma (34.6%, 45 individuals) and those with higher education than a high school diploma

(32.3%, 42 individuals), while the lowest infection rate of HBV was found in individuals with less than a high school diploma (17.1%, 17 individuals). It was reported that 78.5% (102 individuals) were married and 21.5% (28 individuals) were single, and 77.1% (101 individuals) were urban while 22.9% (29 individuals) were rural. Out of the 130 patients studied, 36.9% (48 individuals) had a positive family history of hepatitis B. Among the studied patients, 8.5% (11 individuals) had a history of addiction, 0.8% (1 individual) had a history of intravenous drug use, and 5.4% (7 individuals) had a history of imprisonment among those diagnosed with hepatitis B. 13.1% (17 individuals) had a history of tattooing, 12.3% (16 individuals) had a history of surgery, and 9.2% (8 individuals) had a history of blood products usage. 3.1% (4 individuals) had a history of dental visits.

Conclusion: This study showed that there are several risk factors for hepatitis B, and in order to reduce the incidence of hepatitis B, it is better to increase public awareness of this disease in addition to vaccination, use of sterile and single-use medical and dental equipment, increase screening and follow-up of affected individuals' families.

Send Date: 2024/10/13

Code: DA-24123
ICGH 2024-003
Category: 1.1 Epidemiology

Comparative Study on the Prevalence of Metabolic Syndrome among Adult Patients with Prehypertension and Stage 1 Hypertension in Southeast Iran

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Introduction: Hypertension plays a central role in defining metabolic syndrome, yet the association between metabolic syndrome and its components with prehypertension and stage one hypertension remains unclear. This study aims to assess and compare the prevalence of metabolic syndrome in patients with raised blood pressure (prehypertension) and those with stage one hypertension.

Materials and Methods: This cross-sectional study utilizes data from the Kerman Coronary Artery Disease Risk Factors (KERCADRS) project, a comprehensive initiative investigating coronary artery risk factors in Kerman province, southeastern Iran. Metabolic syndrome is defined according to the US National Cholesterol Education Program Adult Treatment Panel III criteria, while blood pressure categorization follows the American College of Cardiology/American Heart Association criteria.

Results: Among 9993 individuals assessed, 2328 matched the metabolic syndrome criteria, yielding an overall prevalence of 23.3%. Raised blood pressure (17.6%) and stage one hypertension (30.1%) were observed. The group with stage one hypertension exhibited higher rates of metabolic syndrome (29.9% vs. 21.2%, p = 0.001) and elevated serum triglycerides (37.6% vs. 29.3%, p = 0.001) compared to those with raised blood pressure. The prevalence of metabolic syndrome was higher in stage one hypertension patients than in those without this condition, particularly within the 20 to 60 age range.

Conclusion: Metabolic syndrome is associated with stage one hypertension rather than raised blood pressure, with this association more pronounced in middle-aged individuals.

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Code: DA-24126
ICGH 2024-004
Category: اپیدمیولوژی 1.1

Epidemiology of Hepatitis D in HBsAg-Positive Patients in Lorestan Province, Western Iran During 2007-2020

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Introduction: Hepatitis D virus (HDV) is one of the smallest viruses with the ability to cause human disease. Co-infection with HBV and HDV causes the most severe form of hepatitis. In co-infection with HBV, extensive liver necrosis and development of severe or fulminant hepatitis is more common, which also has a high mortality rate. Patients with chronic HBV infection after HDV superinfection on hepatitis B disease cause rapid progression to fibrosis and increase the risk of hepatocellular carcinoma associated with chronic HBV. Of the 350 million HBV carriers worldwide, 18 million are infected with HDV. The aim of this study was to investigate the prevalence of hepatitis D in Khorramabad City, Lorestan Province of Iran.

Materials and Methods: This study was conducted on

167 patients with hepatitis B who referred to a private gastroenterology and hepatology clinic in Khorramabad city from 2007 to 2020. Among the patients referred with hepatitis B, 30 were excluded from the study due to incomplete medical records and lack of access to individuals. Finally, 137 confirmed cases of hepatitis B were analyzed for demographic characteristics and risk factors.

Results: The results of this study showed that 5.1% (7 patients) of the 137 patients studied had co-infection with hepatitis D. The mean age of the subjects was 40.3±16.3 years, ranging from 9 to 82 years. Of these, 53.3% (73 patients) were male and 48.2% (66 patients) were in the 20-39 age group. 35.8% (49 patients) had a positive family history of hepatitis B, 1.5% (2 patients) had a history of injecting drug use, 13.9% (19 patients) had a history of tattoos, 3.6% (5 patients) had a history of dental visits, 5.8% (8 patients) had a history of imprisonment, 5.8% (8 patients) had a history of blood product use, 0.7% (1 patient) had a history of high-risk sexual intercourse, 78.8% (108 patients) were married, 4.4% (6 patients) had a history of cupping, 19.7% (27 patients) were unemployed, and 34.3% (47 patients) were housewives. 33.6% (46 patients) had a high school diploma, and 30.7% (42 patients) had a bachelor's degree or higher.

Conclusion: This study investigated several demographic variables, potential risk factors, and the prevalence of hepatitis D. The prevalence of hepatitis D in HBsAg-positive patients was found to be 5.1%. It is believed that hepatitis B vaccination and increased screening in high-risk populations have contributed to a decrease in the prevalence of hepatitis D in the study community.

Send Date: 2024/10/13

Code: DA-24037
ICGH 2024-005
Category: 1.2 Management strategies

Application of Microbial Metabolomics in Chronic Gastrointestinal Disorders

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Introduction: Chronic gastrointestinal disorders are long-term conditions that can negatively affect the quality of life of a wide age range of females and males worldwide through abnormal bowel habits, weight changes, and persistent abdominal pain. Lack of quantitative or qualitative homeostasis of gut microbiota is a key issue in the pathophysiology of many digestive dysfunctions. Therefore, the development of microbial metabolomics to understand the mechanism, timely diagnosis, and management of treatment is a major biomedical priority.

Materials and Methods: Keywords "Microbial metabolomics", "NMR-based metabolomics", "Mass spectrometry-based metabolomics", "Irritable bowel syndrome", "Inflammatory bowel disease", "Celiac disease", "Crohn's disease", "Ulcerative colitis" were searched in Google Scholar and PubMed electronic databases. Relevant English articles published in the last decade were reviewed.

Results: Metabolomics results based on the common analytical chemical methods (NMR and MS) for fecal and intestinal tissue samples indicates an unbalanced microbial profile especially in the abundance of Firmicutes and Bacteroides dominant phyla and changes in the types and levels of microbial metabolites , including short chain fatty acids, bile acids, phenolic compounds and amino acids in patients with chronic gastrointestinal disorders compared to healthy controls. Also, assessments reflect a significant correlation between microbial alterations and the severity of progressive gut epithelial damages.

Conclusion: Microbial metabolomics can be a powerful diagnostic tool to identify early biomarkers of chronic gastrointestinal disorders by providing extensive knowledge about physiological phenotypes. Designing targeted protocols for extracting metabolomic data of a specific bacterial species or strain may promote the investigation of intracellular and extracellular metabolic networks, the complexities of host-microbe interaction, and gut microbiome-based safe therapeutic strategies.

Keywords: Metabolomics, Gut microbiota, System biology, Gastrointestinal disease

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Code: DA-24056
ICGH 2024-006
Category: 1.4 Outcome studies

Body size and occupational physical activity during the life course and gastrointestinal cancers

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Background: Evidence on the associations of body size and occupational physical activity (PA) during the life course with gastrointestinal cancers is inconclusive.

Materials and Methods: We analyzed data from the Golestan Cohort Study, a population-based prospective cohort study from Iran, with 50,045 individuals aged 40-75 years enrolled during 2004-2008 and followed through April 2023. Body size during adolescence, early adulthood, and at cohort baseline was assessed using validated pictograms.

Results: Large adolescent body size was associated with total gastrointestinal cancers (hazard ratio, HR: 1.09; 95% confidence interval, CI: 1.02-1.16) and liver cancer (HR: 1.49; 95% CI: 1.11-2.01). Large early-adulthood body size was associated with liver cancer (HR: 1.85; 95% CI: 1.35-2.52).Compared with normal weight during all stages, overweight or obesity during adolescence only or early adulthood only were associated with stomach cancer, esophageal squamous cell carcinoma, and liver cancer.

Lower levels of adolescent occupational PA were associated with colon cancer (HR: 1.39; 95% CI: 1.10-1.75), while lower levels at cohort baseline were positively associated with colon cancer and inversely associated with rectal cancer.

Conclusion: Our findings suggest that timing of obesity during the life course might differently affect risk of gastrointestinal cancers, while occupational PA was found to be associated with colon cancer only

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ICGH 2024-007
Code: DA-24059
Category: 1.4 آب / مواد و مغذی آسیب شناسی / های شناسی زیست سلول
حمل /الکترولیت و اب و نقل و حمل

The potential of serum soluble CD93 as a novel biomarker for patients with irritable bowel syndrome

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Background: Emerging research suggests a link between inflammation and the pathogenesis of irritable bowel syndrome (IBS). Soluble CD93 (sCD93), known to be released from the surface of inflammatory cells, has recently been identified as a potential biomarker for inflammatory diseases. However, its specific role in gastrointestinal disorders, particularly IBS, remains unclear.

Materials and Methods: This study involved measuring sCD93 levels in the serum of 65 IBS patients and 65 age- and gender-matched healthy individuals, utilizing enzyme-linked immunosorbent assay (ELISA). Subsequently, a receiver operating characteristic (ROC) curve analysis was employed to evaluate the diagnostic potential of sCD93 for IBS.

Results: The findings revealed a significant elevation of sCD93 levels in IBS patients compared to control subjects. Interestingly, in the control group, sCD93 levels were notably higher in males than females, a trend not observed in the IBS group. No correlation was found between sCD93 levels and clinical symptoms like constipation, diarrhea, and abdominal pain, etc. The ROC curve analysis yielded an area under the curve of 0.79 (95% confidence interval: 0.702–0.895), with sCD93 demonstrating 70.7% sensitivity and 85.4% specificity for IBS diagnosis at a threshold of

261 ng/mL.

Conclusion: This study indicates a significant increase in sCD93 levels in IBS patients, suggesting that sCD93 could serve as a reliable biomarker for IBS diagnosis. However, further research with a larger patient cohort is essential to validate these findings.

Send Date: 2024/09/17

Code: DA-24112
ICGH 2024-008
Category: ۱.۵ پایه / پاتوژنز / آسیب شناسی

Composition of Immune Cells in Patients with Crohn's Associated Perianal Fistula Compare to Cryptoglandular Fistula without Crohn's disease; Imam Khomeini Hospital complex

ForoughAlborzi[1], Mohsen Ahmadi Tafti[1], Najmeh Aletaha[1], NaserEbrahimi Daryani[1], Seyed Saeed Mirmousavi[1], ReyhanehJafarshad[1*]

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Background: Perianal fistula significantly impacts patients' quality of life, causing perineal pain, foul-smelling discharge, and sometimes incontinence. Approximately 90% of perianal fistulas are of the cryptoglandular type. Crohn's disease is the second most common cause. Few studies have compared the immune cell composition in these types of fistulas, suggesting different cellular pathogenesis.

Materials and Methods: This was a case-control, basic science study. Patients with both Crohn's disease and cryptoglandular fistula were selected, matched for age and sex. Exclusion criteria included active gastrointestinal infection, active perianal abscess, malignancy, and other autoimmune diseases such as lupus and rheumatoid arthritis. Patients from both groups were selected from those attending the gastroenterology clinic at Imam Hospital. Peripheral blood samples were sent to the immunology laboratory. In the first step, the white blood cell count in the peripheral blood was determined. Subsequently, mononuclear cells were extracted and the frequency of cells was analyzed using flow cytometry based on the expression of CD3, CD4, CD8, CD38, and HLA-DR markers.

Results: Twenty-one patients were enrolled in the study, of whom 11 had cryptoglandular fistulas and 10 had Crohn's disease. The mean age of patients in the Crohn's group was 36.1 ± 16.8 years and in the cryptoglandular group was 43.7 ± 13.2 years (P-value=0.26). The mean disease duration was 5.9 years with a standard deviation of 5.15 in the Crohn's group and 6.8 years with a standard deviation of 8.9 in the other group (P-value=0.185). The percentage of female patients in the intervention group was 54.2%, which was 55.6% in the control group (P-value=1). Results showed that the percentage of CD3+, CD4+, and HLA-DR+ cells did not differ significantly between the two groups. However, CD8+, CD3+CD8+, CD3+CD8+CD38+, and CD3+CD38+ cells were significantly higher in the Crohn's group compared to the cryptoglandular group. There was also no significant difference in the frequency of CD3+HLA-DR+ cells between the two groups (P>0.05).

Conclusion: This study showed that the frequency of CD3+CD38+CD8+ cells can be used to diagnose and differentiate perianal fistulas caused by Crohn's disease from cryptoglandular fistulas. Furthermore, these cells may be potential therapeutic targets for patients with Crohn's disease.

Send Date: 2024/10/11

Code: DA-24071
ICGH 2024-009
Category: ۱.۱۰ چاقی

Maternal Socioeconomic Status and Early Childhood Growth and Nutrition: Insights into the Double Burden of Malnutrition from the PERSIAN Birth Cohort

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Background: The first 1,000 days are crucial for health and development, as growth impairments during this period can lead to lasting health challenges. In low- and middle-income countries, undernutrition, a significant contributor to growth impairment, often coexists with rising obesity rates, resulting in a double burden of malnutrition (DBM). Our study employs a mathematical approach to examine how maternal socioeconomic status (SES) impacts child growth and nutritional status in Iranian children from infancy to age two, using Cole's formula to evaluate SES effects on the DBM. Our findings offer new insights into strategies for tackling both undernutrition and obesity.

Materials and Methods: We used data from the PERSIAN Birth Cohort, a multicenter prospective study conducted in five cities in Iran. SES was divided into five quintiles using multiple correspondence analysis (MCA), and child growth and nutritional outcomes were assessed with eight indicators. Missing data were handled with multiple imputation (MI). We analyzed SES impacts on growth using Generalized Estimating Equations (GEE) and predicted BMI-Z from WAZ and HAZ with linear regression by SES level and age. To explore how variations in these indicators influence the risk of developing obesity, we compared HAZ-to-WAZ ratios from GEE models with WAZ-to-HAZ beta ratios from regressions to investigate obesity development. Sensitivity analyses compared MI results with complete-case analyses (CCA). All analyses were performed using Stata 17.

Results: Of the 9,015 pregnant Iranian women enrolled, 7,169 neonates were assessed at 2, 4, 6, 12, and 24 months after excluding those lost to follow-up due to abortion, neonatal death, intrauterine fetal death (IUFD), stillbirth, or incomplete birth data.

Maternal SES increasingly influences children's WAZ with age, notably preventing underweight in higher SES groups. While SES impacts HAZ consistently, its significance is pronounced only in higher SES groups, enhancing stunting prevention. The effect of SES on WHZ intensifies with age, beginning at Middle SES and peaking in Very High SES. Higher SES groups, particularly Very High, exhibit a significant rise in obesity risk by 24 months.

Comparing ratios from GEE models (HAZ contrast/WAZ contrast) and regression models (β WAZ/β HAZ), we found HAZ contrast/WAZ contrast was generally lower where BMI-Z increased.Sensitivity analysis showed that estimates from MI and CCA were consistent, confirming the robustness of SES effects on child growth.

Conclusion: Addressing the DBM requires careful consideration of how imbalanced increases in HAZ and WAZ can heighten obesity risk. Future research should focus on targeted interventions that account for these growth dynamics to effectively manage DBM in children.

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ICGH 2024-010

گروه ۱۶.۱ بیماریهای بدخیم

بررسی فراوانی سرطان های قسمت فوقانی و تحتانی دستگاه گوارش تشخیص داده شده با روشهای آندوسکوپی و کولونوسکوپی در بیمارستان علی بن ابی طالب زاهدان از سال ۱۳۹۸ تا ۱۴۰۰

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زمینه و هدف: بروز سرطان های گوارشی در حال افزایش است و تبدیل به یک چالش مهم در سراسر دنیا شده است. آندوسکوپی و کولونوسکوپی دو روش تشخیصی رایج هستند که برای تشخیص سرطان های دستگاه گوارش استفاده می شوند که از طرفی تشخیص زودهنگام در موفقیت درمان و مدیریت تأثیر بسزایی دارد. این مطالعه با هدف بررسی فراوانی سرطان های قسمت فوقانی و تحتانی دستگاه گوارش تشخیص داده شده با روشهای آندوسکوپی و کولونوسکوپی در بیمارستان علی بن ابی طالب زاهدان از سال ۱۳۹۸ تا ۱۴۰۰ انجام شد.

روش بررسی: مطالعه از نوع توصیفی-تحلیلی بصورت گذشته نگر بود. جامعه مورد بررسی تمام پرونده های بیمارانی که طی سالهای ۱۳۹۸ تا ۱۴۰۰ در بیمارستان علی بن ابی طالب زاهدان تحت اندوسکوپی ویا کولونوسکوپی قرار گرفتند؛ که شامل ۶۱۲۴ پرونده سرشماری شد. بیمارانی که سرطان گوارشی تشخیص داده شده بود شامل ۳۱۵ پرونده استخراج و اطلاعاتی شامل سن، جنس، محل سرطان و نوع سرطان براساس جواب پاتولوژی وارد چک لیست شد. اطلاعات جمع آوری شده وارد نرم افزار SPSSv26 شد.

یافته ها: تعداد کل پرونده های موجود ۶۱۲۴ مورد بود که در این بین ۴۸۹ (۹۸/۷٪) بیمار ضایعه مشکوک به بدخیمی گزارش شده بود. در نهایت ضایعه ی ۳۱۵ (۱۰/۵٪) بیمار شامل ۱۷۷ (۲/۵۶٪) مرد و ۱۳۸ (۸/۴۳٪) زن با سال ۴۲/۶۱±جواب پاتولوژی بدخیم اعلام شد. میانگین سنی بیماران ۱۵/۰۲ بود. بیشترین به کمترین فراوانی سرطان ها به ترتیب سرطان مری در ۱۲۲

(۷۳/۳۸٪) بیمار، ســرطان معده ۱۱۳ (۸۷/۳۵٪) بیمار و سرطان کولورکتال در ۷۸ (۷۶/۲۴٪) بیمار تشــخیص داده شــد. دو مورد درگیــری بیش از یک محل سال، در ۹۶/۶۲±(۶۳/۰٪)گزارش شد. میانگین سنی در ســرطان مری ۱۲/۱۳ ۱۸/۶۰±ســال، در ســرطان کولورکتال ۴۱/۱۶ ۶۸/۶۰±ســرطان معده ۷۳/۱۵ ســال بود. بیش از نیمی (۵/۵۷٪) از ســرطان های گوارشــی گزارش شــده در ســنین بالای ۶۰ ســال بود. ســرطان مری تقریبا در بین دو جنس بطور برابر گزارش شــده بود (۲/۴۹٪ مرد درمقابل ۸/۵۰٪ زن) و ســرطان معده بیشتر در بین مردان گزارش شــده بود (۲/۶۵٪ در مقابل ۸/۳۴٪). سرطان کولورکتال نیز کمی در مردان بیشــتر از زنان گزارش شــده بــود (۹/۵۱٪ در مقابل ۱/۴۸٪). سرطان مری بیشــتر (۴/۵۷٪) از نوع کارسینوم ســلول های سنگفرشی و اکثر ســرطان معده (۸/۸۵٪) و کولورکتال (۵/۸۸٪) از نوع آدنوکارسینوما گزارش شد **نتیجه گیری:** در این مطالعه نشــان داده شــد که اندوسـکوپی و کلونوسکوپی نقش اساسی در تشــخیص سرطان های گوارشی داشــته و سن شیوع سرطان های کولورکتال روبه کاهش اســت. پیشــنهاد می شــود تا با آگاه سازی بهتر مردم از عوامل خطر بروز ســرطان های گوارشــی تاحدودی از بروز آن کاســت و مــردم بــرای مراجعه به موقع برای غربالگری ها تشــویق شــوند و پوشــش بیمــه ای سراســری بــرای ایــن روش های تشــخیصی در نظر گرفته شــود.

