

CJASN


Clinical Journal of the American Society of Nephrology

June 2015 • Vol. 10 • No. 6

Editorials

- 911 BP Components in Advanced CKD and the Competing Risks of Death, ESRD, and Cardiovascular Events**
Arjun D. Sinha and Rajiv Agarwal
See related article on page 934.
- 914 Should Hemoglobin A1C Be Routinely Measured in Patients with CKD?**
Nisha Bansal and Michael G. Shlipak
See related article on page 957.
- 917 Low-T3 Syndrome in Peritoneal Dialysis: Metabolic Adaptation, Marker of Illness, or Mortality Mediator?**
Connie M. Rhee
See related article on page 975.
- 920 Mortality in the Elderly on Dialysis: Is This the Right Debate?**
Osasuyi Iyasere and Edwina A. Brown
See related article on page 983.
- 923 Induction Therapy in Renal Transplantation: Why? What Agent? What Dose? We May Never Know**
Alexander C. Wiseman
See related article on page 1041.

Original Articles

- Acute Kidney Injury**
- 926**  **Associations between Intensity of RRT, Inflammatory Mediators, and Outcomes**
Raghavan Murugan, Xiaoyan Wen, Christopher Keener, Francis Pike, Paul M. Palevsky, Mark Unruh, Kevin Finkel, Anitha Vijayan, Michele Elder, Yi-Fan Chen, and John A. Kellum on behalf of the Biological Markers of Recovery for the Kidney (BioMaRK) Study Investigators
- Chronic Kidney Disease**
- 934 Association of BP with Death, Cardiovascular Events, and Progression to Chronic Dialysis in Patients with Advanced Kidney Disease**
Shyamal Palit, Michel Chonchol, Alfred K. Cheung, James Kaufman, Gerard Smits, and Jessica Kendrick
See related editorial on page 911.
- Epidemiology and Outcomes**
- 941 Change in Multiple Filtration Markers and Subsequent Risk of Cardiovascular Disease and Mortality**
Casey M. Rebholz, Morgan E. Grams, Kunihiro Matsushita, Lesley A. Inker, Meredith C. Foster, Andrew S. Levey, Elizabeth Selvin, and Josef Coresh
- 949 Sleep-Disordered Breathing in Patients with Polycystic Liver and Kidney Disease Referred for Transcatheter Arterial Embolization**
Keiichi Sumida, Junichi Hoshino, Tatsuya Suwabe, Takatoshi Kasai, Noriko Hayami, Koki Mise, Masahiro Kawada, Aya Imafuku, Rikako Hiramatsu, Eiko Hasegawa, Masayuki Yamanouchi, Naoki Sawa, Koji Narui, Kenmei Takaichi, and Yoshifumi Ubara

957 Glycated Hemoglobin Level and Mortality in a Nondiabetic Population with CKD

Claire Trivin, Marie Metzger, Jean-Philippe Haymann, Jean-Jacques Boffa, Martin Flamant, François Vrtovsnik, Pascal Houillier, Benedicte Stengel, and Eric Thervet on behalf of the NephroTest Study Group
See related editorial on page 914.

965 Association of Height with Mortality in Patients Undergoing Maintenance Hemodialysis

Bryan B. Shapiro, Elani Streja, Vanessa A. Ravel, Kamyar Kalantar-Zadeh, and Joel D. Kopple

ESRD and Chronic Dialysis

975 Low Triiodothyronine Syndrome and Long-Term Cardiovascular Outcome in Incident Peritoneal Dialysis Patients

Tae Ik Chang, Joo Young Nam, Sug Kyun Shin, and Ea Wha Kang
See related editorial on page 917.

983 Dialysis Modality and Mortality in the Elderly: A Meta-Analysis

Seung Seok Han, Jae Yoon Park, Soohee Kang, Kyoung Hoon Kim, Dong-Ryeol Ryu, Hyunwook Kim, Kwon Wook Joo, Chun Soo Lim, Yon Su Kim, and Dong Ki Kim
See related editorial on page 920.

