Patient Voice

643 A Nutritional Lie or Lifestyle?
Patrick O. Gee
See related article on page 682.

Editorials

645 Evidence for Managing Hypernatremia: Is It Just Hyponatremia in Reverse?
Richard H. Sterns
See related article on page 656.

648 Blood Microbiome in CKD: Should We Care?
Robert D. Mair and Tammy L. Sirich
See related article on page 692.

650 Mechanistic Insights into Loop Diuretic Responsiveness in Heart Failure
David H. Ellison
See related article on page 712.

653 Treatment Options for Refractory Lupus Nephritis
Hans-Joachim Anders and Falk Hiepe
See related article on page 719.

Original Articles

Acid/Base and Electrolyte Disorders

656 Rate of Correction of Hypernatremia and Health Outcomes in Critically Ill Patients
Kinsuk Chauhan, Pattharanaw Pattharanitima, Niralee Patel, Aine Duffy, Aparna Saha, Kumardeep Chaudhary, Neha Debnath, Tielman Van Vleck, Lili Chan, Girish N. Nadjarni, and Steven G. Coca
See related editorial on page 645.

Acute Kidney Injury and ICU Nephrology

664 Major Adverse Kidney Events in Pediatric Sepsis
Scott L. Weiss, Fran Balamuth, Cary W. Thurm, Kevin J. Downes, Julie C. Fitzgerald, and Benjamin L. Laskin

Chronic Kidney Disease

673 Pruritus and Patient Reported Outcomes in Non-Dialysis CKD
Nidhi Sukul, Elodie Speyer, Charlotte Tu, Brian A. Bieber, Yun Li, Antonio A. Lopes, Koichi Asahi, Laura Mariani, Maurice Laville, Hugh C. Rayner, Bénédicte Stengel, Bruce M. Robinson, and Ronald L. Pisoni, on behalf of CKDopps and CKD-REIN investigators

682 Plant-Based Diets and Incident CKD and Kidney Function
Hyunju Kim, Laura E. Caulfield, Vanessa García-Larsen, Lyn M. Steffen, Morgan E. Grams, Josef Coresh, and Casey M. Rebbholz
See related Patient Voice on page 643.
Chronic Kidney Disease (Continued)

692 Blood Microbiome Profile in CKD: A Pilot Study
Neal B. Shah, Andrew S. Allegretti, Sagar U. Nigwekar, Sahir Kalim, Sophia Zhao, Benjamin Lelouvier, Florence Servant, Gloria Serena, Ravi Ishwar Thadhani, Dominic S. Raj, and Alessio Fasano
See related editorial on page 648.

Clinical Nephrology

702 IL-1 Inhibition and Function of the HDL-Containing Fraction of Plasma in Patients with Stages 3 to 5 CKD
Adriana M. Hung, Yohei Tsuchida, Kristen L. Nowak, Sudipa Sarkar, Michel Chonchol, Victoria Whitfield, Natjalie Salas, Anna Dikalova, Patricia G. Yancey, Jiansheng Huang, MacRae F. Linton, T. Alp Ikizler, and Valentina Kon

712 Serum and Urine Albumin and Response to Loop Diuretics in Heart Failure
Antonios Charokopos, Matthew Griffin, Veena S. Rao, Lesley Inker, Krishna Sury, Jennifer Asher, Jeffrey Turner, Devin Mahoney, Zachary L. Cox, F. Perry Wilson, and Jeffrey M. Testani
See related editorial on page 650.

Glomerular and Tubulointerstitial Diseases

719 Autologous Hematopoietic Stem Cell Transplantation for Refractory Lupus Nephritis
Xianghua Huang, Wencui Chen, Guisheng Ren, Liang Zhao, Jinzhou Guo, Dehua Gong, Caihong Zeng, Weixin Hu, and Zhihong Liu
See related editorial on page 653.

