Editorials

1741 We Can Diagnose AKI “Early”
Raymond K. Hsu and Chi-yuan Hsu
See related articles on pages 1749 and 1761.

1743 Preeclampsia and Risk for Subsequent ESRD in Populations of European Ancestry
Amret T. Hawfield and Barry I. Freedman
See related article on page 1819.

1746 L-Carnitine for Anemia in Hemodialysis Patients: A Last Resort
Jerry Yee
See related article on page 1836.

Original Articles

Acute Kidney Injury /Acute Renal Failure

1749 Association of Postoperative Proteinuria with AKI after Cardiac Surgery among Patients at High Risk
Amber O. Molnar, Chirag R. Parikh, Kyaw Sint, Steven G. Coca, Jay Koyner, Uptal D. Patel, Isabel Butrymowicz, Michael Shlipak, and Amit X. Garg
See related editorial on page 1741.

1761 The Association of Albumin/Creatinine Ratio with Postoperative AKI in Children Undergoing Cardiac Surgery
Michael Zappitelli, Steven G. Coca, Amit X. Garg, Catherine D. Krawczeski, Heather Thiessen Philbrook, Kyaw Sint, Simon Li, Chirag R. Parikh, and Prasad Devarajan, for the TRIBE-AKI Consortium
See related editorial on page 1741.

Chronic Kidney Disease

1770 Relationship between Ambulatory BP and Clinical Outcomes in Patients with Hypertensive CKD

1777 CKD, Plasma Lipids, and Common Carotid Intima-Media Thickness: Results from the Multi-Ethnic Study of Atherosclerosis

Clinical Nephrology

1786 Factors in Career Choice among US Nephrologists
Gearoid M. McMahon, Lynette Thomas, J. Kevin Tucker, and Julie Lin
Epidemiology and Outcomes

1793 Association of Depression and Antidepressant Use with Mortality in a Large Cohort of Patients with Nondialysis-Dependent CKD
Rasheed A. Balogun, Emaad M. Abdel-Rahman, Seki A. Balogun, Evan H. Lott, Jun Ling Lu, Sandra M. Malakauskas, Jennie Z. Ma, Kamyar Kalantar-Zadeh, and Csaba P. Kovesdy

1801 Physical Exercise, Fasting Glucose, and Renal Hyperfiltration in the General Population: The Renal Iohexol Clearance Survey in Tromsø 6 (RENIS-T6)
Toralf Melsom, Ulla Dorte Mathisen, Britt-Ann Winther Eilertsen, Ole C. Ingebretnsen, Trond Jønssen, Inger Njølstad, Marit D. Solbu, Ingrid Toft, and Bjørn O. Eriksen

1811 Dietary Acid Load and Metabolic Acidosis in Renal Transplant Recipients
Else van den Berg, Mariëlle F. Engberink, Elizabeth J. Brink, Marleen A. van Baak, Michel M. Joosten, Reinold O.B. Gans, Gerjan Navis, and Stephan J.L. Bakker

1819 Familial Factors in the Association between Preeclampsia and Later ESRD
Bjørn Egil Vikse, Lorentz M. Irgens, S. Ananth Karumanchi, Ravi Thadhani, Anna Varberg Reisæter, and Rolf Skjærven
See related editorial on page 1743.

ESRD and Chronic Dialysis

1827 Association of Smoking with Cardiovascular and Infection-Related Morbidity and Mortality in Chronic Hemodialysis
Finnian R. McCausland, Steven M. Brunelli, and Sushrut S. Waikar

1836 L-Carnitine Treatment in Incident Hemodialysis Patients: The Multicenter, Randomized, Double-Blinded, Placebo-Controlled CARNIDIAL trial
Lucile Mercadal, Mathieu Coudert, Anne Vassault, Laurence Pieroni, Alain Debuire, Messaoud Ouziala, Hélène Depreneuf, Christine Fumeron, Aude Servais, Nader Bassilios, Jacques Bécart, Ubald Assogba, Mahmoud Allouache, Boussad Bouali, Nhan Luong, Marie Paul Dousseaux, Sophie Tezenas-du Montcel, and Gilbert Deray
See related editorial on page 1746.

Renal Transplantation

1843 Clinical Analysis of Perioperative Complement Activity during Ischemia/Reperfusion Injury following Renal Transplantation
Wojciech Błogowski, Barbara Dołęgowska, Daria Sałata, Marta Budkowska, Leszek Domański, and Teresa Starzyńska

1852 Parietal Epithelial Cell Activation Marker in Early Recurrence of FSGS in the Transplant
Huma Fatima, Marcus J. Moeller, Bart Smeets, Hai-Chun Yang, Vivette D. D’Agati, Charles E. Alpers, and Agnes B. Fogo

1859 Association of Pre–Kidney Transplant Markers of Mineral and Bone Disorder with Post-Transplant Outcomes
Miklos Z. Molnar, Csaba P. Kovesdy, Istvan Mucsi, Isidro B. Salusky, and Kamyar Kalantar-Zadeh

Commentary

1872 Subgroup Analyses in Nephrology Clinical Trials
Steven Fishbane, Hitesh H. Shah, Ashish Kataria, Shayan Shirazian, and Rajiv Agarwal

1877 Calcium Builds Strong Bones, and More Is Better—Correct? Well, Maybe Not
Sophie A. Jamal and Sharon M. Moe
On the Cover

What’s the diagnosis? Urine microscopy in the upper left panel demonstrates a cast filled with decoy cells (BK virus infected renal tubular epithelial cells), while the upper right panel shows the lymphocytic reaction to BK virus with renal epithelial cells containing large nuclei indicative of viral infection. The lower left panel is an SV-40 stain of renal tissue showing BK virus infected nuclei. The BK viral particles are seen on electron microscopy in the lower right panel. BK virus-associated nephropathy describes kidney injury that develops in a renal allograft as a result of the polyoma virus BK virus. Infection with BK virus occurs primarily in patients treated with potent immunosuppressive agents. The renal manifestations closely resemble those of acute rejection including either acute kidney injury or a slowly progressive decline in kidney function. In general, the process occurs at a mean period of 10 to 13 months following transplantation. Urinalysis and microscopy most commonly reveal pyuria, hematuria, and/or cellular casts consisting of renal tubular epithelial (RTE) cells and inflammatory cells, findings consistent with interstitial nephritis. Decoy cells may be identified in the spun urine sediment or on urine cytology. The most characteristic abnormality is RTE cells with an enlarged nucleus with a single large basophilic intranuclear inclusion. These cellular changes are suggestive of polyoma virus infection. However, decoy cells are not entirely sensitive or specific for BK virus infection. RTE cell casts with features of polyoma virus infection were observed on urine microscopy in seven of eight patients with biopsy-confirmed BK virus-associated nephropathy. Renal biopsy is very helpful in diagnosing BK virus-associated nephropathy. Large, intranuclear inclusions within RTE cells are highly suggestive while a positive immunohistochemical stain against SV-40 T-antigen is highly specific for polyoma virus, of which BK is the most common. In situ hybridization to identify viral DNA or proteins within renal tissue is another specific test to diagnose BK virus-associated nephropathy. Electron microscopy of infected renal tubular cells may demonstrate the viral particles, as seen in this case. (Images and text provided by Jose Antonio Tesser Poloni, Irmandade da Santa Casa de Misericordia de Porto Alegre, Porto Alegre, Brazil, and Gilbert Moeckel and Mark A. Perazella, Yale University, New Haven, Connecticut)