Gastroenterology

www.gastrojournal.org

Vol. 153, No. 3

Contents

ON THE COVER

See Schwarz et al on page 743 for more information.



COVERING THE COVER

A. T. Chan and C. S. Williams

COMMENTARY: WOMEN IN LEADERSHIP

Society Leadership and Diversity: Hail to the Women! A. Lok, C. A. Burke, S. E. Crowe, and K. L. Woods

COMMENTARIES

621 Baseline Parameters in Clinical Trials for Nonalcoholic Steatohepatitis: Recommendations From the Liver Forum

Y. A. Patel, J. C. Imperial, A. J. Muir, Q. M. Anstee, D. DeBrota, L. Dimick-Santos, C. Filozof, R. Mehta, A. J. Sanyal, E. Schabel, B. A. Neuschwander-Tetri, and V. Miller, On behalf of the Liver Forum's Data Standardization Working Group

626 Public-Private Partnership: Targeting Real-World Data for Hepatitis C **Direct-Acting Antivirals**

P. Mishra, J. Florian, J. Peter, M. Vainorius, M. W. Fried, D. R. Nelson, and D. Birnkrant

MENTORING, EDUCATION, AND TRAINING CORNER

How to Give Feedback During Endoscopy Training C. K. Dilly and J. L. Sewell

EDITORIALS

637 The Irony of Long-term Acid Suppression

P. C. Adams

See Vanclooster A et al on page 678.

Video (CGH) Related article in CGH

E Editorial accompanies this article Additional online content available



Publisher: Gastroenterology (ISSN 0016-5085) is published monthly (semi monthly in January and May) in two indexed volumes by Elsevier Inc, 230 Park Avenue, New York, NY 10169. 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. 2017 US subscription rates: Individual, \$684.00; student and resident, \$261.00. 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

ıko

in

25

638 Proton Pump Inhibitors and Chronic Kidney Disease: Causation or Another False Alarm?

D. J. Bjorkman

See Klatte DCF et al on page 702.

640 Carving Out a Place for Endoscopic Submucosal Dissection H. Pohl

See Burgess NG et al on page 732.

Sugar, Sugar... Not So Sweet for the Liver M. B. Vos and M. I. GoranSee Schwarz J-M et al on page 743.

GASTROENTEROLOGY IN MOTION

646 Detection, Diagnosis, and Resection of Sessile Serrated Adenomas and Polyps

[Total J. M. Kolb, R. M. Soetikno, A. K. Rao, D. Fong, R. V. Rouse, and T. Kaltenbach

CLINICAL CHALLENGES AND IMAGES IN GI

- 649 What Is Afflicting This Woman With Celiac Disease?
 N. Nassani, S. Andrawes, and L. Deeb
- 651 Chronic Abdominal Pain and Cutaneous Swelling K. A. Sacco, O. Y. Mousa, and M.-H. Wang
- Why Would a Patient Complain of Dysphagia and Heartburn After Multiple Bariatric Surgeries?

 T. Debs, N. Petrucciani, and J. Gugenheim
- 655 A Rare Cause of Pancreatitis
 A. Loureiro, M. Dioguardi Burgio, and V. Vilgrain

ELECTRONIC CLINICAL CHALLENGES AND IMAGES IN GI

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

REVIEWS AND PERSPECTIVES

Reviews in Basic and Clinical Gastroenterology and Hepatology

The Evolving Genomic Landscape of Barrett's Esophagus and Esophageal Adenocarcinoma
G. Contino, T. L. Vaughan, D. Whiteman, and R. C. Fitzgerald

ORIGINAL RESEARCH

Brief Reports

In Vivo Imaging Reveals Existence of Crypt Fission and Fusion in Adult Mouse Intestine

L. Bruens, S. I. J. Ellenbroek, J. van Rheenen, and H. J. Snippert

Using novel technology, the authors identified the presence of crypt fusion, an almost exact reverse phenomenon of crypt fission, in which 2 crypts fuse into 1 daughter crypt.

678 Proton Pump Inhibitors Decrease Phlebotomy Need in HFE Hemochromatosis: Double-Blind
Randomized Placebo-Controlled Trial

A. Vanclooster, C. van Deursen, R. Jaspers, D. Cassiman, and G. Koek

See editorial on page 637.

Proton Pump inhibitors can be used as add-on therapy to reduce the phlebotomy burden and iron accumulation in C282Y homozygous hemochromatosis patients.

Full Reports

(444)

Clinical—Alimentary Tract

681 Late Recurrence of Ba

Late Recurrence of Barrett's Esophagus After Complete Eradication of Intestinal Metaplasia is Rare: Final Report From Ablation in Intestinal Metaplasia Containing Dysplasia Trial C. C. Cotton, W. A. Wolf, B. F. Overholt, N. Li, C. J. Lightdale, H. C. Wolfsen, S. Pasricha, K. K. Wang, and N. J. Shaheen, for the AIM Dysplasia Trial Group

A substantial minority of patients who undergo endoscopic treatment will have recurrence of Barrett's esophagus, but these recurrences are usually treatable with further ablation.