Code: DA-24072
ICGH 2024-011
Category: 2.1 استراتژی مدیریت

Personalized Medicine in the Management of Functional Gastrointestinal Disorders: Comprehensive Insights for Improved Diagnosis and Treatment

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Functional gastrointestinal disorders (FGIDs) are increasingly recognized as arising from specific underlying mechanisms, presenting significant opportunities for personalized medicine approaches. In patients experiencing functional upper gastrointestinal symptoms (UGI symptoms), a notable proportion—around 25%—have distinct conditions: delayed gastric emptying, reduced gastric accommodation, both impairments, or normal function, potentially linked to increased sensitivity in the gastric or duodenal regions. Treatment strategies targeting these mechanisms may include prokinetics, gastric relaxants, and central neuromodulators. For those with functional lower gastrointestinal symptoms, particularly diarrhea or constipation, similar mechanistic patterns are observed. Over 30% of patients with functional constipation may have pelvic floor dyssynergia, while 5% exhibit colonic inertia due to neural or interstitial cell loss in the myenteric plexus. Additionally, 25% of individuals with diarrhea-predominant irritable bowel syndrome (IBS-D) may experience bile acid diarrhea, with variations in disaccharidase deficiencies influenced by ethnicity. In patients presenting with predominant pain or bloating, the impact of fermentable carbohydrates should be considered. The application of personalized medicine is further advanced through pharmacogenomic insights, particularly regarding key drug metabolism genes such as CYP2D6, 2C19, and 3A4, which inform treatment options for FGIDs. While single genetic mutations are rare, ongoing research into mucosal gene expression, especially in IBS-D, is vital. In summary, the time for personalized medicine in the management of FGIDs is upon us, driven by thorough phenotyping and pharmacogenomic insights. However, the precise role of genetic factors in FGID management remains an area for further investigation.

Code: DA-24098
ICGH 2024-012
Category: 2.3 Barretts

The prevalence of Barrett 's esophagus in Iran: a systematic review and meta-analysis

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Background: Barrett's esophagus (BE) is a premalignant columnar metaplasia of the esophagus that predisposes victims to esophageal adenocarcinoma (EAC). Depending on differences in the study population and risk factors, the prevalence of BE may vary, from 0.4 to 20% globally. The current study aimed at the prevalence of BE in Iran by combining the data from all research that evaluated the condition.

Materials and Methods: A systematic search was carried out in PubMed, Web of Science, Scopus, and EMBASE as well as some domestic databases including SID and Magiran from inception to the end of 2023. We included all cross-sectional studies which reported the prevalence of BE and calculated pooled prevalence.

Results: Including seven studies in a total of 3461 cases (162

diagnoses of BE) revealed that the prevalence of Barret's esophagus is 4% [I2= 95.6% [93.1%; 97.3%]/ Tau2= 0.0012 [0.0004; 0.0063]/Q=137.45/ p-value <0.0001].

Conclusion: The epidemiology of BE in Iran is not completely identified. This is the first systematic review and meta-analysis evaluating the prevalence and of BE in Iran. Due to the importance of BE in progressing to esophageal adenocarcinoma, much importance should be given to its timely diagnosis. It is strongly recommended to conduct more comprehensive studies including more patients in this field.

Key words: Barrett 's esophagus; prevalence; columnar metaplasia; Iran; systematic review

Send Date: 2024/10/06

Code: DA-24099
ICGH 2024-013
Category: 2.3 Barretts

The Epidemiological Trends and Projected Future of global prevalence of Barrett's esophagus by 2050: A Comprehensive Meta-Analysis and Modeling Study Worldwide

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Background: Understanding the prevalence of Barrett's esophagus is essential for developing appropriate screening protocols. In this study, we aimed to integrate the available data, identify the prevalence of Barrett's esophagus, and analyze the variability among the results.

Materials and Methods: A comprehensive search was conducted across three primary databases: PubMed, Scopus, and Web of Science, covering the period from 1990 to 2024. In addition, a manual review of all full-text articles and significant reviews was performed to identify further relevant studies.

Results: Out of a total of 12,903 studies, 111 were selected for inclusion in the analysis. In the general population, the estimated prevalence of endoscopic suspicion for Barrett's esophagus was found to be 3.92% for any length with histological confirmation of intestinal metaplasia (95%

confidence interval: 0.85–1.07), Among patients with gastroesophageal reflux disease, the estimated prevalence under the same criteria was (a) 7.21% (95% confidence interval: 5.61–8.81). Our forecasting study suggests that the incidence (per 100,000 persons) of Barrett's esophagus will increase from 3.92 in 2024 to 5.86 in 2050, which corresponds to an 49% increase over the course of 26 years (1.8% per year, 95% CI: −2.3% to 9.1%). The prevalence of Barrett's esophagus was significantly affected by factors such as the time period, geographical region, definition of Barrett's esophagus, adherence to the Seattle protocol, and the design of the studies. A notable gradient was observed from East to West and North to South, with limited data available for several countries. Additionally, there was considerable heterogeneity among the studies.

Conclusion: It is essential to reevaluate the actual prevalence of Barrett's esophagus in accordance with contemporary guidelines across different countries. Understanding the accurate prevalence of this condition would enable the implementation of varied approaches, ranging from educational initiatives to screening program

Keywords: Barrett's esophagus, epidemiology, prevalence, worldwide, Barrett metaplasia

Send Date: 2024/10/06

Code: DA-24075
ICGH 2024-014
Category: پاتوژنز: عوامل میکروبی 2.3

Mapping Genetic Diversity: An Analysis of Novel Alleles in cag Pathogenicity Island of H. pylori in Iran

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Background: The pathogenesis of Helicobacter pylori is significantly influenced by the Cag Pathogenicity Island (cagPAI), a cluster of genes that promote inflammation and modify host cell signaling. Recent research has highlighted notable genetic diversity among H. pylori strains, indicating a complex interaction between host factors and bacterial genetics in disease progression. In Iran, where H. pylori infection rates are notably high, understanding the genetic diversity of these strains is crucial for addressing public health concerns. This study utilized a whole genome sequencing approach to analyze the cagPAI status in H. pylori isolates from Iranian patients in detail.

Materials and Methods: A total of 30 gastric biopsy

samples from patients diagnosed with H. pylori infection were collected and cultured. Isolated H. pylori were subjected to whole genome sequencing to acquire extensive genetic data. For data analysis, a customized alignment tool using Python alongside BLAST+ was developed for sequence alignment. This tool enabled the identification of genes present and absent within cagPAI region of the H. pylori genome. Furthermore, it facilitated the characterization of novel alleles identified in the Iranian H. pylori strains.

Results: The results of this study demonstrate that 14 out of the 30 genomes analyzed (46.7%) completely lacked cagPAI genes. None of the isolates contained an intact cagPAI encompassing all 31 corresponding genes. The cagA gene, a major marker of cagPAI, was detected in 50% of the samples. Notably, the distribution of genes among the strains was non-uniform, suggesting that certain genes were present in a greater number of genomes while others were identified in fewer. Furthermore, 157 novel allelic variations not recorded in reference databases were identified, with the highest diversity observed in the cagA gene, which had nine distinct allelic variants.

Conclusion: In this study, we present a detailed analysis of the genetic variation within the cagPAI of H. pylori isolated from Iranian patients. By identifying novel alleles and investigating their association with clinical outcomes, our findings aim to enhance the understanding of H. pylori pathogenicity in this region. Ultimately, our research seeks to contribute valuable insights that could guide future therapeutic strategies and improve management for gastrointestinal diseases linked to H. pylori infection.

Send Date: 2024/09/20

Code: DA-24066
ICGH 2024-015
Category: 2.6 Reflux disease - treatment

The Efficacy and Safety of Anti-Reflux Mucosal Ablation (ARMA) in Reducing the Symptoms of Gastroesophageal Reflux Disease (GERD) in Patients Resistant to Treatment with Proton Pump Inhibitors: A Controlled Clinical Trial

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Background: Endoscopic anti-reflux interventions (EARIs) have been emerging methods for patients with gastroesophageal reflux disease (GERD) who remain symptomatic despite treatment with optimal acid suppressor agents. Anti-reflux mucosal ablation (ARMA) is an EARI in which the lower esophageal sphincter is reinforced by the ablation of gastroesophageal mucosa on the cardia side. Aim: To evaluate the efficacy and safety of ARMA in comparison to proton pump inhibitors (PPIs) in patients with persistent GERD symptoms.

Materials and Methods: In this non-randomized controlled interventional trial, between October 2023 to February 2024, patients with persistent GERD symptoms were allocated to either ARMA or PPI. GERD-Health Related Quality of Life (GERD-HRQL) Questionnaire, Frequency Scale for the Symptoms of GERD (FSSG), upper endoscopy, PPI use and adverse events were evaluated at baseline and three months post-ARMA.

Results: A total of 48 patients (31 females [64.6%]; mean age 39.47±14.88) completed our study of 24 patients underwent ARMA (17 females [70.8%]; mean age 41.35±14.43) and 24 were taking esomeprazole 20 mg twice daily. After three months, ARMA significantly alleviated both mean GERD-HRQL (29.08±7.95 versus 7.42±3.85, P<0.001) and FSSG (24.71±5.17 versus 7.46±3.63, p<0.001). Furthermore, three-month GERD-HRQL and FSSG were significantly lower in the ARMA group in comparison to the PPI group. (7.42±3.85 versus 23.83±7.29, p<0.001 and 7.46±3.63 versus 20.75±5.33, p<0.001, respectively. Notably, 79.2% of patients in the ARMA were able to discontinue PPIs in comparison to 8.3% of patients in the control group (p<0.001). Multivariate analysis revealed that undergoing ARMA was the only predictor of GERD-HRQL and FSSG scores. Only one patient experienced heartburn after ARMA but no major adverse complications were observed.

Conclusion: Our study demonstrated that ARMA was feasible, tolerable and safe. Also, in short-term, it can alleviate the symptoms of GERD in patients with persistent symptoms more efficiently in comparison to esomeprazole. However, longer follow-ups and randomized studies are required to determine the exact efficacy of ARMA.

Send Date: 2024/09/18

Code: DA-24020
ICGH 2024-016
Category: 2.8 Esophageal malignant disease

Survival Rates in Early-Onset Esophageal Cancer: Insights from a High-Incidence Area in Iran

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Background: Esophageal cancer is the sixth most common cancer in Iran, with a particularly high incidence in East Azerbaijan. This study aims to compare the survival rates of early-onset esophageal cancer (EOEC) with those of advanced esophageal cancer in this region.

Materials and Methods: A retrospective analysis was conducted on the clinicopathologic and survival data of 532 esophageal cancer (EC) patients who underwent chemoradiotherapy between February 2006 and March 2011 at the Radiation Therapy Center, a provincial cancer center dedicated to treating cancers in a high-incidence area. All patients were native residents of the high-incidence area in northwest Iran. Survival rates were estimated using the life table method, and subgroup comparisons were performed using the log-rank test.

Results: Of the 532 patients, 205 (44.5%) were female, and 255 (55.5%) were male. The mean age at diagnosis was 65.8 ± 12.2 years, ranging from 24 to 90 years. Among them, 53 (10%) had early-onset esophageal cancer, while 406 (90%) had older-onset esophageal cancer. The 1-, 3-, and 5-year survival rates for patients with early-onset esophageal cancer were 88%, 73%, and 52%, respectively. In contrast, the corresponding survival rates for patients aged 50 years or older were 80%, 47%, and 1%, respectively (P > 0.05) (Figure 1).
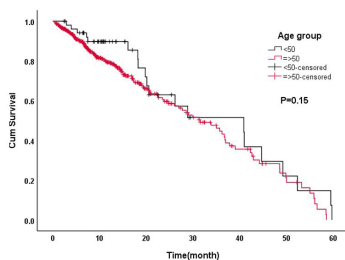

Figure1. Kaplan-Meier analysis - comparison of early-onset versus older-onset esophageal cancer

Conclusion: The findings indicate that the diagnosis of esophageal cancer at an early age does not significantly affect survival outcomes compared to older-onset esophageal cancer.

Send Date: 2024/08/17

Code: DA-24116
ICGH 2024-017
Category: 2 .10 تغذیه

The association between animal protein sources with risk of inflammatory bowel diseases: a systematic review and meta-analysis of cohort studies

سپیده طالبی*۱

دانشگاه علوم پزشکی تهران ۱

Background: We aimed to conduct this dose-dependent meta-analysis to examine the relationship between animal protein and its sources with inflammatory bowel disease (IBD).

Materials and Methods: We searched databases, comprising PubMed/Medline, Web of Science (ISI), Embase, and Google Scholar, for the published studies up to March 28, 2023. Prospective cohort study designs that investigated associations between dietary intake of various animal protein sources and with risk of IBD in the general population were identified.

Results: Eleven prospective cohort studies with 4,302,554 participants and 8067 cases were considered eligible. Findings indicated that higher intake of dairy was significantly associated with a lower risk of IBD (RR: 0.81; 95% CI: 0.72, 0.90), Crohn's disease (RR: 0.69; 95% CI: 0.56, 0.86), and ulcerative colitis (RR: 0.84; 95% CI: 0.75, 0.94). There was no association between different sources of animal protein and the risk of IBD. The dose-response analysis suggested that each 100 g/d increment in dietary total meat consumption was associated with a 38% greater risk of IBD. Moreover, A positive linear association was found between total meat intake and risk of IBD (Pnonlinearity=0.522, Pdose-response= 0.005).

Conclusion: Overall, among the dietary sources of protein, the risk of IBD increased only with increasing total meat intake, and the consumption of protein from dairy products was found to be a protective factor against the IBD risk.

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Code: DA-24106
ICGH 2024-018
Category: 2.12 Acid peptic disease (includes NSAIDS - but NOT H.pylori)- diagnosis and treatment

Peptic ulcer characteristics in oral opium and non-opium user patients with upper gastrointestinal bleeding

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Background: Upper gastrointestinal bleeding (UGIB) is a frequent medical issue. The primary risk factors for bleeding peptic ulcers are Helicobacter pylori infection

and non-steroidal anti-inflammatory drugs. The association between acute gastric/duodenal ulcer and opium use has been previously proposed; however, there is no available data on endoscopic findings of patients with acute UGIB who use opium.

Materials and Methods: In the present descriptive cross-sectional study, endoscopic data of 50 consecutive patients with oral opium use and 50 consecutive patients without any opium use who were admitted for UGIB were recorded. The size (5–10 mm, 11–20 mm, or more than 20 mm), number (single, double, or multiple), and location of the ulcers (esophagus, gastric corpus including the fundus and body, antrum, angulus, or duodenum) were examined by endoscopy in both groups.

Results: Three or more ulcers were observed in 46% and 16% of patients with oral opium use and without opium use, respectively (P-value = 0.001). The rate of giant ulcers (> 20 mm) was significantly higher in patients who used oral opium (40% vs. 12%; P-value = 0.007). Esophageal ulcers were also more common in oral opium users (30%) than non-users (8%) with UGIB (P-value = 0.01). Nevertheless, the location of the ulcers between the two groups generally was not statistically different.

Conclusion: This study has demonstrated that multiple, large peptic ulcers in GIB are potential complications of oral opium use. This could aid the needed modifications in the treatment protocol for these patients.

Send Date: 2024/10/09

Code: DA-24088
ICGH 2024-019
Category: بیولوژی مولکولی/ ژنتیک/ پاتولوژی ۲.۱۳

The Recurrence rate of colorectal polyps among patients with average –risk of colorectal cancer

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Background: CRC going to be an important issue in Middle East countries. Also, the main parts of this cancer develop from benign adenomas.

To understanding 5-year recurrence rate of colorectal polyp among average risk subjects.

Materials and Methods: In a prospective study the average-risk patients with colorectal adenoma were enrolled in this study based on inclusion criteria. The patients were consulted annually by an expert gastroenterologist. A control colonoscopy was programmed after three years of follow-up. It was not an obligation to follow our program and each patient could exit from the study at any time. The patient who develops one of the exclusion criteria was also withdrawn of study by the gastroenterologist of this study.

Results: 237 patients were enrolled in this study. Of them 102 patients completed 5-year follow-up. Among these participants, 62 (60.8%) were male and 40 (39.2%) were female, with a mean age of 57.05 ± 12.87 years. Additionally, 20 (19.6%) subjects had adenomatous polyps at end of study. The polyps raised in patients with large size, tubulovillous and tubular types polyps. The polyps more localized in sigmoid following descending and transverse colon. Furthermore, High grade dysplasia recorded in 5 patients that one of them show in situ cancer.

Conclusion: We believed that the colonoscopy screening need to set up in regions that previously considered as low- risk region for CRC. Also, in patients with high grade dysplasia it may valuable that control colonoscopy less than three years.

Send Date: 2024/10/05

Code: DA-24027
ICGH 2024-020
Category: 2.13 Gastroduodenal malignancies

The impact of MTHFR gene expression levels and its association with gastric cancer and Helicobacter pylori

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Background: Gastric cancer is one of the top five deadliest cancers worldwide, and is characterized by high incidence rates and low survival rates. It is the most common gastrointestinal cancer in Iran. Recent studies have highlighted the importance of methylenetetrahydrofolate Reductase (MTHFR) gene mutations in gastric cancer. Therefore, this study aimed to investigate the expression of the MTHFR gene in patients with gastric cancer compared to healthy individuals

Materials and Methods: The present study, which was conducted in the year 2023, included 40 tissue samples, comprising 20 samples from patients with gastric cancer and Helicobacter pylori who were hospitalized in the Razi Hospital in Rasht, and 20 healthy tissue samples. After total

RNA was collected and extracted using an RNA extraction kit, cDNA synthesis was performed, followed by real-Time PCR. The results were analyzed using the Relative Expression Software Tool and statistically analyzed using SPSS version 24 and the one-sample Kolmogorov–Smirnov test. One-way ANOVA was used to assess differences in MTHFR gene expression levels across different tumor sizes

Results: The real-Time PCR results showed that individuals with gastric cancer and Helicobacter pylori infection had higher MTHFR gene expression levels than healthy individuals (p<0.0001). Increased gene expression correlated significantly with patient stage and grade. However, there were no significant differences in age or gender variables between the tumor and normal groups.

