Editorials

1705 Cardiorenal Resynchronization Therapy: Strengthening the Heart and Kidneys
Edmond K. Obeng-Gyimah and Rajat Deo
See related article on page 1740.

1708 The Role of Ethnic Variation and CKD
Nina T. Harawa and Keith C. Norris
See related article on page 1757.

1711 We Need to Train the Trainers
Arif Asif and Gerald A. Beathard
See related article on page 1767.

1714 Is Intravenous Iron Supplementation Safe to Administer to Patients on Hemodialysis with Active Infection—What Do We Know, and What More Do We Need to Know?
Charles Lee Bennett and Terhi Hermanson
See related article on page 1799.

Original Articles

Acute Kidney Injury

1716 Serotonin-Norepinephrine Reuptake Inhibitors and the Risk of AKI: A Cohort Study of Eight Administrative Databases and Meta-Analysis

1723 False-Positive Rate of AKI Using Consensus Creatinine-Based Criteria
Jennie Lin, Hilda Fernandez, Michael G.S. Shashaty, Dan Negoianu, Jeffrey M. Testani, Jeffrey S. Berns, Chirag R. Parikh, and F. Perry Wilson

1732 Outcomes After Post-Traumatic AKI Requiring RRT in United States Military Service Members
Jonathan A. Bolanos, Christina M. Yuan, Dustin J. Little, David K. Oliver, Steven R. Howard, Kevin C. Abbott, and Stephen W. Olson

Chronic Kidney Disease

1740 Cardiac Resynchronization Therapy in CKD Stage 4 Patients
Ulas Höke, Mand J.H. Khidir, Enno T. van der Velde, Martin J. Schalij, Jeroen J. Bax, Victoria Delgado, and Nina Ajmone Marsan
See related editorial on page 1705.

1749 Urinary EGF Receptor Ligand Excretion in Patients with Autosomal Dominant Polycystic Kidney Disease and Response to Tolvaptan
Laura R. Harskamp, Ron T. Gansevoort, Wendy E. Boertien, Wim van Oeveren, Gerwin E. Engels, Harry van Goor, and Esther Meijer
Chronic Kidney Disease (Continued)

1757 Prevalence and Correlates of CKD in Hispanics/Latinos in the United States
See related editorial on page 1708.

Clinical Nephrology

1767 Performance of Temporary Hemodialysis Catheter Insertion by Nephrology Fellows and Attending Nephrologists
Rory F. McQuillan, Edward Clark, Alireza Zahiri, Elaine R. Cohen, James J. Paparello, Diane B. Wayne, and Jeffrey H. Barsuk
See related editorial on page 1711.

1773 Eculizumab in Pediatric Dense Deposit Disease

1783 A New Grading System for the Management of Antenatal Hydronephrosis
Joana Dos Santos, Rulan S. Parekh, Tino D. Piscione, Tarek Hassouna, Victor Figueroa, Paula Gonima, Isis Vargas, Walid Farhat, and Norman D. Rosenblum

Epidemiology and Outcomes

1791 Early Failure of Dialysis Access among the Elderly in the Era of Fistula First
Karen Woo, Dana P. Goldman, and John A. Romley

1799 Receipt of Intravenous Iron and Clinical Outcomes among Hemodialysis Patients Hospitalized for Infection
See related editorial on page 1714.

ESRD and Chronic Dialysis

1806 Hyponatremia and Cognitive Impairment in Patients Treated with Peritoneal Dialysis
Rong Xu, Hai-chen Pi, Zu-ying Xiong, Jin-lan Liao, Li Hao, Gui-ling Liu, Ye-Ping Ren, Qin Wang, Zhao-xia Zheng, Li-ping Duan, and Jie Dong

1814 Understanding the Recent Increase in Ferritin Levels in United States Dialysis Patients: Potential Impact of Changes in Intravenous Iron and Erythropoiesis-Stimulating Agent Dosing
Angelo Karaboyas, Jarcy Zee, Hal Morgenstern, Jacqueline G. Nolen, Raymond Hakim, Kamyar Kalantar-Zadeh, Philip Zager, Ronald L. Pisoni, Friedrich K. Port, and Bruce M. Robinson