994 Comparison of Subdural Hematoma Risk between Hemodialysis and Peritoneal Dialysis Patients with ESRD

I-Kuan Wang, Yu-Kai Cheng, Cheng-Li Lin, Chiao-Ling Peng, Che-Yi Chou, Chiz-Tzung Chang, Tzung-Hai Yen, Chiu-Ching Huang, Fung-Chang Sung, and Chung Y. Hsu

1002 Obstructive Sleep Apnea Severity and Overnight Body Fluid Shift before and after Hemodialysis

Adam Ogna, Valentina Forni Ogna, Alexandra Mihalache, Menno Pruijm, Georges Halabi, Olivier Phan, Françoise Cornette, Isabelle Bassi, José Haba Rubio, Michel Burnier, and Raphaël Heinzer

Genetics

1011 Characterization of a New *DGKE* Intronic Mutation in Genetically Unsolved Cases of Familial Atypical Hemolytic Uremic Syndrome

Caterina Mele, Mathieu Lemaire, Paraskevas Iatropoulos, Rossella Piras, Elena Bresin, Serena Bettoni, David Bick, Daniel Helbling, Regan Veith, Elisabetta Valoti, Roberta Donadelli, Luisa Murer, Maria Neunhäuserer, Matteo Breno, Véronique Frémeaux-Bacchi, Richard Lifton, Giuseppe Remuzzi, and Marina Noris

Mineral Metabolism/Bone Disease

1021 Effect of Cinacalcet and Vitamin D Analogs on Fibroblast Growth Factor-23 during the Treatment of Secondary Hyperparathyroidism

Stuart M. Sprague, James B. Wetmore, Konstantin Gurevich, Gerald Da Roza, John Buerkert, Maureen Reiner, William Goodman, and Kerry Cooper

1031 A Randomized Trial of Cinacalcet versus Vitamin D Analogs as Monotherapy in Secondary Hyperparathyroidism (PARADIGM)

James B. Wetmore, Konstantin Gurevich, Stuart Sprague, Gerald Da Roza, John Buerkert, Maureen Reiner, William Goodman, and Kerry Cooper

Renal Transplantation

1041 Induction Therapies in Live Donor Kidney Transplantation on Tacrolimus and Mycophenolate With or Without Steroid Maintenance

Bekir Tanriover, Song Zhang, Malcolm MacConmara, Ang Gao, Burhaneddin Sandikci, Mehmet U. S. Ayyaci, Mutlu Mete, Demetra Tsapepas, Nilum Rajora, Prince Mohan, Ronak Lakhia, Christopher Y. Lu, and Miguel Vazquez
See related editorial on page 923.

Renal Physiology

1050 Regulation of Potassium Homeostasis

Biff F. Palmer

Role of the Medical Director

1061 What Medical Directors Need to Know about Dialysis Facility Water Management

Ted Kasperek and Oscar E. Rodriguez

Attending Rounds

1072 Timing of Initiation of RRT and Modality Selection

Joanne M. Bargman

Controversies in Nephrology

1079 Albuminuria Is an Appropriate Therapeutic Target in Patients with CKD: The Pro View

Hiddo J. Lambers Heerspink and Ron T. Gansevoort

1089 Albuminuria is Not an Appropriate Therapeutic Target in Patients with CKD: The Con View

Linda F. Fried and Julia Lewis

1095 Rebuttal of the Pro View: Albuminuria Is an Appropriate Therapeutic Target in Patients with CKD

Linda F. Fried and Julia Lewis


1099 Rebuttal of the Con View: Albuminuria Is an Appropriate Therapeutic Target in Patients with CKD

Hiddo J. Lambers Heerspink and Ron T. Gansevoort

Special Feature

1100 American Society of Nephrology Quiz and Questionnaire 2014: RRT

Rajnish Mehrotra, Mark A. Perazella, and Michael J. Choi

 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? Atheroembolic renal disease (AERD) also known as cholesterol embolization syndrome, cholesterol crystal embolization or atheroembolism occurs due to destabilization of atherosclerotic plaques. Cholesterol crystals and other contents of an atherosclerotic plaque embolize from a large artery, travel through the circulation and lodge in small arteries, causing ischemic end-organ damage. This may occur spontaneously or may follow angiography, anticoagulation, thrombolysis or coronary artery bypass grafting. Erosion of atheromatous plaque is most likely to occur in the abdominal aorta. Kidneys become a major target in cholesterol crystal embolization since the renal arteries have their origin from abdominal aorta and large fraction of the cardiac output flows through the kidneys. Renal arteries, arterioles or glomerular capillaries may get occluded by atheroemboli. The clinical manifestations are extremely variable and AERD is often termed as 'the great masquerader'. The disease may present as sudden onset of acute renal failure or as slowly declining renal function over a period of several months. Renal biopsy confirms the diagnosis of AERD. This biopsy image shows an interlobar artery completely occluded by cholesterol crystals surrounded by multinucleated giant cells and fibrous tissue. The cholesterol crystals appear as biconvex, needle-shaped 'empty' clefts as the crystals are dissolved during routine histologic preparation. There is no specific therapy and treatment consists of supportive care and general management of atherosclerosis. (Image and text provided by Anila Kurien, Center for Renal and Urological Pathology, Chennai, India and Krishnaswamy Sampathkumar, Meenakshi Mission Hospital, Nephrology, Tamil Nadu, India)