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- 1876 **Features of Patients With Hereditary Mixed Polyposis Syndrome Caused by Duplication of GREM1 and Implications for Screening and Surveillance**
S. Lieberman, T. Walsh, M. Schechter, T. Adar, E. Goldin, R. Beeri, N. Sharon, H. Baris, L. Ben Avi, E. Half, I. Lerer, B. H. Shirts, C. C. Pritchard, I. Tomlinson, M.-C. King, E. Levy-Lahad, T. Peretz, and Y. Goldberg

This report extends the knowledge of the clinical consequences of the 40 kb duplication upstream of GREM1. Mutations in this area should be investigated in more families with polyposis or colorectal cancer.

Full Reports

Clinical—Alimentary Tract

1881 Abdominal Compression by Waist Belt Aggravates Gastroesophageal Reflux, Primarily by Impairing Esophageal Clearance

D. R. Mitchell, M. H. Derakhshan, A. A. Wirz, S. A. Ballantyne, and K. E. L. McColl

In reflux patients, abdominal compression by a waist belt increases acid reflux after a meal by 8-fold. Waist belt compression reproduces the effects of central obesity in promoting reflux.

1889 Timely Use of Probiotics in Hospitalized Adults Prevents *Clostridium difficile* Infection: A Systematic Review With Meta-Regression Analysis

N. T. Shen, A. Maw, L. L. Tmanova, A. Pino, K. Ancy, C. V. Crawford, M. S. Simon, and A. T. Evans

See editorial on page 1817.

This systematic review suggests that use of probiotics, within 2 days of the first antibiotic dose, reduces the risk of *Clostridium difficile* infection by over 50% in hospitalized adults receiving antibiotics.

1901 Infliximab Is Not Associated With Increased Risk of Malignancy or Hemophagocytic Lymphohistiocytosis in Pediatric Patients With Inflammatory Bowel Disease

J. S. Hyams, M. C. Dubinsky, R. N. Baldassano, R. B. Colletti, S. Cucchiara, J. Escher, W. Faubion, J. Fell, B. D. Gold, A. Griffiths, S. Koletzko, S. Kugathasan, J. Markowitz, F. M. Ruemmele, G. Veereman, H. Winter, N. Masel, C. R. Shin, K. L. Tang, and M. Thayu

Patients with IBD have significantly increased risks of malignancy compared with the respective SEER reference populations. Physicians should weigh potential benefits and risks of thiopurine administration when treating pediatric patients with IBD.

1915 Menopausal Hormone Therapy Is Associated With Increased Risk of Fecal Incontinence in Women After Menopause

K. Staller, M. K. Townsend, H. Khalili, R. Mehta, F. Grodstein, W. E. Whitehead, C. A. Matthews, B. Kuo, and A. T. Chan

In a prospective cohort analysis of 55,828 postmenopausal women from the Nurses' Health Study, current or past use of menopausal hormone therapy was associated with an increased risk of fecal incontinence.

1922 Lower Prevalence of Celiac Disease and Gluten-Related Disorders in Persons Living in Southern vs Northern Latitudes of the United States

A. Unalp-Arida, C. E. Ruhl, R. S. Choung, T. L. Brantner, and J. A. Murray

The proportion of persons with celiac disease and/or who avoid gluten was lower in Southern compared with Northern latitudes in the United States.

1933 Factors Associated With Shorter Colonoscopy Surveillance Intervals for Patients With Low-Risk Colorectal Adenomas and Effects on Outcome

J. C. Anderson, J. A. Baron, D. J. Ahnen, E. L. Barry, R. M. Bostick, C. A. Burke, R. S. Bresalier, T. R. Church, B. F. Cole, M. Cruz-Correa, A. S. Kim, L. A. Mott, R. S. Sandler, and D. J. Robertson

See editorial on page 1819.

Although endoscopists frequently recommend short intervals for individuals with low risk adenomas, these data support current guideline recommendations for surveillance intervals of at least 5 years.