Conclusion: There was a notable rise in MTHFR gene expression in patients with gastric cancer and Helicobacter pylori infection. Moreover, the significant correlation between heightened MTHFR gene expression and tumor grading emphasizes its role in tumor aggressiveness

Send Date: 2024/08/18

Code: DA-24093
ICGH 2024-021
Category: تشخیص بیماریهای بدخیم ۲.۱۴

Colorectal Neuroendocrine Tumor with Hepatic Metastasis: A Case Report

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Neuroendocrine tumors (NETs) are a rare and heterogeneous group of malignancies originating from the diffuse neuroendocrine system, with gastrointestinal tract being the most commonly affected site, while colorectal involvement is relatively rare.

This report presents a 67-year-old Iranian man with a history of liver cirrhosis presenting with flushing, nausea, vomiting, coughing, shortness of breath, non-bloody persistent diarrhea, and severe recent weight loss. Sepsis work-ups were all negative. Imaging studies revealed multiple hypodense and hypovascular hepatic masses. Biopsy was taken from these masses, and both histopathological analysis and immunohistochemical (IHC) staining revealed well-differentiated colorectal neuroendocrine carcinoma (G2), with positivity for Chromogranin, Synaptophysin, CK19, CDX2, and Ki-67. Palliative care and octreotide were administered; however, the patient sadly passed away after two months of follow-up.

Colorectal NETs may metastasize to the liver, which can be definitively diagnosed by IHC staining of liver masses.

Send Date: 2024/10/06

Code: DA-24115
ICGH 2024-022
Category: 3.4 Diagnosis

Selecting the Best Gastric Anatomical Place for Biopsy to Detect Helicobacter Pylori in Iranian Morbid Obese Patients

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Background: Obesity and Helicobacter pylori (H. pylori) infection are public health problems in the world and Iran. This study aimed to indicate the anatomical place with the most accurate results for H. pylori. According to gastric mapping, this study will be able to evaluate the prevalence of H. pylori based on the pathology of gastric mapping and the accuracy of the antral rapid urease test (RUT) based on endoscopic findings.

Materials and Methods: In this cross-sectional study, upper digestive endoscopy and gastric pathology were studied in 196 obese patient candidates for bariatric surgery. Statistical analyses were performed using a t-test and Chi-square/fisher's exact test to compare the groups. Sensitivity, specificity, accuracy, positive predictive value (PPV), negative predictive value (NPV), positive likelihood ratio (PLR), negative likelihood ratio (NLR), and odds ratio (OR) were used to compare RUT and pathological H. pylori test of each of the six areas of the stomach. We set a positive test of the pathology of 6 regions of the stomach as our gold standard (in this study).

Results: The most common area of the stomach for pathological findings of H. pylori were incisura (116, 59.2%), greater curvature of the antrum (115, 58.3%), lesser curvature of the antrum (113, 57.7%), lesser curvature of the corpus (112, 57.1%), greater curvature of the corpus (111, 56.6%) and cardia (103, 52.6%). The prevalence of H. pylori was 58.2% (114 cases) and 61.2% (120 cases) with RUT and gastric pathology, respectively. Mild, moderate, and severe infection of H. pylori in cardia (58, 29.6%), greater and lesser curvature of the antrum (61, 31.1%), and greater curvature of the antrum (37, 18.9%) had the highest percentages of incidence comparing to other sites

of the stomach, respectively. The most sensitive area for pathologic biopsy was incisura (96.6%, 95% confidence interval: 91.7, 98.7).

Conclusion: According to the highest sensitivity, PLR, NPV, and pathological findings of H. pylori in accordance with the lowest NLR in the incisura compared with other parts of the stomach, it is highly recommended to take the biopsy from the incisura instead of other anatomical places of stomach for detecting H. pylori specifically if our strategy is taking only one biopsy.

Send Date: 2024/10/12

Code: DA-24053
ICGH 2024-023
Category: 3.4 Diagnosis

Role of oral yeast in replenishing gastric mucosa with yeast and H. pylori

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Background: Relationship between oral and gastric yeasts and their role in colonization of H. pylori in stomach was studied.

Materials and Methods: Four groups of 221, 7, 44 and 10 patients were used for isolation of H. pylori and oral and gastric yeasts. In group one, gastric biopsies were used for isolation of H. pylori and yeast, urease activity and staining with Gram's, hematoxylin & eosin (H&E) and immunohistochemistry (IHC) methods. Gram-stained gastric biopsies were examined with light microscope to observe H. pylori, yeast and released extracellular vesicles (EVs). In other 3 groups, DNAs extracted from H. pylori and yeasts were used for amplification of H. pylori-specific genes; 16S rRNA, VacA (s1/s2), vacA (m1/m2), cagA and jhp947.Wet mounts of yeasts in group 2 were examined for observing intracellular bacteria and released EVs.

Results: Among 221 patients, 65 (29.3%) had oral yeasts (69.23% C. albicans and 30.76% Candida spp.) followed by H. pylori (35, 15.8%) and gastric yeasts (31, 14%) (67.75% C. albicans and 32.25% Candida spp.) (p value > 0.05). Compared with gastric yeast, culture of oral yeast showed a significant correlation with positive results of H. pylori detected by IHC (10.3%), Gram stain (9%), RUT (6.3%), H&E (4.9%) and culture (4%) (p value < 0.05). Detection of H. pylori genes in yeast isolates from other 3 groups showed that oral and gastric yeasts carried similar H. pylori genes, thus could have a common source. Detection of H. pylori genes in different species of Candida showed that harboring H. pylori is not species- or site- specific. Microscopic examination of Gram-stained gastric biopsies and wet mount preparations of yeasts showed release of EVs that could carry H. pylori.

Conclusion: Oral yeast protects its intracellular H. pylori and releases it inside EVs to safely reach gastric mucosa. These results may clarify the environmental reservoir of H. pylori and explain bacterial reinfection after successful eradication.

Send Date: 2024/09/14

Code: DA-24016
ICGH 2024-024
Category: متابولیک / اختلالات ژنتیکی ۳.۷

L-Carnitine Efficacy for management of non-alcoholic fatty liver disease: a multi centric Randomized Clinical Trial

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Background: Nonalcoholic fatty liver disease (NAFLD), the hepatic manifestation of metabolic syndrome, is the leading cause of liver failure and transplantation worldwide. The primary treatment for this disease is lifestyle modification and weight reduction. This study aims to evaluate the impact of L-carnitine, which plays a crucial role in lipid metabolism and beta-oxidation of long-chain fatty acids in mitochondria, on improving non-alcoholic fatty liver disease.

Materials and Methods: During a six month period, NAFLD patients from 5 referral centers in 3 countries randomly divided into two groups: L-carnitine supplementation group (group A) and placebo group (Group B). Firstly, the metabolic profile of participants determined and recorded. Then, participants in the intervention group received L-carnitine (1000 mg twice a day) for 3 months and in group B, the participant just received advisement for lifestyle modification. After 12 weeks, they reevaluated for biophysical profile and hepatic fat status by using ultrasound and these parameters compared between two groups,

Results: Overall, 393 NAFLD cases included (216 males (55.2%), 205 cases in group A & 188 cases in group B, average age 44.8 y). Participants were originally from 11 countries and racially 76.7% of them were Middle Eastern/North African. The most common co morbidity were hyperlipidemia (47.6%), hypertension (40.5%) and Diabetes Mellitus (31.6%). After 12 weeks of intervention, average serum level of ALT in group A (L carnitine) decreased from 65.6 to 40.9 while in group B, changed from 62.8 to 50.7 (P = 0.0029). Average serum level of AST in group A decreased from 50.9 to 35.7 and in group B changed from 54.7 to 44.85 (P = 0.046). During ultra-sonographic evaluation, the percentile of those who diagnoses as NAFLD grade 3 in group A, from 37.9% before intervention decreased to 12.6% while in control group (B), changed from 36.6% to 22.7% (P <0.05).

Conclusion: L carnitine supplementation is effective in management of NAFLD patients and can improve their biophysical profile including liver transaminases and ultra-sonographic grade of fatty liver.

Send Date: 2024/08/16

Code: DA-24036
ICGH 2024-025
Category: متابولیک / اختلالات ژنتیکی ۳.۷

The effects of gut microbiome manipulation on glycemic indices in patients with non-alcoholic fatty liver disease: a comprehensive umbrella review

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Background: Type 2 diabetes mellitus (T2DM) is a significant risk factor for non-alcoholic fatty liver disease (NAFLD). Increased fasting blood sugar (FBS), fasting insulin (FI), and insulin resistance (HOMA-IR) are observed in patients with NAFLD. Gut microbial modulation using prebiotics, probiotics, and synbiotics has shown promise in NAFLD treatment. This meta-umbrella study aimed to investigate the effects of gut microbial modulation on glycemic indices in patients with NAFLD and discuss potential mechanisms of action.

Materials and Methods: A systematic search was conducted in PubMed, Web of Science, Scopus, and Cochrane Library until March 2023 for meta-analyses evaluating the effects of probiotics, prebiotics, and synbiotics on patients with NAFLD. Random-effect models, sensitivity analysis, and subgroup analysis were employed.

Results: Gut microbial therapy significantly decreased

HOMA-IR (ES: -0.41; 95%CI: -0.52, -0.31; P < 0.001) and FI (ES: -0.59; 95%CI: -0.77, -0.41; P < 0.001). However, no significant effect was observed on FBS (ES: -0.17; 95%CI: -0.36, 0.02; P = 0.082). Subgroup analysis revealed prebiotics had the most potent effect on HOMA-IR, followed by probiotics and synbiotics. For FI, synbiotics had the most substantial effect, followed by prebiotics and probiotics.

Conclusion: Probiotics, prebiotics, and synbiotics administration significantly reduced FI and HOMA-IR, but no significant effect was observed on FBS.

Send Date: 2024/08/21

Code: DA-24006
ICGH 2024-026
Category: 3. 8. بیماریهای بدخیم کبدی صفراوی

Recipient-associated risk factors for post-liver transplantation biliary complications: A cohort study

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Background: Biliary complications (BCs) are a well-documented post-liver transplantation concern with potential implications for patient survival. This study aims at identifying risk factors associated with the development of BCs in recipients after liver transplantation (LT) and exploring strategies for their management.

Materials and Methods: We conducted a retrospective analysis of 1595 adult patients (age > 18 years) who underwent LT surgery between 2019 and 2021. The study assessed the incidence of BCs in this cohort.

Results: Of 1595 patients, 178 (11.1%) experienced BCs, while 1417 (88.8%) did not exhibit any signs of such complications. Patients who developed BCs were found to have a significantly lower average age (p < 0.001) and longer cold ischemic times (p < 0.001) compared to those without BCs. Variables such as sex, body mass index (BMI), model for end-stage liver disease (MELD) score, primary diagnosis, type of anastomosis, hepatectomy technique, type of transplanted liver and mortality did not demonstrate statistically significant differences between the two groups (p > 0.05). Univariate logistic regression analysis revealed that a cold ischemic time exceeding 12 hours and duct-to-duct anastomosis were positive predictors for

BC development (odds ratios of 6.23 [CI 4.29–9.02] and 1.47 [CI 0.94–2.30], respectively). Conversely, increasing age was associated with a protective effect against BC development, with an odds ratio of 0.64 (CI 0.46–0.89).

Conclusion: Our multi-variate analysis identified cold ischemia time (CIT) as the sole significant predictor of post-liver transplantation biliary complications. Additionally, this study observed that advancing patient age had a protective influence in this context. Notably, no significant disparities were detected between hepatectomy techniques and the etiology of liver disease types in the two study groups.

Send Date: 2024/07/16

Code: DA-24091
ICGH 2024-027
Category: 3.9 پانکراتیت حاد

The role of endosonography in patients with acute idiopathic pancreatitis

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Background: Acute pancreatitis is an acute inflammatory process of the pancreas and a leading cause of hospitalization. Diagnosis of acute pancreatitis is typically based on clinical history, laboratory examination, and imaging. The most important causes are alcohol, gallstones, hyperlipidemia, hypercalcemia, and drugs. However, the etiology remains unclear in approximately 10% to 30% of patients, classified as acute idiopathic pancreatitis. Endoscopic ultrasonography (EUS) and magnetic resonance cholangiopancreatography (MRCP/MRI) can be diagnosing the underlying cause of pancreatitis.

This study aimed to investigate the results of EUS and MRCP/MRI in patients with acute idiopathic pancreatitis.

Materials and Methods: Hospitalized patients diagnosed with acute idiopathic pancreatitis were investigated. For all these patients, liver and gallbladder ultrasound, blood sugar, triglyceride, calcium and phosphorus tests were performed, which were normal, and the history of alcohol consumption and certain drugs and herbal use were also asked, which were negative. All these patients were examined by endosonography and some of them were examined by MRCP.

Results: The primary patients diagnosed with acute pancreatitis were 101. Out of this number, the information of 71 patients was complete and they were included in

the study. The average age of the patients was 46.3 ± 15.2 years. Majority of the patients were females (46 female, 64.8%). Among the participants, 22 individuals had a history of recurrent pancreatitis (31.4%), 43 patients had previously been hospitalized for pancreatitis (60.6%), and 19 patients had undergone cholecystectomy(26.6%). The results of endosonography findings in patients are shown in Table 1 MRCP was performed on 17 patients .In 10 out of 26 patients with normal endosonography, MRCP was also normal. Among 13 cases showing sugestive chronic pancreatitis or suspected pancreatobiliary junction anomaly or no diagnostic in EUS, MRCP was carried out in 7 patients, revealing suspected chronic pancreatitis in 3 instances, non-diagnostic and in two patient and normal in two patients.

Table 1

EUS finding	N (%)
Normal EUS	26 (36.6%)
Diagnostic Findings	41 (57.7%)
Gallstone*	15(21.1%)
Common bile duct stone	9(12.6%)
Consistent with chronic pancreatitis**	8(11.2%)
Suggestive for chronic pancreatitis**	8(11.2%)
chollangiocarcinoma	2(2.8%)
Anomaly of pancreatobiliary junction	1(1.4%)
Abnormal but non diagnostic	4(5.6%)

Conclusion: Endosonography can be very helpful in diagnosing the etiology of patients with acute pancreatitis with unknown etiology.

Send Date: 2024/10/05

Code: DA-24096
ICGH 2024-028
Category: 3.16 عفونت های دستگاه گوارش

Metagenomic Analysis of Gastric Microbiota in Atrophic and Healthy Individuals in Iran: Implications for Gastric Cancer

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Background: The term "microbiota" refers to all microorganisms present in a specific environment. For a long time, it was believed that the human stomach was devoid of any microorganisms due to the presence of gastric acid. However, this hypothesis was disproven with the discovery of the bacterium Helicobacter pylori. It was also found that other bacteria, as well as microorganisms like fungi and viruses, are present in the stomach's microbiota. Some of these stomach bacteria are beneficial to human health, while others are pathogenic. Among the diseases in which the stomach microbiota is involved is gastric cancer, where the stomach progresses from a normal condition to a precancerous state, such as gastritis, and eventually to gastric cancer. This progression is known as the Correa cascade. In this study, for the first time in Iran, the differences in the stomach microbiota of patients with atrophy and healthy individuals are examined using metagenomics methods.

Materials and Methods: This study utilized 10 biopsy samples, including five normal and five atrophic samples. After initial preparation, the samples were sent to a specialized company for DNA extraction and 16S rRNA metagenomic analysis. After receiving the results, the samples were assessed for quality and analyzed using CLC Workbench software. This analysis included examining the dominant bacterial population in each sample, evaluating bacterial abundance, and analyzing alpha and beta diversity. The results were also compared with studies conducted abroad and with results obtained from traditional culture method.

Results: In both normal and atrophic samples, the phylum Firmicutes was the dominant bacterial phylum. The predominant genera within this phylum included Staphylococcus, Enterococcus, and Streptococcus. In atrophic samples, the abundance of Firmicutes decreased compared to normal samples, while the phylum Proteobacteria increased. The phylum Firmicutes constituted a significant portion of the gastric microbiota in all foreign samples except those from Colombia. In all samples except those from China, microbial diversity in atrophic samples increased compared to normal samples. The normal Chinese samples had the highest diversity among the studies. Additionally, 28 bacteria were identified through culture-based study, with Firmicutes being the dominant phylum in this study as well.

Conclusion: This study reveals significant differences in the gastric microbiota between atrophic and healthy individuals, highlighting a decrease in Firmicutes and an increase in Proteobacteria in atrophic samples. These findings contribute to our understanding of the microbiota's role in gastric health and disease, particularly in the context

of the Correa cascade. Further research is essential to elucidate the implications of these microbial shifts for gastric cancer development and potential therapeutic interventions.

Send Date: 2024/10/06

Code: DA-24060
ICGH 2024-029
Category: ۳.۱۶ مدیریت بیماری های بدخیم

Elevated Serum Levels of SDF-1 and CCL28 in Colorectal Cancer Patients

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Background: Chemokines such as stromal cell-derived factor 1 (SDF-1) and chemokine (C-C motif) ligand 28 (CCL28) play significant roles in tumor growth, angiogenesis, and metastasis. However, their serum levels in colorectal cancer patients have not been extensively studied.

Materials and Methods: We conducted a case-control study involving 100 patients diagnosed with colorectal cancer and 100 healthy control individuals. The control group was age and gender-matched to the patient group to eliminate potential confounding factors. Serum levels of SDF-1 and CCL28 were measured using enzyme-linked immunosorbent assay (ELISA). Statistical analysis was performed using the Student's t-test to compare chemokine levels between the two groups.

Results: The serum levels of both SDF-1 and CCL28 were significantly increased in colorectal cancer patients compared to the age and gender-matched healthy controls ($p < 0.05$). Elevated levels of these chemokines suggest a potential association with tumor progression and metastasis.

Conclusion: Our findings indicate that SDF-1 and CCL28 are significantly upregulated in the serum of colorectal cancer patients when compared to age and gender-matched healthy individuals. These chemokines may serve as potential biomarkers for early detection and could be targets for therapeutic intervention. Further research is needed to explore their exact role in colorectal cancer pathology.

Send Date: 2024/09/17

Code: DA-24078
ICGH 2024-030
Category: 4.1 پیامد مطالعات

The association between sleep disturbance and liver stiffness in patients with Nonalcoholic Fatty Liver Disease

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Background: Non-Alcoholic Fatty Liver Disease (NAFLD) is a common disorder leading to severe medical 45 conditions such as liver failure. Given the potential relation between sleep disturbance and NAFLD, we aimed 67 to investigate the association between deterioration of sleep and liver stiffness with NAFLD.

Materials and Methods: In this cross-sectional study, 134 Iranian adults who proven to have NAFLD were included. Liver 1011 stiffness determined by Transient Elastography and sleep patterns were evaluated using Pittsburg sleep quality index.

Results: showed that, sleep disorder was more prevalent in females ($p = 0.007$) and also, they had higher 1718 liver stiffness than men ($p = 0.001$). Habitual sleep disorder which is the proportion of time spent in bed to the effective sleep time was worsen in patients with more severe liver stiffness ($p = 0.037$). In Categorized liver stiffness groups, there were significant association with overall sleep quality and liver stiffness ($p = 0.001$), but there was no significant association between sleep latency, sleep duration, daytime dysfunction and using sleeping pills with liver stiffness.

