astroenterolog

Contents

ON THE COVER

Computer-Aided Polyp Detection: A Collaborative Improvement. See article by Shaukat, et al, page 732, for additional information.



IN MEMORIAM

In Memoriam: Thomas A. Brasitus, MD F. A. Sinicrope, H. K. Roy, B. M. Bissonnette, and N. O. Davidson

COMMENTARIES

- 539 Advocacy for Equity in Transplantation Access for Alcohol-Associated Liver Disease: How **Research Changed Medi-Cal Policy** B. P. Lee and N. A. Terrault
- 543 Rectal Nonsteroidal Anti-inflammatory Drugs for Post-Endoscopic Retrograde Cholangiopancreatography Pancreatitis Prophylaxis: A Case Study in a Price-Escalation Era K. McKee, V. K. Singh, and V. S. Akshintala
- 547 **Food Insecurity in Digestive Diseases** D. A. Leiman, K. Madigan, M. Carlin, S. Cantrell, and D. Palakshappa
- 552 **EndoFLIP Topography: Motor Patterns in an Obstructed Esophagus** R. K. Goyal
- Multicenter Randomized Controlled Trial of Surveillance Versus Endoscopic Therapy for 556 (WWW) Barrett's Esophagus With Low-grade Dysplasia: The SURVENT Trial: Study Rationale, Methodology, Innovation, and Implications S. Wani, R. F. Souza, V. L. Durkalski, J. Serrano, F. Hamilton, and N. J. Shaheen, on behalf of the SURVENT Trial

Consortium

Related article in CGH

▲ Hot Papers From New Investigators

Additional online content available

Publisher: Gastroenterology (ISSN 0016-5085) is published monthly (semi-monthly in April) in two indexed volumes by Elsevier Inc, 230 Park Avenue, New York, NY 10169-0901, USA. Periodicals postage paid at New York, NY and additional mailing offices. POSTMASTER: Send address changes to Elsevier, Journal Returns, 1799 Highway 50 East, Linn, MO 65051, USA. 2022 US subscription rates: individual, \$739.00; student and resident, \$282.00. Outside of the U.S. and possessions: individual, \$968.00; student and resident, \$562.00; surface delivery, no additional charge; air mail delivery, add \$78.00. Prices subject to change without notice.

DIVERSITY, EQUITY, AND INCLUSION IN GI

Promoting the Pipeline of Diverse Individuals Within Gastroenterology: Reflections From **AGA FORWARD Program Scholars** P. D. Jones, D. D. Bailey, O. M. Damas, V. Ballester, E. Vargas, and A. Mendoza-Ladd, on behalf of the Inaugural Cohort of AGA FORWARD Program Scholars

MENTORING, EDUCATION, AND TRAINING CORNER

Disclosure and Reflection After an Adverse Event: Tips for Training and Practice L. L. Donnangelo, B. J. Shah, and D. J. Kothari

EDITORIALS

- The Current Role of Vonoprazan in Helicobacter pylori Treatment 572 C. A. Fallone See Chey WD et al on page 608.
- Novel, Emerging Risk Factors for Colorectal Cancer Remain Understudied 574 A. N. Burnett-Hartman, C. C. Murphy, and J. K. Lee See Jin EH et al on page 637.
- Hundreds of Novel DNA Viruses From a Single Healthy Patient: Biomarker Potential for 576 **Colorectal Cancer** H. Junca and D. H. Pieper See Zhao L et al on page 699.
- Navigating the Stormy Sea of Infected Necrotizing Pancreatitis: Are We There Yet? Well 578 Almost! S. J. Mahapatra and P. K. Garg

See Onnekink MA et al on page 712.

- High-quality Studies of Artificial Intelligence in Colonoscopy Illuminate a Next Important 582 Step A. Ahuja and Y. Mori See Shaukat A et al on page 732.
- Inclusive Clinical Trials for Disorders of Gut-Brain Interactions 583 M. L. Wieland and M. Grover See Bar N et al on page 757.

CLINICAL CHALLENGES AND IMAGES IN GI

- A Rare Pregnancy-related Complication of Crohn's Disease: Diagnosis and Treatment G. Le Cosquer, C. Zadro, and C. Gilletta
- Too Familiar To Be a Coincidence? A Remarkable Headache 588 L. Aguilera Munoz, L. de Mestier, and D. Lorenzo

ELECTRONIC CLINICAL CHALLENGES AND IMAGES IN GI

For a full list, please see the table of contents online at www.gastrojournal.org.

