

CJASN

Clinical Journal of the American Society of Nephrology

October 2016 • Vol. 11 • No. 10

Editorials

1723 Patiromer—an Oral Calcium-Loaded Potassium Binder: Kalirrhea with Calciuresis

Michael Emmett and Ankit Mehta

See related article on page 1769.

1726 The Influence of Processing and Storage Conditions on Renal Protein Biomarkers

Callen Giesen and John C. Lieske

See related article on page 1794.

1729 Can We Predict the Unpredictable after Vascular Access Creation?

Kevan R. Polkinghorne and Charmaine E. Lok

See related article on page 1802.

1732 Practice Change Is Needed for Dialysis Decision Making with Older Adults with Advanced Kidney Disease

Jennifer S. Scherer and Alvin H. Moss

See related article on page 1825.

Original Articles

Chronic Kidney Disease

1735 Chronic Kidney Disease and Risk for Gastrointestinal Bleeding in the Community: The Atherosclerosis Risk in Communities (ARIC) Study

Junichi Ishigami, Morgan E. Grams, Rakhi P. Naik, Josef Coresh, and Kunihiro Matsushita

1744 Outcomes of In-Hospital Cardiopulmonary Resuscitation in Patients with CKD

Fahad Saeed, Malik M. Adil, Umar M. Kaleem, Taqi T. Zafar, Abdus Salam Khan, Jean L. Holley, and Joseph V. Nally Jr.

Clinical Nephrology

1752 Renal Survival in Patients with Collapsing Compared with Not Otherwise Specified FSGS

Louis-Philippe Laurin, Adil M. Gasim, Vimal K. Derebail, JulieAnne G. McGregor, Jason M. Kidd, Susan L. Hogan, Caroline J. Poulton, Randal K. Detwiler, J. Charles Jennette, Ronald J. Falk, and Patrick H. Nachman

1760 Ethnic Differences in Incidence and Outcomes of Childhood Nephrotic Syndrome

Tonny H.M. Banh, Neesha Hussain-Shamsy, Viral Patel, Jovanka Vasilevska-Ristovska, Karlota Borges, Cathryn Sibbald, Deborah Lipszyc, Josefina Brooke, Denis Geary, Valerie Langlois, Michele Reddon, Rachel Pearl, Leo Levin, Monica Piekut, Christoph P.B. Licht, Seetha Radhakrishnan, Kimberly Aitken-Menezes, Elizabeth Harvey, Diane Hebert, Tino D. Piscione, and Rulan S. Parekh

Clinical Pharmacology

1769 Effect of Patiromer on Urinary Ion Excretion in Healthy Adults

David A. Bushinsky, David M. Spiegel, Coleman Gross, Wade W. Benton, Jeanene Fogli, Kathleen M. Hill Gallant, Charles Du Mond, Geoffrey A. Block, Matthew R. Weir, and Bertram Pitt

See related editorial on page 1723.

Clinical Pharmacology (Continued)

- 1777 Mycophenolic Acid Pharmacokinetics and Relapse in Children with Steroid-Dependent Idiopathic Nephrotic Syndrome**
Stéphanie Tellier, Aymeric Dallochio, Vincent Guignonis, Frank Saint-Marcoux, Brigitte Llanas, Lydia Ichay, Flavio Bandin, Astrid Godron, Denis Morin, Karine Brochard, Peggy Gandia, Stéphane Bouchet, Pierre Marquet, Stéphane Decramer, and Jérôme Harambat

Epidemiology and Outcomes

- 1784 High Density Lipoprotein Cholesterol and the Risk of All-Cause Mortality among U.S. Veterans**
Benjamin Bowe, Yan Xie, Hong Xian, Sumitra Balasubramanian, Mohamed A. Zayed, and Ziyad Al-Aly
- 1794 Effect of Processing Delay and Storage Conditions on Urine Albumin-to-Creatinine Ratio**
William Herrington, Nicola Illingworth, Natalie Staplin, Aishwarya Kumar, Ben Storey, Renata Hrusicka, Parminder Judge, Maria Mahmood, Sarah Parish, Martin Landray, Richard Haynes, Colin Baigent, Michael Hill, and Sarah Clark
See related editorial on page 1726.