Conclusion: The present study indicates that in patients with NAFLD, bad sleep habits and poor sleep quality correlate with increased liver stiffness; suggesting that patient's life style modification can improve the quality of their life and also prevent more severe disorders caused by sleep dysfunction.

Send Date: 2024/09/22

Code: DA-24029
ICGH 2024-031
Category: 4.2 Coeliac disease/malabsorption syndromes and food enteropathies

The prevalence of chronic constipation in children and adults with celiac

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Background: There are few reports on the prevalence of chronic constipation and its comparison in children and adults with celiac disease (CD) in southern Iran, so this research was designed.

Materials and Methods: Patients' information was extracted from data of the Fars Celiac Registry (Approval ID: IR.SUMS.REC.1399.525) affiliated to Shiraz University of Medical Sciences. CD was defined as an increase in IgA anti-transglutaminase antibody and Marsh type 2 or more in histology. Chronic constipation was defined as at least three of the following symptoms in a 3-month period. Passing less than 3 stools per week, straining to empty the stool, passing hard, pebble-like or, lumpy stools. Participants over 18 years of age are classified as adults and people with age less than or equal to 18 years of age are classified as children.

Results: 1031 CD patients were examined. Of these, 720 (69.8 %) were children and 311 (30.2 %) were adults. The mean (SD) age of the patients was 16.6 (14.2) years. Overall, 255 (24.7%) of the patients had chronic constipation. There were 180 (25.0%) patients in the age group of children and 75 (24.1%) patients in the age group of adults, and this difference was not statistically significant (P=0.76).

Conclusion: These results show that chronic constipation is a common problem in CD in both children and adults, which is seen in almost a quarter of patients. Therefore, it is recommended to conduct studies in this field in both age groups to investigate and compare risk factors.

Send Date: 2024/08/19

Code: DA-24090
ICGH 2024-032

گروه : ۴.۶ سایر اختلالات کولون و آنورکتال

بررسـی مقایســه ای فراوانــی ریسـک فاکتورهـای پولیــپ کولــون در دو گــروه با و بــدون پولیــپ کولون در بیمــاران تحت کولونوســکوپی در بیمارســتان امام علی (ع) زاهدان در ســال ۱۴۰۱

حمیدرضا زیوری فر[۱]، رامین داداللهی سارا[۱]، سعیده سرحدی[۱]
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زمینه و هدف: سرطان کولورکتال ســومین بدخیمی شایع در جهان محسوب میشود. امروزه ارتباط نزدیکی بین سرطان کولورکتال و بعضی عادات فردی نظیر شیوه ی زندگی و رفتارهای تغذیه ای نشان داده شده است.مطالعه حاضر با هدف بررسی مقایسه های فراوانی ریسک فاکتورهای پولیپ کولون در دوگروه با و بدون پولیپ کولون در بیماران تحت کولونوسکوپی در بیمارستان امام علی(ع) زاهدان در سال ۱۴۰۲-۱۴۰۱ انجام شد.

روش بررسی: مطالعه توصیفی-تحلیلی بوده و شامل ۲۱۱ بیمار مراجعه کننده به بیمارستان امام علی (ع) زاهدان میباشد. روش نمونه گیری به صورت آسان و در دسترس بوده. جهت جمع آوری اطلاعات از فرم جمع آوری اطلاعات، ترازو و متر اســتاندارد،گزارش پاتولوژی نمونه ی تهیه شده و جهت تجزیه و تحلیل داده ها از نرم افزار spss نسخه ۲۶ استفاده شد.

یافتــه ها: مطابق یافته هــای پژوهش حاضر ابتلا به پولیپ کولون با ریسـک فاکتورهــای ســن، سطح کلسترول، سطحTG و ســطح LDL در ارتباط بود. امّا ،متغیرهای جنسیت، مصرف کلسیم، مصرف الکل، سابقه ی اعتیاد، دیابت، چاقی ســطح سرمی HDL مصرف NSAID و مصرف فولیک اســید ارتباطی با ابتلا به پولیپ کولون نداشتند.

نتیجه گیری: با توجه بــه نتــایج پــژوهش علــت شناسی پولیپ کولون و تحقیقات در زمینه های بیماریابی، تشخیص، درمان و پیشآگهی اینگونه بیماران می توانـد در جهت علاج آنها کمک کننده باشد.

تاریخ ارسال : ۲۰۲۴/۱۰/۰۵

Code: DA-24043
ICGH 2024-033

گروه: ۴.۷ سمیت کبدی/الکل - بازسازی - آپوپتوز

بررسی شیوع عوارض کبدی وعوامل موثر بر آن دربیماران مسموم با اپیویید بستری در بیمارستان بهارلو ۱۴۰۱-۱۳۹۵

آرش عکاچی[۱]، امیرحسین ساکتیان[۱]، بهنام بهنوش[۱]، مجید اکرمی[۱]، محمد عارفی[۱]*
[۱] دانشگاه تهران

زمینــه و هدف: سـوء مصرف مــواد افیونـی به دلیـل دردسـترس بودن و از شــیوع بالایــی در کشــور مابرخــوردار اسـت وبـا عــوارض متعـددی همـراه مــی باشـد کــه از جمله این اسـیب هـا اسـیب کبدی می باشـد.

روش بررسـی: در این مطالعه که یـک مطالعه مقطعی cross sectional می باشـد اطلاعات موجـوددر پرونده بیماران مسـموم با اپیـوم که در بخش مسـمومیت در طی ســالهای ۱۴۰۱-۱۳۹۵ بسـتری شـده اند مورد بررسی قــرار گرفـت واطلاعــات دموگرافیـک وسـوابق پزشـکی بویــژه بیماریهای گوارشـی وکبدیبراسـاس ازمایشـات بعمل امده وبارعایت اصــول امانت داری درامرپژوهش اسـتخراج وبررسی شــده اند این ازمایشات شامل ast/alt alkp/ ptt, bil/pt کــه به تفکیـک گـروه سـنی،جنس،بیماری زمینه،ابتلا یاعـدم ابتلا به هپاتیت ویروسـی ومتغیرهای مسـتقل دیگر جمع اوری شـده است.

یافته ها: مصـرف مقادیربـالای موادمخدر درزمـان کوتاه همراه با بروز اسـیب کبـدی درصدقابـل توجهی از بیمـاران به صـورت افزایش الگوی هپاتوسـلولار می شـود.این اسـیب ها خفیف وقابل برگشـت وموارد نـادری به صورت اسـیب کبـدی حادمنجر به نارسـایی کبدی بوده اسـت.

نتیجه گیری: شـیوع اسیب حادکبدی ناشـی از زیادی مصرف اپیوییدها ۱۶ درصد بوده اسـت وارتباط معناداری از لحاظ اماری با باجنسـیت بیماران سابقه ابتلا به بیماران مزمن غیرکبدی سـابقه وابسـتگی به اپیوییدها ونوع ماده اپیویید مصرفی ووجودهمزمان با موادهپاتوتوکسـیک وغیرهپاتوتوکسیک نداشته است ولی سـن بالاتر ووجودبیماری مزمن کبدی شانس اسـیب حاد را بالا می برد.

تاریخ ارسال : ۲۰۲۴/۰۹/۰۱

Code: DA-24048
ICGH 2024-034
Category: 5.1 Basic/pathogenesis/pathology/

Investigating the role of vitamin D in treated and refractory ulcerative colitis patients: a case-control study

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Background: Ulcerative colitis is a chronic inflammatory bowel disease characterized by persistent mucosal inflammation extending from the rectum into the proximal colon. Vitamin D plays a role in regulating immune responses in several inflammatory and autoimmune diseases. Also, studies in animal models have shown that vitamin D supplementation plays a role in the treatment of inflammatory bowel diseases. Thus, this study aims to investigate the role of vitamin D in ulcerative colitis patients.

Materials and Methods: This study was a case-control type and 4 groups of people were included in this study. Group 1: People with ulcerative colitis who have responded to treatment (24 Persons). Group 2: A family member of responded to treatment patients who does not have the disease (24 Persons). Group 3: People with ulcerative colitis who have not responded to treatment (23 Persons). Group 4: A family member of treatment-resistant patients who do not have the disease(23 Persons).Blood samples were taken from the patients and analyzed for complete blood count (CBC), erythrocyte sedimentation rate (ESR), and C-reactive protein (CRP). Enzyme-linked immunosorbent assay (ELISA) was used to measure serum vitamin D levels.

Results: In this study, the age; mean (std. dev.) in the group ulcerative colitis who have responded to treatment was 45.88 (18.51) and in the group ulcerative colitis who have not responded to treatment was 41.30 (13.01). Vitamin D; mean (std. dev.) in the group ulcerative colitis who have responded to treatment was 24.96 (9.66) ng/mg and in the group ulcerative colitis who have not responded to treatment was 27.70 (12.28) ng/mg, showing that there is no significant difference in terms of serum vitamin D.

Conclusion: In this study, there was no significant association between ulcerative colitis and serum vitamin D levels. Therefore, in our study, the serum level of vitamin D has no role in the pathogenesis and treatment of ulcerative colitis patients.

Send Date: 2024/09/12

Code: DA-24058
ICGH 2024-035
Category: 5.1 Basic/pathogenesis/pathology

The role of mitochondria in inflammatory bowel disease: From pathogenicity to new therapeutic approaches

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Background: Inflammatory bowel disease (IBD), including Crohn's disease and ulcerative colitis, affects not only the quality of life of patients but also the economy. Therefore, the pathophysiology of IBD and its molecular and cellular mechanisms must be understood in addition to developing therapies to control disease progression. Since mitochondria have been implicated in IBD, mitochondrial biology may be crucial. In this review, we aim to present the current knowledge about mitochondrial role in IBD, and how this knowledge may contribute to the design of new therapies targeting different disease mechanisms.

Materials and Methods: The search was performed on PubMed on 5 September 2024. The PRISMA checklist was utilized to evaluate the methodological quality of the selected studies.

Results: The search yielded 523 articles. The results were further evaluated for inclusion. Reviews, editorials/ comments or meeting reports, as well as articles in languages other than English were discarded, then articles whose topic wasn't relevant to this review were discarded after reading the abstract or whole article. Finally, a total of 52 articles were used for the generation of this review. The latest data finds a nexus of genetic predisposition, microbial and environmental factors, and an altered immune response to be responsible for the development of IBD. Most importantly, the involvement of mitochondria in each of

these factors indicates a role for mitochondrial dysfunction in IBD pathogenesis. Mitochondrial alterations are detected in many animal models of IBD and in human tissue samples. Many mutations in genes involved in mitochondrial structure and function have been experimentally proven to induce IBD. Dysfunctional mitochondria also influence the production of cytokines, which in turn affect the course of the disease.

Conclusion: The maintenance of mitochondrial function is necessary for a stable immune system. Mitochondrial dysfunction leads to the excessive activation of multiple inflammatory signaling pathways, leading to IBD.

Send Date: 2024/09/16

Code: DA-24049
ICGH 2024-036
Category: 5.1 Basic/pathogenesis/pathology/

Investigating the expression of pro- and anti-inflammatory cytokines in the pathogenesis and treatment of Ulcerative Colitis and its association with serum level of vitamin D

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Background: Ulcerative colitis is an idiopathic chronic gastrointestinal disease characterized by chronic inflammation in the gastrointestinal tract. Cytokines may be responsible for immune responses, mucosal and tissue damage, and also a response to treatment in ulcerative colitis.

Materials and Methods: This case-control study aimed to investigate the relative gene expression of pro- and anti-inflammatory cytokines in a biopsy sample taken from the affected area in the colon of ulcerative colitis patients. The case group consisted of 23 patients suffering from treatment-resistant ulcerative colitis and the control group consisted of 24 ulcerative colitis patients who responded to treatment. Real-time PCR was performed to measure the gene expression levels of the pro-inflammatory cytokines including tumor necrosis factor-α (TNF-α), interferon-gamma (IFN-γ), interleukin-1β (IL-1β), IL-6, IL-8, IL-17A, IL-33, IL-35, and anti-inflammatory cytokines transforming growth factor-beta (TGF-β), IL-10, and IL-35. Finally, their interactions with serum levels of vitamin D were investigated.

Results: The age; Mean (Std. dev.) in the control group was 45.88 (18.51) and in the case group was 41.30 (13.01). The results of the analysis of the expression of pro- and anti-inflammatory cytokines showed that there was no significant relationship between these cytokines and ulcerative colitis pathogenesis or response to treatment. Serum vitamin D did not correlate with pro-inflammatory or anti-inflammatory cytokines gene expression in biopsy samples.

Conclusion: In this study, there was no significant relationship between the expression of cytokines and ulcerative colitis, but from a clinical point of view, there was a significant difference in their expression in treated and resistant ulcerative colitis.

Send Date: 2024/09/12

Code: DA-24105
ICGH 2024-037
Category: 5 .1 اقتصاد دارویی

Determining the prevalence of inappropriate prescription of intravenous proton pump inhibitors in Khatam Al-Anbia Hospital, Shahrood

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Background: Proton pump inhibitors (PPIs) are recognized as the most effective pharmacological agents for the inhibition of gastric acid secretion. However, the inappropriate prescription of these medications, particularly in their intravenous (IV) formulation, can lead to complications and unnecessary healthcare costs. This study aims to assess the prevalence of inappropriate IV PPI prescriptions among hospitalized patients at Khatam-al-Anbia Hospital in Shahrood.

Materials and Methods: A descriptive cross-sectional study was conducted involving 343 patients aged 18 years

and older who were hospitalized at Khatam Al-Anbia Hospital and received IV PPIs. Data were collected on patient demographics, dosage and administration methods, risk factors, and other pertinent clinical information using a structured checklist. The rationale for each prescription was compared against established evidence-based guidelines to determine appropriateness. In this context, "inappropriate prescription" is defined as instances where the rationale for prescribing the medication did not align with valid clinical indications.

Results: Of the 343 patients evaluated, only 234 (31.77%) instances of intravenous proton pump inhibitor (IV PPI) administration were deemed to be in alignment with established clinical guidelines and evidence-based indications. The primary reason for the observed inappropriate prescriptions was identified as stress ulcer prophylaxis, which accounted for 204 (87.17%) of the cases examined.

Conclusion: The findings of this study indicate that the majority of IV PPI prescriptions did not conform to the recommendations outlined in clinical guidelines. This underscores the necessity for further evaluations and interventions to optimize the use of PPIs in hospitalized patients.

Send Date: 2024/10/08

Code: DA-24077
ICGH 2024-038
Category: 5.3 استراتژی های مدیریت

Diversity of genetic factors influencing biofilm formation in Helicobacter pylori strains from the Iranian population

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Background: Antibiotic resistance in Helicobacter pylori shows a significant discrepancy between in vitro and in vivo profiles. Laboratory studies often identify specific patterns of multi-drug resistance, while clinical isolates reveal a more complex resistance landscape influenced by the host environment. Understanding the genetic determinants of these differences, particularly regarding biofilm formation, is essential for addressing treatment failures. The aim of this study is to investigate the genetic determinants that influence biofilm formation in Helicobacter pylori strains within the Iranian population.

Materials and Methods: In this study, 30 Helicobacter pylori strains were isolated from Iranian patients with previous eradication failure. The isolated strains were subjected to whole-genome sequencing. In the conducting of in silico analyses, no distinct resistance genes were identified. The genomic sequences were processed and aligned against known databases of biofilm genes to assess the distribution and variation of these genes among the isolated strains. An automated alignment tool utilizing Python and Structured Query Language (SQL), along with BLAST+ was developed for sequence alignment. This custom tool facilitated the investigation of the presence and novelty of 103 biofilm-related genes within the collected whole genomes.

Results: The prevalence of 103 biofilm-related genes varied among different strains, with the range of identified genes spanning from 43 to 83 per strain. Blast analysis totally reported 800 novels alleles. These variations may indicate genetic diversity in the biofilm-forming capabilities of these strains and highlight the need for further investigation into the impact of these genes on biofilm behavior and resistance to treatments.

Conclusion: The identification of a wide range of biofilm-related genes, with variations between strains, reflects significant genetic diversity that may contribute to treatment failures. The detection of 800 novel alleles further emphasizes the potential for undiscovered genetic factors influencing both biofilm formation and antibiotic resistance. Understanding these genetic determinants is crucial for developing more effective therapeutic strategies against H. pylori infections.

Send Date: 2024/09/22

Code: DA-24008
ICGH 2024-039
Category: 5.3 استراتژی های مدیریت

The clinical application of Rifaximin-containing regimen as the first-line therapy for Helicobacter pylori infection: A systematic review and meta-analysis

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Background: Rifaximin is a rifamycin analog that achieves higher concentration within the gastrointestinal lumen compared to other rifamycins, for this reason it is used in the clinical setting for infectious agents of the digestive system. This systematic review and meta-analysis calculated the clinical efficacy and safety of rifaximin-

based therapeutic regimen against naïve H. pylori infection.

Materials and Methods: Articles that evaluated the cure rate of rifaximin-based regimen for H. pylori infection were collected through a computer-assisted literature search in Scopus, Cochrane Library database, as well as Google scholar. The eradication rate was calculated with percentage with 95% confidence intervals; For this purpose, heterogeneity was also measured using I2 index and Cochrane Q-test.

Results: There are 9 included studies. The analysis of randomized controlled trials showed that rifaximin-containing regimen could not significantly improve the cure rate (OR: 0.76; 95%CI: 0.4-1.2; p-value: 0.2). Furthermore, the eradication rate resulting from rifaximin-based regimen was measured to be about 56.4% (95%CI: 47.0-65.3). Also, the prevalence of side effects in rifaximin-based treatment recipients was about 27.2% (95%CI: 13.3-47.8). Thus, we assume that rifaximin-containing regimen cannot be used as first-line for the elimination of H. pylori infection. Based on the subgroup analysis, the cure rate in Asian populations is improved by the addition of levofloxacin and the use of omeprazole.

Conclusion: In overall, rifaximin-based regimen cannot be used as the first choice for the treatment of naïve H. pylori infection; However, clinical efficacy and safety of clinical trials reflecting the use of this therapeutic regimen as a promising strategy for rescue therapy of treatment failure.

Send Date: 2024/07/16

Code: DA-24067
ICGH 2024-040
Category: 5.4 Diagnosis and monitoring

MT-MMPs as Diagnostic Biomarkers in Ulcerative Colitis

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Background: Ulcerative colitis, a form of Inflammatory Bowel (IBD), involves chronic inflammation of the colon and can lead to significant tissue damage. Matrix metalloproteinases (MMPs), particularly membrane-type MMPs (MT-MMPs), are involved in extracellular matrix remodeling and have been suggested to play a role in IBD pathogenesis. However, their roles in ulcerative colitis remain poorly understood. This study aimed to evaluate the expression of MT-MMPs in newly diagnosed and treatment-resistant ulcerative colitis patients and assess their diagnostic potential in differentiating these patients from healthy individuals.

Materials and Methods: Colon biopsy samples were collected from three groups: newly diagnosed ulcerative colitis patients, treatment-resistant ulcerative colitis patients, and healthy controls. RNA was extracted, and the expression of MT-MMPs was quantified using Real-Time PCR. Receiver Operating Characteristic (ROC) curve analysis was performed to determine the diagnostic value of MT-MMPs in differentiating ulcerative colitis patients from healthy controls. Correlation analyses were conducted to assess the relationship between the expression levels of these MMPs and clinical markers.

