

Mayo Clinic Proceedin

www.mayoclinicproceedings.org







Table of Contents

March 2021

Volume 96

The April online issue of Proceedings will be available by Thursday, April 1. Sign up for an alert to the online Table of Contents at www.mayoclinicproceedings.org

In The Limelight

In the Limelight: March 2021 515

Karl A. Nath 🚳

Editorials

- The Obesity Paradox in Infections and Implications for COVID-19 518 Carl J. Lavie, Douglas B. Coursin, and Micah T. Long
- Transitions Over Time: Another Unexplained Aspect of Functional Gastrointestinal Disorders 521 Enrique Rey
- Membranous Nephropathy: Classification Redux? 523 Richard J. Glassock
- Arterial Thrombosis and Cancer: Implications for Screening and Risk Modification 526 Robert D. McBane II

Commentaries

- Safe Operation of an Echocardiography Practice During the COVID-19 Pandemic: Single-Center 531 Experience Vidhu Anand, Jeremy J. Thaden, Patricia A. Pellikka, and Garvan C. Kane 🚯 🚓
- Addressing Antibiotic Overuse in the Outpatient Setting: Lessons From Behavioral Economics 537 Amir M. Mohareb, Alyssa R. Letourneau, Sarimer M. Sánchez, Rochelle P. Walensky, and Emily P. Hyle 🚯

Perspectives and Controversies

- "I Never Get Better Without an Antibiotic": Antibiotic Appeals and How to Respond 543 Julia E. Szymczak, Sara C. Keller, and Jeffrey A. Linder 🌑
- Barriers to Access and Health Care Disparities Associated With Cochlear Implantation Among 547 Adults in the United States John P. Marinelli and Matthew L. Carlson



Original Articles Cancil Mat Manager appearance of Sheep Appearance and Congress an

Body Mass Index and 90-Day Mortality Among 35,406 Danish Patients Hospitalized for Infection Sigrid B. Gribsholt, Lars Pedersen, Bjørn Richelsen, Henrik T. Sørensen, and Reimar W. Thomsen 🚯 🛟 These authors found evidence that higher BMI is associated with improved survival following acute hospitalization for infection, including pneumonia, urinary tract infection, and sepsis, whereas underweight increases the risk for death.

March 2021

- The Natural History of Chronic Unexplained Gastrointestinal Disorders and Gastroesophageal 563 Reflux During 20 Years: A US Population-Based Study Rok Seon Choung, Yuri A. Saito, Cathy D. Schleck, William S. Harmsen, Alan R. Zinsmeister, Joseph A. Murray, and Nicholas J. Talley 🥙 🛟 About a quarter of these patients lose their symptoms over time, but the rest transition between different GI symptom complexes.
- 577 A Target Antigen-Based Approach to the Classification of Membranous Nephropathy Shane A. Bobart, Shahrzad Tehranian, Sanjeev Sethi, Mariam P. Alexander, Samih H. Nasr, Casal Moura Marta, Julie A. Vrana, Samar Said, Callen D. Giesen, John C. Lieske, Fernando C. Fervenza, and An S. De Vriese 🚯 🚯 These authors propose a refined terminology that combines the target antigen and associated disease to better classify membranous nephropathy and guide clinical decision making.
- Incidence and Risk of Various Types of Arterial Thromboembolism in Patients With Cancer 592 Mills Jiasheng Wang, Yeseong D. Kim, and Chang H. Kim 😝 🕬 🔒 🖟 🖟 🖟 🖟 🖟 This observational study found that patients with brain cancer, lung cancer, colorectal cancer, and pancreatic cancer had the highest relative risk of developing arterial thromboembolism.
- 601 Outcomes of COVID-19 With the Mayo Clinic Model of Care and Research John Charles O'Horo, James R. Cerhan, Elliot J. Cahn, Philippe R. Bauer, Zelalem Temesgen, Jon Ebbert, Andy Abril, Omar M. Abu Saleh, Mariam Assi, Elie F. Berbari, Dennis M. Bierle, Wendelyn Bosch, Charles D. Burger, Edison J. Cano Cevallos, Casey M. Clements, Eva M. Carmona Porquera, Natalia E. Castillo Almeida, Douglas W. Challener, Supavit Chesdachai, Isin Y. Comba, Cristina G. Corsini Campioli, Sarah J. Crane, Ala S. Dababneh, Mark J. Enzler, Hind J. Fadel, Ravindra Ganesh, Alice Gallo De Moraes, John R. Go, Joel E. Gordon, Pooja R. Gurram, Pramod K. Guru, Erika L. Halverson, Michael F. Harrison, Heather A. Heaton, Ryan Hurt, Mary J. Kasten, Augustine S. Lee, Emily R. Levy, Claudia R. Libertin, Jorge M. Mallea, William F. Marshall III, Gautam Matcha, Anne M. Meehan, Pablo Moreno Franco, William G. Morice II, Jennifer J. O'Brien, Richard Oeckler, Steve Ommen, Caitlin P. Oravec, Robert Orenstein, Natalie J. Ough, Raj Palraj, Bhavesh M. Patel, Vincent S. Pureza, Brian Pickering, David M. Phelan, Raymund R. Razonable, Stacey Rizza, Priya Sampathkumar, Devang K. Sanghavi, Ayan Sen, Jason L. Siegel, Kai Singbartl, Aditya S. Shah, FNU Shweta, Leigh L. Speicher, Gina Suh, Hussam Tabaja Jr., Aaron Tande, Henry H. Ting, Russell C. Tontz III, James J. Vaillant, Paschalis Vergidis, Mohamed Y. Warsame, Zachary A. Yetmar, C. (Cate) D. Zomok, Amy W. Williams, and Andrew D. Badley 🚳 🛟