PRACTICAL TEACHING CASE

A Child With Jaundice 591

M. E. Nicchitta, D. J. Grider, and D. P. LeBel

REVIEWS IN BASIC AND CLINICAL GASTROENTEROLOGY AND HEPATOLOGY

593 Small Intestinal Bacterial Overgrowth—Pathophysiology and Its Implications for Definition and Management

D. Bushyhead and E. M. M. Quigley

ORIGINAL RESEARCH

Full Reports

Helicobacter pylori

Vonoprazan Triple and Dual Therapy for *Helicobacter pylori* Infection in the United States and Europe: Randomized Clinical Trial

W. D. Chey, F. Mégraud, L. Laine, L. J. López, B. J. Hunt, and C. W. Howden

See editorial on page 572.

Vonoprazan, a new type of stomach acid blocker, improves eradication of *Helicobacter pylori* infection compared with a proton pump inhibitor acid blocker.

Induction of Fibroblast Growth Factor Receptor 4 by *Helicobacter pylori* via Signal
Transducer and Activator of Transcription 3 With a Feedforward Activation Loop Involving
Steroid Receptor Coactivator Signaling in Gastric Cancer

X. Zhang, M. Soutto, Z. Chen, N. Bhat, S. Zhu, M. F. Eissmann, M. Ernst, H. Lu, D. Peng, Z. Xu, and W. El-Rifai

Helicobacter pylori infection is a key step driving a novel tumorigenic feedforward signaling loop linking infection, inflammation, and fibroblast growth factor receptor 4 activation in gastric cancer.

GI Cancer

Association Between Metabolic Syndrome and the Risk of Colorectal Cancer Diagnosed
Before Age 50 Years According to Tumor Location

E. H. Jin, K. Han, D. H. Lee, C. M. Shin, J. H. Lim, Y. J. Choi, and K. Yoon

See editorial on page 574.

An evaluation of 5.7 million young Koreans (aged 20–49 years) revealed that metabolic syndrome and obesity were associated with an increased risk of earlier-onset colorectal cancer in the left colon.

The Global Landscape of Esophageal Squamous Cell Carcinoma and Esophageal
Adenocarcinoma Incidence and Mortality in 2020 and Projections to 2040: New Estimates
From GLOBOCAN 2020

E. Morgan, I. Soerjomataram, H. Rumgay, H. G. Coleman, A. P. Thrift, J. Vignat, M. Laversanne, J. Ferlay, and M. Arnold

The global variation of new cases and deaths from esophageal cancer in 2020 was studied. The study highlights major increases expected in the future, emphasizing the importance of preventing this cancer.

Inflammatory Bowel Disease

Neutralizing Anti-Granulocyte Macrophage-Colony Stimulating Factor Autoantibodies
Recognize Post-Translational Glycosylations on Granulocyte Macrophage-Colony Stimulating
Factor Years Before Diagnosis and Predict Complicated Crohn's Disease

A. Mortha, R. Remark, D. M. Del Valle, L.-S. Chuang, Z. Chai, I. Alves, C. Azevedo, J. Gaifem, J. Martin, F. Petralia, K. Tuballes, V. Barcessat, S. L. Tai, H.-H. Huang, I. Laface, Y. A. Jerez, G. Boschetti, N. Villaverde, M. D. Wang, U. M. Korie, J. Murray, R.-S. Choung, T. Sato, R. M. Laird, S. Plevy, A. Rahman, J. Torres, C. Porter, M. S. Riddle, E. Kenigsberg, S. S. Pinho, J. H. Cho, M. Merad, J.-F. Colombel, and S. Gnjatic

Antibodies neutralizing granulocyte macrophage-colony stimulating factor, an immune factor involved in maintaining immune balance in the gut, precede diagnosis by years and predict complications in Crohn's disease.

Risk of Cancer in Inflammatory Bowel Diseases: Umbrella Review and Reanalysis of Meta-

D. Piovani, C. Hassan, A. Repici, L. Rimassa, C. Carlo-Stella, G. K. Nikolopoulos, E. Riboli, and S. Bonovas

A critical assessment of the association of inflammatory bowel diseases with different types of malignancy identified varying levels of evidence and magnitude of risk. Further research is warranted to identify patients with inflammatory bowel disease who are more at risk and enable personalized care.

