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*In The name of God*

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پلاتینیوم



طلایی



نقره ای



برنز



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Code: DA-23008
ICGH 2023-001
Category: 7.2 Nutrition - metabolism - pharmacology

## Influence of Garlic on the Glycemic Control and Lipid Profile in Animals with Nonalcoholic Fatty Liver Disease: A Systematic Review and Meta-analysis

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Nonalcoholic fatty liver disease is the hepatic sign of metabolic syndrome. Here, we aimed to assess the effects of garlic and its major components on fasting plasma glucose, fasting insulin, and lipid profile levels in animal models of nonalcoholic fatty liver disease. A systematic search in PubMed, Scopus, ProQuest, and Web of Science was performed. After the screening process and data extraction, the pooled effect sizes were estimated using a random-effect model and stated as standardized mean differences and a 95% confidence interval. Out of 839 reports, 22 articles were included in the present study. The pooled results revealed that garlic and its components significantly decreased fasting plasma glucose (standardized mean difference: $-0.77$, 95% confidence interval: $-1.42$ to $-0.12$, $I2 : 58.85\%$), fasting insulin (standardized mean difference: $-1.88$, 95% confidence interval: $-3.07$ to $-0.69$, $I2 : 70.42\%$), serum triglyceride (standardized mean difference: $-1.01$, 95% confidence interval: $-1.43$ to $-0.59$, $I2 : 61.41\%$), cholesterol (standardized mean difference: $-1.00$, 95% confidence interval: $-1.39$ to $-0.60$, $I2 : 52.12\%$), and low-density lipoprotein cholesterol (standardized mean difference: $-0.98$, 95% CI: $-1.63$ to $-0.32$, $I2 : 71.58\%$) and increased high-density lipoprotein cholesterol (standardized mean difference: 1.05, 95% confidence interval: 0.52 to 1.58, $I2 : 59.39\%$) levels. The type of animal, nonalcoholic fatty liver disease induction model, kind and duration of intervention, study model, and risk of bias were detected as possible sources of heterogeneity across studies. We conclude that garlic and its major components have a favorable impact on glycemic control and lipid profile in diet-induced nonalcoholic fatty liver disease animal models.

Send Date: 2023/07/25

Code: DA-23071
ICGH 2023-002
Category: 2.3 پاتوژنز: عوامل میکروبی

## EBV-Associated Gastric Cancer; An In Situ Hybridization Assay on Tissue Microarray, A Multi Region Study from Iran

Reza Malekzadeh[1], Mohammad Vasei[2], Payam Fathizadeh[3], Farshad Naghshvar[4], Atoosa Gharib[5], Abbasali Omidi[6], Ensiyeh Shafigh[7], Margaret L. Gulley[8], Bita Germizadeh[9], Ramin Shakeri[10*], Ata Ollah Mohseni[11], Ali Khavanin[12], Charles S. Robkin[13], Sanford M. Dawsey[14], Maryam Abolhasani[15], Mehrdad Khajehei[16], Leyla Taghizadehgan [17]

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**Introduction:** Gastric cancer is the fourth leading cause of cancer-related death in the world. The identification of gastric cancer subtypes related to recognizable microbial agents may play a pivotal role in targeted prevention and treatment of this cancer. In the current study, the aim was to study the frequency of EBV infection in gastric cancers in Iran.

**Methods:** Paraffin blocks of 682 cases of various types of gastric cancer from Tehran, South and North area of Iran were collected. Twelve tissue microarray (TMA) blocks were constructed from these blocks. Localization of EBV in tumors was assessed by in situ hybridization for EBV-encoded RNA (EBER). Chi-squared test was used to evaluate statistical significance between EBV-associated gastric cancer and clinicopathologic tumor characteristics.

**Results:** Fourteen out of 682 cases (2.1%) of gastric adenocarcinoma were EBER-positive. EBER was positive in 8 out of 22 (36.4%) of medullary carcinomas and 6 out of 660 (0.9%) of non-medullary type, which was a statistically significant difference (p<0.001). The EBV associated gastric cancers were more frequent in younger age (p = 0.009) and also showed a trend toward lower stage of tumor (p = 0.075).

**Conclusion:** EBV-associated gastric adenocarcinoma has a low prevalence in Iran. This finding can be due to epidemiologic differences in risk factors and exposures, the low number of gastric medullary carcinomas in the population. It may also be related to gastric tumor heterogeneity not detected in the TMA technique.

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Code: DA-23086
ICGH 2023-003

گروه : ۶.۲ بیماریهای بدخیم
**شیوع متاپلازی روده ای در نمونه های نرمال اندوسکوپی معده:**
**یک مطالعه مقطعی**

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**معرفــی:** مطالعـــات اندکـــی در مورد بروز حـــالات پیش ســـرطانی معده مانند متاپلازی روده و عفونت هلیکوباکترپیلوری در ایران منتشـــر شـــده اســـت. در مطالعه حاضر، هدف ما بررســـی شـــیوع عفونت هلیکوباکترپیلـــوری و ضایعات پیش ســـرطانی مانند متاپلـــازی روده در بیمـــاران مبتلا به ســـوء هاضمه بود که بدون شـــواهدی از ضایعـــات مرئی تحت EGD قـــرار گرفتـــه و از ژانویـــه ۲۰۱۳ تا دســـامبر ۲۰۲۰ به بیمارســـتان شـــهید بهشـــتی قم مراجعه کردند.

**روش:** مطالعـــه توصیفـــی- تحلیلـــی از نـــوع مقطعی اســـت. جامعـــه هدف، بیماران با مشـــکلات گوارشـــی مراجعه کننده به بیمارســـتان شـــهید بهشتی قم طی ســـال هـــای۱۳۹۲-۹۷ بودنـــد. افراد جامعـــه هدف که بـــرای آن ها اندوســـکوپی تشـــخیصی انجام شـــده بود به روش نمونه گیری سرشماری وارد مطالعه شـــدند. داده هـــای مورد نیـــاز ( اطلاعات دموگرافیک ، اندوســـکوپی و نتایـــج پاتولوژی) از سیســـتم ثبت اطلاعات بیمارســـتانی اســـتخراج گردید. در تحلیـــل تک متغیره، آزمون کای اســـکوئر و در تحلیل چند متغیره، رگرســـیون لجستیک چند متغیره با استفاده از نرم افزار Stata/SE14.2 بکار برده شـــد.

**نتایـــج:** ۱۸۴۲ نفر (۱۹۵۱ نمونـــه) وارد تحلیل شـــدند. میانگیـــن ســـن افراد ۳/۵۳ ± ۰/۱۹ ســـال و نیمـــی از آن هـــا (۵۱٪) مرد بودند. شـــیوع متاپلازی و هلیکوباکتـــر پیلوری بـــه ترتیـــب ۴/۱۵ ٪ و ۳/۶۸ ٪ بود. براســـاس آنالیز چند متغیره، شـــیوع متاپلازی روده ای در نمونه هـــای نرمال معده بـــا مرد بودن (Adjusted Odds Ratio (AOR): 2.2, 95% CI: 1.6, 3.0) ســـن بالای ۵۰ ســـال، (AOR: 2.7, 95% CI: 1.8, 4.0) و محل نمونه گیری از Antrum(AOR: 2.2, 95% CI: 1.6, 2.9) ارتبـــاط معنـــی دار داشـــت.

**نتیجـــه گیـــری:** احتمـــال متاپلـــازی روده در مـــردان دو برابر زنان اســـت. در بیماران بالای ۵۰ ســـال تقریباً ســـه برابر ســـایر بیماران و در نمونه های به دســـت آمده از آنتروم دو برابر نمونه های به دست آمده از جاهای دیگر است. (P<0.001)

Code: DA-23085
ICGH 2023-004
Category: 8.1 Bile acids - transport - cholestasis

**The Epidemiological Trends and Projected Future of Primary Sclerosing Cholangitis by 2040:**
**A Comprehensive Meta-Analysis**
**and Modeling Study Worldwide**

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**Introduction:** Although the incidence and prevalence of primary sclerosing cholangitis (PSC) vary by location, global studies on its geographic distribution and future trends are lacking. Herin, we projected the further prevalence of PSC across the world from 2019 to 2040 using an illness-death multi-state model.

**Methods:** We performed a comprehensive systematic search across various databases to locate all primary studies published until 2023 that provided data on the incidence rate, and prevalence of PSC, as well as mortality rates in each region. Then, we developed an illness-death model using available data to predict the future prevalence of PSC that covers the years from 2020 to 2040.

**Results:** Spain and Italy have the lowest incidence rate of PSC at 0.04 and 0.1 cases per 100 000 people, respectively, while Finland has the highest incidence rate at 1.58 cases per 100 000 people. We projected that the prevalence of PSC in 2040 will experience a significant surge of 92.3% in the Asia-Pacific region, 90.5% in North America, 83.2% in Western Europe, and 59.5% in Australia. In 2040, Spain and Italy are projected to witness a significant surge in the prevalence of PSC, with a staggering 176.4% and 150% rise, respectively.

**Conclusions:** Our findings indicate a substantial rise in the number of individuals affected by PSC in recent years and estimate a significant future burden of the disease.

Send Date: 2023/10/11

Code: DA-23073
ICGH 2023-005

گروه : ۳.۳ پاتوژنز: عوامل میزبان- هیستوپاتولوژی

## Decoding the Expression Pattern of MUC3A in Gastric Adenocarcinoma: Unveiling the Key to Successful Immunotherapy

Mahmood Naderi[1], Masoud Sotoudeh[1], Vahid Mansouri[1], Bahareh Sharififard[2], Ramin Shakeri[2*], Nasim Sajadi[3], Vahid Haghpanah[4]

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**Introduction:** Despite the promise of immunotherapy for gastric adenocarcinoma, resistance is common, necessitating the validation of new targets. Based on our previous bioinformatics analysis, the MUC3A antigen emerged as a promising candidate for immunotherapy against gastric adenocarcinoma. However, a comprehensive understanding of its expression at protein level remains elusive, despite its crucial role in determining clinical response. We also sought to establish a connection between the expression pattern and relevant clinical variables of the disease, whenever feasible.

**Methods:** Immunohistochemistry was used to determine the percentage of MUC3A-positive tumor cells in primary (PT) and metastatic tumor (MT) sites of 190 gastric adenocarcinoma patients. We also evaluated the association between MUC3A expression and variables such as Lauren classification, history of neoadjuvant chemotherapy and/or radiotherapy, and overall patient survival.

**Results:** Median MUC3A expression was 50% in PT and 70% in MT sites, exhibiting a positive correlation. MT intestinal type showed significantly higher MUC3A expression compared to other types. Neoadjuvant therapy history did not affect MUC3A expression. Higher MUC3A expression correlated with improved survival.

**Conclusions:** Based on our previous bioinformatics data and the consistently high expression of MUC3A on gastric tumor cells, we propose advancing experimental aspects of anti-MUC3A immunotherapy for gastric adenocarcinoma.
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Code: DA-23020
ICGH 2023-006
Category: 1.6 پاتوژنز – بیماریهای بدخیم

**Colorectal neoplasm, increasing trend with low impact of Gender and age on its developing**

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**Introduction:** In this study, along with the determination of colorectal adenoma profile, we try to address whether young and female patients remain low-risk groups for colorectal adenoma.

**Methods:** In a retrospective investigation, the medical records of 15,420 patients who had undergone total colonoscopies for various reasons and had been referred to a Tertiary Hospital in Tehran, Iran, were meticulously examined. The collected data included demographic information and details regarding the lesions, sourced from both endoscopic and pathologic reports.

**Results:** The analysis encompassed the records of 15,420 patients, revealing the presence of polypoid lesions in 4,542 individuals, constituting 29.5% of the studied population. The average age of the patients was 57 years, with a standard deviation of 14.4 years, and the majority, accounting for 61.3%, were male. Among these patients, 3,494 (77.5%) had adenomas, with 1,912 (54.7%) classified as advanced adenomas, 148 (4.2%) as serrated adenomas, and 298 (8.5%) as malignant polyps. Histopathologically, the most common adenoma type was tubular, primarily located in the distal colon. The prevalence of adenomas did not significantly differ between genders. However, significant associations were observed between gender and the number of lesions concerning the type of adenoma, while lesion size exhibited significant associations with malignancy development.

**Conclusion:** these findings indicate that age and gender may not exert the same level of influence on the development of colorectal Neoplasia and consequently cancer (CRC) as previously believed. Consequently, there is a need to reconsider the threshold for colonoscopy and establish a screening program for this region that takes into account factors beyond age and gender.
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Code: DA-23040
ICGH 2023-007
Category: 5.1 Basic/pathogenesis/pathology/

**Evaluating the expression of miRNA-29a in intestinal tissue and serum DPP4 levels in Ulcerative Colitis**

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**Introduction:** Ulcerative colitis (UC) is an inflammatory bowel disease (IBD) that increases at an alarming rate worldwide. Accurate biomarkers that reflect the relative contribution of molecular mechanisms in the identification of UC patients are still not known. The micro RNA-29 (miRNA-29) family has been implicated in cardiovascular and fibrotic diseases like UC. Dipeptidyl-peptidase 4 (DPP4) also is a multifunction enzyme that plays a role in immune cell functions. DPP4 was the target gene of miRNA-29a. So, in the present study, we investigated the expression of miRNA-29a in intestinal tissue and serum DPP4 levels in UC patients and healthy subjects.

**Methods:** Blood samples and colonic punch biopsy were obtained from 35 UC patients, and 29 healthy subjects as the control group for the present study. Diagnosis of UC was determined according to its clinical and histological criteria. In each subject, three punch biopsies were obtained from descending colon or sigmoid. In the UC patients, colonoscopy punch biopsies were collected from inflamed mucosa.

**Results:** DPP4 was determined by ELISA in serum of UC patients and control subjects and showed significantly lower in UC patients (mean = $2.52 \pm 0.09$ ng/ml) compare with healthy controls (mean = $2.93 \pm 0.16$ ng/ml) (P-value = 0.032).

**Conclusion:** Our findings demonstrated that expression levels of miRNA-29a were higher in patients suffering from UC relative to healthy individuals. We also observed reduced levels of DPP4 in the serum samples of UC patients

than in the non-UC group. Our results revealed concurrent evidence of the potential role of microRNA-29 and DPP4 in the pathogenesis of UC.

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Code: DA-23072
ICGH 2023-008
Category: 8 .2 بیماریهای بدخیم مری

## A Single Nucleotide Polymorphism in the ALDH2 Gene Modifies the Risk of Esophageal Squamous Cell Carcinoma in BRCA2 p.K3326* Carriers

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**Introduction:** Esophageal squamous cell carcinoma (ESCC) has a very high incidence rate in northeastern Iran. Our team previously reported the BRCA2 p.K3326* mutation as a moderately penetrant ESCC susceptibility variant in northern Iran (OR = 3.64, 95% CI = 1.74-7.59, P = 0.0003). Recently, it has been reported that aldehydes can induce BRCA2 haploinsufficiency in cells with a heterozygous pathogenic BRCA2 mutation and predispose them to carcinogenic effects. Based on this observation, we speculate that ALDH2 dysfunctional variants may result in aldehyde-induced BRCA2 haploinsufficiency and increase cancer risk in BRCA2 carriers. In support of this hypothesis, our team recently reported the breast cancer risk modifying effect of an ALDH2 common polymorphism, rs10744777, among Polish carriers of the BRCA2 p.K3326* mutation.

**Methods:** In the current study, we assessed the interaction between the mentioned ALDH2 polymorphism and BRCA2 p.K3326* mutation in ESCC risk by genotyping the ALDH2 rs10744777 variant in the germline DNA of 746 ESCC cases and 1,373 controls from northern Iran who were previously genotyped for the BRCA2 p.K3326* mutation.

**Results:** Among a total of 464 individuals with TT genotype of the ALDH2 rs10744777 polymorphism, which is associated with lower ALDH2 gene expression, we found 9 of 164 cases versus 3 of 300 controls who carried the BRCA2 p.K3326* variant (OR = 5.66, 95% CI = 1.22–26.2, P = 0.018).

**Conclusion:** Our finding supports our hypothesis that the ALDH2-rs10744777 TT genotype may be a significant risk modifier of ESCC in individuals with a BRCA2 p.K3326* mutation.

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ICGH 2023-009

گروه : ۳.۳ پاتوژنز: عوامل میزبان- هیستوپالوژی

**نقش کلسترول و هورمونهای استروئیدی در مقاومت هلیکوباکترپیلوری در برابر تنش pH، نمک و حرارت**

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**زمینه و هدف:** هلیکوباکترپیلوری کلسترول را جذب گلوکوزیله و بشکل کلستریل گلوکوزید در غشـای خود وارد می کند. ایـن تغییرات باعث مقاومت باکتری در مقابل تنش ها از جمله آنتی بیوتیک می شود. هلیکوباکترپیلوری همچنین دارای ویژگی جذب و گلوکوزیله کردن هورمون های اسـتروئیدی است. هورمون های استروئیدی در معده انسان وجود دارند. هدف از این مطالعه بررسی نقش کلسترول و هورمون های استروئیدی در مقاومت هلیکوباکترپیلوری به تنش های مختلف نظیر pH اسیدی و قلیایی غلظت بالای نمک و حرارت می باشد.

**روش بررسی:** یک سویه هلیکوباکترپیلوری اسپیرال جداشده از بیوپسی معده با کدورت اسـتاندارد ۲ مک فارلند در لوله های بروسـلا براث با یا بدون ۲۵۰ میکرومولار کلسـترول یـا اسـترادیول و نیـز بروسـلا بـراث و ۵٪ سـرم بـا pH2، ۴، ۶، ۷، ۸ تلقیح شد.

در زمـان هـای ۱۵، ۳۰، ۶۰ دقیقـه، ۲ و ۳ سـاعت از لوله هـا رنگ آمیزی گـرم انجـام شـد و ۲۵ میکرولیتـر بـر روی پلیت های بروسـلا بـلاد آگار بـا و بـدون ۲۵۰ میکرومـولار کلسـترول یـا اسـترادیول با غلظت های ۵، ۱۰ و ۱۵٪ NaCl تلقیح شد.

در زمـان هـای ۱۵، ۳۰ دقیقـه، ۲ و ۴ سـاعت رنگ آمیـزی گـرم انجام شـد و ۲۵ میکرولیتـر روی پلیـت های بروسـلا بـلادآگار با و بـدون غلظت مشـابه نمـک و بـلادآگار حاوی کلسـترول یـا اسـترادیول تلقیـح گردید. برای بررسـی تنش حرارتی هلیکوباکتر در محیط کشـت بروسـلا براث با یا بدون ۲۵۰ میکرومولار کلسـترول یا استرادیول در معرض حرارت ۴۵، ۶۵، ۷۵ و ۹۵ درجـه بـه مـدت ۱۵، ۳۰و ۶۰ دقیقه قـرار گرفت و رنـگ آمیزی گرم از لوله ها انجام شـد و بر روی پلیت های بروسلا بلادآگار با و بدون کلسترول یا استرادیول تلقیح گردید. پس از ۷۲ ساعت انکوباسیون در شرایط میکروائروبیک رشـد کلنی های باکتری بررسـی و رنـگ آمیزی گرم از پلیت ها انجام شـد.

**یافته هـا:** هلیکوباکتر در pH هـای ۶، ۷و ۸ رشد داشـت. ولـی در pH2 فقط در حضور کلسترول و استرادیول به مدت ۱۵ دقیقه قابلیت رشد داشت. در pH4 بـه مدت ۱ سـاعت در غیـاب کلسـترول و ۲ سـاعت در حضور کلسـترول و اسـترادیول قابلیت رشـد داشـت. باکتری در صـورت وجود کلسـترول و یـا اسـترادیول ۵٪ نمـک را بـه مـدت ۱۵ دقیقـه تحمـل و روی پلیت بلاد آگار با یا بدون کلسترول رشد کرد. در غلظت های ۱۰٪و۱۵٪ حتی در حضور

<div dir="rtl">

کلسترول رشد نکرد. هلیکوباکتر در لوله های حاوی کلسترول یا استرادیول در ۴۵ درجه به مدت ۱۵ دقیقه زنده ماند و روی بلادآگار با یا بدون کلســترول رشد کرد ولی در ۶۵، ۷۵ و ۹۵ درجه رشد نکرد. باکتریها در لوله های بروسلا براث با یا بدون سرم در مقابل تنش های بررســی شده مقاومتی نداشتند و رشد آنها منفی بود. رنگ آمیزی باکتری هایی که روی پلیت ها رشد کردند، اشکال اسپیرال را نشان داد. **نتیجه گیری:** نتایج این مطالعه نشـــان داد هلیکوباکتر در حضور کلســـترول و استرادیول در pHاسیدی ۱۵ دقیقه تا دو ساعت، در ۵٪ نمک و حرارت ۴۵ درجه برای ۱۵ دقیقه زنده می ماند. بنابراین کلسترول و استرادیول نقش محافظتی برای هلیکوباکتر دارند. مطالعات نشان داده است که حذف کلسترول از غشای هلیکوباکتر ساختار و مورفولوژی باکتری را مختل و آنرا در مقابل انواع تنش ها حساس می کند. .

تاریخ ارسال : ۲۰۲۳/۱۰/۱۱

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Code: DA-23041
ICGH 2023-010
Category: 5.7 Management

### Disease Clearance in Inflammatory Bowel Disease

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The management of patients with inflammatory bowel diseases (IBD) has been evolving with the development of new therapies. Therapeutic targets have shifted from clinical remission to endoscopic remission. Even though, short and long-term complications such as fecal incontinency, disability, hospitalization, need for surgery, and colorectal cancer is still seen among patients. In order to prevent these complications, the concept of disease clearance has been proposed for both ulcerative colitis and Crohn's disease. It consists of clinical, endoscopic, and histologic remission for patients with ulcerative colitis and also transmural healing for those with Crohn's disease.

Clinical trials on patients with ulcerative colitis have shown that the treat-to-clear strategy is possible, but rates are low. Patients who have achieved disease clearance were associated with a significantly lower risk of relapse and better disease outcomes. Treat-to-clear is readily applicable to patients with ulcerative colitis, where the extent of disease can be evaluated by colonoscopy and histology can be easily used. Also, fecal calprotectin levels have a good accuracy for histologic healing.

The patchy distribution of Crohn's disease precludes histologic evaluation in many cases and biochemical inflammatory markers are less sensitive. Cross-sectional imaging and bowel ultrasound have become the methods of choice for detecting transmural healing. Treat-to-clear is achievable, measurable, and is associated with long-term benefits and improved outcomes in patients with Crohn's. Histology and less invasive measures such as bowel ultrasound and magnetic resonant enterography are being validated and are becoming new targets in disease monitoring. Disease clearance is achievable by raising the bar in terms of treatment strategies which leads to the need for switch or swap therapy, but it can impose higher costs and an increase in the risk of adverse side effects.

Today, many clinicians continue a treat-to-target strategy and only few target mucosal healing as the ultimate goal in ulcerative colitis. This remains to be our main challenge in the upcoming decade. We believe that the treat-to-clear strategy is the future for IBD-dedicated clinicians. This strategy needs to be defined for ulcerative colitis and Crohn's disease, separately. Integrating biochemical and molecular data and also bowel ultrasound will lead to a personalized approach in treating IBD patients in the near future.