ESRD and Chronic Dialysis

- 1802 Predictors of Initiation for Predialysis Arteriovenous Fistula**
Alian Al-Balas, Timmy Lee, Carlton J. Young, Jill Barker-Finkel, and Michael Allon
See related editorial on page 1729.
- 1809 Longitudinal Changes in Protein Carbamylation and Mortality Risk after Initiation of Hemodialysis**
Sahir Kalim, Caitlin A. Trottier, Julia B. Wenger, Josh Wibecan, Rayhnuma Ahmed, Elizabeth Ankers, S. Ananth Karumanchi, Ravi Thadhani, and Anders H. Berg
- 1817 A Prospective, Randomized Trial of Routine Duplex Ultrasound Surveillance on Arteriovenous Fistula Maturation**
Ahram Han, Seung-Kee Min, Mi-Sook Kim, Kwon Wook Joo, Jungsun Kim, Jongwon Ha, Joongyub Lee, and Sang-il Min
- 1825 Decisions about Renal Replacement Therapy in Patients with Advanced Kidney Disease in the US Department of Veterans Affairs, 2000–2011**
Susan P.Y. Wong, Paul L. Hebert, Ryan J. Laundry, Kenric W. Hammond, Chuan-Fen Liu, Nilka R. Burrows, and Ann M. O'Hare
See related editorial on page 1732.

Nephrolithiasis

- 1834 Dietary Protein and Potassium, Diet-Dependent Net Acid Load, and Risk of Incident Kidney Stones**
Pietro Manuel Ferraro, Ernest I. Mandel, Gary C. Curhan, Giovanni Gambaro, and Eric N. Taylor

Renal Transplantation

- 1845 Mammalian Target of Rapamycin Inhibitors and Clinical Outcomes in Adult Kidney Transplant Recipients**
Sunil V. Badve, Elaine M. Pascoe, Michael Burke, Philip A. Clayton, Scott B. Campbell, Carmel M. Hawley, Wai H. Lim, Stephen P. McDonald, Germaine Wong, and David W. Johnson

Glomerular Diseases: Update for the Clinician

- 1856 All Things Complement**
Joshua M. Thurman and Carla M. Nester

Commentary

- 1867 RRT in AKI: Start Early or Wait?**
Kathleen D. Liu and Paul M. Palevsky

In-Depth Review

1872 The Role of RRT in Hyperammonemic Patients

Shruti Gupta, Andrew Z. Fenves, and Robert Hootkins

Moving Points in Nephrology

1879 Supportive Care: Meeting the Needs of Patients with Advanced Chronic Kidney Disease

Sara N. Davison and Alvin H. Moss

1882 Supportive Care: Integration of Patient-Centered Kidney Care to Manage Symptoms and Geriatric Syndromes

Sara N. Davison and Sarbjit Vanita Jassal

1892 Supportive Care: Time to Change Our Prognostic Tools and Their Use in CKD

Cécile Couchoud, Brenda Hemmelgarn, Peter Kotanko, Michael J. Germain, Olivier Moranne, and Sara N. Davison

1902 Supportive Care: Communication Strategies to Improve Cultural Competence in Shared Decision Making

Edwina A. Brown, Hilary L. Bekker, Sara N. Davison, Jonathan Koffman, and Jane O. Schell

1909 Supportive Care: Comprehensive Conservative Care in End-Stage Kidney Disease

Fliss E.M. Murtagh, Aine Burns, Olivier Moranne, Rachael L. Morton, and Saraladevi Naicker

1915 Supportive Care: Economic Considerations in Advanced Kidney Disease

Rachael L. Morton, Manjula Kurella Tamura, Joanna Coast, and Sara N. Davison

On the Cover

A 39 year old woman with a history of hypertension presented with fever, oral ulcers, loose stools and abdominal pain. She had pancytopenia (hemoglobin - 8 g/dl, WBC - 500/ μ L, platelets - 16,000/ μ L) and renal dysfunction requiring dialysis support. Infectious and autoimmune work-up were non-diagnostic so a renal biopsy was performed. Histological examination revealed a dense interstitial infiltrate with cells of three distinct lineages including myeloid and erythroid cells and megakaryocytes, consistent with extramedullary haematopoiesis (EMH). Glomeruli and blood vessels were unremarkable but tubular epithelial cell injury was noted. EMH is the development of hematopoietic tissue outside the bone marrow and is most commonly seen in the liver, spleen and lymph nodes, but is rarely seen in the kidney. Renal involvement can be parenchymal, intrapelvic or perirenal in location and is usually asymptomatic. In the parenchymal type, the kidney may be diffusely enlarged or have a focal mass. Intrapelvic involvement is usually an extension of a parenchymal lesion and the EMH tissue can cause obstructive renal failure. In the perirenal type, the hematopoietic tissue encases the kidney. Renal EMH typically occurs in association with a chronic hematological disorder. The pathophysiology of EMH in the kidney is not fully understood. It has been hypothesized that hematopoietic cells are derived from local mesenchymal pluripotent cells which then proliferate in response to a stimulating factor. The optimal treatment is unknown. *Image and text provided by Anila Kurien, Center for Renal and Urological Pathology, Chennai, Tamil Nadu, India and Goutham Seralathan, G Kuppuswamy Naidu Memorial Hospital – Nephrology Chennai, Tamil Nadu, India.*