1944 Dietary Patterns and Risk of Colorectal Cancer: Analysis by Tumor Location and Molecular Subtypes

R. S. Mehta, M. Song, R. Nishihara, D. A. Drew, K. Wu, Z. R. Qian, T. T. Fung, T. Hamada, Y. Masugi, A. da Silva, Y. Shi, W. Li, M. Gu, W. C. Willett, C. S. Fuchs, E. L. Giovannucci, S. Ogino, and A. T. Chan

See editorial on page 1821.

Diets rich in red and processed meats, added sugar, and refined grains are linked with a higher risk of colorectal cancer, particularly in the distal colon and rectum, as well as with tumors that are *KRAS*-wildtype, *BRAF*-wildtype, CIMP-low/negative, and MSS.

Clinical—Liver

1954 Association of Provider Specialty and Multidisciplinary Care With Hepatocellular Carcinoma Treatment and Mortality

M. Serper, T. H. Taddei, R. Mehta, K. D'Addeo, F. Dai, A. Aytaman, M. Baytarian, R. Fox, K. Hunt, D. S. Goldberg, A. Valderrama, and D. E. Kaplan, for the VOCAL Study Group

See editorial on page 1823.

This is the largest US-based cohort for whom Barcelona Clinic Liver Cancer stage-specific outcomes have been described. Certain processes of care were associated with improved liver cancer outcomes that should be tested prospectively.

Clinical—Biliary

1965 Association Between Screen-Detected Gallstone Disease and Cancer in a Cohort Study

D. M. Shabanzadeh, L. T. Sørensen, and T. Jørgensen

See editorial on page 1825.

In a general population screened with ultrasound examination and followed for a median of 24.7 years, gallstone disease was associated with pooled gastrointestinal and right-side colon cancers.

1975 Patient Age, Sex, and Inflammatory Bowel Disease Phenotype Associate With Course of Primary Sclerosing Cholangitis

T. J. Weismüller, P. J. Trivedi, A. Bergquist, M. Imam, H. Lenzen, C. Y. Ponsioen, K. Holm, D. Gotthardt, M. A. Färkkilä, H.-U. Marschall, D. Thorburn, R. K. Weersma, J. Fevery, T. Mueller, O. Chazouillères, K. Schulze, K. N. Lazaridis, S. Almer, S. P. Pereira, C. Levy, A. Mason, S. Naess, C. L. Bowlus, A. Floreani, E. Halilbasic, K. K. Yimam, P. Milkiewicz, U. Beuers, D. K. Huynh, A. Pares, C. N. Manser, G. N. Dalekos, B. Eksteen, P. Invernizzi, C. P. Berg, G. I. Kirchner, C. Sarrazin, V. Zimmer, L. Fabris, F. Braun, M. Marzioni, B. D. Juran, K. Said, C. Rupp, K. Jokelainen, M. Benito de Valle, F. Saffioti, A. Cheung, M. Trauner, C. Schramm, R. W. Chapman, T. H. Karlsen, E. Schrumpf, C. P. Strassburg, M. P. Manns, K. D. Lindor, G. M. Hirschfield, B. E. Hansen, and K. M. Boberg, on behalf of the International PSC Study Group

See editorial on page 1829.

An international study including 7121 PSC patients illustrates how disease progression and cancer risk are impacted by age at PSC diagnosis, sex, ductal phenotype and subtype of concurrent inflammatory bowel disease.

Basic and Translational—Alimentary Tract

1985 Solute Carrier Family 39 Member 6 Gene Promotes Aggressiveness of Esophageal Carcinoma Cells by Increasing Intracellular Levels of Zinc, Activating Phosphatidylinositol 3-Kinase Signaling, and Up-regulating Genes That Regulate Metastasis

X. Cheng, L. Wei, X. Huang, J. Zheng, M. Shao, T. Feng, J. Li, Y. Han, W. Tan, W. Tan, D. Lin, and C. Wu

Overexpression of SLC39A6 in esophageal squamous-cell carcinoma promotes aggressiveness of cancer cells by increasing intracellular levels of zinc, activating phosphatidylinositol 3-kinase signaling, and upregulating genes that regulate metastasis.

