

Gastroenterology

Volume 160 / Number 7

June 2021

www.gastrojournal.org

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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 10169-0901, 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. 2021 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.

2251 COVID-19 Gastrointestinal Symptoms and Attenuation of the Immune Response to SARS-CoV-2*J. Miller and K. S. Yan*

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Primary and secondary anti-reflux surgery has a favorable safety profile, particularly if performed on young and fit patients without severe comorbidity, and at high-volume centers.

2291 An International Consensus to Standardize Integration of Histopathology in Ulcerative Colitis Clinical Trials**WWW** *C. Ma, R. Sedano, A. Almradi, N. V. Castele, C. E. Parker, L. Guizzetti, D. F. Schaeffer, R. H. Riddell, R. K. Pai, R. Battat, B. E. Sands, C. Rosty, M. C. Dubinsky, F. Rieder, N. Harpaz, M. T. Abreu, R. V. Bryant, G. Y. Lauwers, R. Kirsch, M. A. Valasek, E. Crowley, W. J. Sandborn, B. G. Feagan, R. K. Pai, and V. Jairath*

An interdisciplinary expert panel created a standardized framework for collecting biopsies, interpreting histologic disease activity, and defining histologic response and remission for UC clinical trials.

2303 Development and Validation of a Novel Computed-Tomography Enterography Radiomic Approach for Characterization of Intestinal Fibrosis in Crohn's Disease

CME WWW

X. Li, D. Liang, J. Meng, J. Zhou, Z. Chen, S. Huang, B. Lu, Y. Qiu, M. E. Baker, Z. Ye, Q. Cao, M. Wang, C. Yuan, Z. Chen, S. Feng, Y. Zhang, M. Iacucci, S. Ghosh, F. Rieder, C. Sun, M. Chen, Z. Li, R. Mao, B. Huang, and S.-T. Feng

Our imaging model allows for accurate characterization of intestinal fibrosis in Crohn's disease. Importantly, the model was robust across different treatment centers and was not affected by coexisting inflammation.

2317 Endoscopic Submucosal Dissection in North America: A Large Prospective Multicenter Study

WWW

P. V. Draganov, H. Aihara, M. S. Karasik, S. Ngamruengphong, A. A. Adam, M. O. Othman, N. Sharma, I. S. Grimm, A. Rostom, B. J. Elmunzer, S. A. Jawaid, D. Westerveld, Y. B. Perbtani, B. J. Hoffman, A. Schlachterman, A. Siegel, R. M. Coman, A. Y. Wang, and D. Yang

In this large North American study, we demonstrate that ESD was effective, safe and associated with low recurrence for the treatment of selected pre- and early cancerous lesions throughout the gastrointestinal tract.

2328 Fecal Mycobiota Combined With Host Immune Factors Distinguish *Clostridioides difficile* Infection From Asymptomatic Carriage

WWW

Y. Cao, L. Wang, S. Ke, J. A. Villafuerte Gálvez, N. R. Pollock, C. Barrett, R. Sprague, K. Daugherty, H. Xu, Q. Lin, J. Yao, Y. Chen, C. P. Kelly, Y.-Y. Liu, and X. Chen

Incorporating both gut mycobiota and host immune factors into classification models can better distinguish CDI from carrier state.

2340 Randomized Controlled Trial: Subcutaneous vs Intravenous Infliximab CT-P13 Maintenance in Inflammatory Bowel Disease

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S. Schreiber, S. Ben-Horin, J. Leszczyszyn, R. Dudkowiak, A. Lahat, B. Gawdis-Wojnarska, A. Pukitis, M. Horynski, K. Farkas, J. Kierkus, M. Kowalski, S. J. Lee, S. H. Kim, J. H. Suh, M. R. Kim, S. G. Lee, B. D. Ye, and W. Reinisch

See editorial on page 2244.

The subcutaneous infliximab CT-P13 SC had non-inferior pharmacokinetics, and broadly comparable efficacy and safety profiles, to intravenous CT-P13 in patients with active Crohn's disease and ulcerative colitis.