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Code: DA-23026
ICGH 2023-011
Category: 1.2 Management strategies

### Anatomical Landmark Identification from Video Endoscopic Frames via analytic method, An introduction of machine learning

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**Introduction:** Anatomical landmarks serve as important reference points that guide gastroenterologists during endoscopic procedures and help ensure the thorough examination of the gastrointestinal tract. The automatic detection of these anatomical landmarks in endoscopic video frames can be a valuable tool for assisting physicians during GI tract screenings.

**Methods:** This study introduces a novel automatic method for detecting anatomical landmarks in the GI tract

from endoscopic video frames. The method relies on a semisupervised deep convolutional neural network (CNN) and is compared to the results obtained from a supervised CNN model. The study utilizes anatomical landmarks from the Kvasir dataset, which comprises 500 images for each class of Z-line, pylorus, and cecum. These images have varying resolutions, ranging from 750 × 576 up to 1920 × 1072 pixels.

**Results:** Experimental findings indicate that the supervised CNN model achieved an outstanding accuracy rate of 100%. Furthermore, our proposed semisupervised CNN model demonstrates competitive performance, albeit with a slight difference compared to the fully supervised CNN model. The semisupervised model, when trained using 1%, 5%, 10%, and 20% of the training data labeled as the training dataset, achieved average accuracy rates of 83%, 98%, 99%, and 99%, respectively.

**Conclusion:** The primary advantage of our proposed method lies in its ability to achieve high accuracy even with a limited amount of labeled data, eliminating the need for extensive data labeling efforts. This approach not only saves labor but also reduces costs and the time required for data labeling, making it a practical and efficient solution for anatomical landmark detection in endoscopic procedures.

Send Date: 2023/09/17

Code: DA-23094
ICGH 2023-012
Category: 1.5 پایه / پاتوژنز / آسیب شناسی

### Fertility and Pregnancy complications in Women with Inflammatory Bowel Disease

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**Introduction:** Inflammatory bowel diseases (IBD) affect young people of reproductive age. There is little knowledge about complications from IBD during pregnancy and delivery. Here, we aimed to evaluate the possible IBD effects on fertility and pregnancy.

**Methods:** This observational study was conducted on female IBD aged between 15 and 50 years who referred to the GI clinic of Shariati Hospital from 2013–2017. Details on disease activity, prenatal complications, delivery, and neonatal outcome were collected through medical reports.

**Results:** Among 1156 enrolled patients, 87.2% had UC and 12.8% had CD. About 40.2% of women had children. There was a history of infertility in 54 (7.4%) subjects. No significant relation was found between the type of inflammatory bowel disease and fertility status (P = 0.47). However, the infertility rate in patients with Crohn's disease (9.5%) was significantly higher than patients with ulcerative colitis (4%) (P = 0.006). The low age of the diagnosis was associated with a reduction in fertility (having a child) (p<0.001 r = 0.30) and an increase in abortion (p<0.004 r = 0.80) in the study population.

**Conclusion:** Our results suggest that women with IBD should not be so worried about the negative impact of their disease, disease activity, or medications on their infertility life. Although having a comprehensive and interdisciplinary approach to managing their pregnancy could re-assure and minimize the disease related complications of pregnancy.

Send Date: 2023/10/11

Code: DA-23044
ICGH 2023-013
Category: 10 تغذیه

### Energy-adjusted dietary inflammatory index (E-DII) and hepatic health in a general population of Iran

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**Introduction:** There is limited evidence on the role of an anti-/pro-inflammatory diet in the prevention of non-alcoholic fatty liver disease (NAFLD). We aimed a) to assess the pro-inflammatory diet profile and its association

with NAFLD diagnosed by ultrasound, and b) to analyze the relationship between a pro-inflammatory diet and surrogate markers of liver disease in the general adult population of Iran.

**Methods:** A cross-sectional study was conducted on 3110 (45% female) general adults (≥18 years old) of the Amol Cohort Study (AmolCS). Ultrasound imaging was utilized to diagnose NAFLD. Liver markers, including fatty liver index, aspartate transaminase (AST)/alanine transaminase (ALT) ratio, and hepatic steatosis index (HSI), were also calculated. Dietary inflammatory index was calculated by a validated 168-item semi-quantitative food-frequency questionnaire (FFQ) and was adjusted for daily calorie intake using the residual method.

**Results:** Participants in 3rd tertile of E-DII scores (pro-inflammatory diet) had the highest odds ratio (OR) for NAFLD assessed by FLI adjusted model (OR tertile3vs.1=1.78, 95% CI= 1.28-2.47; Ptrend = 0.003). Participants in the highest i.e., most pro-inflammatory tertile had the highest odds of NAFLD by hepatic steatosis index (HSI) in a full adjusted model (OR tertile3vs.1=1.43, 95% CI= 1.11-1.85; Ptrend = 0.002). Similar results were also obtained for NAFLD assessed by ultrasound (OR tertile3vs.1=1.54, 95% CI= 1.23-1.93; Ptrend = 0.004). For the AST/ALT ratio, no significant association was identified.

**Conclusion:** Our findings showed an association between higher pro-inflammatory properties of diet and poor hepatic health assessed by ultrasound and surrogate markers of liver disease. Therefore, strategies to promote an anti-inflammatory diet should be considered to prevent NAFLD in adults.

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Code: DA-23045
ICGH 2023-014
Category: 6.4 Other colonic and anorectal disorders

**The effect of topical formulation of Sodium Pentaborate as a less invasive strategy for management of Anal fissure: A prospective, randomized, double-blind, placebo-controlled, multi-center trial**

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**Introduction:** Anal fissure is a common ulcer that occurs in the anal canal and is characterized by itching, bleeding, pain, and the feeling of a lump or pulse after passing stool. Various treatment options are available for acute or chronic anal fissures, such as topical agents, but they are not very effective in treating chronic cases. Therefore, surgery has been the only effective treatment for chronic anal fissures. However, in recent years, there has been interest in developing effective topical formulations as less invasive strategies. Boron has shown some evidence of having anti-inflammatory and wound-healing effects, making it a potential treatment for chronic anal fissures. The current study utilized a boron-based topical formulation to treat chronic anal fissures.

**Methods:** The study was a prospective, randomized, double-blind, placebo-controlled, multi-centered trial conducted to examine the effectiveness of a boron-based ointment in treating chronic anal fissures. One hundred forty participants diagnosed with chronic anal fissures were randomly assigned to either the intervention or control group (87 women, 53 men, age range: 18-84 years, mean age: 47.2). Based on their groups, participants received boron-based ointment or a placebo for two weeks. The symptoms experienced by the participants before and after treatment, such as itching, bleeding, pain, and the feeling of a pulse or lump after defecation, as well as the presence of fissures, were compared between the intervention and control groups.

**Results:** All evaluated symptoms, including pain and bleeding during anal examination, in the intervention group decreased significantly. After the treatment, only 15 patients (16.6%) had anal fissures in the intervention group, while 46 patients (92%) had fissures in the placebo group (p<0.001). None of the patients in the intervention group required surgery due to fissure disease, whereas 14 cases were referred for surgery in the placebo group.

**Conclusion:** After two weeks of treatment, the intervention group experienced a significant reduction in all symptoms. This suggests that the ointment could be a viable alternative to surgery for treating chronic anal fissures. However, further studies are necessary to confirm its effectiveness

and determine its suitability for standard procedures in treating chronic fissures.

Send Date: 2023/09/21

Code: DA-23024
ICGH 2023-016
Category: 2.13 بیولوژی مولکولی/ ژنتیک/ پاتولوژی

### Comparison of HE4 tumor marker in patients with colorectal cancer Before and after cure

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**Introduction:** Colorectal cancer is the third most important cancer in men and the second in women. It is one of the main causes of cancer deaths, which survive about 2 percent of patients about 5 years after the onset of the disease. The HE4 protein is secreted in the distal epithelium, which has an effect as a proteinase inhibitor in the puberty of sperm. HE4 has a diagnostic value in various cancers, including colorectal cancer. This study was aimed at examining the HE4 tumor in patients with colorectal cancer before and after treatment.

**Methods:** This study was conducted on 77 patients with colorectal cancer hospitalized in Amir, mother and child hospitals and Shiraz Faghih Hospital. Patients were investigated in terms of the HE4 marker level and the urine with the Eliza method. Patients' clinical and pathological data were collected. SPSS 24 software was used for data analysis.

**Results:** A total of 77 participants entered this study. The mean age of the participants was $59.34 \pm 12.143$ years and 45 participants (58.4%) were male and 32 (41.6%) were female. The mean serum level of HE4 in patients before treatment was $69.91 \pm 83.518$ pmol/lit, while serum HE4 level after treatment reached $76.95 \pm 65.142$ pmol/lit. although these two variables did not differ significantly, they were directly correlated (r=0.622, and p=0.031). post-treatment serum HE4 level did not differ significantly between the first and second groups. Pre-treatment HE4 was the only affecting variable in post-treatment HE4, and

age, sex, surgical interventions, and chemotherapy did not affect the post-treatment serum level of HE4.

**Conclusion:** This study provides valuable information on the relationship between pre- and post-treatment levels of HE4 in patients with colorectal cancer. The findings suggest that pre-treatment HE4 may be a useful marker for predicting post-treatment levels, and that treatment may have an impact on HE4 levels in the body.

Send Date: 2023/09/17

Code: DA-23048
ICGH 2023-017
Category: 6.4 Other colonic and anorectal disorders

### Comparison of the effectiveness of polyphenol-rich olive oil and ordinary olive oil on the treatment of patients with constipation

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**Introduction:** Constipation is a prevalent issue, and evidence suggests that olive oil may alleviate symptoms and promote regular bowel movements. This study compared two types of polyphenol-rich olive oil and ordinary olive oil on the effectiveness of constipation therapy.

**Methods:** In this double-blind clinical trial study, 140 patients over 18 with the complaint of chronic constipation who referred to the Caspian clinic of the Guilan University of Medical Sciences, Rasht, Iran, in 2021 were included. The diagnosis of constipation was confirmed based on the Rome III questionnaire by a gastroenterologist. By block randomization, patients were divided into two groups of 70 subjects (polyphenol-rich olive oil as trial and ordinary olive oil as control). Demographical data and clinical characteristics of patients were collected through a questionnaire. Both groups consumed 20 cc per day (two tablespoons) of two types of olive oil for four weeks, and follow-up was evaluated using both Rome III and the Bristol Stool Form Scale (BSFS) questionnaires. All data were analyzed using SPSS version 16 and GraphPad Prism version 8.0.1, considering a significant level <0.05.

**Results:** Out of 140 patients, about 61.4% were women, and the mean age of the patients was 4.88±15.67 years. The average score of Rome III and the severity of constipation based on the BSFS significantly decreased in both groups (P<0.001). However, the improvement in excretory habits was higher in the trial group compared to the control group. In the group that consumed polyphenol-rich olive oil compared to the control group, the adjusted average score of the Rome III and BSFS was 3.47 vs. 7.74 and 3.30 vs. 2.23, respectively (P<0.001).

**Conclusion:** The use of polyphenol-rich olive oil has a more significant effect on treating constipation than ordinary olive oil due to its higher amount of polyphenols, resulting in more patient satisfaction with the treatment.

Send Date: 2023/09/23

Code: DA-23078
ICGH 2023-018
Category: 5.5 Treatment

### Cost-effectiveness analysis of infliximab versus CinnoRA in the treatment of moderate to severe ulcerative colitis in Iranian patients

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**Introduction:** As two biological agents, infliximab (IFX) and biosimilar adalimumab (CinnoRA®) are routinely used in the clinical management of ulcerative colitis (UC) in Iran.

Objectives: This study was done to evaluate the cost-effectiveness of IFX versus CinnoRA for the treatment of moderate-to-severe UC patients.

**Methods:** To accomplish this, we developed a hybrid decision-tree/microsimulation (MS) approach for modeling UC's natural history. We populated our model with available data on probabilities, costs, utilities / disutilities, and emergent adverse effects. Costs were reported in Iranian Rial (IRR) and in April 2021 US dollars ($). One-way and multiple sensitivity analyses were used to determine the uncertainty of the model's parameters.

**Results:** For five, 10, and lifetime horizon times, patients on IFX received slightly more quality-adjusted lifeyear (QALY) per year in remission and experienced about 3 to 5 times less surgery than CinnoRA patients. With willingness-to-pay (WTP) thresholds of 1800 ($7826.08), 820($3565.21), and 520 ($2260.86) million IRR for these horizon times, IFX was cost-effective with 100% certainty. Our findings were highly sensitive to the number of adverse effects.

**Conclusion:** Our results demonstrated that IFX is more effective and more costly than CinnoRA, and if we ignore the predicted surgeries, CinnoRA is nearly as effective as IFX. However, these findings should be cautiously interpreted without a robust clinical trial of CinnoRA in UC patients. Since the impact of CinnoRA may have been over/ underestimated.

Send Date: 2023/10/11

Code: DA-23060
ICGH 2023-019
Category: 5.5 Treatment

### The Effects of Probiotics in Ulcerative Colitis Patients: A randomized controlled double blind clinical trial

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**Introduction:** In the recent decade, ulcerative colitis (UC) as a chronic inflammatory bowel disease has a growing incidence and prevalence in the world. Probiotics might be a promising approach to improve ulcerative colitis by favorably modifying the gut microbiota.

**Methods:** A double-blind, randomized, placebo-controlled, parallel-group clinical trial was conducted on sixty patients with mild/moderate ulcerative colitis. Participants were administered either placebo (n = 30) or a multi-strain probiotic (n= 30) for 16 weeks. Clinical disease status, via Lichtiger and Mayo questionnaires, was assessed at baseline and after 8 and 16 weeks of intervention. Also, fecal calprotectin was measured before and after the study period. Within and between groups, comparisons were made using per-protocol (PP) and intention-to-treat (ITT) approaches, and a P-value≤0.05 was considered a statistically significant level.

**Results:** Of the sixty patients who agreed to participate in the study, 18 dropped out during the study due to low compliance and gastrointestinal complications. The two groups were comparable in baseline variables (P>0.05). During the study, the within and between groups' differences of calprotectin and Mayo scores were not statistically significant. Although the mean score of Lichtiger was significantly decreased in the probiotic group during the study period (P = 0.001), no statistically differences compared with placebo group were seen.

**Conclusion:** Our study elucidated that probiotic supplementation does not significantly improve UC patients, which may be due to the strain and dose administered. Future research should focus on the best effective strains and doses for ulcerative colitis.

Send Date: 2023/10/02

Code: DA-23025
ICGH 2023-020
Category: بیماریهای بدخیم گاسترودئونال .2 13

### The influencing factors on sleep disturbance among patients with esophageal and Gastric cancer

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**Introduction:** The quality of sleep is a significant factor in overall well-being and can potentially play a role in the development and progression of chronic diseases and cancers. In the current study, our aim was to investigate sleep quality and its associated factors among patients diagnosed with esophageal and gastric cancer.

**Methods:** We conducted a prospective study in which we administered the Pittsburgh Sleep Quality Index (PSQI) to 312 adult patients who had recently been diagnosed with esophageal and gastric cancers at a referral hospital. These patients were treatment-naïve at the time of the study. We utilized both univariate and multivariable logistic regression analyses to examine the data.

**Results:** Among the participants, 203 (65.06%) were male, and the average age was 63.13±12.10 years. The results revealed that approximately 66% of the patients experienced poor sleep quality, regardless of their specific cancer type or stage. Notably, among those with poor sleep quality, 76.29% had esophageal cancer, while 23.71% had gastric cancer. Additionally, poor sleep quality was more prevalent among females, older individuals, and those with pre-existing chronic diseases. Living alone was also associated with a decrease in sleep quality. Furthermore, a significant proportion of individuals with good sleep quality had a favorable Wealth Index.

**Conclusion:** In conclusion, it appears that by paying closer attention to these influencing factors, we may be able to enhance sleep quality and, consequently, improve overall quality of life for patients dealing with esophageal and gastric cancer.

Send Date: 2023/09/17

Code: DA-23027
ICGH 2023-021
Category: 15.5 Functional gastrointestinal disorders (clinical - management)

**The effect of melatonin on irritable bowel syndrome patients with and without sleep disorders: a randomized double-blinded placebo-controlled trial study**

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**Introduction:** Irritable bowel syndrome (IBS) is one of the world's most common gastrointestinal (GI) disorders, andcurrent treatments do not meet patients' demands. This study aimed to investigate melatonin's therapeutic effects on IBS score, GI symptoms, quality of life, and sleep parameters in both groups of IBS patients with and without sleep disorders.

**Methods:** In this randomized double-blinded placebo-controlled trial study, 136 patients with a diagnosis of IBS based on ROME IV criteria were enrolled and then divided into two groups respecting having sleep disorders or not. Patients of each group were randomized in a 1:1 ratio to receive melatonin 6 mg daily (3 mg fasting and 3 mg at bedtime) for 2 months (8 weeks). Blocked randomization was used in this process. All patients were evaluated both at the beginning and the end of the trial regarding IBS score, GI symptoms, quality of life, and sleep parameters through valid questionnaires.

**Results:** In both groups of patients with and without sleep disorders, a significant improvement was observed in IBS score and GI symptoms, including the severity and the frequency of abdominal pain, the severity of abdominal bloating, satisfaction with bowel habits, disease's impact on patient's life, and stool consistency; however, there was no significant improvement in the frequency of defecations per week. In patients with sleep disorders, significant improvement in sleep parameters, including subjective sleep quality, sleep latency, sleep duration, sleep efficiency, and daytime dysfunction, was observed, while in patients without sleep disorders, there was no significant improvement in sleep parameters. In addition, quality-of-life improvement was observed in a significant number of melatonin recipients compared to placebo in both groups of patients

**Conclusion:** Melatonin can be considered an effective treatment for improving IBS score, GI symptoms, and quality of life in IBS patients with and without sleep disorders. It is also effective to improve sleep parameters in IBS patients with sleep disorders.

Send Date: 2023/09/17

Code:DA-23042
ICGH 2023-022

<div dir="rtl">گروه : ۲.۴ بیماری سلیاک / سندروم های سوء تغذیه و انتروپاتی های غذایی</div>

## A middle age woman with common symptoms and rare diagnosis

Ahmad Roostaeihosseinabadi[*1]

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**Introduction:** A middle-aged woman with common symptoms and a rare disease

Patient is a 58-year-old female who presented with symptoms of nausea, vomiting, weakness, fatigue, and abdominal pain. These symptoms have persisted for one week, and she had sought care from multiple physicians, receiving outpatient treatments including intravenous fluids and antiemetic injections, but without improvement. Upon referral to our facility, the patient was admitted, underwent a comprehensive evaluation, and was scheduled for an endoscopy.

During the endoscopy, the esophagus and stomach appeared normal, but the duodenum showed signs of inflammation and a velvety appearance. Biopsy samples were taken. rectosigmoidoscopy without preparation was normal.Given her medical history of uterine tumor treated with four courses of immunotherapy (Pembrolizumab is a type of targeted therapy drug called an immune checkpoint inhibitor), we suspected drug-induced enteropathy. Treatment with 100 mg of hydrocortisone was initiated, resulting in a dramatic response. After a course of treatment, the patient was discharged on an oral dose of 5 mg prednisolone, with good general condition.

While awaiting the pathology results, the patient experienced a recurrence of her previous symptoms and was readmitted. The pathology results indicated CMV enteritis, although it was not confirmed by IHC and PCR stool tests. As a result, we discharged the patient in stable condition with a high dose of Prednisone at 50 mg daily and referred her to an oncologist for further evaluation.

**Case Report:** A middle-aged woman with common symptoms and a rare disease

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**Conclusion:** Check point induced enteropathy

Send Date: 2023/09/21

Code: DA-23074
ICGH 2023-023
Category: 6.3 Malignant disease - management

## Survival and prognostic determinants of Anal Canal carcinoma among the Iranian Population

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**Introduction:** Anal canal cancer is a relatively rare malignancy, constituting approximately 1-2% of all digestive tract tumors and 2-4% of colorectal and anal tumors. This disease encompasses various histological subtypes, such as squamous cell carcinomas (SCC), adenocarcinoma, adeno-squamous carcinoma, and melanoma. The primary objective of this study is to explore survival rates and

discern the key factors that impact survival in patients diagnosed with anal canal cancer.

**Methods:** A retrospective study was undertaken, analyzing the medical records of 70 patients who had been diagnosed with anal canal cancer. We gathered data by conducting a thorough review of medical records and conducting telephone interviews. To estimate survival rates, we employed the life table method, and to make subgroup comparisons, we employed the log-rank test. Additionally, we utilized Cox regression analysis to evaluate the independent relationships between survival time in anal canal cancer and various covariates.

**Results:** During the study period, we identified a total of 70 patients, with 41 of them being male, who were diagnosed with either adenocarcinoma or SCC (1.4%). The mean age at the time of initial diagnosis was 57.49 years, with a range spanning 69 years. The most frequently reported symptoms among these patients included bleeding (n = 63, 90%), altered bowel habits (n = 4, 5.7%), and pain (n = 3, 4.3%). Patients were categorized into American Joint Committee on Cancer (AJCC) stages as follows: localized (25, 35.6%), regional (25, 35.6%), metastasis (12, 17.4%), and some with unknown stage. Thirty-seven patients (52.90%) underwent abdominoperineal resection, while 22 patients were deemed inoperable. The estimated survival rates at the 1st, 3rd, and 5th years were 83%, 52%, and 44%, respectively.

Univariable analysis revealed that several factors, including age, symptoms, stage, neoadjuvant chemoradiotherapy, surgery, and colostomy, were predictive of overall survival (OS). In our multivariate Cox proportional-hazards analysis, we observed that individuals with regional stage disease (HR=5.23, 95% CI, 1.63-17.74) faced a significantly higher risk of mortality.

**Conclusion:** In our study area, anal canal cancer presents a challenging prognosis. Notably, early-stage cases exhibit more favorable overall survival outcomes, underscoring the urgency for increased focus on early detection and timely treatment interventions.

Send Date: 2023/10/10

Code: DA-23053
ICGH 2023-024

Category: 6.3 Malignant disease - management

### The frequency of colon lesions in the first-degree relatives of patients with adenomatous polyp or premalignant/ malignant colon lesions referring to the PERSIAN Guilan Elderly Cohort Study (PGECS)

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**Introduction:** Family history of colon cancer or adenomatous polyp is associated with an increased risk of colon cancer. The aim of this study was to investigate the frequency of colonic lesions in the first-degree relatives of patients with adenomatous polyp or premalignant/ malignant colon lesions referring to the geriatric cohort of Guilan.

**Methods:** In this cross-sectional study, 162 subjects who were the first-degree relatives of 52 patients with adenomatous polyp were investigated and underwent total colonoscopy based on the guidelines proposed for screening colorectal cancer. Moreover, the subjects' demographic information, colonoscopy results, and pathological findings were recorded using a checklist Logistic regression with backward elimination (p-value for removal >0.1) was used to identify factors associated with presence of colon polyps. Odds ratio (OR) and 95% confidence interval (CI) were calculated.