1998 Gut-Specific Delivery of T-Helper 17 Cells Reduces Obesity and Insulin Resistance in Mice

C.-P. Hong, A. Park, B.-G. Yang, C. H. Yun, M.-J. Kwak, G.-W. Lee, J.-H. Kim, M. S. Jang, E.-J. Lee, E.-J. Jeun, G. You, K. S. Kim, Y. Choi, J.-H. Park, D. Hwang, S.-H. Im, J. F. Kim, Y.-K. Kim, J.-Y. Seoh, C. D. Surh, Y.-M. Kim, and M. H. Jang

Obesity alters the intestinal immune system. This study shows that gut-specific delivery of T_H17 cells changes the intestinal microbiota and reduces metabolic disorders in obese mice.

2011 Exome Array Analysis Identifies Variants in *SPOCD1* and *BTN3A2* That Affect Risk for Gastric Cancer

M. Zhu, C. Yan, C. Ren, X. Huang, X. Zhu, H. Gu, M. Wang, S. Wang, Y. Gao, Y. Ji, X. Miao, M. Yang, J. Chen, J. Du, T. Huang, Y. Jiang, J. Dai, H. Ma, J. Zhou, Z. Wang, Z. Hu, G. Ji, Z. Zhang, H. Shen, Y. Shi, and G. Jin

This study identified variants at 1p35.2 and 6p22.1 associated with gastric cancer risk, and defined the biological role of the *SPOCD1* and *BTN3A2* genes in gastric cancer development.

Basic and Translational—Liver

2022 **Computational Discovery of Niclosamide Ethanolamine, a Repurposed Drug Candidate That Reduces Growth of Hepatocellular Carcinoma Cells In Vitro and in Mice by Inhibiting Cell Division Cycle 37 Signaling**

B. Chen, W. Wei, L. Ma, B. Yang, R. M. Gill, M.-S. Chua, A. J. Butte, and S. So

Using a computational approach, the anti-parasitic drug niclosamide ethanolamine was identified as a potential candidate for treating liver cancer. Niclosamide ethanolamine reduced the growth of liver cancer cells in preclinical mouse models.

2037 **Induction of Chromosome Instability by Activation of Yes-Associated Protein and Forkhead Box M1 in Liver Cancer**

S. M. E. Weiler, F. Pinna, T. Wolf, T. Lutz, A. Geldiyev, C. Sticht, M. Knaub, S. Thomann, M. Bissinger, S. Wan, S. Rössler, D. Becker, N. Gretz, H. Lang, F. Bergmann, V. Ustiyanyan, T. V. Kalin, S. Singer, J.-S. Lee, J. U. Marquardt, P. Schirmacher, V. V. Kalinichenko, and K. Breuhahn

YAP together with its downstream target FOXM1 induces chromosomal instability, which identified HCC patients with poor clinical prognosis.

2052 **Direct-Acting Antiviral Therapy Restores Immune Tolerance to Patients With Hepatitis C Virus-Induced Cryoglobulinemia Vasculitis**

C. Comarmond, M. Garrido, S. Pol, A.-C. Desbois, M. Costopoulos, M. Le Garff-Tavernier, S. N. Si Ahmed, L. Alric, H. Fontaine, B. Bellier, A. Maciejewski, M. Rosenzwaig, D. Klatzmann, L. Musset, T. Poynard, P. Cacoub, and D. Saadoun

DAA may be an effective therapy in HCV-CV patients. It both reduces or abolishes the production of cryoglobulin and improves T cell homeostasis by restoring regulation/activation and Th1/Th17 imbalances.

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M. F. Vaezi

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