Gut Microbiota

685 Mediterranean-Like Dietary Pattern Associations With Gut Microbiome Composition and Subclinical Gastrointestinal Inflammation

W. Turpin, M. Dong, G. Sasson, J. A. Raygoza Garay, O. Espin-Garcia, S.-H. Lee, A. Neustaeter, M. I. Smith, H. Leibovitzh, D. S. Guttman, A. Goethel, A. M. Griffiths, H. Q. Huynh, L. A. Dieleman, R. Panaccione, A. H. Steinhart, M. S. Silverberg, G. Aumais, K. Jacobson, D. Mack, S. K. Murthy, J. K. Marshall, C. N. Bernstein, M. T. Abreu, P. Moayyedi, A. D. Paterson, The Crohn's and Colitis Canada (CCC) Genetic, Environmental, Microbial (GEM) Project Research Consortium, W. Xu, and K. Croitoru

Mediterranean-like dietary pattern was associated with lower level of gut inflammation and alterations in gut bacteria composition in a cohort of healthy individuals at risk of Crohn's disease.

Uncovering 1058 Novel Human Enteric DNA Viruses Through Deep Long-Read Third-Generation Sequencing and Their Clinical Impact

L. Zhao, Y. Shi, H. C.-H. Lau, W. Liu, G. Luo, G. Wang, C. Liu, Y. Pan, Q. Zhou, Y. Ding, J. J.-Y. Sung, and J. Yu See editorial on page 576.

Ultra-deep metagenomic sequencing to uncover 1058 novel human gut viruses was conducted, and these findings can be used for clinical diagnosis and expanding current viral reference genome.

Pancreas

712 Endoscopic Versus Surgical Step-Up Approach for Infected Necrotizing Pancreatitis

(ExTENSION): Long-term Follow-up of a Randomized Trial

A. M. Onnekink, L. Boxhoorn, H. C. Timmerhuis, S. T. Bac, M. G. Besselink, M. A. Boermeester, T. L. Bollen, K. Bosscha, S. A. W. Bouwense, M. J. Bruno, S. van Brunschot, V. C. Cappendijk, E. C. J. Consten, C. H. Dejong, M. G. W. Dijkgraaf, C. H. J. van Eijck, W. G. Erkelens, H. van Goor, J. van Grinsven, J.-W. Haveman, J. E. van Hooft, J. M. Jansen, K. P. van Lienden, M. A. C. Meijssen, V. B. Nieuwenhuijs, J.-W. Poley, R. Quispel, R. J. de Ridder, T. E. H. Römkens, H. C. van Santvoort, J. J. Scheepers, M. P. Schwartz, T. Seerden, M. B. W. Spanier, J. W. A. Straathof, R. Timmer, N. G. Venneman, R. C. Verdonk, F. P. Vleggaar, R. L. van Wanrooij, B. J. M. Witteman, P. Fockens, and R. P. Voermans, for the Dutch Pancreatitis Study Group

See editorial on page 578.

While the primary end point of mortality and major complications did not differ between groups, the endoscopic step-up approach resulted in overall fewer pancreaticocutaneous fistulas and fewer reinterventions during long-term follow-up.

Prevention and Early Detection

Impact of the COVID-19 Pandemic on Fecal Immunochemical Testing, Colonoscopy Services, and Colorectal Neoplasia Detection in a Large United States Community-based Population J. K. Lee, A. Y. Lam, C. D. Jensen, A. R. Marks, J. Badalov, E. Layefsky, K. Kao, N. J. Ho, J. E. Schottinger, N. R. Ghai, C. M. Carlson, E. A. Halm, B. Green, D. Li, D. A. Corley, and T. R. Levin

The COVID-19 pandemic led to declines in colonoscopy volumes and the number of colorectal cancer and advanced adenoma cases detected in 2020 compared with 2019.

Computer-Aided Detection Improves Adenomas per Colonoscopy for Screening and Surveillance Colonoscopy: A Randomized Trial

A. Shaukat, D. R. Lichtenstein, S. C. Somers, D. C. Chung, D. G. Perdue, M. Gopal, D. R. Colucci, S. A. Phillips, N. A. Marka, T. R. Church, and W. R. Brugge, for the SKOUTTM Registration Study Team

See editorial on page 582.

Colonoscopies are widely performed in the United States to screen for colorectal cancer and detect it before it becomes an issue for patients. By using artificial intelligence during the procedure, detection rates and procedure quality are improved.

