Editorials

1 CJASN—One Year Later
Gary C. Curhan

2 A New CJASN Feature: CJASN’s eJournal Club (eJC)
David S. Goldfarb and Gary C. Curhan

3 Venous Thromboembolism and Membranous Nephropathy: So What’s New?
Jai Radhakrishnan
See related article on page 43.

5 Dialysate Sodium and the Milieu Intérieur
Finnian R. Mc Causland, B. S. Tilley, and Sushrut S. Waikar
See related article on page 92.

8 Expect the Unexpected: Sudden Cardiac Death in Dialysis Patients
Rulan S. Parekh
See related articles on pages 116 and 123.

12 Thyroid Function and Clinical Outcomes in Kidney Failure
Carmine Zoccali and Francesca Mallamaci
See related article on page 131.

Original Articles

Acute Kidney Injury/Acute Renal Failure
15 Are Surrogate Assumptions and Use of Diuretics Associated with Diagnosis and Staging of Acute Kidney Injury after Cardiac Surgery?
Andrew J. Sims, Hayder K. Hussein, Mahesh Prabhu, and N. Suren Kanagasundaram

Chronic Kidney Disease
24 Adding Specialized Clinics for Remote-Dwellers with Chronic Kidney Disease: A Cost-Utility Analysis
Natasha Wiebe, Scott W. Klarenbach, Betty Chui, Bharati Ayyalasomayajula, Brenda R. Hemmelgarn, Kailash Jindal, Braden Manns, and Marcello Tonelli, on behalf of the Alberta Kidney Disease Network

35 Timing and Determinants of Erythropoietin Deficiency in Chronic Kidney Disease
Lucile Mercadal, Marie Metzger, Nicole Casadevall, Jean Philippe Haymann, Alexandre Karras, Jean-Jacques Boïfa, Martin Flamant, François Vrtovsnik, Bénédicte Stengel, and Marc Froissart, on behalf of the NephroTest Study Group

Clinical Nephrology

43 Venous Thromboembolism in Patients with Membranous Nephropathy
See related editorial on page 3.

52 The Effect of High-Flux Hemodialysis on Hemoglobin Concentrations in Patients with CKD: Results of the MINOXIS Study
Andreas Schneider, Christiane Drechsler, Vera Krane, Detlef H. Krieter, Hubert Scharnagl, Markus P. Schneider, and Christoph Wanner, for the MINOXIS Study Investigators
Original Articles (Continued)

60 The Effectiveness of Long-Term Agalsidase Alfa Therapy in the Treatment of Fabry Nephropathy
Sandro Feriozzi, Joan Torras, Markus Cybulla, Kathy Nicholls, Gere Sunder-Plassmann, and Michael West,
on behalf of the FOS Investigators

Critical Care Nephrology

70 Vascular Access Sites for Acute Renal Replacement in Intensive Care Units
Audrey E. Dugue, Stephanie P. Levesque, Marc-Olivier Fischer, Bertrand Souweine, Jean-Paul Mira,
Bruno Megarbane, Cedric Daubin, Damien du Cheyron, and Jean-Jacques Parienti, for the
Cathedia Study Group

Diabetes and the Kidney

78 Early Renal Function Decline in Type 2 Diabetes
Meda E. Pavkov, William C. Knowler, Kevin V. Lemley, Clinton C. Mason, Bryan D. Myers, and Robert G. Nelson

Epidemiology and Outcomes

85 Serum Fibroblast Growth Factor-23 and Risk of Incident Chronic Kidney Disease in Older Community-Dwelling
Women
Richard D. Semba, Jeffrey C. Fink, Kai Sun, Anne R. Cappola, Mansi Dalal, Candace Crasto, Luigi Ferrucci,
and Linda P. Fried

92 Dialysate Sodium Concentration and the Association with Interdialytic Weight Gain, Hospitalization,
and Mortality
Manfred Hecking, Angelo Karaboyas, Rajiv Saran, Ananda Sen, Masaaki Inaba, Hugh Rayner, Walter H. Hör, Rondal L. Pisoni, Bruce M. Robinson, Gere Sunder-Plassmann, and Friedrich K. Port
See related editorial on page 5.