**Results:** In total, 86 colon polyps (52 neoplastic and 34 non-neoplastic polyps) were observed in 56 (34.6%) individuals. Being older, higher BMI, cigarette smoking, and diabetes were significantly associated with a greater

risk of having colon polyps. In contrast, higher consumption of vegetables as well as fruits were significantly associated with a less risk of having colon polyps.

**Conclusion:** Considering the high prevalence of neoplastic colon polyps among the first-degree relatives of the patients with adenomatous polyp, early screening is recommended for the people with family history of this disease in the same way that people with family history of colorectal cancer (CRC) are screene.

Send Date: 2023/09/23

Code: DA-23037
ICGH 2023-025
گروه : ۱.۶ بیماریهای بدخیم – پاتوژنز

### Early detection of colorectal cancer: conventional techniques and current biomarkers

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Colorectal cancer (CRC) is the third most common cancer worldwide, and the incidence of CRC seems to increase gradually be increased gradually in some countries. The survival of CRC varies in different countries, is varied in different countries which attributed to the screening program and other risk factors. Generally, diagnostic approaches for CRC can be divided visual detection methods into visualize detection method and laboratory methods. Colonoscopy, sigmoidoscopy, and computed tomography colonography are considered as visual visualize methods and are widely used in cancer detection detection of cancer. Although visualize methods provide some benefits, some disadvantages such as late detection, are present , making them useless in rapidly progressing CRC patients. which make them useless in rapid progressive CRC patients. On the other hand, laboratory tests are developed to compensate for the disadvantages of visual methods. More recent progression in laboratory tests makes them able to superfine detection of CRC. For instance, molecular and genetic methods based on the components of cancer cells, like nucleic acid and proteins, can prognosticate further cancer

development of cancer in susceptible patients. Alongside new therapeutic approaches developed within decades, the number of CRC detection methods is increased, which aimsed to reduce the duration between cancer initiation and detection. This review sought to survey the CRC detection methods, including conventional and recently-developed methods, to provide better insight into CRC diagnosis screening.

Send Date: 2023/09/20

Code: DA-23066
ICGH 2023-026
Category: 5.5 درمان

### Cytomegalovirus infection in adult patients with inflammatory bowel disease: a literature review

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Human Cytomegalovirus (HCMV) is a genus of viruses in the order Herpesvirales. The prevalence of the HCMV infection is 50%-80% in the general population and the infection occurs in most healthy carriers without any significant clinical symptoms. HCMV causes a lifelong latent infection which could be reactivated in repose to immune disorders and inflammation. The HCMV infection reactivation becomes more important when it coincides with inflammatory bowel disease (IBD). Cytomegalovirus (CMV) colitis in IBD patients was initially diagnosed several years ago, however, the role of CMV in the induction of flare and acute severe colitis, resistance to treatment, other outcomes of CMV reactivation in IBD patients remained a subject of considerable debate. Besides, an update was required to shed light on epidemiology, risk factors, clinical features, diagnosis tests, histology, and indications for antiviral treatment and the use of immunosuppressants for IBD patients with CMV colitis. Accordingly, we provided a review based on updated data and addressed new points related to the diagnosis and treatment of CMV colitis in IBD

patients. Also, indication/contraindication for drugs used for the patients was reviewed. We suggest that the prescription of the drugs to these patients should be performed based on an individualized and detailed assessment regarding the phase of the disease and the severity of colitis. In addition, follow-up of patients is recommended considering the side effects of drugs, which can lead to the success of treatment and reduce the risk of colectomy.

Send Date: 2023/10/02

Code: DA-23038
ICGH 2023-028
Category: 14.3 Management of malignant disease

**The association between quality of life and its affecting factors among patients with**

**gastrointestinal cancer : Confirmatory factor analysis**

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**Introduction:** Gastrointestinal (GI) cancer is widely recognized as a significant health issue ,often leading to low health quality of life (HQOL) in affected individuals. Gastrointestinal cancer and its treatments can lead to various physical and mental concerns. In which significant impact on the their quality of life. patients also may experience psychological distress, anxiety and depression. That can cause a profound effect on their quality of life. This study aims to identify the factors that influence the quality of life of individuals with gastrointestinal tract cancers.

**Methods:** A cross-sectional study was conducted, the participants included 805 adult patients with gastrointestinal cancer referred to Firouzgar Hospital. They were invited to evaluate and complete the HQOL, demographic information and their background. HQOL was measured using Short Form Survey (SF-12).Which included scores of the Mental component summary (MCS) and physical component summary (PCS) scores  from the SF-12(PCS Items included : general health, bodily pain, role physical, physical functioning and MCS Items included: social functioning, role emotional, mental health, vitality) Which were calculated .Data were analyzed using Confirmatory factor analysis.

**Results:** Good model fit of HQOL is indicated by  an RMSEA=0.07, CFI=0.91 TLI=0.93. Overally all of the factor loadings of 8 items MCS  and PCS were significant at 0.05 level.

Based on the standardized coefficients for the structural paths, There was negative effect of the age on the PCS (β=-0.23, P=0.002). The BMI effect on the MCS was significant and Positive ( β=0.11, P=0.043). The variables of physical activity, alcohol consumption and smoking had no significant effect on MCS and PCS.

**Conclusion:**  According our findings ,age and BMI have an effect on the quality of life of patients (GI) cancer Generally. The results of this study highlight the substantial impact of gastrointestinal (GI) cancer on the HQOL of affected patients. These findings underscore the importance of addressing both the physical and psychological aspects of GI cancer care to improve the HQOL of patients. By providing comprehensive support and interventions to manage these symptoms, healthcare providers can help enhance the overall well-being of patients living with GI cancer.

Send Date: 2023/09/20

Code: DA-23055
ICGH 2023-029
Category: 6.2 Malignant disease - diagnosis/histopathology

**Comparison of colon lesions in FIT-positive and negative individuals referring to PERSIAN Guilan Elderly Cohort Study (PGECS)**

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**Introduction:** Early detection of colorectal cancer is the best way to reduce mortality due to it. The aim of this study was comparison of colon lesions in positive and negative

FIT patients referred to PERSIAN Guilan cohort study (PGCS) in 2020

**Methods:** In a cross-sectional study on a number of populations of 6000 cohorts of elderly people in Guilan, after obtaining consent, stool samples were taken from individuals for FIT test. Then, these people underwent colonoscopy for further examinations and pathological samples were taken from the colon lesions found. The questionnaire included registration (demographic / clinical characteristics; completion of Bristol chart related to defecation habits and recording of FIT test results and colonoscopic findings). Data were analyzed using SPSS software version 16 and the significance level was considered 0.05

**Results:** In this study, FIT test was performed for 1158 people, of which 87 (7.5%) were positive and 1071 (92.5%) were negative. In the initial stage, 50 people from each group were examined. Fifty-one people under the age of 60, 54 women and 73 rural people. The results showed that a total of 52% had a lesion and 48% had no lesion. Those with positive FIT had significantly more lesions (P <0.001). The results of this study showed that there was no statistically significant difference between demographic and clinical characteristics and lesion location in patients with lesion with positive and negative FIT (P> 0.05). Also between pathology findings and adenomatous polyp with positive and negative FIT there was a statistically significant relationship (P <0.001).

**Conclusion:** Given that today tests such as FIT that are not invasive and are cheaper than colonoscopy can be used in the first stage of screening and this can be a big step in screening people and early detection of precancer-lesions and thus reduce the incidence of colorectal cancer and reduce deaths from this cancer. However, colonoscopy is still needed to check for the presence or absence of lesions in FIT-positive individuals

Send Date: 2023/09/23

Code: DA-23087
ICGH 2023-030
Category: 9 .2 سایر بیماریهای مری

### Evaluation of the Effect of Hemostasis Powder® in the Treatment of

### Non-bleeding Visible Vessels of the Upper GI Tract: A randomized controlled study

Amir Abbas Hassanzadeh[1], Seyed Mousalreza Hoseini[1], Jamshid Vafaeimanesh[*2]

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**Introduction:** Gastrointestinal bleeding is one of the most common causes of hospitalization. In this study, we investigated the mineral-herbal solution's effectiveness in controlling the upper GI tract's visible non-bleeding vessels (NBVV).

**Methods:** In this randomized controlled study, 101 patients with upper gastrointestinal bleeding, who were referred to the emergency department of Ghaem and Imam Reza hospitals in Mashhad city, were enrolled. All patients were randomly divided into three groups include; a) treatment with Hemostasis Powder® (n=34), b) treatment with argon plasma coagulation (APC) plus epinephrine injection (n=35), and c) treatment with Hemoclips plus epinephrine injection (n=32). After primary endoscopic treatment, 24 hours later, the patients underwent re-endoscopy, and during hospitalization, all clinical and laboratory findings were recorded.

**Results:** In patients who underwent treatment with Hemostasis Powder®, the bleeding complication during the initial treatment was significantly lower than in the other two groups (P=0.02). Patients treated with Hemostasis Powder® did not need secondary interventions, while 20% and 10% in the APC and Hemoclips groups, respectively (P=0.02). Moreover, no statistically significant difference regarding mortality incidence was found between the three groups (P=0.15).

**Conclusion:** These findings show that Hemostasis Powder® can consider a suitable therapeutic option for the NBVV of the upper GI tract.

Send Date: 2023/10/11

Code: DA-23104
ICGH 2023-031
Category: 1.1 Epidemiology

## Relapse Rate of Clinical Symptoms After Stopping Treatment in Children with Cyclic Vomiting Syndrome

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**Introduction:** Cyclic vomiting syndrome (CVS) is a chronic functional gastrointestinal disorder. It is characterized by recurrent episodes of vomiting typically separated by periods of symptom-free or baseline health. The present study aimed at evaluating the effectiveness of propranolol and the relapse rate of clinical symptoms after stopping treatment in children suffering from CVS.

**Methods:** Records of 504 patients below the age of 18 years with CVS who were treated with propranolol from March 2008 to March 2018 were reviewed. The duration of follow-up was 10 years.

**Results:** The average age of CVS affliction was 4.3 years and the average age at the diagnosis was 5.8 years. All subjects were treated with propranolol (for an average of 10 months). 92% of treated subjects were cured, causing a dramatic decrease in the rate of vomiting ($P < 0.001$). Only an average of 10.5% of the studied subjects (53 people) showed a relapse of symptoms after stopping the treatment. The results of a 10-year follow-up period of the patients showed that 24 had abdominal migraine and 6 had migraine headaches, all of whom lacked the symptoms of disease relapse (prognostic evaluation).

**Conclusion:** The findings of this investigation show that the duration of treating CVS with propranolol could be shortened to 10 months with a low percent of symptoms relapse and this shortening may be effective in preventing the undesirable side effects of the drug. The presence of abdominal migraine and migraine headaches in patients after treatment accomplishment and the lack of disease relapse can be prognostic measures for this disease, which require intensive attention.

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## Epidemiology of inflammatory bowel disease in Iran: A systematic review and meta-analysis

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**Introduction:** Inflammatory bowel disease (IBD) consists of two main types, Crohn's disease (CD) and ulcerative colitis (UC). The characteristics of IBD patients have not been studied widely in Iran; hence we aimed to survey the epidemiology of this disease in the Iranian population.

**Methods:** This study was conducted based on the Preferred Reporting Items for Systematic Review and Meta-analysis (PRISMA) guideline. Joanna Briggs Institute (JBI) Critical Appraisal Checklist was admired for the quality assessment of the included studies. For assessing heterogeneity, we used the Cochran test and I2 statistics. Meta-regression analysis was performed for mean age of CD and UC with conduction year of studies.

**Results:** Based on the results of this study, the male/female ratio for IBD, CD, and UC was 1.16 (95% CI: 1.05-1.26), 0.98 (95% CI: 80-1.16), and 1.14(95% CI: 1.04-1.23), respectively. The prevalence of smoking in IBD, CD, and UC was 7.6% (95% CI: 3.9%– 14.3%), 9.9 %( 95% CI: 7.7%– 12.8%), and 9.6% (95% CI: 4.5%– 19.3%), respectively. The mean age of the IBD, CD and UC population was 36.28 (95% CI: 34.59-37.97), 35.70 (95%CI: 31.76-39.64), and 37.21 (95% CI: 34.44-39.99) years old, respectively. The results of the meta-regression analysis showed that the average age of UC and CD patients has decreased in recent years.

**Conclusions:** In conclusion, we found that cigarette smoking consumption was significantly higher in CD patients. CD patients were younger compared to UC patients. In addition, the age of UC and CD patients has decreased in recent years

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ICGH 2023-033
Category: 2 .6 بیماریهای بدخیم

## Effect of genetic profiling on surgical decisions at hereditary colorectal cancer: A systematic review of qualitative literature

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**Introduction:** The knowledge surrounding colorectal cancer (CRC) genetics is continuously expanding. Previously, the diagnosis of a familial cancer syndrome relied solely on targeted clinical assessments and family history, without considering genetic mutations. However, with the recognition that surgical and medical treatments can now be guided by identifying pathological variations in a patient's DNA, it has become evident that genetic factors significantly contribute to CRC. Consequently, physicians should exhibit heightened suspicion of a hereditary component in high-risk CRC patients. This article systematically examines published studies that explore the influence of tumor genetics on medical management and surgical decisions regarding hereditary CRC syndromes.

**Methods:** The methodology employed in this study was based on systematic review and qualitative research approaches. Extensive searches were conducted across prominent databases, resulting in the identification of 25 relevant studies. Out of these, 8 studies met the inclusion criteria, and 6 were deemed to possess strong methodological quality upon appraisal.

**Results:** It is recommended to test the tumor for BRAF V600E or hypermethylation of the MLH1 promoter due to a false negative rate of 5-10% when using IHC. Additionally, colonoscopy screening effectively reduces the risk of CRC associated with MSH2 mutation. Furthermore, initial screening colonoscopy is advised to commence between the ages of 7-10 years for patients with APC mutation.

**Conclusions:** The genetic understanding of CRC provides valuable insights for implementing early endoscopic and/or surgical interventions. This approach not only aids in the prevention and treatment of CRC for the individual patient but also enables comprehensive care for the entire family.

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Code: DA-23099
ICGH 2023-035

گروه : ۷.۵ اداره بیماری

## بررسی ارتباط بین سطح کالپروتکتین مدفوع با بهبودی کلینیکال، اندوسکوپیک و هیستولوژیک در بیماران IBD (Inflammatory Bowel Disease) در بیمارستان امام خمینی(ره) از سال ۱۴۰۰ تا ۱۴۰۱

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**زمینــه و هدف:** بیمــاری مزمن التهابی دســتگاه گوارش شــامل دو بیماری CD(Crohn's Disease) و UC(Ulcerative Colitis) مــی باشــد. ایــن بیمــاری شــامل دوره هــای فعالیــت التهابــی و دوره های خاموشــی همــراه بــا بهبودی اســت. التهاب مزمن در این بیمــاران می توانــد عوارض ماننــد زخــم ، تنگی و پارگی و همچنین دیســپلازی و کنســر ایجــاد کند.

**روش بررسی:** در این مطالعه مقطعی، ۱۴۰ نفر از بیماران IBD که در سال های ۱۴۰۰تــا ۱۴۰۱ در بیمارســتان امــام خمینی تحت تشــخیص و درمان قرار گرفته اند به صورت در دســترس انتخاب شده و اطلاعات بالینی اندوسکوپیک و هیستولوژیک انها در طی این مدت جمع آوری شد. میزان کالپروتکتین مدفوعی در این بیماران به همراه کولونوســکوپی های پی در پی در انجام شده بررســی شد و سن ، جنس ، میزان کالپروتکتین با یافته ، UC یا CD ، بر اســاس نوع بیماری های اندوســکوپیک و هیســتولوژیک در آن مرحله از آن بیماری مقایسه شد. معیار خروج از مطالعه ، بیماران با Pouchitis ، IBD-U مصرف آســپرین و NSAIDSدرطی چهار هفته قبل از انجــام اندازه گیری کالپروتکتین مدفوعی و اطلاع به ســایر بیماری های التهابی و عفونی می باشــد . در این زمینه آنالیز ، آماری بــه کمک نرم افزار SPSS نســخه ۲۵ انجام شــد و آزمونهای آماری مــورد اســتفاده جهت مقایسه نتایــج بــر اساس ســن و جنســیت و نــوع بیماری و ... شــامل کای اســکوئر و فیشــر و تی مســتقل مــی باشــند تــا عوامل مرتبــط بــا میــزان کالپروتکتیــن مدفوعی تعیین شــد.

**یافته ها:** نتایج میزان کالپروتکتین مدفوع با سطوح آندوسکوپیک کولیک نشان داده است که با افزایش گرید Mayo آندوسکوپیک کولیت، سطح کالپروتکتین مدفوع افزایش می یابد . نتایج مطالعه حاضر نشــان داده اســت که با افزایش اســکور Mayo کلینیکال کولیت، میزان عــدد کالپروتکتین مدفوع افزایش می یابد. در بیماران کرون نیز با افزایش سطح CDAI کرون، سطح کالپروتکتین مدفــوع نیــز افزایــش می یابــد. بــا بد تر شــدن وضعیــت هیســتولوژیک نیــز ســطح کالپروتکتیــن مدفوع نیــز افزایــش مــی یابــد. ارتباط بین سطح cr با سطح کالپروتکتین مدفوع ارتباط مستقیم و معنی داری را دارد. ارتباط بین سطح ESR با ســطح کالپروتکتین مدفوع ارتباط مستقیم و معنی داری را دارد. ارتباط بین سطح CRP با سطح کالپروتکتین مدفوع ارتباط مستقیم و معنی داری را دارد. ارتباط بین سطح WBC با ســطح کالپروتکتین

مدفوع ارتباط مستقیم و معنی داری را دارد. ارتباط بین سطح PLT با سطح کالپروتکتین مدفوع ارتباط مستقیم و معنی داری را دارد. ارتباط بین سطح با Alb سطح کالپروتکتین مدفوع ارتباط مستقیم و معنی داری را دارد . **نتیجه گیری:** میزان کالپروتکتین به نظر میرسد بتواند جهت تعیین به خاموشی رفتن بیماری و یا تشخیص عود بیماری مطرح باشد، به عنوان روش غیر تهاجمی توصیه میگردد ، اما با تو.جه به اینکه حجم نمونه پایین میباشد، کات اف جدی برای آن تعیین نشد و نیاز است تا مطالعات اتی با در نظر گرفتن حجم نمونه بزرگتر مد نظر قرار داده شود .

تاریخ ارسال : ۲۰۲۳/۱۰/۱۱

Code: DA-23067
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Category: 12.2 Small bowel / colorectal and anal

### Investigating the quality of life and its associated factors in patients with colorectal cancer

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**Introduction:** Colorectal cancer is among the most common neoplasms of the gastrointestinal tract and is associated with a dramatic decline in quality of life (QoL). The present study's aim was to ascertain the QoL and its associated factors in patients with colorectal cancer in Isfahan province.

**Methods:** In this cross-sectional study, QoL was assessed using the QOL-C29 and QOL-C30 questionnaires in 400 patients diagnosed with colorectal cancer registered in the cancer registration system in Isfahan province in 2015.

**Results:** The mean QoL score in the patients was 54.61 ± 16.1, and life quality was satisfactory in 46 (11.5%) patients, moderate in 153 (38.3%), and poor in 201 (50.2%) individuals. The mean QoL scores in the functional and symptoms dimensions were 47.65 ± 17.6 and 44.89 ± 13.53, respectively. There was no significant difference in the QoL score between the two genders, but significant differences were observed regarding age group, having an ostomy, type of surgery, and disease stage.

**Conclusion:** The findings of the present study showed that patients with colorectal cancer were deprived of satisfactory QoL, and over two-thirds of the patients had poor physical and psychological conditions depending on various factors such as the patient's age, history of surgery, bearing a colostomy sac, and disease stage. Therefore, it is necessary to offer these patients special supportive care in physical, psychological, and social dimensions so that they can enjoy better QoL.

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Code: DA-23021
ICGH 2023-038
Category: 14.3 Management of malignant disease

### Pancreatobiliary Cancers, The Association between Sleep Quality and health-related quality of life

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**Introduction:** Sleep quality and disturbance recently considered as a important issue that significantly increases the risk of inflammatory diseases .In cancer patients this issue are multiply that may influence on general health of patients also adherence of them to therapeutic modalities. By the way studies on pancreatobiliary patients and sleep quality related factors remain unclear

**Methods:** In a prospective study, 471 patients diagnosed with pancreatobiliary cancers were included. Exclusion criteria consisted of no prior history of gastrointestinal cancer and no previous exposure to chemotherapy or radiotherapy. Each patient underwent an assessment involving a questionnaire covering demographic and anthropometric information, as well as sociodemographic details. Additionally, a set of checklists and questionnaires, including the Pittsburgh Sleep Quality Index (PSQI) and Health-related Quality of Life (HRQoL), along with laboratory data, were collected.

**Results:** The average age of the participants was 62.5 years, with a standard deviation of 13.3 years, and the majority of them were male, accounting for 58.1% of the sample. Among these individuals, 322, or 65.5%, reported experiencing poor sleep quality. Notably, individuals with good sleep quality had significantly higher scores across

all quality of life aspects. Good sleep quality was linked to notable improvements in both physical and mental aspects of quality of life. Notably, sociodemographic variables did not reveal any significant association with the sleep quality score. Among all quality-of-life subscales, sleep quality had the most significant impact on emotional and physical well-being, as well as mental health and bodily pain (p<0.001).

**Conclusion:** Among pancreatobiliary cancers sleep disturbance are common Issue that significantly effects on HQOL. Therefore, improvement and pay attention to patients emotional status and physical activity may improve sleep quality and also help the patient to better adapt to new condition.

Send Date: 2023/09/17

Code: DA-23018
ICGH 2023-039
Category: 7.11 Acute liver failure - transplantation/surgery

### Improved Function of Dendritic Cells Stimulated by Recombinant pp65 Protein: A vaccine or immunotherapy candidate for liver transplant patients

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**Introduction:** Stimulated dendritic cells (DCs) have been shown to be effective in the induction of specific immune cells. Also, the CMV pp65 plays an important role in CMV life cycle and immune recognition. Objective: To assess the effect of CMV pp65 on the maturity and function of dendritic cells In order to design a vaccine or immunotherapy for liver transplant patients.

**Methods:** Splenic DCs were treated with non-cytotoxic concentrations of the pp65 and analyzed for MHC II, CD86, and CD40 expression by flow cytometry. Then, ROR-γ, GATA3, T-bet, and FOXP3 gene expression levels were evaluated in T cells co-cultured with DCs using Real time-PCR. Finally, the effects of pp65 on allogenic T-cell responses in mixed lymphocyte culture (MLR), and the release of cytokines were investigated by ELISA and flow cytometry.

**Results:** The phagocytosis rate was significantly lower in the pp65-treated DCs than the non-stimulated DCs. There were significant differences in the raised level of CD40, CD86, and CCR7 in DCs as maturation markers. Furthermore, ROR-γ, and T-bet overexpression in T cells of the pp65-treated group compared with the non-stimulated group was observed. Significant differences were observed in the levels of IL-2, IL-6, IL-17, IL-22, TNF-α, and IFN-γ in pp65-stimulated groups compared with the nonstimulated DCs.