Maintenance Dialysis

728 Safety of Dynamic Intravenous Iron Administration Strategies in Hemodialysis Patients
Xiaojuan Li, Stephen R. Cole, Abhijit V. Kshirsagar, Jason P. Fine, Til Stürmer, and M. Alan Brookhart

Transplantation

738 Diagnostic Performance of Blood Pressure Measurement Modalities in Living Kidney Donor Candidates
Sherif Armanyous, Yasushi Ohashi, Michael Lioudis, Jesse D. Schold, George Thomas, Emilio D. Poggio, and Joshua J. Augustine

Research Letter

747 Serum Metabolites and Cardiac Death in Patients on Hemodialysis
Jiun-Ruey Hu, Morgan E. Grams, Josef Coresh, Seungyoung Hwang, Csaba P. Kovesdy, Eliseo Guallar, Eugene P. Rhee, and Tariq Shafi

Erratum

750 Correction

Kidney Case Conference: Nephrology Quiz and Questionnaire

751 Post-Transplant Lymphoproliferative Disorder in a Kidney Transplant Recipient
Gaurav Agarwal and Roslyn B. Mannon

754 A Case of ANCA-Associated Vasculitis
Jonathan J. Hogan

Nephropharmacology for the Clinician

757 Clinical Pharmacology of Antihypertensive Therapy for the Treatment of Hypertension in CKD
Arjun D. Sinha and Rajiv Agarwal
Perspectives

765  Transitional Care Units: Greater Than the Sum of Their Parts
Brendan T. Bowman

768  How Community Engagement Is Enhancing NIDDK Research
Paul L. Kimmel, Nichole Jefferson, Jenna M. Norton, and Robert A. Star

771  Retooling Nephrology with Ultrasound
W. Charles O’Neill and Daniel W. Ross

Review

774  Hepatorenal Syndrome
Claire Francoz, François Durand, Jeffrey A. Kahn, Yuri S. Genyk, and Mitra K. Nadim

On the Cover

What’s the diagnosis?
A 55-year-old man underwent a 3 month protocol biopsy after living donor transplantation. Recently, he has suffered from diarrhea but was otherwise healthy. At the time point of biopsy, a slight increase in creatinine (\( +40 \, \mu \text{mol} \) compared to baseline) as well as \( >0.5 \) million CMV-copies (previously negative) were documented. He was still on antiviral prophylaxis with valganciclovir when the primary infection was diagnosed. CMV-infection of the transplanted kidney was diagnosed by biopsy. The patient was successfully treated with intravenous ganciclovir. Image Description: Kidney biopsy revealed viral nuclear inclusions in the glomeruli without significant glomerular inflammation (Figure 1) as well as mild interstitial inflammation and tubulitis. CMV-immunohistochemistry revealed that the vast majority of infected nuclei were restricted to the glomeruli with only single positive cells in the interstitial compartment. Glomerular infection was not restricted to endothelial cells (Figure 2), but also affected cells of podocyte origin. Teaching Points: CMV-infection in kidney transplants is rare nowadays, since prophylactic therapy is the standard. However, it still exists, even under ongoing prophylaxis, and can be morphologically a very subtle finding lacking prominent inflammatory reaction. It is important to be aware of the histological changes induced by CMV and to utilize CMV-immunohistochemistry in suspect cases.

Figure Legend: 1. Glomerulus with viral nuclear inclusions (arrows). At the lower right nuclei are localized intracapillarily going in line with cells of endothelial origin, at the upper left (arrow) a cell with viropathic changes is localized at the outer aspect of the glomerular capillary best fitting a podocyte origin (hematoxylin and eosin, x630). 2. Immunofluorescence double staining for cytomegalovirus (CMV) antigens (red) and the endothelial transcription factor ERG (green) prove the endothelial origin of a subset of cells infected (bottom, double arrow), but also shows one CMV-infected cell not belonging to the endothelial cell pool (top, single arrow, original magnification, x630 blue: nuclear counterstaining with DAPI).

(Images and text provided by Simon P. Parmentier, University Hospital Carl-Gustav-Carus, Department of Medicine III, Division of Nephrology, Dresden, Germany and Maike Büttner-Herold, Department of Nephropathology, Institute of Pathology, University Hospital Erlangen, Friedrich-Alexander-University Erlangen-Nürnberg, Erlangen, Germany)