101 Racial Differences in the Incidence of Chronic Kidney Disease
Paul Muntner, Britt Newsome, Holly Kramer, Carmen A. Peralta, Yongin Kim, David R. Jacobs Jr, Catarina I. Kiefe, and
Cora E. Lewis

108 Seasonal Variations in Mortality, Clinical, and Laboratory Parameters in Hemodialysis Patients: A 5-Year Cohort
Study
Len A. Usvyat, Mary Carter, Stephan Thijsen, Jeroen P. Kooman, Frank M. van der Sande, Paul Zabetakis, Paul Balter,
Nathan W. Levin, and Peter Kotanko

116 Improving Ascertainment of Sudden Cardiac Death in Patients with End Stage Renal Disease
Patrick H. Pun, Charles A. Herzog, and John P. Middleton
See related editorial on page 8.

ESRD and Chronic Dialysis

123 Predictors of Sudden Cardiac Death: A Competing Risk Approach in the Hemodialysis Study
Shani Shastri, Navdeep Tangri, Hocine Tighiouart, Gerald J. Beck, Panagiotis Vlagopoulos, Daniel Ornt,
Garabed Eknoyan, John W. Kusek, Charles Herzog, Alfred K. Cheung, and Mark J. Sarnak
See related editorial on page 8.

131 Baseline Levels and Trimestral Variation of Triiodothyronine and Thyroxine and Their Association with Mortality in
Maintenance Hemodialysis Patients
Christiaan L. Meuwese, Friedo W. Dekker, Bengt Lindholm, Abdul R. Qureshi, Olof Heimburger, Peter Barany,
Peter Stenvinkel, and Juan J. Carrero
See related editorial on page 12.

Mineral Metabolism/Bone Disease

139 (1-34) Parathyroid Hormone Infusion Acutely Lowers Fibroblast Growth Factor 23 Concentrations in Adult
Volunteers
Orlando M. Gutierrez, Kelsey T. Smith, Allison Barchi-Chung, Neha M. Patel, Tamara Isakova,
and Myles Wolf
146 Early Skeletal and Biochemical Alterations in Pediatric Chronic Kidney Disease
Katherine Wesseling-Perry, Renata C. Pereira, Chi-Hong Tseng, Robert Elashoff, Joshua J. Zaritsky, Ora Yadin, Shobha Sahney, Barbara Gales, Harald Jüppner, and Isidro B. Salusky

Renal Transplantation
153 Does Allograft Failure Impact Infection Risk on Peritoneal Dialysis: A North American Pediatric Renal Trials and Collaborative Studies Study
Ashton Chen, Karen Martz, and Panduranga S. Rao

158 The Influence of Induction Therapy for Kidney Transplantation after a Non-Renal Transplant

Mini-Review
167 Traditional Urinary Biomarkers in the Assessment of Hospital-Acquired AKI
Mark A. Perazella and Steven G. Coca

In-Depth Review
175 AKI Associated with Macroscopic Glomerular Hematuria: Clinical and Pathophysiologic Consequences
Juan Antonio Moreno, Catalina Martín-Cleary, Eduardo Gutiérrez, Oscar Toldos, Luis Miguel Blanco-Colio, Manuel Praga, Alberto Ortiz, and Jesús Egido

Special Feature
185 Informing Our Elders About Dialysis: Is an Age-Attuned Approach Warranted?
Rebecca J. Schmidt

On the Cover
What's the diagnosis? Plasma cell dyscrasias may result in production of an abnormal immunoglobulin (paraprotein), with affinity to deposit in the kidney (amyloidosis or monoclonal immunoglobulin deposition disease) or to filter into the tubule, with consequent reabsorption by the tubular epithelium (light chain tubulopathy, crystal storing histiocytosis) or with intraluminal cast formation (cast nephropathy, myeloma kidney). Therefore, patients with multiple myeloma may have a variety of presentations of the kidney disease, but “myeloma kidney” specifically refers to cast nephropathy. Light chain casts may obstruct many tubules and are characterized by PAS-negative reaction, waxy texture and fractured appearance, and the presence of brisk inflammatory reaction of the surrounding tissue with multinucleated giant cells on light microscopy. Immunofluorescence studies show restriction to one of the light chains. In typical cases of cast nephropathy, electron microscopy confirms the absence of dense deposits in the tissue and shows very dark (electron dense) intraluminal cast material, with homogeneous texture and no substructural details. Occasionally, light chains will form unusual crystals within the lumen of the tubules, as shown on this electron micrograph. The crystals are intraluminal (extracellular), they are very electron dense, mostly needle-shaped or rod-like, but generally of variable shape and size. This variant of cast nephropathy with extraordinary and breathtaking morphological features is of no clinical relevance, as these patients usually present with typical features of cast nephropathy. (Image and text provided by Dr. Vanesa Bijol, Brigham and Women's Hospital)