Results: MT2-MMP and MT5-MMP were significantly downregulated in newly diagnosed and treatment-resistant ulcerative colitis patients compared to healthy controls (p < 0.05). ROC curve analysis indicated that MT2-MMP and MT5-MMP had diagnostic value, with high sensitivity and specificity for distinguishing ulcerative colitis patients from healthy individuals. Additionally, a significant negative correlation was found between the expression levels of MT2-MMP and MT5-MMP and clinical measures of disease severity, including the colitis severity scale and inflammatory markers (p < 0.01).

Conclusion: Our findings suggest that MT2-MMP and MT5-MMP are downregulated in ulcerative colitis and that their reduced expression is associated with increased disease severity. These MMPs may have diagnostic utility in distinguishing between ulcerative colitis patients and healthy individuals, offering potential as biomarkers for disease detection and progression. Furthermore, the negative correlation between MMP expression and clinical severity highlights the potential therapeutic implications of targeting these MMPs in ulcerative colitis management.

Send Date: 2024/09/18

Code: DA-24118
ICGH 2024-041
Category: 5.5 Treatment

The Efficacy of Cichorium intybus L., Trigonella foenum-graecum L. and Foeniculum vulgare Mill. in Improvement of Ulcerative Colitis Symptoms: A Randomized Clinical Trial

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Background: Due to the lack of favorable response to synthetic drugs, the tendency to use traditional medicine to treat inflammatory bowel disease has risen. We aimed to assess the effect of Cichorium intybus L., Trigonella foenum-graecum L., and Foeniculum vulgare L. on the control of recurrent ulcerative colitis (UC) symptoms.

Materials and Methods: This randomized clinical trial was performed on 60 patients suffering from mild-to-moderate UC. Patients were randomly assigned to control and intervention groups. Patients in both groups were treated with a standard dose of oral mesalazine (3 g daily) for eight weeks. In addition, the intervention group was given a mixture of 200 mg C. intybus, 350 mg T. foenum-graecum, and 1.5 mg F. vulgare (three times a day). The disease activity was evaluated before and 60 days after the intervention using a simple clinical colitis activity index (SCCAI).

Results: The baseline mean SCCAI score was similar in both groups. Although the SCCAI score significantly reduced in both groups 60 days after the initial assessment, this reduction was significantly higher in the group receiving the herbal combination than in the control group. The intervention-related side effects, such as bloating and dyspepsia, were well tolerated.

Conclusion: The use of C. intybus, T. foenum-graecum, and F. vulgare can effectively control UC symptoms and thus, can be used as an effective and safe medication for treating UC.

Send Date: 2024/10/12

Code: DA-24012
ICGH 2024-042
Category: 5.5 Treatment

Zataria Multiflora Extract as a Novel Adjunct Therapy in Ulcerative Colitis: Impact on Inflammatory Markers, Immune Gene Expression, and Clinical Symptoms

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Background: Ulcerative colitis (UC) is a chronic inflammatory bowel disease (IBD) characterized by recurrent inflammation in the colon and rectum. Conventional treatments, including aminosalicylates, corticosteroids, and immunosuppressants, often have limited long-term efficacy and come with adverse effects, underscoring the need for safer, more effective alternatives. Zataria multiflora (ZT), a medicinal plant with potent anti-inflammatory, immunomodulatory, and antioxidant properties, has shown promise in preclinical studies. This study aimed to assess the efficacy of ZT extract as a complementary treatment for UC by examining its effects on clinical symptoms, inflammatory biomarkers, and immune-related gene expression.

Materials and Methods: This multicenter, randomized, triple-blind, placebo-controlled trial was conducted in Iran. Ninety-two patients with mild to moderate UC were randomly assigned to receive either ZT extract (6 mg/kg/day) or a placebo for two months. Primary outcomes included changes in inflammatory markers and immune-related gene expression, analyzed from blood samples taken before and after the intervention. Secondary outcomes focused on clinical symptoms, measured using the Partial Mayo Score (p-Mayo) and the Gastrointestinal Symptom Rating Scale (GSRS). Data were analyzed using SPSS software.

Results: ZT extract significantly reduced several key inflammatory markers, including C-Reactive Protein (CRP) ($p < 0.001$), Interleukin-17 (IL-17) ($p = 0.001$), Interferon-gamma (IFN-γ) ($p = 0.002$), and Nuclear Factor kappa B (NF-κB) ($p = 0.002$). Reductions in pro-inflammatory transcription factors, such as T-box Transcription Factor

T-bet (T-bet) (p = 0.006) and Retinoic Acid Receptor-Related Orphan Receptor Gamma (RORγ) (p < 0.001), were also observed. However, no significant changes were found in Erythrocyte Sedimentation Rate (ESR) (p = 0.25), GATA Binding Protein 3 (GATA3) (p = 0.09), or Forkhead Box P3 (FOXP3) (p = 0.17), indicating that ZT may target specific immune pathways rather than exerting broad immunosuppressive effects.

Clinically, patients receiving ZT reported significant improvements in UC-related symptoms, particularly heartburn, acid reflux, bloating, diarrhea, and fecal urgency (p < 0.05). The GSRS showed a marked improvement (p < 0.001) in the ZT group, suggesting enhanced quality of life. Despite these improvements, the p-Mayo score did not show significant differences between the ZT and placebo groups (p = 0.24).

Conclusion: Zataria multiflora extract demonstrated significant potential as a complementary therapy for UC, reducing inflammatory markers and improving gastrointestinal symptoms. While the p-Mayo score remained unchanged, the overall symptom relief and favorable safety profile suggest that ZT could be a valuable adjunct in UC management. Further research with larger sample sizes and extended follow-up is recommended to confirm these findings and explore the mechanisms of action.

Send Date: 2024/08/11

Code: DA-24084
ICGH 2024-043
Category: ۵.۵ درمان

Enhance the improvement of clinical manifestation of ulcerative colitis by adding zinc gluconate to standard treatment: a randomized clinical trial

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Background: Ulcerative colitis (UC) is characterized by chronic bowel inflammation. Although the exact etiology is still unknown, a probable pathogenesis is a disturbance in immune system function and flare of the enterocyte inflammation in response to gut flora. The current study investigated the effect of zinc supplementation on clinical manifestation and quality of life in ulcerative colitis patients.

Materials and Methods: Sixty mild to moderate UC patients (age=35 and BMI=24.5) were enrolled in this trial from February 2023 to March 2024 at Rasoul-e-Akram Hospital, Tehran, Iran. Patients were randomly allocated to the intervention group (30 mg elemental zinc) and the control group (placebo) for 8 weeks besides routine medications. The Mayo score, quality of life, serum level of Zinc and ESR were assessed.

Results: A significant improvement was seen in Mayo score (-1.12±1.58; P<0.001) and QoL (9.96±5.85; P<0.001) in the intervention group as compared to the control group at the end of the study. In line with symptom improvement, a significantly lower level of ESR (-3.06±6.80; P<0.01) were seen in the intervention group.

Conclusion: The supplementation with 30 mg elemental zinc may improve Mayo score, QoL, and ESR. Further studies are required to confirm zinc supplementation beside the main treatment for UC patients.

Send Date: 2024/10/02

Code: DA-24022
ICGH 2024-044
Category: 5.7 Management

The Association Between Depression and Activity of Inflammatory Bowel Disease

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Background: The association between depression and inflammatory bowel disease (IBD) has been reported worldwide.

Materials and Methods: In this cross-sectional study, demographic data and clinical characteristics of 156 IBD patients referred to Razi Hospital, Rasht City, Iran, were recorded from 2015 to 2016. The Beck depression inventory (BDI) was administered to all patients, and their scores were classified as no, mild, moderate, and severe depression. Modified Truelove and Witts severity index (MTWSI) for ulcerative colitis (UC) and Harvey Bradshaw severity index (HBSI) for Crohn's disease (CD) were used to quantitate IBD activity as active UC (scored ≥10) and active CD (scored ≥7).

Results: About 35.9% of the patients (n=56) had depression. Patients with active IBD had significantly higher BDI scores than those with inactive IBD (14.41±10.34 vs 10.14±10.28,

respectively, P=0.011).Except for income (P=0.001), no significant associations were detected between IBD status and other background variables (P>0.05). No patients in either active or inactive IBD groups had cancers. Based on the severity of depression, the patients were grouped as follows: 64.1% had no depression, 30.1% had mild depression, 5.8% had moderate depression, and 0.0% had severe depression. However, significant positive associations were seen between an increase in depression severity and having

autoimmune diseases, a lower education level, and a history of IBD-related surgeries

Conclusion: It seems that patients with active IBD are more depressed than inactive IBD patients

Send Date: 2024/08/18

Code: DA-24063
ICGH 2024-045
Category: 5.7 Management

The effect of ethanolic extract of Trachyspermum ammi on calprotectin levels in patients with Crohn's disease: a case series study

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Background: Inflammatory bowel disease (IBD) is an idiopathic and chronic inflammation of the intestine that includes ulcerative colitis and Crohn's disease. In Asia and the Middle East, the highest incidence of Crohn's disease is 5 per 100,000 per year. Crohn's disease is a chronic inflammatory disease that affects different parts of the gastrointestinal tract from the mouth to the anus, but in most cases it affects the end of the small intestine.

Materials and Methods: In this clinical trial study, which was initially conducted as a pilot study, four patients with Crohn's disease were selected for this study. Consent. Ethanolic extract of Trachyspermum ammi was given twice a day for 3 months and Clinical symptoms and their calprotectin levels were measured.

Results: The first patient was a 39-year-old woman with an initial calprotectin level of 840 mg/kg, after taking the drug the calprotectin level was 10.72 mg/kg after the second month. The second patient was a 22-year-old man whose initial calprotectin level was 760 mg/kg and after the intervention his calprotectin level was 260 mg/kg. The third

patient was a 33-year-old man with an initial calprotectin level of 2225 mg/kg. After taking the drug, the calprotectin level became 1270 mg/kg after the second month. The fourth patient was a 35-year-old woman with an initial calprotectin level of 535 mg/kg. After taking the drug, calprotectin levels rose to 100 mg/kg after the intervention.

Conclusion: It seems that Trachyspermum ammi plant is effective in reducing calprotectin levels in patients with Crohn's disease, but its effect and mechanism need further studies in the future. In this study, which was conducted for the first time in the world, by evaluating the patients by clinical condition, laboratory findings, colonoscopy and pathology, it was shown that this drug can be used in patients with Crohn's disease, resistant to Usual treatments (Mesalazine, Azathioprine, Cortone, etc.) and even biological drugs are effective and appropriate treatments, also, it has no significant complications and has a much lower cost.

Send Date: 2024/09/17

Code: DA-24021
ICGH 2024-046
Category: 5.7 Management

The Relationship between Anxiety and Depression Symptoms and Disease Activity in Patients with Inflammatory Bowel Disease

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Background: IBD could be accompanied by psychological symptoms such as anxiety and depression. Understanding the relationship between psychological factors and disease activity is vital for optimizing IBD management.

Materials and Methods: The study utilized a case-control design of patients with IBD. A total of 307 patients from Guilan province were included in the study, 257 with ulcerative colitis (UC) and 50 with Crohn's disease (CD). Cases consisted of individuals with active IBD, while controls selected from those with inactive disease. In order to identify patients with active UC, the Modified

Truelove and Witts Severity Index (MTWSI) and the Mayo Index were used. In order to evaluate CD activity, Harvey Bradshaw Severity Index (HBSI) was used. The status of anxiety and depression was assessed using the GAD-7 and PHQ-9 questionnaires.

Results: Of 307 participants, the prevalence of anxiety was 12.1% for active patients and 0.7% for inactive patients, which was significant (P<0.001). Active patients were also more likely than inactive patients to meet criteria for depressive disorder (16.6 vs. 2.6%, P<0.001). In the unadjusted model, the GAD-7 score was significantly associated with active disease in all patients with IBD. The odds ratio for a 1-point increase in the GAD-7 score was 1.38 (95% CI: 1.24–1.54). This association remained significant after adjustment for some demographic and clinical variables (OR=1.44, 95% CI: 1.27–1.65). In the whole study population, a 1-point increase in the PHQ-9 score was associated with 1.38-fold increased odds of active disease (95% CI: 1.25–1.54). In the adjusted analysis, the OR also remained statistically significant (OR=1.37, 95% CI: 1.22–1.54).

Conclusion: This study emphasis the complex interplay between anxiety, depression, and disease activity in IBD patients. Highlighting the importance of comprehensive management addressing mental health alongside physical symptoms.

Send Date: 2024/08/18

Code: DA-24095
ICGH 2024-047
Category: ۹. بیماری های بدخیم و تومورهای اندوکرین پانکراس ۵.

The role of endosonography in the evaluation of pancreatic cystic lesions

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Background: Pancreatic cysts are diagnosed with increasing frequency because of the widespread use of cross-sectional imaging. Pancreatic cysts can either be neoplastic or non-neoplastic, therefore accurate cyst categorization is important. After performing MRI or CT scan as the first methods of examining pancreatic cysts, performing endosonography with FNA helps more in diagnosis. The present study was conducted with the aim of investigating the diagnostic value and role of endosonography in evaluating the characteristics of pancreatic cystic lesions and comparing it with other imaging methods.

Materials and Methods: In this cross-sectional study, endosonography was performed for patients who were diagnosed with pancreatic cysts,including pure cyst or cyst with solid component based on ultrasound or CT scan. All patients' CT scans were re-evaluated by an experienced radiologist.FNA of cysts were performed and amylase & CEA of cyst fluid and cytology of solid component /mural nodule were performed in all patients.

Results: 50 patients with newly diagnosed pancreatic cysts were included. The average age was 56 ± 15 yrs and 34 patients 68%)were female.The results of cysts characteristics in EUS and CT scan was shown in table 1.

	EUS N (%)	CT scan N (%)
Size of cyst		
<10 mm	5(10%)	0(0%)
10-30 mm	20(40%)	12(24%)
>30 mm	25(50%)	25(50%)
Mural nodule in cyst wall	13(26%)	2(4%)
Location of cyst Head	30(60%)	18(36%)
Body	16(32%)	15(30%)
Tail	4(8%)	4(8%)
Irregularity in cyst wall	21(42%)	5(10%)

In 13 patients, pancreas cyst was seen in US and EUS,but it was not detected in CT scan. Compared to CT scanner, EUS is significantly more accurate in diagnosing cystic lesions smaller than 10 mm, in detecting mural nodules and determining the characteristics of the cyst wall from CT scan.

Based on the characteristics of the cystic lesion in endosonography and the results of the lab tests, the final diagnosis of the patients was as follows: Serous cyst neoplasm 20 patients(40%),Mucinous cyst neoplasm 10 patients(20%),Adenocarcinoma 8 patients(16%) and Intraductal papillary mucinous neoplasms 12 patients(24%)

Conclusion: EUS is an accurate and reliable method in diagnosing pancreatic cystic lesions

Send Date: 2024/10/06

Code: DA-24070
ICGH 2024-048
Category: 5 .21 انتروسکوپی

Severe Iron-Deficiency Anemia: A rare manifestation of a rare disease

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Background: Primary Intestinal Lymphangiectasia (PIL) is a rare gastroenterological disorder characterized by dilated Lymph vessels in the mucosal and submucosal layers of the small intestine, which can cause protein-losing enteropathy. It can present with diarrhea, ascites and pleural effusion besides lymphopenia, hypoalbuminemia and hypo gammaglobulinemia. Although PIL is predominantly diagnosed in children under the age of three, rare cases of Adult with new diagnosed PIL have been reported, posing diagnostic challenges due to its similarity to other conditions.

We report a 36-year-old woman who presented with refractory anemia, dyspnea, lower limb edema, and lymphocytopenia. The diagnosis of PIL was ultimately confirmed through histological analysis of biopsy samples obtained via enteroscopy. Her anemia was not resolved with dietary modification and pharmacologic interventions including iron supplement, octreotide and tranexamic acid. Eventually, therapeutic trial of sirolimus successfully brought her anemia under control.

Materials and Methods: This case diagnosed by dpush entroscopy & biopsies confirmed the diagnosis.

Results: severe edema, large nodules, petechia and numerous whitish spots (snowflake-like appearance) in the duodenum and more severely in the jejunum. During the biopsy of the nodules A pink fluid was extracted from the biopsy site, Which raised the suspicion about lymph component and lymphangiectasia

Send Date: 2024/09/18

Code: DA-24015
ICGH 2024-049
Category: 6.3 Malignant disease - management

Comparative survival analysis of rectal cancer with and without associated polyps– A retrospective cohort study

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Background: The majority of rectal cancers (RC) originate from adenomatous polyps. At the time of diagnosis, patients with RC may present with adjacent non-cancerous polyps, or they may have no polyps at all. This study aims to compare the overall survival (OS) of rectal cancer patients with polyps to those without polyps at the time of diagnosis.

Materials and Methods: We conducted a retrospective cohort study involving 593 patients diagnosed with rectal cancer between February 2007 and March 2017. Among these, 477 patients did not have associated polyps, while 116 patients had polyps at the time of diagnosis. Comparative survival analysis was performed using the Kaplan-Meier method, with statistical significance evaluated using the Breslow test.

Results: Of the 593 rectal cancer cases, 116 (19.6%) were associated with polyps. The median follow-up period was 28 months. A significant difference in overall survival was observed between patients with and without polyps. The Kaplan-Meier analysis showed a 5-year OS rate of 36% for patients with polyps, compared to 51% for those without polyps ($P < 0.05$).

Conclusion: Rectal cancer patients without associated polyps at the time of diagnosis have better overall survival compared to those with associated polyps. This finding suggests that the presence of polyps may be an adverse prognostic factor in rectal cancer survival.

Send Date: 2024/08/14

Code: DA-24114
ICGH 2024-050
Category: 6.4 Other colonic and anorectal disorders

L-Arginine is a feasible supplement to heal chronic anal fissure via reducing internal anal sphincter pressure: a randomized clinical trial study

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Background: The hypertonicity of internal anal sphincter resting pressure is one of the main causes of chronic anal fissure. Therefore, the aim of this study was to assess the effect of oral administration of l-arginine on the improvement of the anal fissures by relaxing the internal anal sphincter.

Materials and Methods: Seventy-six chronic anal fissure patients (aged 18–65 years) who were referred to Rasoul-

e-Akram Hospital, Tehran, Iran from February 2019 to October 2020 participated in this randomized, double-blind, placebo-controlled trial. Participants were allocated into treatment (l-arginine) and placebo groups. They took a 1000 mg capsule three times a day for 1 month, and then we followed them at the end of the first and third months after the intervention. Clinical symptoms, anal sphincter resting pressure, and quality of life (QoL) were completed at baseline and the end of the study.

Results: The analysis of data showed a significant decrease in bleeding, fissure size, and pain for each group; however, in the L-arginine group was more than the control group at the end of the study (P values < 0.001). Following that, a significant increase in QoL was seen just in patients treated with l-arginine (P value = 0.006). In addition, the comparison of anal pressures at baseline and, between groups at the end of the study showed a significant reduction in sphincter pressure in patients treated with l-arginine (P value < 0.001, = 0.049; respectively).