1822 Association of Erythropoietin Dose and Route of Administration with Clinical Outcomes for Patients on Hemodialysis in the United States
Daniel G. Wright, Elizabeth C. Wright, Andrew S. Narva, Constance T. Noguchi, and Paul W. Eggers

Renal Physiology

1831 Physiology of the Renal Interstitium
Michael Zeisberg and Raghu Kalluri

Renal Immunology

1841 Dendritic Cells and Macrophages: Sentinels in the Kidney
Christina K. Weisheit, Daniel R. Engel, and Christian Kurts

Role of the Medical Director

1852 Medical Director Responsibilities to the ESRD Network
Peter B. DeOreo and Jay B. Wish
Commentary

1859 Promoting Kidney Function Recovery in Patients with AKI Requiring RRT

Jorge Cerda, Kathleen D. Liu, Dinna N. Cruz, Bertrand L. Jaber, Jay L. Koyner, Michael Heung, Mark D. Okusa, and Sarah Faubel for the AKI Advisory Group of the American Society of Nephrology

1868 Outpatient Dialysis for Patients with AKI: A Policy Approach to Improving Care

Michael Heung, Sarah Faubel, Suzanne Watnick, Dinna N. Cruz, Jay L. Koyner, Girish Mour, Kathleen D. Liu, Jorge Cerda, Mark D. Okusa, Mark Lukaszewski, and Anitha Vijayan for the American Society of Nephrology Acute Kidney Injury Advisory Group

Special Feature

1875 Mineral (Mal)Adaptation to Kidney Disease—Young Investigator Award Address: American Society of Nephrology Kidney Week 2014

Myles Wolf

Erratum

1886 Correction

eJournal club provides a timely and interactive electronic journal club experience by offering a forum in which CJASN readers have the opportunity to converse with the featured study authors. Visit ejc.cjasn.org to learn more.

On the Cover

What’s the diagnosis? A 24-year-old woman underwent living related donor renal transplantation for end stage renal disease due to congenital anomalies of the kidney and urinary tract. Pre-transplant cross match was negative. She was treated with cyclosporine, prednisolone, and mycophenolate. At discharge, her creatinine was 1.0 mg/dl. Nine months post-transplant, she presented with a creatinine of 1.8 mg/dl and trace proteinuria. A renal biopsy was performed. The glomeruli were unremarkable, there was no significant interstitial inflammatory cell infiltrate, no tubulitis and no vascular lesions. A proximal tubular epithelial cell showed an intranuclear inclusion with a characteristic clear halo around the periphery of the enlarged nucleus. Basophilic granules, which represent viral particles, were present in the cytoplasm (top image). An immunohistochemical stain for cytomegalovirus (CMV) was positive in the infected nucleus (bottom image), confirming CMV disease in this patient. She was administered intravenous gancyclovir. She responded to therapy with creatinine stabilizing at 1.4 mg/dl.

Cytomegalovirus affects immunocompromised patients and can cause disease in renal allografts as well as native kidneys. The clinical presentation in an allograft recipient ranges from mild, subclinical symptoms to life-threatening multi-organ disease. CMV causes renal allograft injury that may be clinically indistinguishable from injury caused by rejection or other viruses. CMV nephritis most commonly involves the renal tubular epithelium, although occasionally glomerular and vascular endothelial cells may also become infected. The distinction between CMV infection (isolation of virus from bodily fluids or tissue) and CMV disease (confirmation of organ dysfunction/tissue injury in the presence of CMV infection, as in this patient) must be made. In the transplant setting, the CMV serologic status of donor and recipient is the most important factor in determining risk of CMV infection and disease in the allograft recipient. The combination of a CMV negative recipient and a CMV positive donor indicates the highest risk. Prevention of CMV infection is the standard of care in renal allograft recipients. With antiviral therapy, the disease is usually reversible. (Image and text provided by Anila Kurien, Center for Renal and Urological Pathology, Chennai, Tamil Nadu, India, and Gopalakrishnan Natarajan, Madras Medical College, Nephrology, Chennai, Tamil Nadu, India)