Editorials

1149 Use of Renin-Angiotensin System Blockade in Patients with Renal Artery Stenosis
Jordana B. Cohen and Raymond R. Townsend
See related article on page 1199.

1153 Kidney Transplant Failure: Failing Kidneys, Failing Care?
Jeffrey Perl
See related article on page 1225.

1156 Reducing Catheter-Related Infections in Hemodialysis Patients
Daniel Landry and Gregory Braden
See related article on page 1232.

1160 The Utility of Circulating Markers to Predict Bone Loss across the CKD Spectrum
Thomas L. Nickolas
See related article on page 1254.

Original Articles

Acute Kidney Injury /Acute Renal Failure

1163 Methodologic Issues in the Measurement of Urinary Renin
Lodi C.W. Roksnoer, Koen Verdonk, Ingrid M. Garrelds, Jeanette M.G. van Gool, Robert Zietse, Ewout J. Hoorn, and A.H. Jan Danser

1168 Derivation of Urine Output Thresholds That Identify a Very High Risk of AKI in Patients with Septic Shock

Assessment of KDIGO Definitions in Patients with Histopathologic Evidence of Acute Renal Disease
Rong Chu, Cui Li, Suxia Wang, Wanzhong Zou, Gang Liu, and Li Yang

Chronic Kidney Disease

1183 Association of Walking with Survival and RRT Among Patients with CKD Stages 3–5
I-Ru Chen, Su-Ming Wang, Chih-Chia Liang, Huey-Liang Kuo, Chiz-Tzung Chang, Jiung-Hsiun Liu, Hsin-Hung Lin, I-Kuan Wang, Ya-Fei Yang, Che-Yi Chou, and Chi-Ching Huang

Relation of Serum Lipids and Lipoproteins with Progression of CKD: The CRIC Study
Mahboob Rahman, Wei Yang, Sanjeev Akkina, Arnold Alper, Amanda Hyre Anderson, Lawrence J. Appel, Jianguo He, Dominic S. Raj, Jeffrey Schelling, Louise Strauss, Valerie Teal, and Daniel J. Rader, for the CRIC Study Investigators

Clinical Nephrology

1199 Use of Renin-Angiotensin Inhibitors in People with Renal Artery Stenosis
Kaleigh L. Evans, Katherine R. Tuttle, David A. Folt, Taylor Dawson, Steven T. Haller, Pamela S. Brewster, Wencan He, Kenneth Jamerson, Lance D. Dworkin, Donald E. Cutlip, Timothy P. Murphy, Ralph B. D’Agostino Sr., William Henrich, and Christopher J. Cooper
See related editorial on page 1149.
Original Articles (Continued)

1207 The Relationship between IL-10 Levels and Cardiovascular Events in Patients with CKD
Mahmut Ilker Yilmaz, Yalcin Solak, Mutlu Saglam, Tuncer Cayci, Cengizhan Acikel, Hilmi Umut Unal, Tayfun Eyileten, Yusuf Oguz, Sebahattin Sari, Juan Jesus Carrero, Peter Stenvinkel, Adrian Covic, and Mehmet Kanbay

Epidemiology and Outcomes

1217 Retinopathy and Progression of CKD: The CRIC Study
Juan E. Grunwald, Maxwell Pistilli, Gui-Shuang Ying, Ebenezer Daniel, Maureen G. Maguire, Dawei Xie, Revell Whittock-Martin, Candace Parker Ostroff, Joan C. Lo, Raymond R. Townsend, Crystal A. Gadegbeku, James P. Lash, Jeffrey C. Fink, Mahboob Rahman, Harold I. Feldman, John W. Kusek, and the Chronic Renal Insufficiency Cohort Study Investigators

ESRD and Chronic Dialysis

1225 Initial Vascular Access Type in Patients with a Failed Renal Transplant
Micah R. Chan, Bharvi Oza-Gajera, Kevin Chapla, Arjang X. Djamali, Brenda L. Muth, Jennifer Turk, Maureen Wakeen, Alexander S. Yevzlin, and Brad C. Astor
See related editorial on page 1153.