**Conclusion:** The pp65-treated DCs can induce differentiation and functional activity of the cellular immune system, including Th17, and Th1. Therefore, the recombinant pp65 protein can be used as a vaccine or immunotherapy candidate for liver transplant patients.

Send Date: 2023/08/28

Code: DA-23032
ICGH 2023-040
Category: 7.7 هپاتیتهای ویرال: تظاهرات پایه

### Comparison of liver elastography results in COVID-19 patients with and without increased liver enzymes

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**Introduction:** The coronavirus disease 20149 (COVID-19) may be associated with the elevated liver enzymes including alanine aminotransferase (ALT) and aspartate aminotransferase (AST), in which the disease has been associated with more severity. Liver stiffness (LS) is associated with the increased liver enzymes. Liver elastography is a non-invasive technique that is used to evaluate LS. This study aimed to evaluate the functional status of liver and its relationship with liver elastography results in the patients with COVID-19.

**Methods:** In this cross-sectional study, 90 patients with COVID-19, whose diagnosis was confirmed by polymerase chain reaction (PCR) test, were included. Levels of liver

enzymes were measured and the patients underwent liver elastography. Liver size and interquartile range-median (IQR/M) of LS were also measured. Six months later, the patients underwent another liver elastography and measurement of liver enzymes.

**Results:** The frequency of fatty liver in the case group was significantly higher compared to the control group but no significant difference was observed in the frequency of liver fibrosis between two groups. In patients with COVID-19, the LS and IQR/M values at the beginning and six months after recovery were significantly higher in the group with the increased liver enzymes (case) compared to the group without the increased enzymes (control). P value was 0.001

**Conclusion:** The use of elastography to evaluate LS in the patients with COVID-19 can be significantly effective in assessing the status of liver damage and inflammation of liver tissue. Since elastography is an inexpensive and non-invasive available tool, it can be used mainly in most medical centers.

Send Date: 2023/09/18

Code: DA-23034
ICGH 2023-041

گروه : ۳.۱ مهارت بالینی پایه

### Evaluation of Adding Erythromycin and Metoclopramide to the Standard Regimen of Colonoscopy Preparation; A Randomized Multi-Arm Clinical Trial

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**Introduction:** To investigate the clinical effect of adding erythromycin and metoclopramide to the Polyethylene glycol (PEG) as standard regiment for colonoscopy preparation.

**Methods:** This is a single-center multi-arm randomized clinical trials investigated and compared different regimens for colonoscopy preparation. All patients were randomly divided into five groups of A: high volume PEG (4 liters), B: high volume PEG + 3 tablets of oral metoclopramide C: high volume PEG + 3 tablets of oral erythromycin

400 mg, D: high volume PEG+3 tablets of 10 mg oral metoclopramide + 3 tablets of 400 mg oral erythromycin, E: low volume PEG (2 liters) + 3 tablets of 10 mg oral metoclopramide + 3 tablets of 400 mg oral erythromycin. The primary Outcome was to properly prepare the bowel, determined by a score of 6 or higher on the Boston Bowel Prep Scale with individual segment scores of 2 or higher. The secondary outcome was bowel preparation, polyps observing, and reach the cecum.

**Results:** A total of 280 patients eligible for colonoscopy were enrolled into the study and randomly divided into five groups. No significant difference between different regimens for time to reaching to cecum. Group A was associated with the highest satisfactory preparation (67.9%), but no significant difference was observed (P-value=0.076). Moreover, group A, B, and D had a similar rate of polyp observation (23.2%) and the lowest proportion was belonging to group E (12.5%). However, reaching to the cecum among different groups was not statistically significant (P-value = 0.523).

**Conclusion:** Our findings showed that adding metoclopramide or erythromycin to high-volume or low-volume PEG was not significantly different from low-volume or high-volume PEG alone. The study protocol was reviewed and registered at IRCT.ir (IRCT20210719051943N1).

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Code: DA-23077
ICGH 2023-042

Category: ۲.۴ بیماری سلیاک / سندروم های سوء تغذیه و انتروپاتی های غذایی

### The evaluation of tissue anti-transglutaminase level with histopathology based on marsh system classification and clinical manifestations in celiac disease

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**Introduction:** Celiac disease is an autoimmune enteropathy that occurs in genetically predisposed people following gluten consumption. In this study, we have evaluated the relationship between Anti t-TG level with Marsh system classification and clinical manifestations in patients with

celiac disease.

**Methods:** This is a cross-sectional study by examining the information of clinical documents of 346 patients who were diagnosed with celiac disease during the years of 2010 to 2021 at Poursina Hakim Research institute in Isfahan that laboratory tests and biopsies of the first and second part of the duodenum were completed. In these patients, the relationship between Anti t-TG serological test, clinical manifestations and biopsy findings based on the Marsh classification system is evaluated. In patients with IgA deficiency, IgG anti t-TG serology is checked.

**Results:** Among 346 patients (mean age = 26.53 ± 16.67 and 56.4% female), 55 patients (15.9%) were normal or grade 1, 31 patients (0.9%) were grade 2, 179 Patients (51.7%) were grade 3a or 3b and 81 patients (23.4%) were grade 3c or 4. The average of Anti t-TG serological test in the above groups were 70.94(±116.45), 146.56(±174.42), 149.08(±163.42) and 213.85 (±206.74) respectively; that is statistically significant in different stages. Among the 184 (53.2%) patients with atypical manifestations, 110 patients were in the 3a or 3b marsh group, while the typical symptoms of the disease are more common in the higher marsh group. Also, the level of Anti t-TG is higher in patients with typical clinical manifestations or those with diarrhea or arthralgia.

**Conclusion:** Higher anti t-TG levels as well as typical clinical manifestations and symptoms such as diarrhea and borborygemia are related to the severity of tissue damage in celiac disease

Send Date: 2023/10/11

Code: DA-23056
ICGH 2023-043
Category: 19.1 Endoscopy - Upper GI

### Endoscopic reduction of upside down stomach (total gastric herniation): a case report

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**Introduction:** A 74 y old lady has referred with complain of upper GI discomfort, anorexia and gastric pain after eating. Based on her problems, an upper series requested which revealed the whole stomach herniated to the chest cavity (figure 1). Because of several comorbidities and old age, she was not a candidate for surgical reduction, so she planned for endoscopic reduction.



**Case Report:** During endoscopy, the most difficult and important stage as first step is to find the gastric outlet which could be time consuming. Then the endoscopic should try to move the scope forward toward second and preferentially third part of the duodenum with a spiral movement like motorized enteroscope. After that, the scope should pull back while rotating clockwise. Sometimes it is necessary to repeat the maneuver twice or 3 times to achieve the best result. Immediately after the procedure, the patient feeling good and all of the pains and discomforts disappear.

**Conclusion:** Upside down stomach or total gastric herniation is a potentially dangerous condition specially among those with extreme age old and several comorbidities which could be reduced by upper endoscopy.

Send Date: 2023/09/24

Code: DA-23054
ICGH 2023-044
Category: 6.4 Other colonic and anorectal disorders

### Relationship between bowel preparation and colonoscopy with fecal calprotectin levels in patients referred to the endoscopy center of Razi Hospital in Rasht

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**Introduction:** Fecal calprotectin is commonly used as a tool to diagnose patients with gastrointestinal symptoms. However, there is no definitive consensus on how to routinely interpret high stool calprotectin in patients with a normal colonoscopy in the clinic. The aim of this study was to determine the relationship between bowel preparation for colonoscopy with fecal calprotectin levels in patients referred to the endoscopy center of Razi Hospital in Rasht

**Methods:** In a cross-sectional-analytical study, 58 patients who were candidates for colonoscopy and after obtaining informed consent, underwent total colonoscopy in the endoscopy department of Razi Hospital. The working method was that first, a stool sample was taken before the preparation for the colonoscopy to measure the amount of calprotectin, then the preparation for the patient started, and again the stool sample was taken before the colonoscopy (during bowel preparation) and its calprotectin level was checked. The same thing was repeated a week after the colonoscopy. And if any lesion is observed in the colonoscopy, a biopsy was taken from it. A checklist including recording demographic/clinical characteristics/colonoscopy and pathology findings was completed for all patients. The results of the tests were entered in the checklists, all pathology samples were referred to a pathologist and were observed and reported by a pathologist. Finally, the results of three stages of fecal calprotectin and the trend of changes and its relationship with colonoscopy findings and pathology results were evaluated. The data was analyzed using SPSS version 16 software and the significance level was considered 0.05

**Results:** The average age of the participants was 48.22 ± 11.69 years. Of the 58 people studied, 36 (62.1%) were women. The results of the Friedman test showed that there is no statistically significant difference between the values of fecal calprotectin at different time points (P=0.146). The results of the Mann-Whitney test showed that before bowel preparation, there is no statistically significant difference between the values of calprotectin in stools of patients with normal and abnormald pathology (P=0.478). Also, no statistically significant difference was found between the two groups during bowel preparation (P=0.498) and one week after colonoscopy (P=0.580).

**Conclusion:** It seems that bowel cleansing does not have a significant role in the changes or increase of calprotectin level.

Send Date: 2023/09/23

Code: DA-23065
ICGH 2023-045
Category: 5.4 Diagnosis and monitoring

### Gastrointestinal functional disorders in patients with inflammatory bowel disease based on ROME IV

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**Introduction:** Inflammatory bowel disease is a digestive system ailment that causes significant bodily disruption. This problem may coexist with other digestive system illnesses. One of the diseases that reduces the quality of life and other disorders is functional dyspepsia (FD), the diagnosis of which is associated with unique limitations. In this study, we aim to investigate the functional dyspepsia in IBD patients and compare it with a healthy control group.

**Methods:** We collected a group of IBD patients and healthy control, and all participants were prepared for a diagnosis of functional dyspepsia (FD) symptoms using ROME IV criteria.

**Results:** There were 100 IBD patients, including 91 with ulcerative colitis and 9 with Crohn's disease. (mean age 41.37±13; 39 males, 61 females) Furthermore, 100 healthy control subjects (mean age 44.23±14; 38 males, 62 females) were analyzed. Of the IBD patients (ulcerative colitis 10, (10%)) met the criteria of FD, which was comparable with the controls (5, 5%) (P>0.05). The symptoms of IBS were significantly higher in IBD patients than in non-IBD subjects (P <0.03).

**Conclusion:** The symptoms of functional dyspepsia were not significantly greater in IBD patients compared to the control group, while IBS symptoms were significantly higher in IBD individuals, indicating a possible overlap

of Rome IV Irritable Bowel Syndrome and functional dyspepsia.

Send Date: 2023/10/02

Code: DA-23049
ICGH 2023-046
Category: 6.4 Other colonic and anorectal disorders

### The association between anthropometric indicators and colorectal polyps and diverticulosis

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**Introduction:** Colonic polyps and diverticulosis are common colon findings on colonoscopy. One of the risk factors of colorectal polyps and diverticulosis is the anthropometric index. Therefore, we aimed to investigate the association between the anthropometric index and colorectal findings

**Methods:** In this cross-sectional study, we included 536 patients referred to Razi Hospital, Rasht, Iran, in 2023 for colonoscopy evaluation. Demographical data, clinical characteristics, and colonoscopy findings were recorded for further analysis. All data were analyzed using SPSS.16 by considering a significant level<0.05

**Results:** The results showed that 35.4% of the patients had polyps, with the majority having a single polyp. The patient's mean age was $55.94 \pm 13.33$ years; mostwere females (54.1%). The most common type of polyp was pedunculated, and most were located in the sigmoid colon. The prevalence of diverticular was 11.4%, most of which were also located in the sigmoid colon. Obesity was significantly associated with an increased risk of polyps, while overweight individuals had a higher risk of diverticula (P<0.05). Age, rural residence, and low physical activity level were identified as factors associated with an increased risk of polyps and diverticula

**Conclusion:** The findings suggest that obesity and overweight are risk factors for polyps and diverticula, respectively. Further research is warranted to explore additional factors and develop preventive strategies for colorectal diseases. These results support the need for preventive strategies and screening programs to reduce the risk of future colorectal lesions

Send Date: 2023/09/23

Code: DA-23083
ICGH 2023-047
Category: 7.4 Hepatotoxicity/alcohol - regeneration - apoptosis

### Effects of the 5:2 intermittent fasting diet on non-alcoholic fatty liver disease: A randomized controlled trial

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**Introduction:** Dietary regimens are crucial in the management of non-alcoholic fatty liver disease (NAFLD). The effects of intermittent fasting (IF) have gained attention in this regard, but further research is warranted. Thus, we aimed to ascertain the overall effects of the 5:2 IF diet (5 days a week of normal food intake and 2 consecutive fasting days) in patients with NAFLD compared to a control group (usual diet).

**Methods:** A 12-week randomized controlled trial was performed to evaluate the effects of the 5:2 IF diet on anthropometric indices, body composition, liver indices, serum lipids, glucose metabolism, and inflammatory

markers in patients with NAFLD. The IF group (n = 21) decreased body weight (86.65 ± 12.57-82.94 ± 11.60 kg), body mass index (30.42 ± 2.27-29.13 ± 1.95 kg/m2), waist circumference (103.52 ± 6.42-100.52 ± 5.64 cm), fat mass (26.64 ± 5.43-23.85 ± 5.85 kg), fibrosis (6.97 ± 1.94-5.58 ± 1.07 kPa), steatosis scores/CAP (313.09 ± 25.45-289.95 ± 22.36 dB/m), alanine aminotransferase (41.42 ± 20.98-28.38 ± 15.21 U/L), aspartate aminotransferase (34.19 ± 10.88-25.95 ± 7.26 U/L), triglycerides (171.23 ± 39.88-128.04 ± 34.88 mg/dl), high-sensitivity C-reactive protein (2.95 ± 0.62 -2.40 ± 0.64 mg/L), and cytokeratin-18 (1.32 ± 0.06-1.19 ± 0.05 ng/ml) values compared to the baseline and the end of the control group (n = 23)-p ≤ 0.05 were considered as significant. However, the intervention did not change the levels of high-density lipoprotein cholesterol, total cholesterol, low-density lipoprotein cholesterol, fasting blood sugar, insulin, HOMA-IR, and total antioxidant capacity.

**Results:** However, the intervention did not change the levels of high-density lipoprotein cholesterol, total cholesterol, low-density lipoprotein cholesterol, fasting blood sugar, insulin, HOMA-IR, and total antioxidant capacity.

**Conclusion:** Adhering to the 5:2 IF diet can reduce weight loss and related parameters (fat mass and anthropometric indicators of obesity), as well as hepatic steatosis, liver enzymes, triglycerides, and inflammatory biomarkers in patients with NAFLD.

Send Date: 2023/10/11

### The Effect of Afsanteen (Artemisia Absinthium) in the Treatment of Non-Alcoholic Fatty Liver Disease: A Randomized Double-Blind Clinical Trial

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**Introduction:** Non-alcoholic fatty liver disease (NAFLD) can be considered one of the clinical manifestations of metabolic syndrome, which is currently considered one of the common problems of human societies. According to traditional medicine texts and recent studies, Afsanteen (Artemisia absinthium) has a very useful therapeutic effect in protecting and normalizing abnormal liver conditions. Considering that the effects of Afsanteen plant extract in patients with NAFLD have been investigated in very limited studies. The aim of this study is to investigate the effectiveness of Afsanteen plant extract on the functional indicators of the liver in patients with NAFLD.

**Methods:** In this randomized double-blind clinical trial study, 56 patients with a history of NAFLD were randomly divided into intervention and control groups. The intervention group was given 1200 mg Afsanteen capsules daily twice a day for three months. The control group was also given placebo twice a day in the same way and at the same time. Demographic data of patients were recorded. After three months, changes in functional liver enzymes such as alanine aminotransferase (ALT), aspartate aminotransferase (AST), alkaline phosphatase (ALP), total and direct bilirubin, and gamma glutamyl transferase (GGT), liver ultrasound findings, fasting blood sugar, body mass index (BMI), erythrocyte sedimentation rate (ESR), and C-reactive protein compared to the baseline were evaluated. Then the findings were analyzed using SPSS version 25.

**Results:** Based on the results obtained from the analyzed data of 56 patients, it was shown that the demographic data such as age, sex, education, place of residence, level of education, and blood type in both groups of patients do not have statistically significant differences (P>0.05). Also, according to the obtained results, in the group receiving Afsanteen, ALT, ALP, and fatty liver grade (reduced to 2 and less than 2) decreased in a statistically significant way (P<0.05), while this decrease was not observed in the control group (P>0.05). On the other hand, the amount of AST, total and direct bilirubin also decreased more in the Afsanteen group than in the placebo group, but compared to the baseline, these changes were not significant (P>0.05). BMI, ESR, as well as C-reactive protein were not statistically significant in the two groups before and after

the intervention (P>0.05).

**Conclusion:** According to the results obtained in this study, it was shown that the administration of Afsanteen in patients with NAFLD has a decreasing effect on the liver enzymes of ALT, ALP and also AST. Additionally, the effects of this medication were observed in reducing the grade of fatty liver in patients to grade 2 and grade 1.

Send Date: 2023/10/11

Code: DA-23051
ICGH 2023-049
Category: 2.4 Reflux disease - pathogenesis

**Investigating the prevalence of proton pump inhibitors (PPIs) use and related factors: A Cross-Sectional Study**

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**Introduction:** PPIs are one of the most powerful inhibitors of gastric acid secretion and one of the most common drug classes that are widely used to treat patients with disorders related to the upper digestive system. Therefore, we discussed the prevalence of proton pump inhibitors (PPIs) use and related factors in the Guilan cohort population.

**Methods:** In this cross-sectional study, which is the part of the Persian cohort study, 10,520 people aged between 35-70 in Guilan province referred to the cohort were examined in terms of PPIs consumption. These people were divided into two groups of consumers and non-consumers. Then these people in terms of demographic characteristics and clinical were compared. The data were analyzed using SPSS version 16 and STATA version 17 software. And the analysis was done and a significance level of 0.05 was considered.

**Results:** The average age was 51.52 ± 8.90 years and 33.5% were older than 55 years and 53.5% were women. The prevalence of PPIs use in all participants was equal to 4.8% and was higher in women than men (6.1% compared to 3.3%). Overall, the prevalence of PPIs use increased with age of the participants. The chance of using PPIs in people aged 45-54 and older than 55 years was more. The chance of using PPIs in women was 1.89 times that of men. The chance of using PPIs was higher in widowed/deceased people. The odds of using PPIs were higher in illiterate people compared to people with university education. The chance of using PPIs was lower in working people. The chance of using PPIs was higher in people with high-risk level waist-to-hip ratio. Regarding physical activity the chance of using PPIs in people who were in the first tertile (low physical activity) and the second tertile (moderate physical activity) were more. Smoking decreased the chance of using PPIs by 26%. Similar results were found for hookah use and drug use. Having high blood pressure increased the chance of using PPIs by 94%; Also, having diabetes increased the chance of using PPIs by 64%. With the increase in the number of comorbidities, the chance of using PPIs increased, so that the chance of using PPIs in people who had one, two, and more than two comorbidities was 1.51, 2.50, and 4.81 times, respectively. The chance of using PPIs in people using NSADIs was 3.43 times that of people not using NSADIs.

**Conclusion:** In the majority of cases, we see that acid production inhibitors are used beyond the need. Explaining the possibility of excessive use of wound preventive drugs, perhaps due to the lack of complete knowledge of the indications for its prescription, unjustified fears of not prescribing drugs, lack of knowledge of the side effects of acid production inhibitors and their clear role in increasing microbial overgrowth and aspiration risks. It is respiratory. In addition to possible complications, medical and medical costs are also imposed on patients. But it is better to be careful at the beginning of the prescription and avoid inappropriate use of acid inhibitors.

Send Date: 2023/09/23

Code: DA-23052
ICGH 2023-050
Category: 2.4 Reflux disease - pathogenesis

**The frequency of gastroesophageal reflux and related factors in Persian Guilan cohort Study(PGCS)**

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**Introduction:** Gastroesophageal reflux (GERD) is one of the most common diseases of the digestive system, the prevalence of which is increasing among different societies, including Iran. The purpose of this study is to investigate the frequency and identify the risk factors of this disease in the Persian cohort population.

**Methods:** In this cross-sectional-analytical study, which is a part of the Persian cohort study, 10,520 people referred to the cohort were examined for reflux. These people were divided into two groups, infected and non-infected. Reflux was determined according to the person's self-expression by asking questions in this regard, including: Have you ever been diagnosed with acid reflux disease from the stomach to the esophagus? Then these people were determined in terms of demographic characteristics (age, sex, place of residence, marital status, smoking, alcohol, hookah, tea, coffee, opium, BMI, WHR, wealth index, educational status, occupation, drug use and habits). food) and clinical (physical activity, history of underlying diseases, laboratory results) were compared. The data were analyzed using SPSS version 16 and STATA version 17 software, and a significance level of 0.05 was considered.

**Results:** Of the 10,520 people studied, the average age of the participants was $51.52 \pm 8.90$ years and 3527 people (33.5%) were older than 55 years and 5633 people (53.5%) were women. The prevalence of GERD in all participants was 13.2%. People with GERD had higher education level (P=0.035), higher socio-economic status (P=0.018), higher body mass index (P=0.011), The ratio of waist circumference to hip circumference was higher (P<0.001) and physical activity was lower (P<0.001). The ratio of women in people with GERD was higher (P<0.001) and the ratio of employment in people with GERD was lower (P<0.001). Smoking was lower in people with GERD compared to people without GERD (P=0.037). The proportion of people with hypertension was higher in people with GERD compared to people without GERD (P=0.004). In total, the number of comorbidities was higher in people with GERD compared to people without GERD (P<0.001). The consumption of NSAIDs was higher in subjects with GERD compared to subjects without GERD (P = 0.001, respectively). Multiple logistic regression analysis (adjusted) to identify independent factors associated with GERD showed that female gender, having more Weight and obesity, number of comorbidities, NSAID use, high waist-to-hip ratio, and low physical activity were significantly associated with a higher risk of GERD.

**Conclusion:** Due to the high prevalence of GERD in this population, it is of special importance to provide the necessary training to people in the field of risk factors, its prevention and proper treatment.

Send Date: 2023/09/23

Code: DA-23101
ICGH 2023-051
Category: 1. 16 بیماریهای بدخیم

### The etiology of colectomy in ulcerative colitis patients: the results of a national registry in Iran

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**Introduction:** This study aimed to evaluate the etiology of colectomy in ulcerative colitis (UC) patients.