The best practices described in this article can help guide health care systems with the continuing response to the COVID-19 pandemic.

619 MELD and MELD XI Scores as Predictors of Mortality After Pericardiectomy for Constrictive Pericarditis

Juan C. Diaz Soto, William J. Mauermann, Brian D. Lahr, Hartzell V. Schaff, Sushil A. Luis, and Mark M. Smith

Increasing MELD and MELD-XI scores were significantly associated with increased risk of operative mortality as well as with increased postoperative bleeding.

The Association of Sleep Apnea and Cardiorespiratory Fitness With Long-Term Major 636 Cardiovascular Events

Maria Irene Barillas-Lara, Jose R. Medina-Inojosa, Bhanu Prakash Kolla, Joshua R. Smith, Amanda R. Bonikowsk€ Thomas G. Allison, Thomas Olson, Francisco Lopez-limenez, Virend K. Somers, Sean M. Caples, and Meghna P. Mansukhani 🚱 😱

Moderate-to-severe sleep-disordered breathing with concurrent decreased cardiorespiratory fitness was associated with higher risk of major adverse cardiovascular events than decreased cardiorespiratory fitness alone.

- 648 Clinical Outcomes of Adults With Bicuspid Aortic Valve: A European Perspective Charles Cheng, Yohann Bohbot, Hector I. Michelena, Dan Rusinaru, Floriane Fay, Frederic Elmkies, Maurice Enriquez Sarano, and Christophe Tribouilloy 🚱 🚯 Under surveillance, 10-year mortality is low—not different from expected—provided that the guidelines for indication of surgery are followed.
- 658 Long-Term Risk of Major Adverse Cardiac Events in Atrial Fibrillation Patients on Direct Oral

Daniele Pastori, Danilo Menichelli, Francesco Del Sole, Pasquale Pignatelli, and Francesco Violi; the ATHERO-AI

Patients with atrial fibrillation taking direct oral anticoagulants had a lower risk of major adverse cardiovascular events independent of dosage.

- Atherosclerotic Cardiovascular Disease Prevalence Among Patients With Celiac Disease in the 666 United States: An Observational Study Ashutossh Naaraayan, Abhishek Nimkar, Stephen Jesmajian, Bemard Gitler, and Prakash Acharya 🚯 🔁
 - Atherosclerotic cardiovascular disease was associated with significant mortality among patients with celiac disease.
- 677 Clinical Characteristics and Outcomes of Patients With Primary Plasma Cell Leukemia in the Era of Novel Agent Therapy

Bharat Nandakumar, Shaji K. Kumar, Angela Dispenzieri, Francis K. Buadi, David Dingli, Martha Q. Lacy, Suzanne R. Hayman, Prashant Kapoor, Nelson Leung, Amie Fonder, Miriam Hobbs, Yi Lisa Hwa, Eli Muchtar Rahma Warsame, Taxiarchis V. Kourelis, Stephen Russell, John A. Lust, Yi Lin, Mustaqeem Siddiqui, Ronald S. Go Dragan Jevremovic, Robert A. Kyle, Morie A. Gertz, S. Vincent Rajkumar, and Wilson I. Gonsalves Primary plasma cell leukemia remains an aggressive disease with poor prognosis despite novel agent—based therapies