1232 Comparative Effectiveness of Two Catheter Locking Solutions to Reduce Catheter-Related Bloodstream Infection in Hemodialysis Patients
Carol L. Moore, Anatole Besarab, Marie Ajluni, Vivek Soi, Edward L. Peterson, Laura E. Johnson, Marcus J. Zervos, Elizabeth Adams, and Jerry Yee
See related editorial on page 1156.

1240 Removal and Rebound Kinetics of Cystatin C in High-Flux Hemodialysis and Hemodiafiltration
Enric Vilar, Capella Boltiadór, Adie Viljoen, Ashwini Machado, and Ken Farrington

Geriatric Nephrology

1248 Accidental Falls and Risk of Mortality among Older Adults on Chronic Peritoneal Dialysis
Janine Farragher, Ernest Chiu, Ozkan Ulutas, George Tomlinson, Wendy L. Cook, and Sarbjit V. Jassal

Mineral Metabolism/Bone Disease

1254 Bone Mineral Density and Serum Biochemical Predictors of Bone Loss in Patients with CKD on Dialysis
Hartmut H. Malluche, Daniel L. Davenport, Tom Cantor, and Marie-Claude Monier-Faugere
See related editorial on page 1160.

Nephrolithiasis

1263 Expression of Fibroblast Growth Factor 23, Vitamin D Receptor, and Sclerostin in Bone Tissue from Hypercalciuric Stone Formers
Viviane Barcellos Menon, Rosa Maria Afonso Moysés, Samirah Abreu Gomes, Aluizio Barbosa de Carvalho, Vanda Jorgetti, and Ita Pfefferman Heilberg

Renal Physiology

1271 A New CJASN Series: Renal Physiology for the Clinician
Mark L. Zeidel, Melanie P. Hoenig, and Paul M. Palevsky

1272 Homeostasis, the Milieu Intérieur, and the Wisdom of the Nephron
Melanie P. Hoenig and Mark L. Zeidel

In-Depth Review

1283 The Use of Fibroblast Growth Factor 23 Testing in Patients with Kidney Disease
Edward R. Smith
On the Cover

What’s the diagnosis? This image reveals focal interstitial inflammatory infiltrate with several eosinophils pushing apart otherwise unremarkable tubules. When active interstitial inflammation is noted in non-atrophic parenchyma, a diagnosis of acute interstitial nephritis should be entertained. The differential diagnosis includes a number of causes and conditions; the biopsy findings are not specific and therefore only careful correlation with clinical data can lead to a correct diagnosis. In the developed and developing world, acute interstitial nephritis most commonly arises as a hypersensitivity reaction to drugs (NSAIDs, beta-lactam antibiotics, sulfonamides, diuretics, proton pump inhibitors, and a long list of other drugs). The presence of tissue eosinophils is not specific for drug-induced processes; furthermore, drug-related injury may present without eosinophils in the interstitial infiltrate. Other causes of acute interstitial nephritis include autoimmune diseases (lupus nephritis, Sjögren’s syndrome, hypocomplementemic tubulointerstitial nephritis, IgG-related interstitial nephritis, ANCA-related renal disease), allograft rejection, tubulointerstitial nephritis and uveitis or TINU syndrome, infections (bacterial, viral, fungal), sarcoidosis, metabolic diseases with interstitial inflammation with or without associated crystal deposition (gout and hyperuricemic conditions, hyperoxaluric states), toxic processes (lithium, heavy metals, aristolochic acid), paraprotein-related diseases (systemic light chain or heavy chain deposition disease, cast nephropathy), physical causes (obstruction and radiation injury), and hereditary conditions (medullary cystic diseases and juvenile nephronophthisis). In summary, the biopsy findings are not very specific; correct diagnosis can be made by correlating the biopsy findings, laboratory data, and clinical history of substance use or exposure. Image and text provided by Vanesa Bijol, MD, Brigham and Women’s Hospital, Boston, MA.