2354 Therapeutic Interleukin-6 Trans-signaling Inhibition by Olamkcept (sgp130Fc) in Patients With Active Inflammatory Bowel Disease

E WWW

S. Schreiber, K. Aden, J. P. Bernardes, C. Conrad, F. Tran, H. Höper, V. Volk, N. Mishra, J. I. Blase, S. Nikolaus, J. Bethge, T. Kühbacher, C. Röcken, M. Chen, I. Cottingham, N. Petri, B. B. Rasmussen, J. Lokau, L. Lenk, C. Garbers, F. Feuerhake, S. Rose-John, G. H. Waetzig, and P. Rosenstiel

See editorial on page 2247.

This study assessed the mechanism of action of olamkcept in patients with IBD and showed that clinical remission is associated with changes in mucosal pSTAT3 levels.

Clinical—Liver**2367 Direct Measurement of ATP7B Peptides Is Highly Effective in the Diagnosis of Wilson Disease**

E WWW

C. J. Collins, F. Yi, R. Dayuha, P. Duong, S. Horslen, M. Camarata, A. K. Coskun, R. H. J. Houwen, T. L. Pop, H. Zoller, H.-w. Yoo, S. W. Jung, K. H. Weiss, M. L. Schilsky, P. Ferenci, and S. H. Hahn

See editorial on page 2249.

A proposed diagnostic score and algorithm incorporating ATP7B peptide concentrations in DBS can be rapidly diagnostic and supplemental to current Leipzig scoring systems.

Basic and Translational—Alimentary Tract**2383 Identification of an Anti-Integrin $\alpha\beta6$ Autoantibody in Patients With Ulcerative Colitis**

WWW

T. Kuwada, M. Shiokawa, Y. Kodama, S. Ota, N. Kakiuchi, Y. Nannya, H. Yamazaki, H. Yoshida, T. Nakamura, S. Matsumoto, Y. Muramoto, S. Yamamoto, Y. Honzawa, K. Kuriyama, K. Okamoto, T. Hirano, H. Okada, S. Marui, Y. Sogabe, T. Morita, T. Matsumori, A. Mima, Y. Nishikawa, T. Ueda, K. Matsumura, N. Uza, T. Chiba, and H. Seno

We found anti-integrin $\alpha\beta6$ antibodies in the sera of most patients with ulcerative colitis (UC) using ELISA. These antibody titers coincided with UC disease activity.

2395 Microbial Community Heterogeneity Within Colorectal Neoplasia and its Correlation With Colorectal Carcinogenesis

www

W. Liu, X. Zhang, H. Xu, S. Li, H. C.-H. Lau, Q. Chen, B. Zhang, L. Zhao, H. Chen, J. J.-Y. Sung, and J. Yu

The microbial community within a single colorectal adenoma or tumour is heterogeneous, and correlated such heterogeneity with adenoma-carcinoma sequence and host genetic alteration.

2409 The Colonic Mucosal MicroRNAs, MicroRNA-219a-5p, and MicroRNA-338-3p Are Downregulated in Irritable Bowel Syndrome and Are Associated With Barrier Function and MAPK Signaling

www

S. Mahurkar-Joshi, C. R. Rankin, E. J. Videlock, A. Soroosh, A. Verma, A. Khandadash, D. Iliopoulos, C. Pothoulakis, E. A. Mayer, and L. Chang

Irritable bowel syndrome (IBS) is associated with decreased expression of two microRNAs, miR-219a-5p and miR-338-3p, in the colonic mucosa, which may contribute to the impaired barrier function and increased pain sensitivity in IBS and could be important treatment targets.

2423 Gut Microbiota Perturbation in IgA Deficiency Is Influenced by IgA-Autoantibody Status

www

J. M. Moll, P. N. Myers, C. Zhang, C. Eriksen, J. Wolf, K. S. Appelberg, G. Lindberg, M. I. Bahl, H. Zhao, Q. Pan-Hammarström, K. Cai, H. Jia, S. Borte, H. B. Nielsen, K. Kristiansen, S. Brix, and L. Hammarström

The gut microbiota of individuals with IgA deficiency, and in particularly those with IgA-specific autoreactive antibodies, is enriched for multiple factors associated with proinflammatory and disease-related processes.