Conclusion: The oral administration of 3000 mg l-arginine can heal chronic anal fissures by reducing internal anal sphincter pressure with more negligible side effects. However, we recommend long-term study with more extended follow-up.

Send Date: 2024/10/12

Code: DA-24079
ICGH 2024-051
Category: ۶.۷ تظاهرات کلینیکی و عوارض سیروز

Esophageal varices liver stiffness cirrhosis spleen stiffness

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Background: Esophageal varices are mainly caused by portal hypertension and are a common complication of chronic liver disease (CLD). In this study, we investigated the diagnostic relationship between liver stiffness (LS) and spleen stiffness (SS) measurement using elastography and their association with esophageal varices in cirrhotic patients.

Materials and Methods: One hundred twenty-five consecutive patients with liver cirrhosis were enrolled in this study between Sep 2017 and Aug 2019. All patients underwent upper gastrointestinal endoscopy to evaluate the presence and severity of esophageal varices. SS and LS measurements were performed for all liver and spleen elastography.

Results: Aspartate aminotransferase (AST), alanine aminotransferase (ALT), Platelet and AST- to-platelet ratio (APRI) levels were not significantly different between the two groups (p> 0.05). No significant difference was observed for LS in the two groups (p-value = 0.826). SS was significantly different in the two groups of patients with esophageal varices and those without l varices (p-value = 0.004).

Conclusion: Although there was a significant positive correlation between measurement of SS and LS (p-value <0.001), SS was not significantly associated with measurement of EV. SS is a relatively good predictor for EV.

Send Date: 2024/09/22

Code: DA-24074
ICGH 2024-052
Category: ۶.۷ تظاهرات کلینیکی و عوارض سیروز

Evaluation and comparison of laboratory criteria and the possibility of using them to predict the presence of esophageal varices and its degree in patients with liver cirrhosis in Imam Khomeini Hospital from 1397 to 1401

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Background: About half of cirrhotic patients have esophageal varices, and about a third of all patients with varices suffer from variceal bleeding. Variceal bleeding is one of the gastrointestinal emergencies and one of the main causes of death in cirrhotic patients. Each episode of active variceal bleeding is associated with about 20% mortality.

Patients with liver cirrhosis should undergo endoscopic screening to check the presence of esophageal varices, so that prophylactic treatment can be performed in patients who are at increased risk of bleeding. In patients with compensated liver cirrhosis who do not have esophageal varices, endoscopic screening is performed every 2 to 3 years. Patients with small varicose veins undergo endoscopic screening every 1 to 2 years and every year for patients with decompensated liver cirrhosis.

The size of esophageal varices can provide an estimate of the risk of bleeding. In the grading system of esophageal varices, grade F1 is straight and small varices, grade F2 is enlarged tortuous varices that occupy less than one-third of the lumen, and grade F3 is large coil-shaped varices that occupy more than one-third of the lumen.

Several non-invasive methods, including the ratio of aspartate aminotransferase to platelet count, ratio of platelet count to spleen diameter, ratio of aspartate aminotransferase to alanine aminotransferase, MELD score, FIB-4 and Child Turcotte Pugh score were studied to predict the presence of esophageal varices in patients with liver cirrhosis. However, none of the mentioned cases could replace endoscopic screening.

In this study, we tried to evaluate laboratory criteria and the possibility of using them to predict the presence of esophageal varices and the degree of them.

Materials and Methods: This study is a retrospective cohort study in which 179 patients with liver cirrhosis who underwent upper endoscopy in Imam Khomeini Hospital between 1397 and 1401 were evaluated. The variables investigated in this study include age, sex, number of Platelet, serum levels of aspartate aminotransferase, alanine aminotransferase, alkaline phosphatase, total bilirubin and albumin, INR level, ratio of serum levels of aspartate aminotransferase to alanine aminotransferase, ratio of serum levels of aspartate aminotransferase to the number of platelets, diameter of the spleen, ratio of the number of platelets to the diameter of the spleen, FIB-4 score is MELD score. The relationship of the mentioned variables with the presence of esophageal varices and its degree was evaluated in this study.

Results: Platelet count with a cutoff of 147,500 and a sensitivity of 82% and a specificity of 47.4% was a predictor of esophageal varices.

Spleen diameter with a cut-off of 120.5 mm with a sensitivity of 90.7% and a specificity of 42.1% was a predictor of the presence of esophageal varices.

In this study, the ratio of platelet counts to the diameter of the spleen with a cut-off of 934.37 with a sensitivity of 78.7% and a specificity of 60.5% was a predictor of the presence of esophageal varices.

Also, in this study, it was found that ALT variable was significantly different among three degrees of esophageal varices. So that the level of ALT in patients with 1st degree of esophageal varices was higher than that of 2nd degree of esophageal varices.

Conclusion: According to the results obtained from the present study and previous studies, it seems that it is possible to predict the presence of esophageal varices from the number of platelets, the diameter of the spleen, and the ratio of the platelet counts to the diameter of the spleen in patients with liver cirrhosis. The use of these laboratory criteria reduces the need to use upper endoscopy as an invasive method and thus leads to a reduction in the cost of managing cirrhotic patients in the health care system.

Evaluating the Association between Elevated Liver Enzymes and Diabetes in the PERSIAN Guilan Cohort Study

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Background: Diabetes mellitus (DM) is one of the most important health complications among chronic diseases worldwide. Due to a few studies that have reported associations between liver enzymes and DM, this study aimed to investigate the association between elevated Liver enzymes and diabetes among Prospective Epidemiological Research Studies in Iran (PERSIAN) Guilan cohort study (PGCS) population

Materials and Methods: This cross-sectional study was part of a PGCS that was conducted for 2530 individuals with diabetes and 7,989 without diabetes. The demographic and clinical data of the individuals was recorded. The changes in alanine aminotransferases (ALT) and aspartate aminotransferases (AST), alkaline phosphatase (ALP), and γ-glutamyltransferase (GGT) were evaluated. All data was analyzed using IBM SPSS version 21, considering a significant level <0.05.

Results: The prevalence of diabetes was 24.1% and was more common in females than males (27.4% vs. 20.2%, P < 0.001). After removing all confederates, patients with elevated levels of ALT, AST, GGT, and ALP were 1.27, 1.27, 1.52 and 1.46 times more likely to diabetes, respectively. The odds of diabetes increased with the number of elevated liver enzymes, up to almost 1.77-fold among subjects with three or four elevated liver enzymes.

Conclusion: Liver enzyme levels were significantly higher in individuals with diabetes than individuals without diabetes. Also, impairment of three or four liver enzymes demonstrated a positive correlation with an elevated likelihood of DM. This indicates the importance of considering the liver status in the management of the DM population

Send Date: 2024/08/18

Code: DA-24113
ICGH 2024-055

گروه : ۷.۵ اداره بیماری

Cavernous sinus thrombosis in ulcerative colitis recurrent after pregnancy: A case report

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Inflammatory bowel disease (IBD) is a risk factor for thrombotic complications, using multifactorial mechanisms such as platelet activation, increased fibrinogen, and coagulation factors 2, 5, 7, 8, 10, and 11 and destruction of endothelial function.

Pregnancy is a risk factor to increase coagulation in patients due to the change in procoagulation factors in the hemostatic system and the reduction in anti-coagulation factors such as protein C, S; especially, the increased risk of coagulation in the pelvic vessels happens due to the rise in blood pressure.3 Therefore, pregnancy is a risk factor in developing venous thromboembolism (VTE), including DVT and PTE. Although pregnant patients with IBD are at risk of increased hyper coagulate state, it is a known leading cause of maternal mortality.

The risk of increased coagulation in pregnant patients with IBD is high, but happening in the CNS vessels is rare and severe. Around 1% of patients suffer from thrombosis of the CNS vessels. Although the patients usually have symptoms such as seizures, headaches, variable levels of unconsciousness, and papillary edema, these patients are typically diagnosed late and have a poor prognosis.

A 35-year-old Iranian woman, G3Ab2, presented due to intrauterine growth restriction (IUGR) and disappearance of the end-diastolic wave of the umbilical artery in the sonography. She was at 32 weeks, and an emergency cesarean section was done. She had ulcerative colitis for 15 years. Her disease flared up during pregnancy. Her colonoscopy demonstrated an ulcerative colitis diagnosis. She has been treated with mesalazine, aspirin, and enoxaparin since the beginning of pregnancy.

Two months after delivery, the patient presented with cough, shortness of breath, mild respiratory distress, headache, fever, myalgia, tachycardia, and right leg pain. The patient mentioned that her headache has gradually increased since childbirth. The patient's neurological examination was normal.

The patient's EKG (electrocardiography) was normal without any pathological findings. But in her laboratory tests, a positive D-dimmer was reported. Her laboratory test revealed: platelet: 135000/mm3, PT: 13 s, PTT: 26 s, and INR: 1.1. The thrombophilia screening test was done, and the test result was negative. Arterial and venous color Doppler ultrasound of both lower limbs was performed, and no evidence of thrombosis or obstruction was observed. In the abdomen ultrasound, a cyst without septa and a solid component, size 27×28 mm, was observed in the right ovary.

Her chest X-ray was normal. CT angiography reported a partial filling defect in the arteries of the inferior lobe in the right lung. The diagnosis of pulmonary embolism (PE) in the inferior lobe of the right lung was confirmed, provided by CT angiography. CT scan of the patient's brain had hyperdensity in the left occipital lobe. Her brain MRV imaging revealed a lack of flow-related enhancement, which was suspicious for venous thrombosis. Her brain MRI showed abnormal signal changes at the left temporal lobe related to intraparenchymal hemorrhage accompanied by mild edema.

The patient was transferred to the intensive care unit (ICU). She was diagnosed with PTE and sinus thrombosis simultaneously. She was treated with anticoagulant drugs such as heparin and warfarin. The patient was treated with the anticonvulsant drug and was discharged after a week.

After 2 months, she went to the hospital with abdominal pain extending to the shoulder. The next day she had a laparotomy for a hemorrhagic cyst. During the surgery, the third space had 3.5 liters of blood. Because her INR was around 4, until 4 days after the surgery, heparin was replaced with warfarin. After 2 days, her INR reached approximately 2.5. Then, warfarin was started, and heparin was stopped. Finally, the patient was discharged in good general condition.

Send Date: 2024/10/11

Code: DA-24062
ICGH 2024-056

Category: 7.5 Cirrhosis and complications: basic aspects

Evaluation of survival and related factors in cirrhotic patients in Kurdistan province

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Background: Liver cirrhosis is the final stage of chronic liver disease that disrupts the normal functioning of the liver, causing various complications in the patient. The aim of this study was to estimate the survival rate in patients with liver cirrhosis using MELD and Child-pugh scoring methods and its related factors on liver cirrhosis survival in Kurdistan province.

Materials and Methods: In this retrospective cohort study, all subjects with diagnosed liver cirrhosis referred to digestive and liver ward of Towhid Hospital in Sanandaj in Kurdistan province in 2011-2017 were evaluated. To analyze survival rate, Kaplan-Meier method and log-rank test and univariate regression and hazard ratio calculation were performed using Cox relative risk model. Data were analyzed using Stata 14 software.

Results: In this study, 187 people with liver cirrhosis were studied, the mean (standard deviation) age was 56.1 (17.6) years, of which 115 (61.5%) were male, 90 (48.1%) were over 60 years, and 37 (17.8%) Were less than 40 years old. In this study, 85 (45.5%) had died, the cause of death in 48 patients (57.8%) is liver cirrhosis were reported. Survival rates of patients with cirrhosis were 1, 3 and 5 years, respectively, 94.3%, 66.7%, 41%, and median survival was 52 months. Univariate regression analysis showed that individuals younger than 40 years of age had higher mortality (HR 2.10, 95% CI 1.26-3.50, P = 0.004) But in the age group of 40-59 years, there was no significant difference (P = 0.178). In patients with liver cirrhosis, patients with Child pugh had stage B (HR 1.19, 95% CI 0.78-1.81, P = 0.397) and stage C (HR 1.27, 95% CI 0.65-2.48, P = 0.482).

Conclusion: Due to the high mortality risk and severity of the disease at an early age, it requires the diagnosis of liver cirrhosis, rapid follow-up of patients, further interventions and the development of a diagnostic surveillance system.
Send Date: 2024/09/17

Code: DA-24127
ICGH 2024-057
Category: 7.6 Cirrhosis and complications: clinical aspects

Enhancing the accuracy and effectiveness of diagnosis of spontaneous bacterial peritonitis in cirrhotic patients: a machine learning approach utilizing clinical and laboratory data

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Background: Spontaneous bacterial peritonitis (SBP) is a bacterial infection of ascitic fluid that develops naturally, without being triggered by any surgical conditions or procedures, and is a common complication of cirrhosis. With a potential mortality rate of 40%, accurate diagnosis and prompt initiation of appropriate antibiotic therapy are crucial for optimizing patient outcomes and preventing life-threatening complications. This study aimed to expand the use of computational models to improve the diagnostic accuracy of SBP in cirrhotic patients by incorporating a broader range of data, including clinical variables and laboratory values

Materials and Methods: We employed 5 machine learning classification methods - Decision Tree, Support Vector Machine, Naive Bayes, K-Nearest Neighbor, and Random Forest, utilizing a variety of demographic, clinical, and laboratory features and biomarkers.

Results: Ascitic fluid markers, including white blood cell (WBC) count, lactate dehydrogenase (LDH), total protein, and polymorphonuclear cells (PMN), significantly

differentiated between SBP and non-SBP patients. The Random Forest model demonstrated the highest overall accuracy at 86%, while the Naive Bayes model achieved the highest sensitivity at 72%. Utilizing 10 key features instead of the full feature set improved model performance, notably enhancing specificity and accuracy.

Conclusion: Our analysis highlights the potential of machine learning to enhance the accuracy of SBP diagnosis in cirrhotic patients. Integrating these models into clinical workflows could substantially improve patient outcomes. To achieve this, ongoing multidisciplinary research is crucial. Ensuring model interpretability, continuous monitoring, and rigorous validation will be essential for the successful implementation of real-time clinical decision support systems.

Send Date: 2024/10/21

Code: DA-24028
ICGH 2024-058
Category: 7.6 Cirrhosis and complications: clinical aspects
The effect of complications of cirrhosis on the decision for liver transplantation in Budd-Chiari syndrome

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Background: Budd-Chiari syndrome (BCS) is a rare and potentially dangerous hepatic vascular disease. There is little research on the effect of complications of cirrhosis on the decision for liver transplantation in BCS.

Materials and Methods: Patients information was extracted from the files of hospitals affiliated to Shiraz University of Medical Sciences. BCS was diagnosed using combination of doppler ultrasound, magnetic resonance imaging and/or venography. Complications of cirrhosis including spontaneous bacterial peritonitis (SBP), renal failure (RF), gastrointestinal bleeding (GIB), and encephalopathy were extracted from the data. Finally, the effect of these complications in patients who underwent liver transplantation was compared with the group without liver transplantation.

Results: 54 BCS patients were included. The mean (SD) age of the patients was 37.9 (13.4) years.
Overall, liver transplantation was performed in 11 (20.4%) patients. 13 (24.1%) patients had encephalopathy, of which

6 (54.5%) patients underwent liver transplantation. Liver transplantation in BCS patients with encephalopathy was significantly higher than in the non-encephalopathy group (P=0.008). Other complications such as SBP, RF and GIB did not have a significant effect on performing liver transplantation.

Conclusion: These results showed that in BCS patients, the presence of encephalopathy increased the probability of performing liver transplantation compared to other complications. More studies in this field are recommended.
Send Date: 2024/08/19

Code: DA-24100
ICGH 2024-059
Category: 7.6 Cirrhosis and complications: clinical aspects
Pain management in cirrhotic patients; a mini narrative literature review with evidence-based recommendations

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Cirrhosis is a significant public health concern, causing approximately 790,000 deaths annually. Despite the possibility of adverse effects from analgesics, which can be fatal and preventable, guidelines for their use in this setting do not exist, and there is a lack of research in this field. Thus, this review aims to summarize and analyze published data on different opioids in patients with liver cirrhosis to provide possible evidence-based guidelines for the safe use of opioids. Both compensated and decompensated patients should avoid NSAIDs. Because of the risk of hepatic encephalopathy, opioids must be avoided or used sparingly at low and infrequent doses. A long-term follow-up is required for toxicity, adverse effects, and complications of all pain relievers.
Send Date: 2024/10/06

Code: DA-24117
ICGH 2024-060
Category: ۷.۷ هپاتیت های وایرال: تظاهرات پایه
The detection of Adenovirus type 41 in children with acute hepatitis of unknown etiology: The first report from Southwest Iran

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Background: Efforts continue to determine the cause of the rising number of instances of acute hepatitis of unknown etiology in healthy children nationwide. Human adenoviruses (HAdV), namely HAdV F-41, are proposed as potential causes. This research examined the link between HAdV and acute hepatitis of unknown etiology in children in southwest Iran.

Materials and Methods: The study was conducted on children diagnosed with acute hepatitis of unknown etiology in the cities of Kerman and Yazd between February 20, 2023, and January 20, 2024. A standardized questionnaire was used to collect information on symptoms, and laboratory test results were also obtained. Blood and stool samples were obtained for viral detection using real-time PCR following DNA extraction.

Results: This investigation consisted of 20 children diagnosed with acute hepatitis of unknown etiology. The children had a median age of 6.8±5.7 years, ranging from 8 months to 16 years, and 14 of these patients were male. Among the clinical symptoms, fever, diarrhea, and jaundice were the most common symptoms among patients. Aspartate aminotransferase (AST) and alanine transaminase (ALT) testing revealed values above 500 IU/L in 70% of the individuals. The HAdV genome was found in the samples of 20% of the patients, with three of four HAdV-positive isolates confirming the presence of HAdV F-41. Finally, 17 patients were discharged, two had a liver transplant, and one patient passed away.

Conclusion: A potential link between HAdV F-41 and acute hepatitis of unknown etiology is indicated. The results necessitate a revision of protocols to reduce complications.

Send Date: 2024/10/12

Code: DA-24005

ICGH 2024-061

Category: ۷.۷ هپاتیت های وایرال: تظاهرات پایه

Epidemiology of viral hepatitis in southern Iran, a cross sectional register based study on 6,690 patients

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Background: Hepatitis, which means liver inflammation, has several causes, with viral hepatitis being the most common. This cross-sectional study aimed to compare demographic and lab variables, risk factors, and outcomes between hepatitis B (HBV) and hepatitis C (HCV) patients in the Fars hepatitis registry.

Materials and Methods: A total of 6,690 eligible patients, including 3,840 (57.4%) with HBV and 2,820 (42.6%) with HCV, were assessed from the database spanning 1995 to 2023. Comparisons between HBV and HCV were made using Chi-square test, Fisher's exact test, or independent sample t-test with SPSS software.

Results: The average age of the patients was 52.56 years (standard deviation: 13.24). Significant differences were found between HBV and HCV patients in terms of sex, marital status, education level, family history of HBV and HCV, smoking status, drug use, and body mass index. HBV patients had a higher prevalence of dental procedures and uncertain sexual contacts, while blood transfusion, tattoos, hemodialysis, intravenous drug use, and major thalassemia were more common in HCV patients. HCV patients showed higher levels of liver enzymes and total bilirubin but lower levels of albumin and prothrombin time compared to HBV patients. Cirrhosis was also more common in HCV patients.