Tests for Serum Transglutaminase and Endomysial Antibodies Do Not Detect Most Patients
With Celiac Disease and Persistent Villous Atrophy on Gluten-free Diets: a Meta-analysis
J. A. Silvester, S. Kurada, A. Szwajcer, C. P. Kelly, D. A. Leffler, and D. R. Duerksen

In a meta-analysis of patients with biopsy-confirmed celiac disease undergoing follow-up biopsy on a gluten-free diet, tests for serum tTG IgA and EMA IgA levels had low sensitivity for the detection of persistent villous atrophy.

702 Association Between Proton Pump Inhibitor Use and Risk of Progression of Chronic Kidney Disease

D. C. F. Klatte, A. Gasparini, H. Xu, P. de Deco, M. Trevisan, A. L. V. Johansson, B. Wettermark, J. Ärnlöv, C. J. Janmaat, B. Lindholm, F. W. Dekker, J. Coresh, M. E. Grams, and J. J. Carrero

See editorial on page 638.

In this large Swedish cohort, initiation of PPI therapy and prolonged PPI use was associated with the risk of chronic renal disease progression.

711 Prebiotics Reduce Body Fat and Alter Intestinal Microbiota in Children Who Are
Overweight or With Obesity

A. C. Nicolucci, M. P. Hume, I. Martínez, S. Mayengbam, J. Walter, and R. A. Reimer

Prebiotic supplementation in overweight but otherwise healthy children significantly changed the gut microbial composition, and improved obesity outcomes such as reductions in body fat and normalization of weight gain.

723 Impaired Intestinal Permeability Contributes to Ongoing Bowel Symptoms in Patients With Inflammatory Bowel Disease and Mucosal Healing

J. Chang, R. W. Leong, V. C. Wasinger, M. Ip, M. Yang, and T. G. Phan

Increased intestinal permeability is correlated with an increased severity of diarrhea in a subset of IBD patients.

732 Risk Stratification for Covert Invasive Cancer Among Patients Referred for Colonic Endoscopic Mucosal Resection: A Large Multicenter Cohort

N. G. Burgess, L. F. Hourigan, S. A. Zanati, G. J. Brown, R. Singh, S. J. Williams, S. C. Raftopoulos, D. Ormonde, A. Moss, K. Byth, H. Mahajan, D. McLeod, and M. J. Bourke

See editorial on page 640.

Large colorectal lesions without endoscopic features of cancer may still harbor malignancy on subsequent histopathologic examination. In this study, rectosigmoid location, increasing size, and combined Paris classification and surface morphology stratify the risk of covert cancer.

Clinical—Liver

ın,

d

743 Effects of Dietary Fructose Restriction on Liver Fat, De Novo Lipogenesis, and Insulin Kinetics in Children With Obesity

J.-M. Schwarz, S. M. Noworolski, A. Erkin-Cakmak, N. J. Korn, M. J. Wen, V. W. Tai, G. M. Jones, S. P. Palii, M. Velasco-Alin, K. Pan, B. W. Patterson, A. Gugliucci, R. H. Lustig, and K. Mulligan

See editorial on page 642.

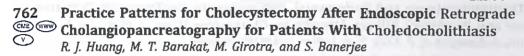
A 9-day diet substituting starch for sugar significantly improved metabolic health in Latino and African American children who had obesity, metabolic syndrome, and high sugar intake.

753 Agreement Between Magnetic Resonance Imaging Proton Density Fat Fraction Measurements and Pathologist-Assigned Steatosis Grades of Liver Biopsies From Adults With Nonalcoholic Steatohepatitis

M. S. Middleton, E. R. Heba, C. A. Hooker, M. R. Bashir, K. J. Fowler, K. Sandrasegaran, E. M. Brunt, D. E. Kleiner, E. Doo, M. L. Van Natta, J. E. Lavine, B. A. Neuschwander-Tetri, A. Sanyal, R. Loomba, C. B. Sirlin, for the NASH Clinical Research Network

In a study of adults with NASH that used various MR scanners, Proton Density Fat Fraction (PDFF) accurately classified histologic hepatic steatosis at baseline, and change in PDFF accurately classified changes in histologic hepatic steatosis after treatment.

Clinical—Biliary



In this US population-level cohort study, nearly half of patients did not receive a cholecystectomy following an episode of choledocholithiasis requiring endoscopic therapy, leading to increased patient morbidity and mortality.

Basic and Translational—Alimentary Tract

772 Intestinal Epithelial Sirtuin 1 Regulates Intestinal Inflammation During Aging in Mice by Altering the Intestinal Microbiota

A. S. Wellman, M. R. Metukuri, N. Kazgan, X. Xu, Q. Xu, N. S. X. Ren, A. Czopik, M. T. Shanahan, A. Kang, W. Chen, M. A. Azcarate-Peril, A. S. Gulati, D. C. Fargo, L. Guarente, and X. Li

A protein factor that is sensitive to changes in cellular metabolism regulates intestinal inflammation during aging by modulation of the intestinal bacterial composition in mice.