2435 Intestinal Host Response to SARS-CoV-2 Infection and COVID-19 Outcomes in Patients With Gastrointestinal Symptoms

E www

A. E. Livanos, D. Jha, F. Cossarini, A. S. Gonzalez-Reiche, M. Tokuyama, T. Aydillo, T. L. Parigi, M. S. Ladinsky, I. Ramos, K. Dunleavy, B. Lee, R. E. Dixon, S. T. Chen, G. Martinez-Delgado, S. Nagula, E. A. Bruce, H. M. Ko, B. S. Glicksberg, G. Nadkarni, E. Pujadas, J. Reidy, S. Naymagon, A. Grinspan, J. Ahmad, M. Tankelevich, Y. Bram, R. Gordon, K. Sharma, J. Houldsworth, G. J. Britton, A. Chen-Liaw, M. P. Spindler, T. Plitt, P. Wang, A. Cerutti, J. J. Faith, J.-F. Colombel, E. Kenigsberg, C. Argmann, M. Merad, S. Gnjatic, N. Harpaz, S. Danese, C. Cordon-Cardo, A. Rahman, R. E. Schwartz, N. A. Kumta, A. Aghemo, P. J. Bjorkman, F. Petralia, H. van Bakel, A. Garcia-Sastre, and S. Mehandru

See editorial on page 2251.

Intestinal infection with SARS-CoV-2 is associated with a mild inflammatory response and improved clinical outcomes.

2451 Serotonin Deficiency Is Associated With Delayed Gastric Emptying

www

L. Wei, R. Singh, S. E. Ha, A. M. Martin, L. A. Jones, B. Jin, B. G. Jorgensen, H. Zogg, T. Chervo, A. Gottfried-Blackmore, L. Nguyen, A. Habtezion, N. J. Spencer, D. J. Keating, K. M. Sanders, and S. Ro

The *Tph1^{CreERT2/+}* mouse is a powerful tool to study the functional roles of EC cell-derived 5-HT. Deficiency of 5-HT leads to gastroparesis and slow-transit constipation, whereas the intraluminal provision of 5-HT reverses the impaired gut motility.

Basic and Translational—Liver**2467 Squalene Epoxidase Induces Nonalcoholic Steatohepatitis Via Binding to Carbonic Anhydrase III and is a Therapeutic Target**

www

D. Liu, C. C. Wong, Y. Zhou, C. Li, H. Chen, F. Ji, M. Y. Y. Go, F. Wang, H. Su, H. Wei, Z. Cai, N. Wong, V. W. S. Wong, and J. Yu

The authors identified that squalene epoxidase contributes to initiation and progression of NASH. Strategies to target this gene might be developed for NASH treatment.

Basic and Translational—Biliary

2483 X Chromosome Contribution to the Genetic Architecture of Primary Biliary Cholangitis

www **COV** R. Asselta, E. M. Paraboschi, A. Gerussi, H. J. Cordell, G. F. Mells, R. N. Sandford, D. E. Jones, M. Nakamura, K. Ueno, Y. Hitomi, M. Kawashima, N. Nishida, K. Tokunaga, M. Nagasaki, A. Tanaka, R. Tang, Z. Li, Y. Shi, X. Liu, M. Xiong, G. Hirschfield, K. A. Siminovitch, Canadian-US PBC Consortium, Italian PBC Genetics Study Group, UK-PBC Consortium, Japan PBC-GWAS Consortium, M. Carbone, G. Cardamone, S. Duga, M. E. Gershwin, M. F. Seldin, and P. Invernizzi

Primary biliary cholangitis (PBC) is an autoimmune liver disease showing a strong female preponderance. Here, by performing the first PBC genetic study focused on chromosome X, we identified a novel locus characterized by the presence of a control element that may regulate several PBC and autoimmune-relevant genes.

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J. D. Feuerstein, E. Y. Ho, E. Schmidt, H. Singh, Y. Falck-Ytter, S. Sultan, and J. P. Terdiman, on behalf of the American Gastroenterological Association Institute Clinical Guidelines Committee

2509 Medical Management of Adult Outpatients With Moderate to Severe Luminal Crohn's Disease: Clinical Decision Support Tool

American Gastroenterological Association

2511 Spotlight: Medical Management of Moderate to Severe Luminal and Perianal Fistulizing Crohn's Disease

E. Schmidt, E. Y. Ho, J. D. Feuerstein, S. Singh, and J. P. Terdiman

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S. Singh, D. Proctor, F. I. Scott, Y. Falck-Ytter, and J. D. Feuerstein

2557 Providing the Best Care for Patients With Crohn's Disease: An Examination of the New AGA Clinical Practice Guidelines on the Medical Management of Moderate to Severe Luminal and Perianal Fistulizing Crohn's Disease

E. Y. Ho, S. Singh, and J. P. Terdiman

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