Special Articles

690 Deployment of an Interdisciplinary Predictive Analytics Task Force to Inform Hospital Operational Decision-Making During the COVID-19 Pandemic

Benjamin D. Pollock, Rickey E. Carter, Sean C. Dowdy, Shannon M. Dunlay, Elizabeth B. Habermann, Daryl J. Kor Andrew H. Limper, Hongfang Liu, Pablo Moreno Franco, Matthew R. Neville, Katherine H. Noe, John D. Poe, Priya Sampathkumar, Curtis B. Storlie, Henry H. Ting, and Nilay D. Shah; Mayo Clinic COVID-19 Predictive Analytics Task Force

Evidence-Based Strategies for Clinical Organizations to Address COVID-19 Vaccine Hesitancy Lila J. Finney Rutten, Xuan Zhu, Aaron L. Leppin, Jennifer L. Ridgeway, Melanie D. Swift, Joan M. Griffin, Jennifer L. St Sauver, Abinash Virk, and Robert M. Jacobson

My Treatment Approach

708 My Treatment Approach to Multiple System Atrophy Elizabeth A. Coon and J. Eric Ahlskog 🕟

Tejesh S. Patel and Miguel Herrera-Martinez

815

High-Resolution Vessel-Wall Imaging for Analysis of Intracranial Aneurysm Daughter- Sac Vulnerability Anthony S. Larson and Vance T. Lehman

Letters to the Editor

Clinical Benefit of Lenzilumab in Cases of Coronavirus Disease 2019 Andrea Aroldi, Roberto Chiarle, and Carlo Gambacorti-Passerini

ier 3

owske,

iated

ication

Oral

RO-AF

events.

the

ase.

e Era

ıchtar,

S. Go, Э

rapies.

J. Kor,

Poe, ive

ncy

- In Reply Clinical Benefit of Lenzilumab in Cases of Coronavirus Disease 2019
 Zelalem Temesgen, Saad S. Kenderian, and Andrew D. Badley
 Neutralization of Fecal Aerosol-Laden SARS CoV-2: Public Health Implications
 Gifty Immanuel, Manmohan Singh, Sahil Khanna, and Rahul Kashyap
 In Reply Neutralization of Fecal Aerosol-Laden SARS CoV-2: Public Health Implications
 Carmen V. McDermott, Emily J. Cox, James M. Scanlan, and Radica Z. Alicic
 COVID-19, the Female Immune Advantage, and Cardiovascular Impact
 Felice L. Gersh, James H. O'Keefe, and Brandon M. Henry
 In Reply COVID-10, the Female Immune Advantage and Cardiovascular Impact
- 821 In Reply COVID-19, the Female Immune Advantage, and Cardiovascular Impact
 Oliver Ritter and Georgios Kararigas
- 822 Cardiorespiratory Fitness Attenuates the Impact of Risk Factors Associated With COVID-19
 Hospitalization
 Dennis J. Kerrigan, Clinton A. Brawner, Jonathan K. Ehrman, and Steven Keteyian
- In Reply Cardiorespiratory Fitness Attenuates the Impact of Risk Factors Associated With COVID-19 Hospitalization

 Carl J. Lavie, Fabian Sanchis-Gomar, and Ross Arena
- 824 Does Hypoxia Itself Beget Worsening Hypoxemia in COVID-19?

 Edward D. Chan and Vibhu Sharma
- In Reply Does Hypoxia Itself Beget Worsening Hypoxemia in COVID-19?

 Virend K. Somers, Tomas Kara, and Jiang Xie

Path to Patient Image Quiz

Paratesticular Papillary Cystadenoma of the Epididymis in the Setting of von Hippel-Lindau

Soundk Gupta and Lori A. Erickson

Stamp Vignette on Medical Science

James Till and Ernest McCulloch: Hematopoietic Stem Cell Discoverers

David P. Steensma and Robert A. Kyle

Art at Mayo Clinic

Healing Garden by J Piercey Studios, Inc

Margaret R. Wentz