**Methods:** The present study is cross-sectional within the Iranian IBD cohort registry. Ninety-one UC patients who had colectomy surgery were invited for further evaluation. Then the patients were divided into two groups of colectomy due to dysplasia or cancer and colectomy for other reasons. Two trained questioners collected the information from patients and evaluated the body mass index (BMI) of patients

**Results:** Based on the result of this study, 51 (56 %) of participants were male. Among the 91 admitted patients, 28 had dysplasia or cancer and 63 did not have dysplasia or cancer. The mean age of participants was $54.3 \pm 13.6$ in dysplasia group and $43.6 \pm 12.1$ in no dysplasia group. Among the surveyed variables, age (OR = 1.06, 95 % CI 1.02–1.11, P value = 0.001), age the time f diagnosis of the disease (OR = 1.04, 95 % CI 1.00–1.09, P value = 0.019),

age at the time of surgery (OR = 1.06, 95 % CI 1.02–1.11, P value = 0.002) were significantly associated with increased risk of dysplasia in UC patients with colectomy

**Conclusion:** Based on the results of this study, dysplasia is related to older age, age of diagnosis and surgery. These findings imply UC patients of advanced age are at higher risk of (colorectal cancer) CRC. We suggest that surveillance protocols and screening programs should be specified for these patients.

Send Date: 2023/10/11

Code: DA-23015
ICGH 2023-052
Category: 5.7 Management

### Can treatment with anti-TNF in Crohn's disease cause abdominal abscess?

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Crohn's disease is an inflammatory gastrointestinal disease that has many extra-intestinal involvements. Abdominal abscess is a rare manifestation of Crohn's disease. It has many etiologies that have been deliberated. The keywords were searched in the valid database and the articles that were most related to the purpose of the study were discussed. The aim of this article is to review the effect of anti-TNF, on Abdominal abscesses in Crohn's patients. Anti-TNF-α plays a challenging role; it may be the cause of the abscess, and on the other hand, it's the main treatment of Crohn's disease.

Send Date: 2023/08/09

Code: DA-23028
ICGH 2023-053
Category: 6.4 Other colonic and anorectal disorders

### Rectal bleeding as a symptom of solitary rectal ulcer syndrome mimicking rectal neoplasm on colonoscopy: A case report

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**Introduction:** Solitary rectal ulcer syndrome (SRUS) is a rare benign rectal disorder, with an estimated prevalence of one in 100,000 individuals annually.Due to its rare occurrence, it is not adequately diag-nosed and treated, which makes it often misdiagnosed with other diseases such as inflammatory bowel disease (IBD), constipation, and malignancies. Therefore, it is necessary to know its diagnostic features and treatment

**Case Report:** This report presents a case of a polypoid solitary rectal ulcer in a 19-year-old man who came to the gastroenterologyclinic with rectal bleeding and chronic constipation, the diagnostic procedures to rule out other critical differential diagnoses, and the treatments performed. It revealed one large semi-circumferential infiltrative mass lesion with a polypoid appearance in the rectum within 5 cm of the anal verge, which was suspected to be malignant, so biopsy was taken .Histopathological study revealed features of solitary rectal ulcer, including fibrosis and extension of smooth muscle fibers in the lamina propria with diamond-shaped crypts, crypt regenerative hyperplasia, surface erosion, crypt hyperplasia, ectatic capillaries, and minimal inflammation. These histologic features and colonoscopy findings were suggestive of polypoid solitary rectal ulcer.

**Conclusion:** In conclusion, for patients with complaints of rectal bleeding with constipation and the presence of a suspi-cious mass in colonoscopy, a biopsy should be taken to decide on a treatment plan, because it differs based on the nature of the mass. Histological features such as fi-bromuscular obliteration in the lamina propria is in favor of SRUS; however, IBD and malignancies should be ruled out

Send Date: 2023/09/18

Code: DA-23002
ICGH 2023-054
Category: 18 GASTROINTESTINAL BLEEDING

### Gastrointestinal Bleeding in COVID-19-Infected Patients

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COVID-19 infection is an ongoing catastrophic global pandemic with significant morbidity and mortality that affects most of the world population. Respiratory manifestations predominate and largely determine patient prognosis, but gastrointestinal (GI) manifestations also frequently contribute to patient morbidity and occasionally

affect mortality. GI bleeding is usually noted after hospital admission and is often one aspect of this multisystem infectious disease. Although the theoretical risk of contracting COVID-19 from GI endoscopy performed on COVID-19-infected patients remains, the actual risk does not seem to be high. The introduction of PPE and widespread vaccination gradually increased the safety and frequency of performing GI endoscopy in COVID-19-infected patients. Three important aspects of GI bleeding in COVID-19-infected patients are (1) GI bleeding is often from mucosal erosions from mucosal infalammation that causes mild GI bleeding; (2) severe upper GI bleeding is often from PUD or stress gastritis from COVID-19 pneumonia; and (3) lower GI bleeding frequently arises from ischemic colitis associated with thromboses and hypercoagulopathy from COVID-19 infection. The literature concerning GI bleeding in COVID-19 patients is presently reviewed.

Send Date: 2023/06/28

Code: DA-23057
ICGH 2023-055
Category: 7.6 Cirrhosis and complications: clinical aspects

## How to Improve Quality of Care for Patients with Liver Cirrhosis

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Liver cirrhosis (LC), the end-stage phase of any untreated chronic liver disease (CLD), can progress to hepatic decompensation, hepatocellular carcinoma (HCC) and eventually death. Globally there are more than 1 million and 500,000 deaths due to cirrhosis and HCC respectively per year worldwide. In Iran, 4500 deaths were reported due to cirrhosis in 2017, which comprises 2.6% of all deaths, and, importantly, 20 percent were below age fifty. Although viral hepatitis B have been the most important cause of LC, but non-alcoholic fatty liver disease (NAFLD) has been raised as the main cause of chronic liver disease in recent years. The main causes of death have been liver-related complications, but a significant component of deaths have been due to non-liver causes such as CVD, malignancies, and infection, especially in NAFLD. With recent advances, especially in non-invasive measures, the natural history of LC has been more clearly defined, and now the LC is not a single entity, so it can be divided into compensated and decompensated phases, and in more detail, and in more detail, can be divided into at least four to five stages with different presentations and outcomes. Importantly, for the implementation of any standard or quality definition, this categorization can help us better define the quality of care and set standards of care at each stage.

Some factors, such as education and empowerment, self-involvement in the health care team, familial and social support, access to health care facilities, insurance quality, stress management, regular exercise, and healthy nutrition, can improve both the quality of care and also the quality of life which have reciprocal effects, but the quality of care is our main point in this article.

The quality of care is not related to liver disease per se. Management of comorbid conditions such as cardiovascular disease, diabetes mellitus, malignancies, and infections has an important effect quality of care for these patients. The liver-related quality of care can also be fractionated into different stages of chronic liver disease. Early diagnosis in high-risk groups, cost-effective use of diagnostic methods, etiologic diagnosis and suitable management, a cost-effective screening program for esophageal varices and hepatocellular carcinoma, early diagnosis and management of decompensation and complications of cirrhosis, and timely allocation for liver transplantation, are important components of improving quality of care.

Although there are important gaps between daily clinical practice and regional and accepted standards, determining standards of care can improve this condition and fill these gaps. There are multiple studies which reveals setting standard of care such as use of the chronic disease management paradigm, the day hospital setting, and the checklist in hospitalized patients improved the quality of care in these patients. It is assumed that the area of quality of care in different aspects of diagnosis, management, and outcome measures in chronic liver disease has been improved basically, but needs more studies for their cost-effective implementation in daily clinical practice.

Send Date: 2023/09/27

Code: DA-23068
ICGH 2023-056
Category: اپیدمیولوژی 1.1

**Prevalence of gastrointestinal symptoms among individuals with and without diabetes: A Cross-Sectional Study from the PERSIAN Guilan Cohort Study**

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**Introduction:** Gastrointestinal (GI) symptoms are the most common complaint among individuals with diabetes. This study investigated the prevalence of upper, lower, and general GI symptoms in individuals with and without diabetes among the Prospective Epidemiological Research Studies in Iran (PERSIAN) Guilan Cohort study (PGCS) population.

**Methods:** This cross-sectional study of PGCS was conducted on 2669 participants, 1364 with diabetes and 1305 without diabetes. The first part of the questionnaire collected demographical and clinical data, and the second part collected GI symptoms. A 4-point Likert Scale was used for each question. Data were analyzed using SPSS software version 16, and the significance level was considered < 0.05.

**Results:** The mean age of the participants was $52.24 \pm 8.75$ years, and 55.5% were female. Patients with diabetes have an increased incidence of upper GI symptoms (aOR=1.19, 95% CI: 1.00-1.42, P=0.045) compared to individuals without diabetes. The most common upper GI symptom in patients with diabetes compared to those without diabetes was belching (18.6% vs. 14.9%, P=0.009).

**Conclusion:** The prevalence of GI symptoms was high in both patients with and without diabetes, and the chance of developing GI upper symptoms was higher in patients with diabetes.

Send Date: 2023/10/04

Code: DA-23063
ICGH 2023-057
Category: 5.1 Basic/pathogenesis/pathology/

**No increase in adverse events of COVID-19 vaccination in patients with Inflammatory Bowel Disease: A case-control study**

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**Introduction:** There are some challenges and concerns about vaccination safety in inflammatory bowel diseases (IBD) patients. Since there is a paucity of evidence in this subject, in this study we aimed to investigate the safety of anti-SARS-CoV-2 vaccination in IBD patients compared to healthy controls.

**Methods:** Telephone or in-person interviews were conducted from September to December 2021 to report local or systemic adverse events related to the anti-SARS-CoV-2 vaccine in 86 patients with IBD and 91 healthy subjects.

**Results:** About 69% of the participants reported at least one adverse effect following the first (24%) or second doses (74%) vaccination against COVID-19. Local pain at the injection site, fatigue, headache, and fever were the most common adverse effects in both IBD and healthy groups. All the adverse effects were mild and lasted only a few days. The prevalence of pain at the injection site, myalgia, flu-like symptoms, headache, fever, and tenesmus were significantly higher in the healthy control group compare with the IBD patients (p<0.05).

**Conclusion:** This study demonstrated that the vaccine side effects in IBD patients are not noteworthy. Hence, patients

with inflammatory bowel diseases (both UC and CD) should be vaccinated against COVID-19 without much concern.

Send Date: 2023/10/02

Code: DA-23095
ICGH 2023-058
Category: 10 .7 ایمونولوژی

### Association Between serum concentrations of cytokines and matrix proteins metalloproteinase- 2& 9 with steatosis and hepatic fibrosis in patients with non-alcoholic fatty liver

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**Introduction:** The ability to detect fibrosis early in NAFLD patients is critical to controlling the mortality associated with this highly prevalent disease. We investigated the association between plasma biomarkers with steatosis and hepatic fibrosis in order to identify markers of disease activity and severity in patients with NAFLD.

**Methods:** Five plasma biomarkers, including TGF-β, IL-10, IL-1β, IL-2, MMP2, and MMP9, were measured in study participants with non-alcoholic fatty liver disease (NAFLD). The status of steatosis and hepatic fibrosis in NAFLD patients was evaluated using transient elastography. Univariate and multivariate logistic regression analysis was performed to identify Biomarkers associated with NAFLD, steatosis and hepatic fibrosis.

**Results:** Of 80 patients (40% female, mean age 39.20 years), 32.5% had fibrosis (stages 1-4), 32.5% had mild steatosis, and 67.5% had moderate or severe steatosis (S> 33%). Increased MMP-2 (OR: 1.01, CL 95%: 1.01–1.02, P = 0.001) and decreased IL-10 (OR: 0.95, CL 95%: 0.91–0.98, P = 0.004) had a strong association with definite NAFLD compared to the healthy group in multivariable analysis. Biomarkers associated with fibrosis and steatosis (moderate / severe) in multivariable analysis included MMP-2 (OR: 1.00; 95% CI: 1.00–1.01; P = 0.01) and MMP-9 (OR: 1.02; 95% CI: 1.011–1.04; P < 0.01), respectively.

**Conclusion:** MMP-2 and MMP-9 are significantly associated with the severity of fibrosis and steatosis in NAFLD and are potentially valuable tools for the noninvasive stratification of patients with NAFLD and the identification of targets for therapeutic intervention.

Send Date: 2023/10/11

Code: DA-23070
ICGH 2023-059
Category: 4.6 سایر اختلالات کولون و آنورکتال

### Effect of ANSIL Gel (silver nanoparticles with tannic acid) as a medical therapy for the treatment of Anal fissure:A randomized, clinical trial

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Anal fissures are one of the common anorectal disorders. Based on reports, one in five people will develop anal fissures in their lifetime. An anal fissure is a superficial and longitudinal tear in the endoderm, distal to the dentate line, that continues down to the edge of the anus. Generally, there are two kinds of treatment for anal fissure: 1. Medical treatments and, 2. Surgical treatments. The goal of the current study is to find an effective medical treatment for this disorder. In line with this goal, effects of ANSIL gel (Silver nanoparticles with Tannic acid) on anal fissure patients were studied

Send Date: 2023/10/06

Code: DA-23030
ICGH 2023-060
Category: 7.6 Cirrhosis and complications: clinical aspects

### The diagnostic value of non-invasive serum liver fibrosis indices in the prediction of portal hypertension in cirrhotic patients: a cross-sectional study

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**Introduction:** Considering that portal hypertension is principally caused by hepatic fibrosis, some studies postulated the predictive value of serum liver fibrosis indices in the diagnosis of portal hypertension. In this study we assessed the prognostic value of serum indices in the diagnosis of portal hypertension in cirrhotic patients.

**Methods:** One hundred two cirrhotic patients were selected according to inclusion/exclusion criteria. Cirrhosis and the Child-Pugh score was determined by the gastroenterologist. Portal hypertension was diagnosed by the radiologist using the color Doppler method. The fasting blood sample was drawn and different serum indices were determined. The following indices were calculated: FIB4, Fibroindex, APRI, FORNS, LOK

**Results:** The patients mean age was $54.39 \pm 6.60$ years. About 52.94% of the patients were women. The mean liver enzymes level was higher in patients with portal hypertension. In 50.98% of patients, the etiology of cirrhosis was viral hepatitis. Significant differences was observed between the two groups regarding the studied indices ($P < 0.05$). According to the results of the ROC curve, the FORNS index was a better predictive marker of portal hypertension in cirrhotic patients. The maximum AUC (area under the curve) was for the FORNS index. According to the results of diagnostic tests, the FORNS index had adequate sensitivity and specificity in the diagnosis of portal hypertension with the cut-off value of 8.51.

**Conclusion:** The results of the present study showed that the FORNS index is a better predictor of portal hypertension in cirrhotic patients

Send Date: 2023/09/18

Code: DA-23047

ICGH 2023-061

Category: 4.6 Other colonic and anorectal disorders

### The Prevalence and Associated Factors of Hemorrhoid and Fissure among Patients Referred for Colonoscopy

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**Introduction:** Hemorrhoids and anal fissures are prevalent anorectal conditions that affect individuals across various demographic groups. Different environmental and genetic factors influence the prevalence of these conditions. This study aimed to investigate the association between the clinical data of patients and the frequency of hemorrhoids and fissures

**Methods:** This cross-sectional study included 536 patients referred to Razi Hospital in Rasht, Iran, in 2023 for anorectal evaluation. Demographical and clinical data and anorectal findings of the patients were recorded for analysis. Statistical analysis was performed using SPSS version 16, with a significance level set at <0.05

**Results:** Among total patients, 290 were females, and the frequency of hemorrhoids was higher among them (55.5%) compared to men, while the frequency of fissures was higher among males (51%). High-risk WHR was more prevalent in patients with hemorrhoids, while low-risk WHR was more frequent in patients with fissures. Higher education was associated with a decreased risk of developing hemorrhoids and fissures, particularly in university-educated patients (P<0.05). The rural residency was protective against developing hemorrhoids, while the chance of developing fissures seemed to increase in rural residents. Females had a higher risk of developing fissures, although not statistically significant (P>0.05). Physical activity level, alcohol consumption, and occupational exposure did not show significant associations (P>0.05).

**Conclusion:** According to our results, the associated factors of developing hemorrhoids and fissures are multifactorial and require more clinical attention for better patient outcomes

Send Date: 2023/09/23

Code: DA-23014

ICGH 2023-062

Category: 6.7 سیروز و عوارض آن: تظاهرات کلینیکی

### Cirrhosis perspective in Iran, a temporal comparison study

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**Introduction:** The epidemiology of cirrhosis, a public health concern, is not well understood in Iran. This study aimed to assess the characteristics, etiologies, complications, and outcomes of patients with cirrhosis who were enrolled in the Cirrhosis registry in Shiraz, Iran.

**Methods:** Of the eligible cirrhotic patients referred to Shahid Motahhari clinic in Shiraz, 2,937 were registered in our database from 2009 to 2016 and 683 from 2017 to 2022. We recorded the patients' demographic, clinical, and laboratory data at baseline and every six months. Mortality, hepatocellular carcinoma, and liver transplantation also were considered as outcomes and assessed every six months. We reported the baseline data and the outcomes up to 2022 in the present study.

**Results:** The mean age of patients included in the first period was 47.4 years (standard deviation: 21.5), while for those registered in the second period was 54.8 years (standard deviation: 14.1). The levels of biochemical factors and the prevalence of most complications were superior in the second period compared to the first. Ascites was the most common complication during the first period (52.1%), whereas esophageal varices were the most prevalent during the second period (40.1%). This study highlights that hepatitis B and C were frequent conditions among cirrhotic patients, particularly among men. Patients who were registered in the initial period exhibited higher mortality and liver transplantation rates in comparison to those registered in the subsequent period.

**Conclusion:** The findings indicate that patients registered in the second period had better laboratory and clinical features. Among the included cirrhotic patients, viral hepatitis B and C were identified as the most frequent etiologies.

Send Date: 2023/07/25

Code: DA-23046
ICGH 2023-063

گروه : ۱۰.۷ نارسایی حاد کبدی – پیوند / جراحی

**مقایسه یافته های سونوگرافی کالر داپلر ورید پورت در بیماران پیوند کبد با و بدون ترومبوسایتوپنی و اسپلنومگالی پایدار**

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۱ مرکز پیوند منتصریه، علوم پزشکی مشهد

۲ واحد توسعه تحقیقات بالینی بیمارستان قائم ، علوم پزشکی مشهد

**زمینـــه و هـــدف:** ترومبوسـایتوپنی و اسـپلنومگالی دو عارضـه شـایع هیپرتانسـیون پـورت در بیماران نارسـائی کبدی پیشـرفته می باشـند که انتظـار داریم بعد از پیوند کبد رفـع گردند اما این عـوارض در برخی بیماران بعـد از پیونـد پایدار می ماننـد. هدف این مطالعه بررسـی یافتـه های داپلر وریـد پـورت در بیماران با و بـدون ترومبوسـایتوپنی و اسـپلنومگالی پایدار پـس از پیوند به منظور بررسـی بیشـتر علـت و پاتوژنز این عوارض اسـت.

**روش بررسـی:** بالغین سـیروزی که ترومبوسـایتوپنی و اسـپلنومگالی در زمان پیوند کبد داشـتند، در بیمارسـتان منتصریه، مرکز پیوند مشـهد تحت بررسـی قـرار گرفتند. بیماران بر اسـاس تـداوم تعداد پایین پلاکت و سـایز بـالای طحـال حداقل ۱۲ ماه پس از پیوند به دو گروه مورد و شـاهد تقسـیم شـدند. برای هردو گـروه سـونوگرافی داپلر رنگـی ورید پورت انجام شـد. یافته های آزمایشگاهی، اولتراسوند داپلر و مشخصات بالینی دو گروه مقایسه شد.

**یافته ها:** سـی و نه بیمار در هر کدام از گروه های مورد و شاهد انتخاب شدند. اتیولوژی پیوند کبد، سن، جنس، مدت پیوند کبد و MELD score قبل پیوند بین دو گروه مورد و شاهد تفاوت معنی داری نداشتند. نسبت قطر ورید پورت در محل آناستوموز به قبل از آناستوموز (anastomose ratio) و سرعت جریان پورت در محل آناستوموز در گروه مورد بیشتر از گروه شاهد بود. تغییرات طبیعی تنفسی %۵۰< ورید پورت در گروه مورد کمتر از گروه شاهد بود. تعداد آخرین پلاکتهای بیمار بعد پیوند با دیامتر طحال، anastomose ratio، سایز طحال قبل از پیوند و تعداد پلاکتهای قبل از پیوند ارتباط معنی داری داشت (به ترتیب ۰/۵۶و۰/۶۴-، ۰/۴۱، ۰/۷۵- = r ؛ P<۰/۰۰۱ ). براساس آنالیز لوجیستیک چند متغیره سایز طحال قبل از پیوند و anastomose ratio ورید پورت متغیرهای مستقل در پیشگویی ترومبوسایتوپنی و اسپلنومگالی پایدار پس از پیوند کبد بودند.

**نتیجـه گیـری:** در بیمارانـی که پـس از پیونـد کبـد اسـپلنومگالی و ترومبوسـایتوپنی آنهـا بهبـود نمی یابد ممکن اسـت یک نشـانه احتمالی از تنگـی وریـد پورت در محل آناسـتوموز باشـد. اسـپلنومگالی قبـل از پیوند ارتبـاط نزدیکـی با بهبـودی تاخیـری سـایز طحال پـس از پیونـد دارد.

تاریخ ارسال : ۲۰۲۳/۰۹/۲۲

Code: DA-23084
ICGH 2023-064

Category: 6.3 Malignant disease - management

## Preoperative vs. Postoperative Chemoradiotherapy for Locally Advanced Rectal Cancer: Impact on Survival and Sphincter Preservation

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**Introduction:** This investigation sought to assess the comparative effects of preoperative chemoradiotherapy (CRT) and postoperative CRT on the survival and sphincter preservation of patients diagnosed with locally advanced rectal cancer.

**Methods:** A retrospective analysis was conducted on a cohort of 466 patients diagnosed with locally advanced rectal cancer, who underwent either preoperative or postoperative CRT.

We employed the Kaplan-Meier method to evaluate overall survival between the preoperative and postoperative cohorts and utilized the Spearman test to examine the relationship between the chosen treatment strategy and sphincter preservation.

**Results:** Between 2007 and 2017, we examined a total of 466 patients. Among these, 263 underwent preoperative CRT, while 203 received postoperative CRT. The analysis revealed no statistically significant difference in survival between the two treatment groups (fig 1). For patients with tumors located ≤5cm from the anal verge, sphincter preservation was observed in 30.4% of cases (28 out of 92) in the preoperative group, as compared to 24.3% (9 out of 37) in the postoperative group (p=0.49).
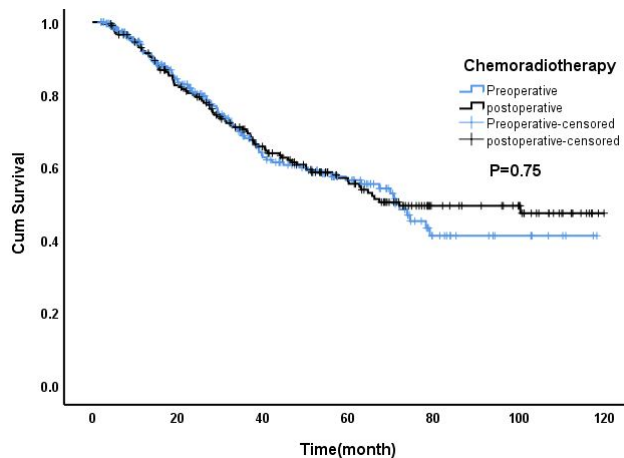


**Conclusion:** This study demonstrates that there is no statistically significant variance in survival outcomes between preoperative chemoradiotherapy and postoperative treatment. Moreover, both treatment approaches exhibit similar efficacy in preserving anal sphincter function, with neither being superior in this aspect.