787 Similar Responses of Intestinal T Cells From Untreated Children and Adults With Celiac Disease to Deamidated Gluten Epitopes

M. Ráki, S. Dahal-Koirala, H. Yu, I. R. Korponay-Szabó, J. Gyimesi, G. Castillejo, J. Jahnsen, S.-W. Qiao, and L. M. Sollid

T-cell responses to different gluten peptides are similar between adults and children at the time of diagnosis of celiac disease.

Basic and Translational—Liver

Regulator of Calcineurin 1 Gene Isoform 4, Down-regulated in Hepatocellular Carcinoma, Prevents Proliferation, Migration, and Invasive Activity of Cancer Cells and Metastasis of Orthotopic Tumors by Inhibiting Nuclear Translocation of NFAT1

H. Jin, C. Wang, G. Jin, H. Ruan, D. Gu, L. Wei, H. Wang, N. Wang, E. Arunachalam, Y. Zhang, X. Deng, C. Yang, Y. Xiong, H. Feng, M. Yao, J. Fang, J. Gu, W. Cong, and W. Qin

The HSA21 gene RCAN1.4 acts as a potent tumor suppressor of hepatocellular carcinoma (HCC), which attenuates tumor progression and angiogenesis via the inhibition of CaN-NFAT1 signaling.

812 Identification of an Immune-specific Class of Hepatocellular Carcinoma, Based on Molecular Features

D. Sia, Y. Jiao, I. Martinez-Quetglas, O. Kuchuk, C. Villacorta-Martin, M. Castro de Moura, J. Putra, G. Camprecios, L. Bassaganyas, N. Akers, B. Losic, S. Waxman, S. N. Thung, V. Mazzaferro, M. Esteller, S. L. Friedman, M. Schwartz, A. Villanueva, and J. M. Llovet

The study identifies \sim 25% of persons with HCC who harbor molecular characteristics that highly resemble those of cancers most responsive to immunotherapy.

its		TINUING MEDICAL EDUCATION (CME)/MOC ACTIVITIES
lic	e14	Exam 1: Detection, Diagnosis, and Resection of Sessile Serrated Adenomas and Polyps
er, SH	e16	Exam 2: Risk Stratification for Covert Invasive Cancer Among Patients Referred for Colonic Endoscopic Mucosal Resection: A Large Multicenter Cohort
gic nt.	e18	Exam 3: Practice Patterns for Cholecystectomy After Endoscopic Retrograde Cholangiopancreatography for Patients With Choledocholithiasis
	e20	Exam 4: American Gastroenterological Association Institute Guideline on Therapeutic Drug Monitoring in Inflammatory Bowel Disease
	e22	Exam 5: American Gastroenterological Association Institute Technical Review on the Role of Therapeutic Drug Monitoring in the Management of Inflammatory Bowel Diseases
	AGA	AGA SECTION
	827	American Gastroenterological Association Institute Guideline on Therapeutic Drug Monitoring in Inflammatory Bowel Disease
		J. D. Feuerstein, G. C. Nguyen, S. S. Kupfer, Y. Falck–Ytter, and S. Singh; on behalf of American Gastroenterological Association Institute Clinical Guidelines Committee
on	835 ©ME) WW	American Gastroenterological Association Institute Technical Review on the Role of Therapeutic Drug Monitoring in the Management of Inflammatory Bowel Diseases N. Vande Casteele, H. Herfarth, J. Katz, Y. Falck-Ytter, and S. Singh
	858	Therapeutic Drug Monitoring in Inflammatory Bowel Disease: Clinical Decision Support Tool American Gastroenterological Association
	860	Therapeutic Drug Monitoring in Inflammatory Bowel Disease: A Patient Guide American Gastroenterological Association
	SELE	CTED SUMMARIES
	862	Tofacitinib Is the Right OCTAVE for Ulcerative Colitis L. Pouillon, P. Bossuyt, and L. Peyrin-Biroulet
-	864	Chromoendoscopy versus White Light Endoscopy: Does it Matter? S. V. Suresh, S. M. Govani, and A. K. Waljee
g,	866	Liver Pathology for Clinicians H. E. Vargas
	COR	RESPONDENCE
	867	Resistance-Associated Substitutions in Short Duration of Interferon-Free Direct-Acting Antivirals for Hepatitis C ML. Yu
	867	Reply
		E. Gane

rs

Bleeding Increase Efficacy or Work Load?

G.-H. Lo

- 868 Reply
 D. M. lensen
- 869 Transplant-Free Survival Rates After Covered Transjugular Intrahepatic Portosystemic Shunt D. Schmidt-Martin, M. J. Armstrong, and I. A. Rowe
- 870 Corrections

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 username 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 10-digit 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.

d

CAR

AGA Member Number

Your Account Number

Sample mailing label G/ \$10000101864 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