742 Age-Stratified Prevalence and Predictors of Neoplasia Among U.S. Adults Undergoing Screening Colonoscopy in a National Endoscopy Registry

P. S. Liang, J. L. Williams, J. A. Dominitz, D. A. Corley, and A. G. Zauber

In a national study of average-risk individuals younger than 50 years who underwent screening colonoscopy, 5% of 45- to 49-year-olds had advanced colorectal neoplasia, which supports screening in this group.

RESEARCH LETTERS

- Cong-Term Impact of Helicobacter pylori Eradication Therapy on Gastric Cancer Incidence and Mortality in Healthy Infected Individuals: A Meta-Analysis Beyond 10 Years of Follow-Up A. C. Ford, Y. Yuan, and P. Moayyedi
- Analysis of Age, Race, Ethnicity, and Sex of Participants in Clinical Trials Focused on
 Disorders of Gut-Brain Interaction

 N. Bar, B. Surjanhata, I. Weeks, MGH Center for Neurointestinal Health, J. K. Silver, and H. Burton Murray

 See editorial on page 583.
- Rate of Autoactivation Determines Pancreatitis Phenotype in Trypsinogen Mutant Mice

 A. Demcsák and M. Sahin-Tóth

CONTINUING MEDICAL EDUCATION (CME)/MOC ACTIVITIES

- e16 CME Exam 1: A Child With Jaundice
- e18 CME Exam 2: Small Intestinal Bacterial Overgrowth—Pathophysiology and Its Implications for Definition and Management
- e19 CME Exam 3: Age-Stratified Prevalence and Predictors of Neoplasia Among U.S. Adults Undergoing Screening Colonoscopy in a National Endoscopy Registry

CLINICAL PRACTICE UPDATE

AGA Clinical Practice Update: Diagnosis and Management of Nonalcoholic Fatty Liver Disease in Lean Individuals: Expert Review

M. T. Long, M. Noureddin, and J. K. Lim

GASTRO DIGEST

- 775 Counting Calories, Hours, or Both: Is Time-restricted Eating Efficient for Weight Loss?

 M. Arvanitakis
- 775 Hemostatic Powder Monotherapy in the Initial Endoscopic Treatment of Nonvariceal Upper Gastrointestinal Bleeding

 N. Forbes

- Ketogenic Diet as a Chemopreventative and Therapeutic Strategy for Colon Cancer 776 D. J. Pinato
- Disrupting Polarized Trafficking in Intestinal Epithelial Cells: Insights From a Novel 777 **Congenital Enteropathy Gene** J. R. Thiagarajah

CORRESPONDENCE

- A Road Less Traveled: To a Finite Chronic Hepatitis B Therapy S. Rathi, N. Bhagat, and V. Singh
- 779 Reply G. Hirode and H. L. A. Janssen
- The Role of Carboxymethylcellulose in Health and Disease: Is the Plot Thickening? 780 J. Wellens, S. Vermeire, and J. Sabino
- 781 B. Chassaing, A. T. Gewirtz, and J. D. Lewis
- The Role of Intestinal Flora and Ethnic Differences in Colorectal Cancer Risk 782 C. Ren, M. Yang, and Z. Yang
- 783 Reply H. Brenner, H. Li, and M. Hoffmeister

Access to the full content of Gastroenterology Online is available to all subscribers!

AGA members have seamless access to full Gastroenterology content from the AGA Web site. Simply sign in to http://www.gastro.org, visit the Publications section of the Web site, and click on Gastroenterology. You will be directed to the Journal Web site and will have full access to all content without having to supply a different usemame and password. Members can also visit http:// www.gastrojournal.org directly and click on "Activate Online Access." Nonmember subscribers must create an online user account and activate their subscription to access the full text of articles on Gastroenterology Online. To activate your individual online subscription, please visit http://www.gastrojournal.org and click on "Activate Online Access." To activate your account, you will need your subscriber account or member number, which you can find on your mailing label, (AGA members must use their 10digit member number, including leading zeros). If you have any questions regarding your online subscription please call Elsevier Customer Service at (800) 654-2452.

Institutional access to Gastroenterology Online will be allowed only by limited site licensing. Further instructions will be available online. Personal subscriptions to Gastroenterology Online are for individual use only and may not be transferred. Use of Gastroenterology Online is subject to agreement to the terms and conditions of use as indicated online.

AGA Member Number

Your Account Number

Sample mailing label

GAST0000101864 JANE DOE 531 MAIN ST CENTER CITY, NY 10001-001

1GAST V91-4 1234567-8 JANE DOE 531 MAIN ST CENTER CITY, NY 10001-001