Send Date: 2023/10/11

Code: DA-23017
ICGH 2023-065
Category: 7.7 Viral hepatitis: basic aspects

### The Seroprevalence of Hepatitis A in Patients with Positive Human Immunodeficiency Virus

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**Introduction:** Hepatitis A virus (HAV) can have severe manifestations in adult patients with other liver diseases, particularly in those infected with human immunodeficiency virus (HIV). This study aimed to measure immunity against HAV in HIV-positive individuals to determine the necessity of vaccination against HAV in this population.

**Methods:** This cross-sectional study investigated 171 HIV-positive patients aged 18 years or older who were tested for serum IgG anti-viral hepatitis A antibody. The prevalence and its determinants were analyzed based on patient data.

**Results:** The average age of the patients was 44.2 years old. The prevalence of HAV antibody positivity was 97.7%. The prevalence was higher in patients older than 30 years. There was a close association between hepatitis C virus (HCV) infection (p=0.002). There were no significant correlations between antibody levels and sex, marital status, employment status, education level, economic status, smoking status, drug use status, and physical activity level. The mean and median CD4+ counts in patients with positive (reactive) antibody (Ab) levels were 458 and 404 ± 294, respectively, while the mean and median CD4+ counts in patients with non-reactive antibody levels were 806 and 737 ± 137, respectively, in those who tested negative for anti-HAV Ab (P=0.05).

**Conclusion:** The prevalence of anti-hepatitis A IgG antibodies

in people with HIV was very high in Shiraz. There is an increasing trend in the number of older patients and those with HCV infections. The negative association with CD4 was borderline in this study, which needs to be confirmed in larger groups.

Send Date: 2023/08/28

Code: DA-23092
ICGH 2023-066
Category : 18 خونریزی های دستگاه گوارش

### Comparison of the effect of APC with epinephrine injection, Hemoclips and thermal probes methods in prevention of rebreeding in patients with gastric and duodenal ulcers (Clinical trial)

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**Introduction:** Peptic ulcers are common clinical problems characterized by the presence of lesions on the mucous surface of the stomach and duodenum. Initial upper endoscopy (within the first 24 hours of visit) is recommended in most patients because it both confirms the diagnosis and determines targeted endoscopic treatment including epinephrine injection, heat coagulation, using clamps and bandages. Argon plasma coagulation (APC) is a new method that provides non-contact controlled electrocoagulation therapy. Another method is to use hemoclips, especially in active large vessels, which is useful. And thermal probe devices directly or indirectly produce heat and pass electric current through the tissue.

**Methods:** In this study, there are 60 patients in 3 groups with complications of upper gastrointestinal bleeding due to gastric and duodenal ulcers who referred to the gastroenterology department of Towhid Sanandaj Hospital in the period of one year from April 1400 to April 1401. Patients with symptoms of upper gastrointestinal bleeding underwent a 12-hour endoscopy, and if the endoscopy result showed the presence of gastric ulcer with bleeding, they were included in this study. Then diluted epinephrine (1 to 10000) was injected in the amount of 5 to 10 ml in and around the bleeding area. After

epinephrine injection, the patients were treated with one of 3 standard endoscopic treatment methods. The APC method was performed using the APC device of ERBE Company (model APC2 VIO 200 D). In the method of using thermal probes, APC device is also used, and Boston Scientific Gold thermal probes, which are installed and operated on the device, were used. Hemoclips method was performed using stainless steel hemoclips. After hemostasis is established, the bleeding site is observed for 4 minutes. After endoscopic treatment, patients were carefully examined. Examination for rebleeding 24 hours later using endoscopy was performed in all three groups by a gastroenterology and liver subspecialist.

**Results:** The patients participating in this study were at least 21 years old and at most 99 years old, and their average age was $57.49 \pm 17.84$. In this study, there were 49 men (80.3%) and 12 women (19.7%). There was no significant difference between the three study groups in terms of slow effect and initial hemostasis, as well as the incidence of rebleeding (P>0.05). Among the investigated variables in three groups, endoscopic findings, wound size and final result were significant (P<0.05) and other investigated variables (demographic variables, diagnosis, rebleeding, response to treatment, wound site and D1 site) in All three groups were not significant.

**Conclusion:** seems that none of these three standard methods have any difference in terms of hemostasis occurrence variables and rebleeding. Also, in patients with gastrointestinal bleeding, the size of the wound, the final result, and the endoscopic findings are very important due to their significance, and officials, practitioners, and treating doctors should pay special attention to these matters.

Send Date: 2023/10/11

Code: DA-23029
ICGH 2023-067
Category: 9.3 Pancreatitis - acute

### Acute pancreatitis in a young woman with COVID-19 infection: A case-report

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[1] علوم پزشکی تبریز، گروه گوارش و کبد

**Introduction:** Little is known about the development of acute pancreatitis as a complication of corona virus disease

of 2019 (COVID-19) infection. This case report describes the presentation of acute pancreatitis in a young woman who then was diagnosed with COVID-19 infection.

**Case Report:** An 18-year old previously healthy woman referred to Imam Raza hospital, Tabriz, Iran with a 3-day history of intermittent and crampy abdominal pain. She had serum amylase of 1288 IU/L and serum lipase of 1541 IU/L. She was diagnosed with acute pancreatitis. She was instructed nil per os (NPO) and serum therapy and also was given pantoprazole, and pethidine for her pain management. The laboratory tests for assessing the etiology of acute pancreatitis were normal. Abdominal and pelvic spiral computed tomography (CT) scan revealed edematous pancreas and enhancing loculi fluid accumulation around pancreas along with the small amount of ascites fluid that all suggest acute pancreatitis. Due to the presentation of fever and COVID-19 pandemic and her potential society exposure, we tested SARS CoV-2 by polymerase chain reaction which was positive. The blood C-reactive protein (CRP) level was 3+ but the chest x-ray showed no findings compatible with COVID-19. Eventually after receiving conservative therapy for her pancreatitis, she was discharged from hospital in the good general condition and she has not experienced any episodes of abdominal pain again.

**Conclusion:** In conclusion, this case highlights acute pancreatitis as a suspected complication associated with COVID-19. We still do not know about the exact mechanism of inducing acute

pancreatitis by COVID-19 virus. Further research is needed to explore the possibility of causation for acute pancreatitis with COVID-19.

Send Date: 2023/09/18

Code: DA-23106
ICGH 2023-068
Category: اپیدمیولوژی 1.1

### The association between serum uric acid levels and the liver enzymes among healthcare workers in the Azar cohort Study

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**Introduction:** Liver diseases lead to the approximately 2 million deaths per year worldwide. Liver injury, indicated by elevated blood alanine aminotransferase (ALT), aspartate transaminase (AST), or gamma-glutamyl transferase (GGT) levels. The serum uric acid (SUA) level has been suggested to be associated with metabolic syndrome and other chronic diseases. However, little is known about the relationship between SUA and liver enzymes levels in the general population. Therefore, we intend to study the correlation between SUA and liver enzymes among healthcare workers in the Azar Cohort Study.

**Methods:** This cross-sectional study was conducted on 1,458 healthcare workers in the Azar cohort population. Blood samples were obtained from the participants to determine the serum levels of ALT, AST, GGT, alkaline phosphatase (ALP), and SUA of participants. The participants were categorized into three tertiles based on SUA levels, Tertile 1: 2–4 mg/dl; Tertile 2: 4.1–5.1 mg/dl; and Tertile 3: 5.2–10 mg/dl.

The correlation between SUA and liver enzymes was determined by Pearson-test.

**Results:** The serum levels of ALT, AST, GGT, and ALP were significantly higher in the third tertile of the SUA levels than the first two tertiles (all p<0.001). Moreover, we observed an ascending trend in the mean values of liver enzymes from the first SUA tertile to the third SUA tertile (p < 0.05). There is significant correlation between SUA and liver enzymes levels (P<0.05).

**Conclusion:** The finding demonstrated a significant relationship between the SUA and the liver enzymes. We suggest the use of the SUA levels for early diagnosis of the liver diseases. More prospective studies are needed to clarify the complex association between SUA and liver enzymes in the general population.

Send Date: 2023/10/12

Code: DA-23108
ICGH 2023-069

گروه : ۳.۱ مهارت بالینی پایه

**بررسی اثراینترالیپید در درمان بیماران با مسمومیت فسفید آلومینیوم در بیمارستان بهارلو تهران**

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**زمینه و هدف:** مسمومیت با قرص برنج یا فسفید آلومینیوم از رایجترین علل مسمومیتهای منجر به مراجعه به اورژانس و بستری بیماران در ایران می باشد و درمان آن اهمیت بسزایی در جهت کاهش موربیدیتی و مورتالیتی و بهبود پیش آگهی در مبتلایان دارد. لذا در این مطالعه به بررسی اثر اینترالیپید در درمان بیماران با مسمومیت فسفید آلومینیوم در قیاس با دارونما پرداختیم.

**روش بررسی:** در این کارآزمایی بالینی تصادفی، ۶۰ بیمار مبتلا به مسمومیت فسفید آلومینیوم مراجعه کننده به بیمارستان بهارلو تهران در سال ۹۹ به صورت در دسترس انتخاب شدند و بصورت تصادفی در دو گروه دارونما یا اینترالیپید بصورت دوز بولوس ۱.۵ ml/kg و دوز نگهدارنده ۰.۲۵-۰.۵ ml/kg/min از اینترالیپید.۲۰٪ یا دوز معادل آن از اینترالیپید.۱۰٪ قرار گرفتند. فشار خون سیستولیک و ضربان قلب و pH و بیکربنات خون شریانی در ۲۴ ساعت نخست و میزان مورتالیتی و مدت بستری در ICU مورد ارزیابی و مقایسه بین دو گروه قرار گرفتند.

**یافته ها:** فشار خون سیستولیک و ضربان قلب و pH و بیکربنات خون شریانی اولیه در بیماران مورد بررسی در دو گروه همسان بود (P > 0.05) اما فشار خون سیستولیک و ضربان قلب و pH و بیکربنات خون شریانی نهایی (P = 0.001) و میزان بهبود در فشار خون سیستولیک و ضربان قلب و pH و بیکربنات خون شریانی (P = 0.001) به میزان معناداری در گروه اینترالیپید بیش از گروه شاهد بود. مدت زمان بستری در ICU به میزان معناداری در گروه اینترالیپید (۴۵) بیش از گروه شاهد (۵۷/۲۷) بود (P = 0.001) سرانجام بیماران مورد بررسی در ۷/۵۶ درصد درگروه اینترالیپید ودر ۴۰درصد درگروه شاهدبه صورت مورتالیتی بود که اختلاف آماری معناداری نداشت. (P > 0.05)

**نتیجه گیری:** در مجموع، بر اساس نتایج به دست آمده در این مطالعه، چنین استنباط می شود که اینترالیپید اثربخشی خوبی در قیاس با دارونما در درمان بیماران با مسمومیت فسفید آلومینیوم دارد و فشار خون سیستولیک و ضربان قلب و pH و بیکربنات خون شریانی بیماران را بهبود می بخشد؛ اما بر روی میزان مورتالیتی بیماران اثری ندارد.

Code: DA-23103
ICGH 2023-070
Category: 1.4 Outcome studies

**بررسی میزان آمیلاز در بیماران مبتلا به کووید۱۹- بستری در بیمارستان بهارلو و ارتباط آن با پیش آگهی بیماری**

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**زمینه و هدف:** تظاهرات دستگاه گوارش بیماری ویروس کرونا ویروس (COVID-۱۹) شامل حالت تهوع، استفراغ، اسهال و افزایش تست های عملکرد کبدی است. مطالعات اخیر نشان می دهد که COVID-۱۹ می تواند در درجه اول به عنوان پانکراتیت حاد ظاهر شود فرضیه این است که مکانیسم آسیب در این موارد از طریق اتصال SARS-CoV-2 به سلولهای جزایر لوزالمعده است که حاوی گیرنده های ACE2 است که باعث آسیب بعدی لوزالمعده می شود. در حالی که برخی از بیماران علائم واضحی از پانکراتیت را نشان می دهند، سایر بیماران به سادگی دارای چربی خون بدون علامت ۶ با درجات مختلف افزایش آمیلاز سرم هستند. به طور کلی توافق شده است که افزایش قابل توجه آمیلاز سرم در تشخیص پانکراتیت سه برابر حد فوقانی است. اندام های دیگر نیز می توانند آمیلاز مانند کبد، کلیه و روده کوچک ترشح کنند. اگرچه در غلظتهای سرمی کمتر از آمیلاز پانکراس است. افزایش آمیلاز سرم ممکن است منعکس کننده ترخیص کالا از گمرک ثانویه به نارسایی کبدی یا کلیوی باشد. پانکراتیت حاد طبق طبقه بندی تجدید نظر شده در آتلانتا به دو مورد زیر احتیاج دارد: ۱) لیپاز یا آمیلاز بیش از سه برابر حد طبیعی، ۲) تصویربرداری مقطعی (توموگرافی کامپیوتری یا تصویربرداری تشدید مغناطیسی) نشان دهنده پانکراتیت و ۳) درد مشخصه فوقانی شکم هنگام بستری در بیمارستان مشخص نیست که نتایج (مرگ و میر، نیاز به تحرک بیشتر یا فعالیت بدنی و مدت اقامت در بیماران COVID-19 با آمیلاز بالای خونی و چربی خون، افزایش یافته لذاهدف پژوهش حاضر، بررسی میزان آمیلاز در بیماران مبتلا به کووید ۱۹ بستری در بیمارستان و ارتباط آن با پیش آگهی بیماری بود و یک سوال اصلی مطرح شد؛ بیماران با آمیلاز بالا چقدر در پیش آگهی بیماری COVID-19 موثر است؟

**روش بررسی:** برای انجام آزمایش Amylase، نمونه خون سیاهرگی است که از ورید بازویی گرفته شد.

میزان استاندارد و هماتولوژی خون معمولی، آمیلاز سرم (طبیعی محدوده ۲۸-۱۰۰ L/U)و لیپاز سرم (محدوده نرمال ۸۱-۱۱) می باشد. جهت تحلیل ارتباط 2019-ncov با میزان آمیلاز از تحلیل همبستگی پیرسون و آنالیز رگرسیون در نرم افزار SPSS در سطح اطمینان ۰/۹۵ استفاده شد.

**یافته ها:** با بررسی ارتباط بین آنزیم های کبدی و آمیلاز مشاهده می کنیم که بین آمیلاز و آنزیمهای AST و AST همبستگی مثبت ضعیفی وجود دارد، بطوریکه با افزایش هر کدام دیگری نیز افزایش میابد.

**نتیجه گیری:** در بیماران مبتلا به کووید ۱۹ بین آنزیم های کبدی و آمیلاز همبستگی مثبت وجود دارد اما این ارتباط ضعیف گزارش شد و نیاز به بررسی بیشتر دارد.

Code: DA-23109
ICGH 2023-071
Category: 11 Paediatric Gastroenterology And Hepatology

**Effect of Probiotic and Prebiotic Supplements on Modulating Energy Homeostasis in Undernourished Children**

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**Introduction:** Undernutrition in vulnerable children under the age of 5 is one of the widespread challenges in pediatric gastroenterology, which can be affected by a common environmental risk factor known as gut microbiota. Dysbiosis of gut microbiota has a significant link with the development of metabolic instability and alteration of energy intake. This review investigated the efficacy of probiotic and prebiotic administration on impaired microbial interactions to control the adverse clinical and physical status of undernourished children.

**Methods:** A wide range of human and animal trials conducted between 2000-2022 were searched in Google Scholar and PubMed electronic databases. Related English articles were selected using the keywords "undernutrition", "wasting", "stunting", "underweight", "probiotic", and "prebiotic".

**Results:** Physiologically, most of the converging evidences support the positive effect of probiotic and prebiotic supplements in improving the balance of gut microbiota, immune and hormonal responses, host metabolic pathways. Moreover, a positive correlation has been reported between supplement consumption and the increase in height, weight, waist circumference, and body mass index of children. Various Lactobacillus and Bifidobacterium strains and galactoligosaccharide and fructo-oligosaccharide prebiotics were commonly studied supplements that have even shown a significant synergistic effect.

**Conclusion:** Microbiome-based pharmaceutical interventions by modifying anthropometric characteristics and physiological axes are promising choices for the management of childhood malnutrition. The design of diverse pro- and prebiotic combinations with optimal dose balance is a requirement for the potential progression of this microbial therapeutic method.

Send Date: 2023/10/12

Code: DA-23031
ICGH 2023-072

Category: 7.6 Cirrhosis and complications: clinical aspects

### Comparison of the serum fibrinogen level and international normalized ratio in the assessment of gastrointestinal bleeding risk in decompensated cirrhosis

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**Introduction:** Gastrointestinal (GI) bleeding is one of the most severe complication of cirrhosis and its predicting is crucial for the management of cirrhotic patients. The current study aimed to assess the relationship between international normalized ratio (INR) and serum fibrinogen level and the risk of GI bleeding in patients with cirrhosis

**Methods:** In the present cross-sectional study, 78 cirrhotic patients were enrolled. We assessed demographic, biochemical, and hematologic parameters in all patients. Underlying diseases and the etiology of cirrhosis were documented. The cirrhosis severity was assessed using Child- Pugh and the model for end-stage liver disease (MELD) scores. The history of bleeding episodes within 6 months before inclusion were recorded. A blood sample was drowned and fibrinogen and prothrombin time (PT) were measured and INR was calculated.

**Results:** The patients' mean age was 51.23±15.08 years and 40 (51.3%) were male. About 17 patients (21.7%) had a history of GI bleeding within 6 months before the study. The significant difference was detected between the two groups who experienced bleeding and who did not regarding the fibrinogen level (P < 0.05). The fibrinogen level of more than 182.5 could significantly predict the bleeding risk in cirrhotic patients (AUC: 0.87) with the sensitivity of 77%, and specificity of 94%.

**Conclusion:** According to the results, the fibrinogen level is a better predictor of bleeding in patients with liver cirrhosis compared with INR.

Send Date: 2023/09/18

Code: DA-23098
ICGH 2023-073

گروه: ۳.۱۶ عفونت های دستگاه گوارش

**مخمر گوارشی بعنوان مخزن باکتریها و تامین کننده جمعیت میکروبی معده پس از مصرف آنتی بیوتیک**

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**زمینه و هدف:** طی تکامل بسیاری از باکتری ها توانسته اند درون واکوئول سلول های یوکاریوتی مثل مخمر مستقر شوند. درون واکوئول، باکتریها از استرسهای محیطی در امان می مانند و به مواد غذایی دسترسی دارند. باکتریهای درون همزیست میتوانند مواد مختلف را هضم کنند و به سازگاری مخمر در شرایط سخت کمک کنند. جزییات این رابطه ناشناخته است ولی به

نظر میرسـد که زنده ماندن مخمرها به وجود باکتریها وابسته است. در مطالعات گذشته وجود باکتریهای درون سلولی شامل هلیکوباکتر پیلوری، استافیلوکوک، نوکاردیا و سـیانوباکتر در مخمـر کاندیدا تروپیکالیس گوارشـی با روش های ملکولی و میکروسـکوپی گزارش شده اسـت. دراین مطالعه تاثیر مخلوط آنتی بیوتیکها بر باکتریهای درون واکوئل و فعالیتهای حیاتی این مخمر بررسی شد. **روش بررسی:** مخمر کاندیدا تروپیکالیس که از بیوپسی معده جدا شده بود از نظر وجود باکتریهای متحرک درون واکوئل سلول مخمر با گسترش خیس و میکروسکوپ نوری بررسی و زنده بودن باکتریها با رنگ Live/Dead و میکروسکوپ فلورسنت ارزیابـی شـد. برای اطمینـان از وجـود درون سـلولی هلیکوباکترپیلوری، استافیلوکوک، نوکاردیا و سیانوباکتر DNA مخمر با روش فنل-کلروفرم استخراج گردید.ژن16SrRNA هرباکتری باپرایمرهای مربوطه تکثیرگردید.مخمردرمحیط مایـع حـاوی عصاره مخمـر و گلوکز، بـا مخلوطـی از آنتی بیوتیکها شـامل سپیروفلاکساسین، مترونیدازول، آموکسی سیلین و ریفامپین درغلظت های ۳۲، ۶۴، ۱۲۸، ۲۵۶mg/ml تلقیح شد. پس از ۲۴ ساعت گرمخانه گذاری در ۳۷ درجه، وجـود باکتریهـای درون واکوئل مخمر و فعالیت حیاتی آنهـا، با تکرار مراحل بالا بررسـی شد. برای مخمر تیمار شده و کنترل شـمارش کلنی انجام شد. در آخـر، مخمرتیمار شـده چند بار بر روی محیط فاقد آنتی بیوتیک پاسـاژ داده شـد و حضور باکتریها در نسـل جدید مخمر، با تکرار مراحل بالا بررسی شد. **یافته ها:** مشاهدات مخمر در گسترش خیس و یا رنگ شده با روش Live/Dead نشان داد که باکتریهای درون واکوئول مخمر قبل از تیمار آنتی بیوتیکی، پس از آن و بعد از پاساژهای متوالی در غیاب آنتی بیوتیک ها، یکسان بوده وهمچنان زنده و متحرک هستند. الکتروفورز محصولات PCR در هر سه حالت بررسی شده، باندهایی با اندازه ۵۲۱، ۷۵۶، ۶۰۶ و ۴۵۰ bp را نشان داد که به ترتیب بیانگر تکثیر ژنهای 16S rRNA اختصاصی H. pylori، Nocardia، Staphylococcus و Cyanobacteria بود. این نتایج نشان داد که تیمار آنتی بیوتیکی بر فعالیت حیاتی باکتریهای درون واکوئول مخمر بی تاثیر بودند. یکسان بودن شمارش کلنی مخمر تیمار شده و کنترل نیز نشان داد که تیمار آنتی بیوتیکی تاثیری بر فعالیت حیاتی مخمر ندارد. **نتیجه گیری:** نتایج این مطالعه نشـان داد که تیمار مخمر بـا آنتی بیوتیکها بـر فعالیتهای حیاتی مخمـر و باکتریهای درون واکوئـول آن تاثیر منفی نمی گذارد. به نظر می رسـد آنتی بیوتیکها با ورود به سـلول مخمر طی گذشـتن از سیتوپلاسـم و یا در واکوئول شـکل فعال خود را از دسـت می دهند. وجود باکتـری درون واکوئـول مخمر یک رابطه حفظ شـده تکاملی اسـت که تحت تاثیـر عواملی مثل آنتی بیوتیکها از بیـن نمیرود. بدین ترتیب مخمرها میتوانند بعنـوان مخزن باکتریها عمـل کرده، بـا آزاد کردن باکتریها بخـش مهمی از میکروبیـوم معده را بخصـوص در زمان مصرف آنتی بیوتیک بازسـازی کند.