Conclusion: Our findings suggest different patterns of demographic factors, risk factors, and outcomes between HBV and HCV patients, which could influence their prevention and management strategies.

Send Date: 2024/07/16

Code: DA-24080

ICGH 2024-062

Category: 7.8 Viral hepatitis B: clinical aspects

Impact of age on the prevalence of HBV markers among Azar Cohort population

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Background: Hepatitis B is an infectious disease caused by the hepatitis B virus (HBV) that affects the liver. The spectrum of clinical manifestations of hepatitis B virus (HBV) infection varies in both acute and chronic disease. During the chronic phase, manifestations range from an asymptomatic carrier state to chronic hepatitis, cirrhosis, and hepatocellular carcinoma. The aim of this study was to

determine the prevalence of HBV seropositivity among age groups in Azar Cohort population.

Materials and Methods: This was a population – based study, using random cluster sampling 4949 healthy subjects of both genders between 35-70 years of age were included during 2015-2016 in east Azerbaijan, Iran. Questionnaires including some demographic characteristics were administered to participants. Serum samples were tested for hepatitis B markers including HBsAg, and HBsAb by using the third generation of ELISA test. Data were analyzed with SPSS version 19.0

Results: The mean age of hepatitis positive patients was 50.06 ± 9.14 years. Of these participants, 54.3% (n= 2686) were females. Out of 51 HBsAg positive patients, 14 patients (27.45%) based on the evidence of laboratory had transaminitis and 37 patients (72.55%) were without transaminitis. The prevalence of HBsAg in age groups <40, 40-50, 50-60 and >60 were 0.86%, 0.98%, 1.2% and 1.03% respectively. The prevalence of HBsAb in age groups <40, 40-50, 50-60 and >60 were 13.3%, 16.3%, 18.2% and 21.4% respectively. In this study, we did not find any significant association between frequency of HBsAg and age. There was a significant association between frequency of HBsAb and age group (p<0.001).

Conclusion: According to our results, the prevalence of HBsAg in different age groups were lower than with the results reported from other studies. In addition, religious background, with a low social deprivation can affect the outcome of the study

Send Date: 2024/09/23

Code: DA-24108
ICGH 2024-063
Category: 7.9 Viral hepatitis C: clinical aspects

Predictors for Liver Cirrhosis in Patients with Hepatitis C Virus: A Cross-Sectional Study

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Background: Cirrhosis is one of the most critical health problems with a great economic burden on the health system. This study evaluated cirrhosis predictors in patients with hepatitis C virus (HCV).

Materials and Methods: A total of 608 patients with HCV were included in the present study within 2011 and 2017 and divided into two groups based on the presence and absence of cirrhosis. Demographic and laboratory data (e.g., blood group, aspartate transaminase (AST), alanine transaminase (ALT), prothrombin time (PT), platelet count, anti-HCV antibodies, and virus level count) were collected by referring to patients' files and compared between the two groups. Predictive factors were determined using the regression model.

Results: In this study, 85 patients (13.9%) had liver cirrhosis. Univariate analysis showed that hepatic enzymes AST, ALT, platelet count, PT, partial thromboplastin time, international normalized ratio, and HCV ribonucleic acid levels in cirrhosis patients were significantly higher than in non-cirrhosis patients (P < 0.05). Adjusted logistic regression analysis showed age < 45 years (adjusted odds ratio (ORAdj): 1.11, P = 0.028), male gender (ORAdj: 2.08, P = 0.023), co-infection with hepatitis B virus (HBV) infection (ORAdj: 2.58, P = 0.001), and alcohol consumption (ORAdj: 1.87, P = 0.001) were predictive factors for cirrhosis in patients with HCV

Conclusion: This study showed that in patients with hepatitis C, age > 45 years, male gender, alcohol consumption, and co-infection with HBV significantly increased the risk of liver cirrhosis.

Send Date: 2024/10/10

Code: DA-24052
ICGH 2024-064
Category: 7.13 Miscellaneous

New guidelines on incidental liver lesions

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Abdominal imaging may often detect incidental liver lesions in asymptomatic individuals. The guidance includes assessing the patient's risk for liver malignancy and performing multiphasic, contrast-enhanced, cross-sectional imaging in patients with risk factors or when initial imaging does not determine the lesion's etiology. If advanced imaging does not establish a diagnosis, subsequent evaluation is informed by the suspected diagnosis and includes imaging surveillance or histologic evaluation. Our approach is generally consistent with this guidance.

Send Date: 2024/09/13

Code: DA-24111
ICGH 2024-065
Category: 9.3 Pancreatitis - acute

Hypertriglyceridemia-induced acute pancreatitis as the first presentation of acromegaly and a large pituitary mass: A Case Report

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Acromegaly is a rare hormonal disorder caused by the excessive secretion of growth hormone (GH) and insulin-like growth factor 1 (IGF-1), typically due to a benign pituitary tumor called a somatotroph adenoma. This hormonal imbalance results in abnormal bone and tissue growth, leading to distinctive physical changes such as enlarged hands, feet, and facial features, as well as various metabolic complications that can impact overall health. In individuals with acromegaly, hypertriglyceridemia is the most common form of dyslipidemia, significantly raising the risk of acute pancreatitis, a potentially life-threatening condition marked by pancreatic inflammation and elevated blood enzyme levels. This report presents a 47-year-old Iranian woman presenting with nausea, vomiting, and abdominal pain in the epigastric region, which was diagnosed with hypertriglyceridemia-induced acute pancreatitis according to the laboratory studies and imaging, and appropriate treatment was started. In the initial physical examination, the patient exhibited features of acromegaly, including a broad nose, enlarged jaw, enlarged hands and feet, and thickened skin. Additionally, the patient reported experiencing symptoms of hyperglycemia, including polydipsia and polyuria, for the past year, which had not been previously evaluated. Further investigation revealed the presence of diabetes mellitus. After recovering from acute pancreatitis, the patient underwent IGF-1 measurement due to clinical features of acromegaly and metabolic complications, which revealed elevated levels and confirmed the diagnosis. Meanwhile, the patient reported experiencing a severe headache and diplopia, prompting her to undergo a brain MRI that identified a large pituitary mass. Therefore, the patient was referred to the neurosurgery department for surgical intervention.

In conclusion, in patients with hypertriglyceridemia-induced acute pancreatitis, it is essential to assess for signs of acromegaly, as this may be the initial presentation of the condition.

Send Date: 2024/10/11

Code: DA-24044
ICGH 2024-066
Category: 9.5 Malignant disease and endocrine tumors of the pancreas

Mahvash Disease

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Mahvash disease is an autosomal recessive condition that has been described fewer than a dozen times in the literature. Although reported cases are scarce, the prevalence of Mahvash disease, as estimated on the basis of genomic studies, is as high as four cases per million persons.7 Among the known cases, a number of overlapping features have been reported, including abdominal pain, hyperglucagonemia without glucagonoma syndrome, pancreaticomegaly due to α-cell hyperplasia, hyperaminoacidemia, and the development of pancreatic neuroendocrine tumors

Send Date: 2024/09/04

Code: DA-24054
ICGH 2024-067
Category: ۱۰ تغذیه

The Efficacy of DASH Combined with Time-Restricted Feeding (16/8) on Metabolic Associated Fatty Liver Disease Management: A randomized controlled trial

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Background: Recent studies have utilized time-restricted feeding (16/8) (TRF) and dietary approaches to stop hypertension separately to manage metabolic associated fatty liver disease (MAFLD); however, the effectiveness of combining these two approaches has not been investigated. The objective of this study was to examine the impact of TRF in conjunction with a DASH diet on various factors related to MAFLD

Materials and Methods: A 12-week randomized controlled trial was conducted to assess the impact of TRF (16/8), along with a DASH diet, compared with a control diet based on standard meal distribution, in patients with MAFLD. An investigation was conducted to examine alterations in anthropometric indices, as well as liver parameters, serum metabolic indices, and an inflammatory marker.

Results: The TRF plus DASH diet reduced body mass index (p=0.03), abdominal circumference (p=0.005), hepatic fibrosis scores (p=0.005), controlled attenuation parameter

(CAP) (p=0.015), and alanine aminotransferase (p=0.012), significantly more than the control diet. Although gamma-glutamyl transferase, aspartate aminotransferase, triglycerides, insulin, and homeostasis model assessment of insulin resistance reduced in both groups significantly (P< 0.05), the difference between groups was not significant. In MAFLD patients

Conclusion: In MAFLD patients, TRF (16/8) combination with a DASH diet is superior to a low calorie diet in promoting obesity indices, and hepatic steatosis and fibrosis. Further long-term investigations are needed to draw definitive conclusions.

Send Date: 2024/09/15

Code: DA-24085
ICGH 2024-069
Category: 10.2 Nutrients and gut function

Effects of low FODMAPs diet on the symptoms management of patients with irritable bowel syndrome: An umbrella systematic review with meta-analysis of clinical trials

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Low FODMAPs diet (LFD) is a common restrictive diet to manage irritable bowel syndrome (IBS) symptoms. However, there is no consensus on alleviating the effects of this diet. The umbrella systematic review with meta-analysis was conducted to investigate the effect of LFD on IBS symptoms and secondary outcomes of patients, which was not reported in the previous meta-analyses. We performed a systematic literature search in PubMed, Scopus, and ISI Web of Science up to December 2023. The methodological quality of the systematic reviews and their included trials was evaluated by AMSTAR2 and the Cochrane risk-of-bias, respectively. Rating the certainty of evidence tool was carried out by the GRADE approach. The data about IBS symptoms, quality of life (QoL), microbiome diversity, and stool short-chain fatty acids were extracted. A random-effects (if RCTs ≥ 6) or a fixed-effects model (if RCTs < 5) was used to recalculate the effect sizes and 95%CIs and report in both qualitative and quantitative terms (pooled risk ratio, Hedges' g, and weighted mean difference). A total of 658 articles were initially identified, 11 meta-analyses and 24 RCTs reporting 28 outcomes with 1646 participants included. The LFD can significantly affect the clinical improvement of total symptoms, according to the IBS-SSS questionnaire (RR: 1.42, 95% CI: 1.02, 1.97, P= 0.04) in all subtypes of IBS, and also, were favorable effects on stool consistency (WMD: -0.48, 95% CI: -0.902, -0.07) and frequency (WMD: -0.36, 95% CI: -0.61, -0.10), and some other GI symptoms in both less and more than 4 weeks of diet intervention except stool consistency which needs more than 4 weeks of LFD implementation. A significant QoL improvement was observed, but not in the anxiety and depression state. Also, some studies showed that LFD might have increased the fecal pH and dysbiosis and reduced SCFA and the abundance of Bifidobacterium. In conclusion, LFD can alleviate symptoms and QoL in IBS patients, although dysbiosis may occur. Considering the low certainty of evidence, strong RCTs with more appropriate designs are needed.

Send Date: 2024/10/02

Code: DA-24065
ICGH 2024-070
Category: ۷. ۱۰ ایمونولوژی

Baseline assessment of liver Fibrosis by Transient Elastography in AIH in Mashhad

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Background: Autoimmune hepatitis (AIH) is a lifelong disease, and progressive immune-mediated liver disease that can progress to cirrhosis, and liver transplantation, which requires continuous treatment and care in most patients. Evaluation of liver fibrosis at baseline and monitoring of the disease progression under treatment would greatly improve patient care.

Materials and Methods: AIH was diagnosed on clinical, biochemical, serological and histopathological findings and conformed to the recent European Association for the Study of the Liver (EASL) guideline.
All patients underwent a liver biopsy and chronic viral hepatitis B and C had been excluded by serological testing

in all patients. Exclusion criteria were drug-induced liver disease, alcoholic or non-alcoholic fatty liver disease, metabolic liver disease, hepatobiliary parasitic infection and decompensated liver disease (characterized by ascites, hepatic encephalopathy, gastrointestinal bleeding, and/or hepatocellular carcinoma). Drug- and alcohol-induced hepatitis had been excluded by medical history and histological examination. The study was approved by the Ethics Committee of Mashad University of Medical Sciences. Fibroscan was done after 6 months of diagnosis and treatment to reduce pseudo fibrosis.

Results: Patient characteristics: 71 patients with autoimmune hepatic disorder were included. Of those, 49 subjects had pure AIH and 22 had overlap of AIH with primary biliary cirrhosis (PBC) or primary sclerosing cholangitis (PSC). The mean age of patients was 43. and 56 individuals (79%) were female. The mean BMI was 25.9 and mean steatosis was 27.87%.

Evaluation by fibroscan of patients at baseline revealed that 20 (28.2%) had F4 and 19 (26.8%) had F2 and only 15.5% of patients had F0-F1. The mean of LSM was 11.8 kpa and median was 16.84 KPS with standard deviation of 3.14.

Conclusion: As indicated by our results, 28.2% of the patients had severe fibrosis at baseline. Baseline characteristic and LS of patients with AIH which id detected by fibroscan can help to predict their outcome and find out how rigorously should observe under treatment.

Send Date: 2024/09/17

Code: DA-24011

ICGH 2024-071

<div dir="rtl">Category: ۱۰.۷ نارسایی حاد کبدی/جراحی پیوند</div>

The impact investigation of pp150 of Cytomegalovirus on performance and maturity mouse dendritic cells as vaccine or immunotherapy candidates for liver transplant patients

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Background: Tegument protein pp150 of Cytomegalovirus (CMVs) plays, a vital role such as important regulatory function, in life cycle of CMVs. However, the clear role of pp150 in immune regulation is vague.

Objectives: To assess the effect of CMV pp150 on the maturity and function of dendritic cells In order to design a vaccine or immunotherapy for liver transplant patients.

Materials and Methods: The maturation and function features of pp150-treated DCs were characterized. Finally, we evaluated ROR-γ, GATA3, T-bet, and FOXP3 gene expression levels in T cells co-cultured with DCs using Real time-PCR and also IFN-γ (Th1), IL-4 (Th2), IL-35 (Treg), IL-17A (Th17), IL-22, TNF-α, IL-2 and IL-6 levels by ELISA and flow cytometry.

Results: The phagocytosis rate was lower in the group stimulated with pp150 than the non-stimulated-DCs group. A significant increase in CD40, CD86 and CCR7 in DCs, and also raised ROR-γ expression levels in T cells co-cultured with DCs was found in the stimulated group as compared with non-stimulated group. Of note, the cytokine levels of IL-2, IL-6, IL-17A, IL-22, and TNF-α in T cells demonstrated a significant increase in the stimulated group as compared with the non-stimulated group.

Conclusion: Pp150 treatment leads to DC maturation as a critical role in immune induction. In addition, Th17 cells and its mediators, IL-17A and IL-22, are involved as the inflammatory immune cell in pp150-treated-DCs, Therefore, the recombinant pp150 protein can be used as a vaccine or immunotherapy candidate for liver transplant patients.

Send Date: 2024/08/10

Code: DA-24057

ICGH 2024-072

Category: 12.2 Small bowel / colorectal and anal

Mutational signatures in colorectal cancer from 11 countries reveal new insights in early-onset colorectal cancer

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Background: Colorectal cancers (CRC) have an important

impact on both incidence and mortality worldwide, with varying rates in different parts of the world. Despite an overall decrease in incidence in the past years, an alarming increase in early onset colorectal cancer (CRC in patients under 50 years of age) rates has been observed. As part of the Cancer Research UK Grand Challenge Mutographs project, we aim to better understand the underlying mutagenic causes contributing to the differences in CRC incidence rates through mutational signatures.

Materials and Methods: We collected epidemiological data and performed whole genome sequencing and mutational signature analysis on 981 CRC tumor samples from 11 countries with varying incidence rates, including intermediate incidence regions (Iran, Colombia, Thailand, and Brazil) and higher incidence regions (Argentina, Russia, Canada, Poland, Czechia, Serbia, and Japan).

Results: The average mutational profiles were similar across the countries. Mutational signatures associated with DNA repair deficiencies, including POLE and POLD1 associated signatures (SBS10a/b/c/d and SBS28), MUTYH (SBS36), NTHL1 (SBS30), homologous recombination deficiency (SBS3), and a plethora of microsatellite instability (MSI) signatures, were found in 177 cancers (18% of all samples) and at comparable levels across all countries. Multiple signatures with known etiologies were found in 802 DNA repair proficient colorectal cancers including clock-like (SBS1 and SBS5), reactive oxygen species (SBS18), APOBEC (SBS2 and SBS13), and the microbiome-product colibactin (SBS88) signatures. The colibactin signature SBS88 was observed in 14% of samples overall, being more prevalent in distal and rectum tumors. SBS88 was significantly enriched in younger patients (33% <40y, 23% 40-49y, 20% 50-59y,10% 60-69y, 10% ≥70y; p-value = 0.0001). Tumors from early onset patients also showed higher prevalence of another mutational signature with unknown etiology (19% <40y, 16% 40-49y, 13% 50-59y, 6% 60-69y, 7% ≥70y, p-value = 0.005).

Conclusion: These results indicate a potential association between SBS88 with early onset CRC,suggesting that the recent increase in incidence may be at least partially explained by the genotoxic compound colibactin, and associated bacteria.

Send Date: 2024/09/16

Code: DA-24094
ICGH 2024-073

The value of color Doppler ultrasound for predicting persistent splenomegaly and thrombocytopenia after liver transplantation

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Background: Persistent splenomegaly and thrombocytopenia (PST) frequently occur after liver transplantation (LT), which could enhance the risk of complications of transplantation. We aimed to investigate the predictive factors for PST after LT.

Materials and Methods: Patients > 18 years who had undergone LT between 2016 and 2021 and had persistent splenomegaly and thrombocytopenia (PST), were considered for inclusion. A matched group without PST was selected as the control group. Patients' data were collected from our hospital documents. Gray-scale and color Doppler ultrasonography were performed for all the included patients in order to measure various parameters of the spleen and portal vein (PV)

Results: Seventy-eight patients were included in our study (mean age: 51.72 ± 14.5 years, F/M: 26/52).There was a significant difference in the pre-LT platelet ($p < 0.001$) and white blood cell ($p = 0.006$) counts, spleen length ($p < 0.001$) and creatinine level ($p = 0.04$) between the two groups. Anastomotic ratio (the portal vein diameter at anastomose site to preanastomose site) was significantly lower in the case group compared to the control group ($p < 0.001$). Spleen size and platelet count at the last measurement were significantly correlated with PV maximum velocity, pre-anastomotic site PV diameter, and anastomotic ratio. A significant correlation was also found between the platelet count and the post-anastomotic site PV diameter.

Multivariate logistic regression analysis revealed pre-LT spleen length and anastomotic ratio to be independent risk factors for PST. A pre-LT spleen length of 159 mm had a sensitivity of 82% and a specificity of 87.2% while an anastomotic ratio of 0.81 had a sensitivity of 82.4% and a specificity of 61.5%, for predicting PST. Pre-LT spleen length and PV anastomotic ratio are independent risk factors for PST and the former has high sensitivity and specificity.