تاریخ ارسال : ۲۰۲۳/۱۰/۱۱

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Code: DA-23035
ICGH 2023-074
Category: 19.1 Endoscopy - Upper GI

### Foreign body: uncommon cause of a catastrophic upper GI bleeding: A case report

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**Introduction:** Upper gastrointestinal bleeding following swallowing a foreign body is often caused by a fistula between the large arteries and esophagus, which causes severe and fatal bleeding.

**Case Report:** A 24-year-old woman presented with severe bleeding in the upper gastrointestinal tract after unwanted swallowing a toothpick. Due to unstable hemodynamic conditions, endoscopic evaluation was not possible, and she was immediately transferred to the operating room. The source of the bleeding was the upper part of the esophagus, as the site of the bleeding was temporarily packed and ceased the surgery. CT-angiography of the head and neck arteries showed esophageal to carotid fistula.

**Conclusion:** Esophageal fistula of large arteries usually causes severe bleeding. Awareness from of warning signs and timely diagnosis may propose better clinical outcomes.

Send Date: 2023/09/20

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Code: DA-23050
ICGH 2023-075
Category: 2.4 Reflux disease - pathogenesis

### Prevalence of gastrointestinal symptoms in long-term low-dose aspirin use in the population of PERSIAN Guilan cohort study in 2021

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**Introduction:** Antiplatelet therapy is an essential part of preventive management for patients who are at risk of cardiovascular disease. In most cases, antiplatelet therapy is based on low-dose aspirin, a drug that is very effective in reducing the incidence of cardiovascular disease, but is associated with a significant risk of gastrointestinal toxicity and dyspepsia symptoms that can result from aspirin administration. The purpose of this study is to investigate the prevalence of gastrointestinal complications and symptoms in the long-term use of aspirin in the PERIAN Gilan cohort study (PGCS) population

**Methods:** In this cross-sectional study, about 563 individuals

out of 1011 individuals that that take low-dose aspirin (≤325 mg), were included. Demographic data and gastrointestinal symptoms and complications were recorded by a questionair. All analyzes were performed by SPSS version 20 software with a significance level of 0.05

**Results:** In this study, the mean age of the patients was 62.42 years and 51.2% were females. About 6.7% of participants using NSAID and 11.7% were taking proton pump inhibitors. The average duration of consuming aspirin was 9.59 years and 46% of individuals used aspirin once a week. About 19.7% of participants had dyspepsia and 14.4% had heartburn. No signs of vomiting blood were found in any of the participants. According to the findings, the prevalence of gastrointestinal symptoms in low-dose aspirin users was 27.4%, in which 8.2% had duodenal ulcer, 4.1% had gastric ulcer, 9.1% had duodenal erosion, 17.6% had stomach erosion, 1.8% had acute bleeding, and 74.6% had no gastrointestinal complications. The prevalence of gastrointestinal complications in low-dose aspirin users was 25.4%. The results of multiple logistic regression showed that individuals who use NSAIDs have a higher chance of developing gastrointestinal complications (95% CI: 1.38-6.19, OR=2.93). Also, a long-term use of aspirin (95% CI: 1.02-1.11, OR=1.06) was related to the increase in gastrointestinal symptoms (P=0.005). Gastrointestinal complications were more frequent in individuals with long-term aspirin use (95% CI: 1.02-1.11, OR=1.07) (P=0.005). The results showed that the frequency of gastrointestinal symptoms and complications in low-dose aspirin users with positive endoscopy was significantly higher than that ones with negative endoscopy (P<0.001)

**Conclusion:** Based on the results of this study, long-term low-dose aspirin is associated with gastrointestinal symptoms and complications. Therefore, it need better clinival management

Send Date: 2023/09/23

Code: DA-23079
ICGH 2023-076
Category: 2.9 Other esophageal disorders

## Comparison of the efficacy of diltiazem versus fluoxetine in the treatment of distal esophageal spasm: A randomized-controlled-trial

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**Introduction:** Distal esophageal spasm is an uncommon esophageal motility disorder presenting with non-cardiac chest pain and dysphagia. The main goal of therapy is symptom relief with pharmacologic, endoscopic, and surgical therapies. Pharmacologic treatment is less invasive and is the preferred method of choice. The purpose of this study was to compare the effectiveness of diltiazem versus fluoxetine in the treatment of distal esophageal spasm.

**Methods:** A total of 125 patients with distal esophageal spasm diagnosed using endoscopy, barium esophagogram, and manometry were evaluated. Patients were divided into diltiazem and fluoxetine groups and received a 2-month trial of diltiazem + omeprazole or fluoxetine + omeprazole, respectively. Of 125 patients 55 were lost to follow up and 70 were eligible for final analysis. Clinical signs and symptoms were assessed before and after therapy using four validated questionnaires: Eckardt score, short form -36, heartburn score, and the hospital anxiety and depression scale.

**Results:** Both regimens significantly relieved symptoms (a decrease in mean Eckardt score of 2.57 and 3.18 for diltiazem and fluoxetine groups, respectively; and a decrease in mean heartburn score by 0.89 and 1.03 for diltiazem and fluoxetine groups, respectively). Patients' quality of life improved based on short form-36 (an increase in mean score of 2.37 and 3.95 for fluoxetine and diltiazem groups, respectively). There was no relationship between patients' improvement and severity of symptoms. Psychological findings based on the hospital anxiety and depression scale was inconsistent (a decrease in mean of 0.143 and 0.57 for fluoxetine and diltiazem groups, respectively; p > 0.05).

**Conclusion:** Fluoxetine and diltiazem were effective for clinical symptom relief in patients with distal esophageal spasm, but were not promising for improving psychological symptoms. Neither regimen was superior in term s of efficacy. Consequently, it is key to consider side effects and

comorbidities when choosing a therapy.

Send Date: 2023/10/11

Code: DA-23004
ICGH 2023-077
Category: 1.2 Management strategies

### Microscopic colitis is IBD and how avoids from mistakes about that

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Microscopic colitis is an inflammatory bowel disease (IBD) that leads to chronic, watery diarrhoea. First believed to be rare, microscopic colitis has received more attention in recent decades, resulting in increasing incidence rates that exceed those of classic IBD in some countries. Hopefully, it is common practice nowadays to refer patients with chronic diarrhoea for a colonoscopy with biopsy samples taken, as this is the only way to diagnose microscopic colitis. Histology results distinguish between the subtypes of microscopic colitis — lymphocytic colitis, collagenous colitis and the more recently introduced incomplete microscopic colitis.

The cardinal symptom of watery diarrhoea eventually results in severe urgency and faecal incontinence. Furthermore, many patients experience abdominal pain that can be misinterpreted as diarrhoea-predominant irritable bowel syndrome (IBS-D), resulting in inadequate treatment. Microscopic colitis is a benign condition but it can severely impact quality of life. Fortunately, there is effective treatment with budesonide, a locally active steroid, and thiopurines or biologics can be tried for budesonide-refractory disease.

The mistakes discussed here are derived from observations of the accepted view of microscopic colitis, but also reflect the many misconceptions I've encountered during lectures given throughout Europe. There is still a lack of awareness and knowledge when it comes to microscopic colitis compared with the other IBDs and avoiding these mistakes will alleviate unnecessary suffering and improve patient care. Recently, UEG and the European Microscopic Colitis Group (EMCG) have published clinical guidelines to improve the diagnosis and treatment of microscopic colitis.1 The statements and recommendations, evidence based or expert-group consensus, are used as the backbone for tackling these mistakes and are backed up by my own clinical experience

Send Date: 2023/06/29

Code: DA-23105
ICGH 2023-078
Category: 19.1 Endoscopy - Upper GI

### Evaluation of the sedative effect of sublingual lorazepam versus placebo in patients underwent endoscopy: a double-blind, randomized controlled clinical trial

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**Introduction:** Digestive endoscopy (DE) is uncomfortable for most patients. Lorazepam is a potent benzodiazepine with anxiolytic and sedative effects. This study aims to determine the sedative effect of sublingual lorazepam versus placebo as a premedication in patients who underwent DE.

**Methods:** Lorazepam sublingual tablet was made by researchers and physical tests were done on it, then the double-blind placebo-controlled trial was done to investigate the efficacy of 2 mg sublingually administered lorazepam as a premedication for endoscopy. Lorazepam or a placebo tablet was administered sublingually 30 minutes before the endoscopy. The patient, nurses, and physicians were blinded to the patient group. The depth of sedation was evaluated according to the American Society of anesthesiology.

**Results:** 116 Patients were randomly assigned to take either lorazepam (n=58) or a placebo (n=58). Results of physical properties tests were acceptable according to United States Pharmacopeia (USP). There were no statistical differences between groups regarding age and gender. In the lorazepam group, 75.8% of patients showed mild sedation, and 24.2% of patients showed no sedation. All of the patients in the placebo had no sedation (p=0.001). Time of procedure (p<0.001), intra-operative O2 saturation (p<0.001), intra-operative heart rate (p<0.001), and intra-operative blood pressure (p<0.001) were significantly lower in the lorazepam group. No significant or dangerous side-effects were observed except a bit of giddiness and dizziness.

**Conclusion:** The results of this study showed that prescription of sublingual lorazepam25-30 minutes before endoscopy provided mild sedation.

Send Date: 2023/10/12

Code: DA-23003
ICGH 2023-079
Category: 1.2 Management strategies

## Bleeding and Thrombosis in Patients With Cirrhosis: What's New?

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Although historically liver diseases were considered as bleeding disorders, nowadays it is recognized that liver diseases are not only associated with bleeding but also with thrombotic complications.1,2 Because of the absence of high-quality clinical evidence, it is still unclear how to best prevent or treat bleeding and thrombosis in patients with liver diseases. The combination of laboratory studies with clinical observations, however, has led to a more rational approach to hemostatic management. In recent years, a number of international societies have issued clinical guidance documents in this area that share a number of concepts.3–7 First, the concept of rebalanced hemostasis has become widely embraced.8 The recognition that patients with liver disease have concomitant changes in both prohemostatic and antihemostatic systems leading to a relatively preserved hemostatic system has led to a much more restrictive approach to prophylactic correction of hemostasis with the aim to prevent bleeding, for example, before invasive procedures. It is now widely accepted that routine diagnostic tests of hemostasis, such as the platelet count and the prothrombin time, are unsuitable as indicators of hemostatic capacity in patients with cirrhosis.9,10 As a consequence, routine prophylactic correction of a low platelet count and a prolonged prothrombin time by infusion of platelet concentrates or fresh frozen plasma is increasingly discouraged.3–7 Second, the recognition of a hypercoagulable state in patients with cirrhosis, for example evidenced by enhanced in vitro thrombin generating capacity and an elevated risk for development of venous thromboembolism,11,12 has led to increased awareness for the role of thromboprophylaxis, even in those patients with thrombocytopenia and/or prolonged prothrombin time.3,7

Here, the author outlines the recent developments in the prevention and management of bleeding and thrombosis in patients with liver disease

Code: DA-23016
ICGH 2023-080
Category: 1. 2 سلول/ بیولوژی مولکولی/ پاتولوژی

## Evaluation of the anticancer effects of Linoleic acid loaded niosomes in Hepatocellular carcinoma cell line

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**Introduction:** Hepatocellular carcinoma is the most common type of primary liver cancer, which is the second leading cause of cancer deaths in the world. Due to the ineffectiveness of common treatments, recurrence of cancer, nontargeted function and damage to healthy cells, aggressiveness and resistance of cancer cells to these treatments, there is a serious need to find more effective treatments. Drug delivery based on nanotechnology is one of the new therapeutic modalities that causes the targeted delivery of anticancer compounds to the target site (tumor), preventing the oxidation of drugs in biological conditions, increasing the stability of drugs and increasing the dissolution rate of poorly soluble substances in water. Niosomes are one of the common types of nanoparticles in modern drug delivery systems, which are receiving attention nowadays. They have the ability to load hydrophilic and hydrophobic drugs, are biodegradable, have more stability compared to liposomes, have less toxicity and immunogenicity. They are economical and it is easy to prepare and use them. So far, many anticancer compounds have been loaded in niosomes. Linoleic acid (LA) is an essential fatty acid with anticancer properties that has not been loaded into the niosome. Therefore, the purpose of this study is to design, synthesis, characterize the physicochemical properties of niosomes containing linoleic acid and evaluate their effects on hepatocellular carcinoma cells.

**Methods:** LA-loaded niosomes were synthesized using span-60 as an anionic surfactant and cholesterol (1:1) by thin film hydration method. The synthesised niosomes were sonicated for 5 minutes. Their physiochemical features such as size, zeta potential and polydispersity index (PDI) was assessed by

zeta sizer (DLS( and morphology of niosomes was evaluated by scanning electron microscope (SEM). Also, entrapment efficiency (EE%) with amicone, release rate with dialysis bag and stability of niosomes were estimated during 30 days. Finally, the toxicity effects of LA-loaded niosomes was evaluated on Hep-3B cells and fibroblasts (HFF) as a normal cell line.

**Results:** The zeta sizer results showed niosomes had size of 105.7 nm, PDI of 0.271 and -26.1 mV zeta potential. The SEM pictures indicated that niosomes had appropriate morphology with decreased size in comparison to reported size by DLS. Niosomes with EE 74%, released LA slowly and in a sustained manner during 72 hours. The stability findings showed niosomes in 4C0 were more stable than niosomes in 25C0 after 30 days. The MTT assay results indicated that LA-loaded niosomes were more toxic than free LA to cancerous cells. But, they showed no toxic effects on HFF cells.

**Conclusion:** Niosome is a stable, non-immunogenic, and cost-effective nanoparticle with high drug encapsulation capacity. The results indicate that niosomes containing linoleic acid had good properties and also had a toxic effect on hepatocellular carcinoma cells. Therefore, the use of niosome as a nanocarrier can be a good way to target and destroy cancer cells.

Send Date: 2023/08/26

Code: DA-23107
ICGH 2023-081
Category: 6.4 Other colonic and anorectal disorders

### Pneumatic balloon dilation as a minimally invasive and successful method for treatment of chronic anal fissures

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**Introduction:** An anal fissure (AF) is a longitudinal tear or defect in the skin of the anal canal distal to the dentate line, and it is the second most common reason for proctologic consultation after hemorrhoidal disease. While standardized anal dilatation is a reliable and well-established technique, balloon dilatation therapy, although reported as effective, is often used as a last resort and remains limited, because there is a scarcity of recent in-depth studies on this technique. Hence, this study aims to investigate the efficacy of balloon dilatation in the treatment of chronic anal fissures.

**Methods:** In this study, we included patients with chronic anal fissures who experienced rectal pain lasting more than 6 weeks, bleeding, and resistance to local treatments. Initially, recto sigmoidoscopy was performed, followed by anoscope insertion to locate and measure the length of the fissures. Subsequently, a 35 mm achalasia balloon was introduced through the anoscope. The balloon was inflated gradually, starting at 1 pascal and increasing to 5-7 pascals until reaching 35 mm, remaining in this state for 4 minutes before gradual deflation and removal. Patients were evaluated using the REALISE score questionnaire before the intervention, one month after, and six months after, assessing anal pain, bleeding, stool quality, painkiller usage, and quality of life. Additionally, we investigated potential complications.

**Results:** Our study consisted of 38 patients with a mean age of 49.05±12.41 years, with 60.5% female participants. The initial mean pre-intervention REALISE score was 11.24±4.59, which significantly reduced after one month to 2.92±1.42 (p<0.001) and continued to plummet to 0.92±1.12 (p<0.001) in the sixth-month evaluation. Notably, the REALISE score declined significantly from the first to the sixth month (p<0.001) of intervention. Subsequent sub-population analysis unveiled a prominently significant reduction among more severe patients with pre-intervention REALISE scores above 10. No bleeding or tearing occurred.

**Conclusion:** The findings from this study affirm the efficacy of balloon dilatation in the treatment of chronic anal fissure patients, especially in cases of high severity. Significantly, this improvement continues over time, suggesting that balloon dilatation could be an effective approach for managing anal fissures in patients unresponsive to other treatments.

Send Date: 2023/10/12

Code: DA-23075
ICGH 2023-082
Category: 1.1 اپیدمیولوژی

### Seroprevalence of Human Cystic Echinococcosis in Sanandaj City, Kurdistan Province, Western Iran

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**Introduction:** Echinococcus granulosus (E. granulosus) is a cestodeparasite that causes cystic hydatid disease in humans worldwide. Iran is one of the endemic regions for infection that indicate the importance and presence of infection in this country. Therefore, the current research aimed to characterize the seroprevalence of human cystic echinococcosis in Sanandaj city, Kurdistan province, western Iran.

**Methods:** Totally, 500 serum samples were collected from patients referred to different health centers in Sanandaj city using cluster sampling in 2018-2019. All the sera were examined using the enzyme-linked immunosorbent assay test.

**Results:** The seroprevalence of human hydatidosis was reported at 2.2% by ELISA test in Sanandaj city. This rate was 9 (1.9%) in women and 2 (0.4) in men. The age group of 20-30 years old had the highest positivity rate (1.0%). Also, the subjects that consumed home slaughtered meat had the highest infection rate at 4 (0.8%). There was no significant difference regarding factors studied such as sex, education, residence, consumed water, keeping a dog, and the seropositivity.

**Conclusion:** Seroprevalence of human cystic echinococcosis in Sanandaj city is lower than the general prevalence in Iran. Our research team hopes to provide accurate data on the prevalence of hydatidosis in Sanandaj encourage more extensive research to help prevent this parasite in Iran and worldwide.

Send Date: 2023/10/10

Code: DA-23080
ICGH 2023-084
Category: 5.4 Diagnosis and monitoring

### Prevalence of plasmid-mediated quinolone resistance (PMQR) genes in mucosa-associated Escherichia coli isolates from Iranian patients with inflammatory bowel diseases (IBD)

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**Introduction:** Several pieces of evidence support that ciprofloxacin and quinolones can be used as an adjunct to immunosuppressant therapy in cases of inflammatory bowel disease (IBD). Quinolone resistance is frequently reported in clinical isolates of Enterobacterales, additionally, it has previously been confirmed that more severe IBD activity is associated with the Enterobacterales blooming in the gut. Therefore, this study aimed to investigate fluoroquinolone resistance and associated genes among E.coli isolates from colonic biopsies of Iranian patients with IBD

**Methods:** In this cross-sectional study, E. coli were isolated from inflamed ileum and/or colon tissue of patients with IBD, including Ulcerative colitis (UC) and Crohn's disease (CD), during colonoscopy. Demographic data and clinical characteristics were recorded. Phenotypic and molecular detection of quinolone resistant-E. coli were carried out

**Results:** A total of 107 individual E. coli strains were isolated from colonic/ileal biopsies of 121 IBD patients, including 99 (81.8%) UC and 22 (18.2%) CD patients. Antimicrobial susceptibility testing revealed that 57% of investigated isolates exhibited a phenotypical non-susceptibility to at least one quinolone. Plasmid-mediated quinolone resistance (PMQR) genes qnrS, oqxA, and oqxB were detected in both UC and CD-associated E. coli. A significant positive correlation was found between the intestinal carriage of ciprofloxacin quinolones-resistant E. coli and prior long-term antibiotic therapy with ciprofloxacin.

**Conclusion:** The results of our study indicate that a significant proportion of both UC and CD patients were intestinally colonized

with quinolone-resistant E. coli strains alarming a potential risk factor associated with the disease course and its complications

Send Date: 2023/10/11

Code: DA-23097
ICGH 2023-085
Category: 13.2 Molecular biology/genetics/pathology

### Investigating the Biological Effects of Superparamagnetic Nanoparticles Conjugated Panitumumab in Combination with Near-Infrared Laser Irradiation for Colorectal Cancer Therapy

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**Introduction:** This study presents an innovative and efficient tumor-targeted nanotherapeutic using superparamagnetic nanoparticles (SPIONs) conjugated with anti-EGFR Panitumumab. We conducted comprehensive characterizations and assessments of this nanotherapeutic to evaluate its biological effects and photothermal properties in SW-480 colorectal cancer cells. In order to assess the efficacy of this nanbiosystem in combination with photothermal therapy (PTT), we employed low-intensity near-infrared (NIR) laser irradiation.

**Methods:** Targeted SPION-Pan nanomedicine was synthesized, characterized, and evaluated for cytotoxic assay and apoptosis induction on KRAS mutant SW-480 colorectal cancer cells combined with photothermal therapy (PTT) using near-infrared (NIR) laser irradiation.

**Results:** The study findings demonstrated that the targeted nanobiosystem resulted in diminished cell viability and the induction of apoptosis in the SW480 cell line. Furthermore, our investigation showed that the combination therapy (PTT + SPION-Pan) had a synergistic effect on promoting cancer cell apoptosis. Notably, after a 2-hour and 24-hour exposure to low-intensity NIR irradiation at 0.5 milliwatts, the IC50 value of SPION-Pan significantly decreased when compared to cells treated with SPION-Pan alone, without NIR laser irradiation,

or NIR laser irradiation alone.

**Conclusion:** We introduced a potent nanoformulation of panitumumab in combination therapy with PTT, demonstrating a remarkable capacity to overcome resistance to anti-EGFR monoclonal antibodies and induce apoptosis in colorectal cancer cells, outperforming the efficacy of free antibodies

Send Date: 2023/10/11

Code: DA-23110
ICGH 2023-086
Category: 13.7 ساير موارد

### Turmerone-loaded niosomes attenuate cancerous phenotype in hepatocellular carcinoma model

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**Introduction:** Hepatocellular carcinoma (HCC) is the most frequent primary liver malignancy and the fourth-most lethal cancer. Current HCC therapies have different challenges, including tumor recurrence, drug resistance, and low bioavailability of the drugs. Recently, nanodrug delivery systems such as non-ionic surfactant-based nanoparticles (also known as niosomes) have attracted much attention in cancer treatment due to their appropriate encapsulation, stability, bioavailability, and release properties.

**Methods:** In this study, turmerone-loaded niosomes (tur-nio) were synthesized using the thin film hydration method. Niosome characteristics such as size, polydispersity index (PDI), and zeta potential were assessed with dynamic light scattering (DLS). In addition, the storage stability of niosomes was examined at 4 °C and 25 °C using DLS. The anti-cancer effects of tur-nio were investigated through performing proliferation, apoptosis, cell cycle, and scratch assays on Huh7

cells. Additionally, the effect of tur-nio on the expression of genes related to epithelial-mesenchymal transition (EMT), including E-cadherin, N-cadherin, and vimentin, was examined.

**Results:** DLS analysis showed that niosomes were completely stable at 4 °C for two months. Tur-nio significantly inhibited proliferation of Huh7 cells compared to the control group. Flow cytometry analysis indicated that tur-nio treatment efficiently induced apoptosis and cell cycle arrest in Huh7 cells. Furthermore, the scratch assay showed that in tur-nio treated cells, migration capacity was significantly inhibited. EMT related genes were down regulated as well. The expression level of N-cadherin and vimentin was significantly decreased in tur-nio treated cells in comparison with the control group. In addition, tur-nio treatment increased the expression level of E-cadherin.

**Conclusion:** This study showed that turmerone-loaded niosomes have anti-cancer properties and could have therapeutic potential for HCC treatment. In addition, these results suggest that niosomes could be a novel vehicle for drug delivery in HCC.

Send Date: 2023/10/12

Code: DA-23059
ICGH 2023-087
Category: 5.2 Etiology/epidemiology

**Investigating the activity status of inflammatory bowel disease and its related factors in Guilan Province, Iran: A study protocol for a case control study**

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**Introduction:** While the prevalence of Inflammatory bowel disease (IBD) is rising globally, there is limited knowledge regarding its activity status and associated factors, especially in Guilan Province, Iran. This protocol outlines a case-control study aiming to assess the activity status of IBD and explore its related factors in the region

**Methods:** The study will utilize a case-control design of patients with IBD. Cases will consist of individuals with active IBD, while controls will be selected from those with inactive diseases. The selection of participants will be based on predefined criteria and matched for age and gender. A comprehensive set of variables will be examined, including demographic characteristics, nutritional status, lifestyle factors, medical history, and disease-related factors. Data collection will involve structured interviews. Standardized questionnaires will gather information on disease activity, symptomatology, lifestyle behaviors, and nutritional status. Statistical analyses will be conducted to evaluate the association between disease activity status and the identified factors. Regression models will be employed to control for potential confounders and assess the independent effects of each variable

**Results:** Statistical analyses will be conducted to evaluate the association between disease activity status and the identified factors. Regression models will be employed to control for potential confounders and assess the independent effects of each variable

**Conclusion:** The findings from this study are expected to provide valuable insights into the activity status of IBD and its related factors in Guilan Province, Iran. By examining a range of variables, the study aims to enhance our understanding of the disease activity and identify potential modifiable risk factors. The results may have implications for developing tailored interventions and improved management strategies for individuals with IBD in this region

Send Date: 2023/09/30

Code: DA-23100
ICGH 2023-088

Category: 6.3 Malignant disease - management

**Alcohol and colorectal cancer risk in EMRO countries:
A comprehensive meta-analysis**

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**Introduction:** To conduct a comprehensive analysis of the existing literature regarding the potential correlation between alcohol consumption and colorectal cancer (CRC) within the Eastern Mediterranean Regional Office (EMRO) region.

**Methods:** Two researchers independently conducted separate searches on PubMed, Scopus, and Web of Science. The quality of the included studies was assessed using the Newcastle-Ottawa (NCO) checklist. To evaluate heterogeneity, the Cochrane test and I2 statistics were employed. Additionally, meta-regression analysis was utilized to investigate the influence of study sample sizes and the Human Development Index (HDI) on the combined effect.

**Results:** Finally, eleven articles meeting our inclusion criteria were selected for analysis. Our meta-analysis unveiled a noteworthy positive correlation between alcohol consumption and the risk of CRC (Odds Ratio [OR] = 1.51; 95% Confidence Interval [CI]: 1.03-2.22; p = 0.03). The meta-regression analysis results indicated that neither the sample sizes of the studies (p = 0.85) nor the HDI of the countries (p = 0.07) had a significant impact on the overall effect.

**Conclusion:** Individuals who engage in high or low levels of alcohol consumption and may be at risk for CRC would benefit from being informed about the potential positive correlation between these factors within the EMRO region. By promoting early diagnosis, implementing effective screening techniques, and providing state-of-the-art treatment procedures, it is possible to reduce CRC mortality rates and enhance survival rates among residents of the EMRO region.

Send Date: 2023/10/11

Code: DA-23039
ICGH 2023-089

گروه : ۱۶ بیماریهای بدخیم – پاتوژنز

**Alterations of the gut microbiome and metabolome following: A opportunity for early detection**

**of colorectal cancer**

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**Introduction:** Colorectal cancer (CRC) is a commonly diagnosed cancer responsible for numerous deaths worldwide. In the recent decades of technological advances implicated in considering the molecular pathways underlying CRC pathogenesis. Several investigations have identified various mechanisms involved in CRC and have paved the way for new therapeutics and early diagnosis. Gut microbiome play a crucial role for intestinal inflammation and can be associated with colitis colorectal cancer. In this review, we narrated the role of the microbiome population and their metabolome profile as a new screening method for early detection of CRC.

Send Date: 2023/09/20

Code: DA-23090
ICGH 2023-090

Category: 8 .2 بیماریهای بدخیم مری

**Association between gene copy number changes
and risk of esophageal squamous cell carcinoma:
A systematic review and meta-analysis**

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**Introduction:** Esophageal squamous cell carcinoma (ESCC) is the eighth most common cause of cancer-related death worldwide. However, previous genome-wide single nucleotide polymorphism association analyses have not explained the high heritability associated with ESCC. The aim of this study was to investigate if genes copy number variations (CNVs) are associated with the presence of ESCC. Data sources: We performed a search of MEDLINE and EMBASE databases on the 21st August 2023. Study selection: Case-control studies assessing the association of at least one copy number variation with ESCC were included. Data extraction: Data were independently extracted by two reviewers. A random effects model was used to calculate combined odds ratios for commonly investigated CNVs.

**Results:** 15 studies examining genes CNVs were identified. 3 CNVs were assessed in at least 3 studies and included in a meta-analysis. Results showed an association of ABCC4, erbB2 and MCL1 CNVs with ESCC presence.

**Conclusion:** ABCC4, erbB2 and MCL1 genes might therefore have predictive and therapeutic potential for ESCC.

Send Date: 2023/10/11

Code: DA-23089
ICGH 2023-091
Category: 6.2 Malignant disease - diagnosis/hisopathology

### Impact of tumor regression grade on 5-Year survival rates in Locally Advanced Rectal Cancer

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**Introduction:** The standard treatment protocol for locally advanced rectal cancer (LARC) typically involves neoadjuvant chemoradiation (nCRT) followed by surgical intervention. Within the realm of LARC treatment, various factors are recognized for their influence on patient survival. Among these factors, tumor regression grade (TRG) remains a subject of ongoing debate. This research endeavor is designed to explore the potential correlations between TRG and the 5-year overall survival (OS) of LARC patients.

**Methods:** A retrospective study was conducted, encompassing a cohort of 124 patients diagnosed with LARC, all of whom underwent nCRT followed by surgery at Tabriz Medical University Hospital during the period spanning 2007 to 2017. A course of chemotherapy utilizing fluoropyrimidines was administered, totaling between 45.0 to 50.4 Gy, delivered in 25 daily fractions. The evaluation of tumor response relied on the modified Ryan TRG classification, with TRG stratified into categories representing total response (TR=TRG0), partial response (PR=TRG1-2), and no response (NR=TRG 3).

**Results:** The analysis reveals no discernible correlation between TRG and 5-year OS. Specifically, the 5-year OS rates were recorded as 100%, 77%, and 51% for patients exhibiting TR, PR, and NR, respectively (P = 0.53).

**Conclusion:** This investigation strongly suggests that TRG is unlikely to be a significant determinant of 5-year OS in the context of LARC.

Send Date: 2023/10/11

Code: DA-23082
ICGH 2023-092
Category: 5.1 Basic/pathogenesis/pathology/

### High prevalence of Mucosa-Associated extended-spectrum β-Lactamase-producing Escherichia coli and Klebsiella pneumoniae among Iranain patients with inflammatory bowel disease (IBD)

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**Introduction:** Several pieces of evidence suggest that certain pathobionts belonging to Enterobacterales are associated with the development and progression of inflammatory bowel diseases (IBD). Extended-spectrum β-lactamases (ESBLs) ESBLs are frequently found in the Enterobacterales members, particularly in Escherichia coli and Klebsiella spp., and might trigger antibiotic-induced perturbations of the intestinal microbiota and led to more severe disease activity in IBD. Therefore, the severity of IBD could be influenced by ESBL-producing Enterobacterales, and hence, this study aimed to investigate the presence of ESBLs and carbapenemases among mucosa-associated E. coli and Klebsiella pneumoniae isolated from colonic biopsies of Iranian patients with IBD

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**Methods:** In this cross-sectional study, E. coli and K. pneumoniae were isolated from inflamed ileum and/or colon tissue of patients with IBD, including Ulcerative colitis (UC) and Crohn's disease (CD), during colonoscopy. Demographic data and clinical characteristics were recorded, and UC and CD disease activity and extent were evaluated according to the full Mayo score and Crohn's disease activity index (CDAI), respectively. Phenotypic and molecular detection of ESBL- and carbapenemase-producing E. coli and Klebsiella pneumoniae were carried out. Disease activity and other clinical and microbial features were compared in patients with and without gut colonization with ESBL producers.

**Results:** A total of 83 IBD patients, including 67 UC and 16 CD, were enrolled in the initial analysis. Intestinal colonization with ESBL-producing E. coli and/or Klebsiella pneumoniae was found in 37 (55.2%) of UC and 9 (56.2%) of DC patients - mostly harbored E. coli containing the blaCTX-M and blaTEM genes. UC patients with intestinal colonization with ESBL-producers had more severe disease compared with patients without colonization. Moreover, 10.2% of tested E. coli and 34.8% of K. pneumoniea were recognized as potential carbapenemase producers.

**Conclusion:** Intestinal colonization with ESBL producers could arise disease activity in IBD patients. Further large-scale case-control studies should be performed to investigate the possible confounding factors that could contribute to this outcome.

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ICGH 2023-093
Category: 3.16 عفونت های دستگاه گوارش

### zak genes̀ expression in Gastritis and Gastric Cancer patients

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**Introduction:** ZAK protein is a member of the MLK family proteins defined as mediators in the cell cycle. A survey of zak gene expression in gastric antral epithelial cells (GAECs) of gastritis and gastric adenocarcinoma patients with Helicobacter pylori genotypes infection can elucidate carcinogenesis of H. pylori genotypes.

**Methods:** In a case-control study, zak gene expression was evaluated in GAECs biopsy samples of gastritis and gastric adenocarcinoma patients with (n 23, 21) and without H. pylori infection (n 27, 32), respectively. Total RNA was extracted from each gastric antral biopsy samples and cDNA synthesized by using Takara kits. H. pylori virulence genes̀ cDNA were detected by traditional PCR and specific primers. The zak gene expression was measured using the relative Real-Time RT PCR.

**Results:** The prevalence of gastric adenocarcinoma was the highest in man and 61-85 aged groups (p<0.05). There was no significance correlation between the prevalence of H. pylori infection and patients demographic groups. This study showed that zak gene overexpression gradually increase with increasing age and tumor gard among gastric adenocarcinoma patents. The gastric antral biopsy samples with H. pylori vacA s1m2 genotype infection showed a weak correlation with zak gene overexpression (p<0.1).

**Conclusion:** zak gene expression was higher in GAECs of gastritis cancer than in gastric adenocarcinoma, indicating the protective effect of ZAK against gastric cancer (p< 0.005). Reducing zak gene expression show the negative correlations with H. pylori infection and gastric adenocarcinoma.

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ICGH 2023-094
Category: 2.13 بیولوژی مولکولی/ ژنتیک/ پاتولوژی

### Examination of the serum level of CA125 marker in patients with gastric cancer before and after treatment

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**Introduction:** Gastric cancer is the fifth most common cancer and the fourth cause of death from cancer. CA125 is a useful marker for cancer diagnosis and a predictive marker for metastasis in patients. Since the diagnostic value of this biomarker has not been definitively determined in gastric cancer, the aim of this study is to determine the serum level of the CA125 biomarker in gastric cancer patients before and after treatment.

**Methods:** In this cross-sectional study, 63 patients with gastric cancer who had confirmed pathology results were included in the study. Before and after the treatment (chemotherapy or surgery), 5 cc blood samples were taken from the patients. The serum level of the CA125 marker was measured with a kit using the ELISA method.

**Results:** The results showed that Intestinal with 70.5% and Adenocarcinoma with 71.66% are the most dominant types and subtypes of cancer in this study. It was also reported that the difference in CA125 serum levels in men and women before and after treatment is not statistically significant (P = 0.2). The difference in CA125 serum levels before and after treatment based on type (P = 0.4), subtype (P = 0.6) and grade (P = 0.3) of gastric cancer was not statistically significant. the people who received both surgery and chemotherapy a significant difference was observed (P< 0.05).

**Conclusion:** In this study, it was found that although the difference in the serum level of CA125 marker before and after the treatment was not statistically significant, but there is a significant difference based on the type of treatment, and in people who received both surgery and chemotherapy a significant difference was observed.

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Category: 13 .2 بیماریهای بدخیم گاسترودئونال

### Risk factors of gastric cancer in Golestan Cohort Study

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**Introduction:** The incidence of gastric cancer can vary 5-fold to 10-fold between high-risk and low-risk regions. Golestan Province in northeast of Iran is a high-risk area, where gastric cancer is the second most common cancer in both sexes.

**Methods:** This is a nested case-control study within the Golestan Cohort Study (GCS), including all confirmed cases of gastric cancer accrued in GCS until January 1, 2018 (n=288) and a 4 to 1 set of controls (n=1148), matched on age, sex, and place of residence, who were alive and cancer-free at the time of the case diagnosis. We used Multiplex serology to evaluate 17 H. pylori proteins in plasma samples from cases and controls. We used conditional logistic regression (conditioned on the matching factors), to analyze the association between potential risk factors and incident gastric cancer adjusted for H. pylori antigens.

**Results:** Among 288 confirmed cases, 175 were in the cardia region, 83 were non-cardia cancers, and 30 were undetermined. In addition to the matching factors (age, sex, and place of residence), cases and controls were similar in most baseline characteristics. Compared with controls, the cases were significantly less likely to have had received any formal education (18.8% vs. 27.0%, p<0.01) and brush their teeth (21.7% vs. 30%, p<0.05). Cases also had lower daily intake of fruits and fish compared with controls. Non-O blood groups, especially A, were more common in cases than controls (76.4% vs. 68.9%, p<0.01). The prevalence of H. pylori positivity (presence of 3 or more antigens) was similar between cases and controls (74.5% vs. 74.9%, respectively). However, cases were significantly more likely to be positive for CagA (85.1% vs. 78.0%, p<0.01), VacA (45.5% vs. 37.1%, p<0.01), while NapA was more common in controls (32.4% in cases vs. 45.3% in controls, p<0.01). The level of p53 antigen was also higher in cases, but the difference did

not reach statistical significance (6.9% vs. 4.3%, p=0.06). In multivariate adjusted models, daily tooth brushing was protective for cardia cancer (OR=0.49; 95%CI: 0.26-0.94, p<0.05), while a history of diabetes was associated with increased risk (OR=2.03; 95%CI: 1.02-4.05). Drinking hot tea was also associated with higher risk of cardia cancer, but the association did not reach statistical significance (OR=1.48; 95%CI: 0.97-2.25, p=0.06). High intake of red mean was the strongest risk factor associated with the risk of non-cardia cancer (OR=3.39; 95%CI: 1.4-8.24, p<0.01), followed by having a non-O blood group (OR=2.04; 95%CI: 1.01-4.17, p<0.05).

**Conclusion:** In this high-risk region for gastric cancer, cardia cancer was the predominant type, and similar to many other high-risk populations, a high proportion of both cases and controls were infected with H. pylori. We found significant associations between two known H. pylori virulence factors (CagA and VacA) and the risk of gastric cancer, and confirmed a novel inverse association previously observed in this population for NapA, a neutrophil-activating protein. We also observed significant associations for risk factors such as non-O blood group, diabetes, lack of formal education, poor oral hygiene, and high red meat intake.

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Category: 3.16 عفونت های دستگاه گوارش

### Molecular identification of cultivable bacterial population obtained from stomach of patients with gastritis and atrophy

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**Introduction:** historically, it was believed that the stomach is an unfavourable environment for bacteria due to the its acidic conditions and presence difference antimicrobial factors, but after isolating and identifying Helicobacter pylori from gastric biopsies, researchers found that additional gastric microbial species, beyond Helicobacter pylori are present in gastric environment which can play a role in the stomach health and disease. In the present study, culture-base method and 16S rRNA gene sequencing were used to evaluate the distribution of aerobic and anaerobic bacteria in gastric biopsies of dyspeptic patients with gastritis and gastric atrophy.

**Methods:** In this study, 10 gastric biopsy samples obtained from patients referred to the Masoud Gastroenterology and Liver Clinic (5 gastritis patients and 5 gastric atrophy patients) were recruited. First, enrichment and inoculation were done on different selective and non-selective media and incubation in different temperature and oxygen conditions. Then the bacteria were isolated and purified. In the next step, the DNA of the isolated bacteria was extracted and PCR was performed using prokaryotic-specific 16S rRNA gene. The amplified fragments were sequenced and compared with the published sequences in the gene bank.

**Results:** At least one distinct bacterium was isolated from each biopsy. Totally, 28 bacterial colonies were isolated from 10 examined biopsies. The most prominent bacteria were Bacillus, Streptococcus, Staphylococcus and Lactobacillus, which were found in both types of biopsy samples. However, Brevundimonas sp. and Ligilactobacillus sp. were only cultured from biopsies of atrophy patients and Rothia sp. and Achromobacter sp. were isolated only from people with gastritis. Furthermore, overall 10 lactic acid bacteria were isolated and 7/10 were related to patients with gastric atrophy.

**Conclusion:** In this study, common and different bacteria were isolated and identified from the biopsy of gastritis and gastric atrophy patients. More extensive studies are needed to cultivate and identify stomach bacteria in different stages of the disease with greater specificity.

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Code: DA-23115
ICGH 2023-097
Category: 9 .2 سایر بیماریهای مری

### 11-Year Analysis of Adenoma Detection Rate in Patients Undergoing Screening Colonoscopy at Sherkat Naft Hospital: A Retrospective Study

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**Introduction:** Colonoscopy is a highly recommended

diagnostic modality for detection of polyps among average-risked population for colorectal cancer. Recently, high-definition colonoscopies which utilize narrow band imaging (HD-NBI) have revolutionized detection of subtle mucosal changes and have improved the polyp and adenoma detection rates in contrast to previously-used standard white-light colonoscopies. The fact that colorectal cancer is the third common cancer among malignant lesions and the second cause of cancer-induced deaths is well worth screening methods for detection of premalignant lesions. Colonoscopy is the method of choice for screening because it has the capability of therapeutic interventions like polyp removal as well as polyp detection. The aim of the current study is to determine the adenoma detection rate and adenoma characteristics in patients referred to Sherkat Naft hospital over an 11-year period

**Methods:** This is a retrospective study on the screening of colorectal cancer in 1028 asymptomatic average-risked adults referred to Sherkat Naft hospital between 2008 up to the end of 2018. Both men and women at the age of 50 and more were included in the study if their life expectancy estimated more than 10 years. Patients averaged-risk for colorectal cancer with a documented Boston bowel preparation score (BBPS) 2 or more in each segment of colon were included in the study if a complete colonoscopy with cecal intubation had been performed for them. Adenoma detection rate and adenoma characteristics were analyzed using IBM SPSS software

**Results:** The adenomas were seen in 295 (28.7%) cases. Adenomas were significantly detected in rectum±anus and sigmoid colon. Adenoma evaluation including 5 adenocarcinomas revealed that the most prevalent pathology among adenomas was tubular adenoma which was seen in 236 participants (80%). 107 participants (36.27%) had adenomas without dysplasia. The severity of dysplasia was predominantly low-grade dysplasia in 166 participants (56.27%).

**Conclusion:** Overall, this single-center study reflects the feasibility and validity of an opportunistic screening colonoscopy program in Iran.

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ICGH 2023-098

Category: 6 .2 بیماری ریفلاکس

### Sinopharm vaccine antibody response in cancer patients

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**Introduction:** Long-term safety and efficacy of BBIBP-CorV vaccine especially in individuals with chronic diseases, like cancer, is under investigation. In the present prospective study, we aimed to evaluate severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2) antibody response with BBIBP-Cor vaccine in Iranian cancer patients.

**Methods:** All the patients registered to receive BBIBP-CorV (Sinopharm) vaccine were divided into two groups of with (cases = 107) and without (controls = 45) history of cancer. Serum levels of SARS-CoV anti-spike recombinant receptor binding domain (anti-sRBD) and anti-nucleocapsid (anti-N) IgG serum levels were measured on days 0 (phase 0), 28–32 (phase I), and 56–64 (phase II) of vaccination. The data were analyzed using SPSS, version 22.

**Results:** Totally, 152 individuals (67.1% females) with the mean age of 46.71 ±15.36 years were included. Solid cancers included 87.8% of the cancer cases (46.7% gynecological and 31.8% gastrointestinal cancer). At Phases I and II, positive anti-sRBD IgG and anti-N IgG were significantly lower among the cases in total analysis. Side effects were not significantly different between the cases and controls. The lowest positive

anti-sRBD IgG test was observed among the cancer patients who were simultaneously receiving chemotherapy (35.3%). Anti-sRBD IgG and anti-N IgG serum levels significantly increased at phases I and II in total analysis and in each group. In addition, serum anti-sRBD IgG increased during the three phases and it was significantly higher in the control group.

**Conclusion:** Full vaccination of COVID-19 by BBIBP-CorV in immunocompromised patients such as cancer patients is safe and effective and could induce antibody response but in lower levels compared to healthy people. Probable causes to have minor antibody response found in males, older ages, individuals with BMI ≥ 25, those without past history of COVID-19 and with hematologic cancers. No significant side effects after vaccination were seen.

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گروه: ۱۰،۲ بیماریهای وابسته به اسید پپتیک (مربوط به داروهای ضدالتهابی غیر استروئیدی) –اپیدمیولوژی

### Symptoms and Outcome of COVID 19 in Patients with Inflammatory Bowel Disease: A18-months Follow-up Study during the COVID 19 Pandemic

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**Introduction:** Iran has been one of the most affected countries in the world by COVID 19.The aim of our study was determine the outcome of COVID 19 infection in IBD patients. Furthermore we analyzed the outcome of SARS-CoV-2 infection in IBD patients treated with immunosuppressant.

**Methods:** This is a cross-sectional, observational study. This observational study included all patients with IBD, regularly followed in our IBD Clinic at Tertiary Medical Center from February 5th, 2020 to Augest 5th, 2021. We identified those patients with confirmed SARS-CoV-2 infection either by PCR test or chest CT imaging.

**Results:** A total of 401 patients were recruited (n=346 [86.28%] with ulcerative colitis , n= 53 [13.22%] with Crohn's disease

and 2[0.5%] with indeterminate colitis). Of these patients, 273 (68.08%) developed no symptoms or signs during the follow-up period,128 patients developed symptoms similar to covid 19 and 76(18.9%) were diagnosed as confirmed COVID 19 cases. Men comprised 60.5% of the confirmed COVID-19 groups, which shows that men were statistically more likely to have symptoms of COVID-19 during the follow-up period (P value=0.04), No significant differences were observed among confirmed, possible and asymptomatic cases in terms of concomitant medications: Steroids (p=0.6), Thiopurines (p=0.23), anti-TNF (p=0.23) and Aminosalicylate (p=0.61). three patient required hospitalization but there were no admissions to intensive care unit or deaths related to COVID-19.

**Conclusion:** The risk of COVID 19 related adverse outcomes and death in patients with IBD is low, also patients with IBD under immunosuppressive treatment are not at an increased risk of COVID 19.

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## Author Index (Persian Abstracts)