Conclusion: Pre liver transplant spleen length and PV anastomotic ratio are independent risk factors for prediction PST and the anastomotic ratio has higher sensitivity and

specificity
Send Date: 2024/10/06

Code: DA-24019
ICGH 2024-074
Category: 13.2 Molecular biology/genetics/pathology

Impacts of targeted nanostructures on Nrf2/Kaep1 signaling pathway in colorectal cancer

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Background: Impacts of targeted nanostructures on Nrf2/Kaep1 signaling pathway in colorectal cancer.

Materials and Methods: The nuclear factor erythroid 2-related factor 2 (Nrf2)/Kelch-like ECH-related protein 1 (KEAP1) pathway is well known to protect cells from oxidative stress and inflammation. The current study introduced an effective nanomedicine composed of PEGylated gold nanoparticles (GNP -PEG) conjugated with cetuximab (Cet) that can induce ROSs mediating apoptosis pathways for CRC treatment.

Results: The GNPs are synthesized, stabilized by polyethylene glycol (PEG), functionalized, and covalently conjugated with Cet. The physicochemical properties of engineered nanomedicine (GNP-PEG-Cet) were characterized by UV-vis spectrum. Then, the impact of GNP-PEG-Cet on cell viability, ROS production, and oxidative stress gene expression (Kaep1- Nerf2) were evaluated in the CRC cell line.

Conclusion: The engineered nanomedicine effectively induced apoptosis in SW-480 cells and significantly reduced cancer cell viability. In addition, the maximum production of ROS was obtained after the treatment of cells with an IC50 dose of GNP-PEG-Cet. Based on real-time PCR data, in the treated SW-480 cells with the GNP-PEG-Cet, the expression level of Keap1 was significantly increased, while the expression of Nerf 2, were found to be significantly decreased as compared to the untreated control cells.

Send Date: 2024/08/17

Code: DA-24018
ICGH 2024-075
Category: 13.2 Molecular biology/genetics/pathology

Evaluation of supermagnetic nanoparticles conjugated cetuximab effects on ERK1/2 genes expression in KRAS mutant colorectal cancer cell

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Background: ERK1/ERK2 gene expression is often dysregulated in colorectal cancers (CRC), playing a critical role in its pathogenesis. This highlights this signaling pathway as a promising target for developing less toxic anticancer therapies. Advances in nanotechnology have enabled the creation of nanoscale devices functionalized with molecules like antibodies and enzymes. Given the overexpression of molecular markers such as EGFR in cancer cells, these can be exploited for targeted drug delivery. This study presents a novel CRC therapy using PEGylated superparamagnetic iron oxide nanoparticles (SPIONs) conjugated with Panitumumab, an FDA-approved anti-EGFR antibody, offering a targeted approach to treating metastatic CRC.

Materials and Methods: The SPIONs were synthesized and conjugated with Cet. The physicochemical properties of the engineered nano-biosystem (SPION-PEG-Cet) were characterized by UV-Vis spectrum, DLS, scanning electron microscope (SEM). The Anti-EGFR activity of the SPION-PEG-Cet was confirmed by western blotting. Then, its biological impacts, including cell viability and apoptosis (DAPI, Annexin-V), were evaluated in the colorectal cancer SW-480 cells. The apoptosis-related genes ERK1/2 expression were analyzed using real-time PCR.

Results: The SEM results showed that the size of SPION-PEG-Cet was about 50 nm. The SPION-PEG-Cet nano-biosystem induced cytotoxicity and apoptosis in SW-480 cells. The maximum inducing apoptosis in SW-480 cells was obtained after treating cells with an IC50 dose of SPION-PEG-Cet. Besides, SPION-PEG-Cet was able to upregulate ERK1 and ERK2, indicating their key influence in the induction of apoptosis and overcoming resistance to Cet in KRAs mutant SW-480 cancer cells.

Conclusion: Our findings revealed that the engineered nano-biosystem could inhibit cell proliferation and induce apoptosis in CRC cells resistant to anti-EGFR monoclonal antibodies. Thus, the SPION-PEG-Cet nano-biosystem can be considered a novel treatment modality for CRC and other solid tumors.

Send Date: 2024/08/17

Code: DA-24122

ICGH 2024-076

Category: موارد سایر ۱۳.۷

Effect of geraniol on cyclooxygenase-2 and inducible nitric oxide synthase levels in a rat hepatic ischemia/ reperfusion model

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Background: We aimed to determine whether geraniol (GNL) treatment prevents induced ischemia/reperfusion (I/R) injury in rat hepatic by detecting cyclooxygenase-2 (COX-2) and inducible nitric oxide synthase (iNOS) levels by real-time PCR (RT-PCR).

Materials and Methods: The experimental groups each consisted of 7rats and were treated as follows: group 1, sham; group 2, 3, HIRI (1h ischemia, 1h and 6h reperfusion); group 4, 5, HIRI+GNL (50 and 100 mg/kg) (1h ischemia, 1h reperfusion); group 6, 7, HIRI+GNL (50 and 100 mg/kg) (1h ischemia, 6h reperfusion). Immediately before reperfusion, treatment with graded doses of 50 and 100 mg/kg of GNL as intraperitoneally was performed. Serum levels liver enzymes were determined to evaluate liver function. iNOS, and COX-2 mRNA levels were detected using RT-PCR.

Results: Treatment with GNL decreased levels of serum aminotransferase against hepatic I/R injury. In the HIRI group, the COX-2 and iNOS levels in the hepatic tissue were higher compared with the sham group (P<0.05). The COX-2, and iNOS levels in the GNL -treated group were statistically lower compared with the HIRI group (P<0.001). Vascularization, and necrosis were markedly increased in the HIRI group.

Conclusion: Regarding its anti-inflammatory properties, GNL demonstrates potential as a hepatoprotective agent in HIRI by stimulating the anti-inflammatory COX-2 pathway. The administration of GNL, at doses of 50 and 100 mg/kg, resulted in the amelioration of HIRI-induced abnormalities in hepatic histology. We propose that GNL may be clinically utilized to treat HIR injury owing to its diminishing effects on COX-2 and iNOS levels.

Send Date: 2024/10/13

Code: DA-24009

ICGH 2024-077

Category: 14.1 Malignant disease - epidemiology - screening and prevention

The Role of Gut Microbiota in Gastrointestinal Tract Cancers

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Disturbances in gastrointestinal (GI) microbiota could play a significant role in the development of GI cancers, but the underlying mechanisms remain largely unclear. While some bacteria seem to facilitate carcinogenesis, others appear to be protective. So far only one bacterium (Helicobacter pylori) has been classified by the International Agency for Cancer Research as carcinogenic in humans but many other are the subject of intense research. Most studies on the role of microbiota in GI tract oncogenesis focus on pancreatic and colorectal cancers with the following three species: Helicobacter pylori, Escherichia coli, and Porphyromonas gingivalis as likely causative factors. This review summarizes the role of bacteria in GI tract oncogenesis.

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Code: DA-24109

ICGH 2024-078

Category: 14.2 Diagnosis of malignant disease

Tracing Epstein-Barr Virus in Gastric Cancer: A Dual Analysis of Tissue and Blood

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Background: Epstein-Barr virus-associated gastric carcinoma (EBVaGC) is a unique subtype of gastric carcinoma (GC) that accounts for roughly 9% of all cases globally. This research aimed to compare EBV prevalence in tissue and blood samples from GC-confirmed individuals to a control group.

Materials and Methods: The research comprised 50 GC patients and matched non-GC controls. Blood and tissue biopsy samples were taken and sent to the lab. Real-time PCR was used to identify EBV DNA, and other data was gathered, including demographic and lifestyle factors for

both groups and information on the type, grade, stage, and metastasis in the case group. The data were statistically examined using the proper tools and tests.

Results: EBV was found in 14% of GC patients and 4% of controls. Two of the seven EBV-positive GC patients had the virus found only in their blood samples. Analysis of demographics and lifestyle factors found no significant differences between EBV-positive and EBV-negative groups; however, EBVaGC was more prevalent in males over 50 with lower educational attainment. All EBVaGC patients had adenocarcinomas, with a greater incidence of early-stage (p = 0.015) and lower-grade tumors (P<0.0001) than EBV-negative GC.

Conclusion: While the data indicate a distinct clinical picture for EBVaGC, further research with larger cohorts and EBV load tests is required to understand EBV's function in GC and the implication of new methods, including blood samples for early diagnosis and treatment approaches.

Send Date: 2024/10/10

Code: DA-24031
ICGH 2024-079
Category: خونریزی های دستگاه گوارش۱۸

Investigating the relationship between demographic, clinical, laboratory variables and upper endoscopy findings on clinical outcomes including mortality, rebleeding, and the need for surgery in patients with acute upper gastrointestinal bleeding caused by esophageal varices

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Introduction: Acute upper gastrointestinal bleeding is one of the main causes of hospitalization, which originates from variceal and non-variceal causes. Every year 5-15% of cirrhotic patients suffer from esophageal varices. One third of patients with esophageal varices will suffer from bleeding. Bleeding caused by esophageal varices is the cause of 50-90% of cases of upper gastrointestinal bleeding in cirrhotic patients. Each episode of variceal bleeding has a 30% mortality rate. The aim of this study is to investigate the predictive value of demographic, clinical, laboratory and upper GI endoscopy findings on clinical outcome in patients with variceal bleeding.

Materials and Methods: All patients with acute upper gastrointestinal bleeding due to esophageal varices who underwent upper endoscopy at the Velayat Hospital, Qazvin during a period of three years were included in the study. The data of the included patients was based on demographic information (age, gender), past medical history (type of underlying disease, drugs taken), clinical symptoms, physical examinations (unstable hemodynamic status at the time of admission), laboratory information (CBC, BUN, INR, Bilirubin, Albumin at the beginning of admission), initial upper endoscopy findings (band ligation) and clinical outcome of patients (rebleeding , need for surgical treatment and mortality in a 30-day period of follow).

Results: The number of the patients included in the study was 374, of which 255 (68.2%) were men and 119 (31.8%) were women. The age range of patients is from 14-94 years with an average of 58.3 years and a standard deviation of 17.7 years.

The largest number of patients were in the age range of 41-65 years. The mortality rate in the patients of this center is lower compared to the literature. Rebleeding was the most common of the three clinical outcomes. In the regression analysis, there was a significant relationship between patient age, albumin, diabetes, ESRD, chronic lung disease, use of anticoagulant medication and MELD score with mortality, especially in the case of albumin with a coefficient of 4.9 and ESRD with a coefficient of 10.6. In the regression analysis, there was a significant relationship between age, Hb on arrival, shock, orthostatic hypotension with rebleeding. Also there was a significant relationship between the use of anticoagulants and the need for surgery. In the regression analysis, there was also a significant relationship between ESRD, chronic lung disease, anticoagulant drug, age, hemoglobin and shock with End point (rebleeding , need for surgical treatment and mortality in a 30-day period of follow).

Conclusion: The increase in the rate of adverse outcomes, death and the need for surgery with the use of anticoagulants indicates that regarding to the increased risk of thrombotic events in cirrhotic patients, appropriate and accurate use of anticoagulants seems absolutely necessary; And on the other hand, it reminds us of the importance of follow-up endoscopy, especially in patients taking anticoagulant drugs. Also due to the relationship between albumin and MELD score with mortality, it raises special attention to calculate MELD score and check albumin to prepare us for more patient care.

Send Date: 2024/08/21

Code: DA-24110
ICGH 2024-080
Category: ۱۹ بیماری های عروقی

Osler weber syndrome with obscure gastrointestinal bleeding : A case report

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بیماری اوســلر وبررندو یک بیماری ژنتیکی نادر با ناهنجاری های عروقی نقاط مختلف بدن است که با علائم خونریزی از قسمت های مختلف بدن تظاهر می یابد. بیمار خانم ۶۲ ســاله ای با سابقه ی مشکلات قلبی، فشار خون ، نارسایی قلبی، آریتمـی قلبی و بیماری آسـماتیک که تحت درمان بـا داروی ضدانعقاد خون وارفاریــن بود، و به دلیل دفع مدفوع ملنایی طی مراجعات متعدد تحت ۲ نوبت آندوسکوپی و کولونوسکوپی با تکرار توسط همکاران متخصص گوارش قرار گرفته بود که شـواهدی به نفع منشـا خونریزی واضح وجود نداشت. بیمار با توجه به شرح حال کامل و معاینات بالینی و تشدید علائم تنفسی و درد شکم با تشخیص خونریزی مخفی با منشاء نامشخص گوارشی ارجاع و بستری گردید. پس از انجام ســی تی اسکن قفسه سینه و شکم شواهدی به نفع مالفورماسیون های عروقی و ریوی و کبدی منتشر به دست آمد که با توجه به شرح حال های بیمار و سابقه ی اپیستاکسی و درگیری عروقی در یافته های تصویربرداری تشخیص اوسلر وبررندو داده شد و به بیمارتوصیه گردید که در صورت عود خونریزی مجددا مراجعه نماید. علـی رغـم نادر بـودن بیمـاری اوسـلر وبررنـدو ، در بیمارانی کـه با علائم خونریزی گوارشـی با منشـا نامشخص جهت بررسـی بیشـتر ارجاع میشوند به نظر می رسـد اخذ شـرح حال کامل و معاینات بالینی در کمک به تشـخیص بیمـاری بـا توجه بـه سـندرمیک بودن علائـم بیمـار حائز اهمیت باشـد.

تاریخ ارسال : ۲۰۲۴/۱۰/۱۱

Code: DA-24101
ICGH 2024-081
Category: 19.1 Endoscopy - Upper GI

Endoscopic classifications in the upper gastrointestinal tract and their clinical relevance

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Gastrointestinal (GI) endoscopy is a critical tool in diagnosing and managing various digestive diseases, and the implementation of standardized classification systems has significantly enhanced its effectiveness. These classifications, such as the Los Angeles Classification for reflux esophagitis and the Spigelman Classification for duodenal adenomas, provide a structured approach to evaluating and managing GI conditions. They ensure consistency in diagnosis, guide therapeutic interventions and improve communication among healthcare providers. Moreover, systems like the AGREE Classification for adverse events underscore the growing emphasis on patient safety in endoscopic procedures.

Endoscopic technology advancements, including high-definition and narrow-band imaging (NBI), have driven the evolution of these classifications, enabling more detailed assessments of the GI tract. As technology continues to advance, the integration of artificial intelligence (AI) into these systems holds promise for further enhancing their accuracy and usability, potentially automating lesion grading and improving real-time decision-making during procedures.

Despite their many benefits, the application of these classifications in everyday clinical practice presents challenges, particularly due to their complexity and the need for continuous education. However, as these systems become increasingly integral to gastroenterology, ongoing adaptation, and education will be essential to maximizing their utility and ensuring they remain practical tools for clinicians. The future of GI endoscopy lies in the continued evolution and refinement of these classification systems, supported by technological advancements and a commitment to improving patient care.

Send Date: 2024/10/06

Code: DA-24010
ICGH 2024-082
Category: 19.3 Endoscopy - ERCP

Investigating the association of periampullary diverticulum and ERCP outcomes: a single-center experience

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Background: The presence of periampullary diverticulum (PAD) is common in endoscopic retrograde cholangiopancreatography (ERCP) and has been linked to the development of stones in the bile duct. Nevertheless, the impact of PAD on the ERCP procedure has been a topic of debate. This study aimed to evaluate the relationship between PAD and the outcomes of ERCP.

Materials and Methods: This study is a retrospective analysis of a prospective ERCP registry, on patients referred for first-time ERCP from January 2022 to June 2024 to the ERCP unit of Taleghani Hospital, Tehran. Patients with age<18, surgically altered upper gastrointestinal anatomy, ampullary tumor, and chronic pancreatitis were excluded.

Results: Of the 1079 patients identified, 180 (16.7%) had

PAD. The mean age of patients with PAD was significantly higher than those without PAD (70 vs 55, p<0.001). Although choledocholithiasis was more common in PAD group (96% vs 79%, p<0.001), but successful stone extraction was similar between the groups (77% vs 71%, p=0.12). Compared to the non-PAD group, difficult cannulation (51% vs 42%), cannulation attempts (3.8 vs 3.4), and cannulation time (288 vs 260 seconds) were significantly higher in PAD group. However, there were no significant differences in successful biliary cannulation (97.2% vs 98.7%), post-ERCP pancreatitis (5.6% vs 5.3%), and total rate of adverse events between the groups (6.7% vs 8.5%).

Conclusion: The presence of PAD may not impede the success of ERCP. Although it was associated with prolonged cannulation time and an increase in difficulty of the cannulation, but it had no effect on the cannulation success and post-ERCP adverse events.

Send Date: 2024/07/21

گزارش بیست و چهارمین کنگره گوارش و کبد ایران

مقاله توسط کمیته داوران بر اساس محتوای کار پژوهشی به ۳ مقاله برتر لوح تقدیر و جایزه نقدی از طرف انجمن متخصصین گوارش و کبد ایران تقدیم گردید.

همچنین بیست و چهارمین کنگره بیماریهای گوارش و کبد ایران از حمایت شرکت های دارویی و تجهیزات پزشکی برخوردار بود.

در آخر لازم است از شکرت کنندگان، سخنرانان و عوامل اجرایی که در این تجربه گران بها نقش داشتند تشکر و قدردانی می گردد.

با آرزوی توفیق

بیست و چهارمین کنگره گوارش و کبد ایران از روز سه شنبه ۱۳ لغایت ۶ آذرماه ۱۴۰۳ (۳-۶ دسامبر ۲۰۲۴) به صورت حضوری در سالن همایش های بین المللی رازی تهران برگزار گردید.

افتتاحیه کنگره در روز چهارشنبه ۱۴ آذر ماه ۱۴۰۳ همراه با مراسم تجلیل و قدردانی از پزشکان برتر رشته گوارش در سال ۱۴۰۲ آغاز شد و پزشکان برتر سال به شرح ذیل معرفی گردیدند.

در زمینه تحقیق و پژوهش جناب آقای دکتر شهرام آگاه

در زمینه خدمت به بیمار جناب آقای دکترفرشاد شیخ اسماعیلی

در زمینه آموزش جناب آقای دکتر افشین شفق

همچنین از تعداد ۱۲۵ مقالات ارسالی به دبیرخانه کنگره، تعداد ۸۲

رتبه مقاله	عنوان ارائه
اول	**"Composition of Immune Cells in Patients with Crohn's Associated Perianal Fistula Compare to Cryptoglandular Fistula without Crohn's disease; Imam Khomeini Hospital complex"** Foroogh Alborzi, Mohsen Ahmadi Tafti, Najmeh Aletaha, Naser Ebrahimi Daryani, Seyed saeed Mirmousavi, ReyhanehJafarshad
دوم	**"Role of oral yeast in replenishing gastric mucosa with yeast and H. pylori"** Ali-Hatef Salmanian, Abdolfattah Sarrafnejad, David YGraham, Atousa Hatefi, Elham Godini, Saman Khalili-Samani, Sara Kadkhodaei, Shahrzad Pedramnia, Farideh Siavoshi, Masood Sotoudeh, Reza Malekzadeh
سوم	**"Diversity of genetic factors influencing biofilm formation in Helicobacter pylori strains from the Iranian population"** Danial Ghofrani, Foroozan Jalali Bidgoli, Parastoo Saniee, Zahra Norouzian, Mohammadreza Najafi-disfani