Patient Voice

1431 Dialysis, Transplantation, and Work: Honoring Original Intent
Stephen Z. Fadem
See related article on page 1506.

Editorials

1433 Palliative Care for Hemodialysis Patients?
Frank Brennan and Mark A. Brown
See related article on page 1495.

1436 Resistant Hypertension in Chronic Kidney Disease: A Burden unto Itself
Rachel Shulman and Jordana B. Cohen
See related article on page 1457.

1439 Reducing Racial Disparities in Access to Transplant in the United States: One Step at a Time
Rhiannon D. Reed and Jayme E. Locke
See related article on page 1515.

1442 Incorporating Training in POCUS in Nephrology Fellowship Curriculum
Nathaniel C. Reisinger and Abhilash Koratala
See related article on page 1487.

Original Articles

Acute Kidney Injury and ICU Nephrology

1446 The Relationship between Rate and Volume of Intravenous Fluid Administration and Kidney Outcomes after Angiography
Qandeel H. Soomro, Sonia T. Anand, Steven D. Weisbord, Martin P. Gallagher, Ryan E. Ferguson, Paul M. Palevsky, Deepak L. Bhatt, Chirag R. Parikh, and James S. Kaufman, for the PRESERVE Trial Investigators

Chronic Kidney Disease

1457 Prevalence of Apparent Treatment-Resistant Hypertension in Chronic Kidney Disease in Two Large US Health Care Systems
Jaejin An, Manjula Kurella Tamura, Michelle C. Odden, Liang Ni, I-Chun Thomas, María E. Montez-Rath, and John J. Sim
See related editorial on page 1436.

1467 Arterial Stiffness and Chronic Kidney Disease Progression in Children
Karolis Azukaitis, Marietta Kirchner, Anke Doyon, Mieczyslaw Litwin, Aysun Bayazit, Ali Duzova, Nur Canpolat, Augustina Jankauskiene, Rukshana Shroff, Anette Melk, Uwe Querfeld, and Franz Schaefer, on behalf of the 4C Study Investigators

1477 Apolipoprotein L1 Genotypes and the Association of Urinary Potassium Excretion with CKD Progression
Titilayo O. Ilori, Jing Liu, Aylin R. Rodan, Ashish Verma, Katherine T. Mills, Jiang He, Cheryl A. Winkler, Josée Dupuis, Cheryl A.M. Anderson, and Sushrut S. Waikar
Clinical Nephrology

1487 Point-of-Care Ultrasound Training during Nephrology Fellowship: A National Survey of Fellows and Program Directors
Catherine A. Moore, Daniel W. Ross, Kurtis A. Pivert, Valerie J. Lang, Stephen M. Sozio, and W. Charles O’Neill IV
See related editorial on page 1442.

Maintenance Dialysis

1495 Implementation and Effectiveness of a Learning Collaborative to Improve Palliative Care for Seriously Ill Hemodialysis Patients
Manjula Kurella Tamura, Laura Holdsworth, Margaret Stedman, Annette Aldous, Steven M. Asch, Jialin Han, Clenda Harbert, Karl A. Lorenz, Elizabeth Malcolm, Amanda Nicklas, Alvin H. Moss, and Dale E. Lupu
See related editorial on page 1433.

Transplantation

1506 Employment Status and Work Functioning among Kidney Transplant Recipients
Tim J. Knobbe, Daan Kremer, Femke I. Abma, Coby Annema, Stefan P. Berger, Gerjan J. Navis, Sijrike F. van der Mei, Ute Bültmann, Annemieke Visser, and Stephan J.L. Bakker, on behalf of the TransplantLines Investigators
See related Patient Voice on page 1431.

1515 Comparison of 2021 CKD-EPI Equations for Estimating Racial Differences in Preemptive Waitlisting for Kidney Transplantation
Elaine Ku, Sandra Amaral, Charles E. McCulloch, Deborah B. Adey, Libo Li, and Kirsten L. Johansen
See related editorial on page 1439.

Research Letter

1522 Genome-Wide Epistatic Interaction between DEFIB and APOL1 High-Risk Genotypes for Chronic Kidney Disease

Insights from the USRDS

1526 Associations of COVID-19 Outcomes with Dialysis Modalities and Settings
Eric D. Weinhandl, Jiannong Liu, David T. Gilbertson, James B. Wetmore, and Kirsten L. Johansen

Critical Care Nephrology and Acute Kidney Injury

1535 Postoperative Acute Kidney Injury
Naomi Boyer, Jack Eldridge, John R. Prowle, and Lui G. Forni

Kidney Case Conference: How I Treat

1546 Rituximab in the Frail and Elderly with Severe ANCA-Associated GN
Silke R. Brix and Vladimir Tesař

Perspectives

1549 Drug Development for Cystic Kidney Diseases
Sorin Fedeles and Ronald D. Perrone
See related Perspectives on pages 1551, 1555, and 1559, respectively.

1551 Perspectives on Drug Development in Autosomal Recessive Polycystic Kidney Disease
Max C. Liebau, Erum A. Hartung, and Ronald D. Perrone
See related Perspectives on pages 1549, 1555, and 1559, respectively.

1555 Perspectives on Drug Development in Early ADPKD
Djalila Mekahli, Hayley Womack, and Neera K. Dahl
See related Perspectives on pages 1549, 1551, and 1559, respectively.
On the Cover

What is the diagnosis?

A 41-year-old male with history of HIV/AIDS (CD4 10 cells per cubic millimeter; noted nonadherence to antiretroviral therapy) presented with shortness of breath. He was hypoxic and in circulatory shock on arrival, requiring intubation and vasopressors. AKI was present on arrival (serum creatinine 3.5 mg/dl from 0.8 mg/dl). Blood cultures grew methicillin-sensitive \textit{Staphylococcus aureus}, and kidney function continued to worsen with development of oliguria, requiring KRT via nontunneled right internal jugular catheter. Kidney dysfunction persisted, and 8 days later, a tunneled dialysis catheter was placed. During this procedure, a thrombus adherent to the original nontunneled catheter was noted.

Image Description:

Left image: The internal jugular vein (#) appears in cross section within which is a central venous catheter (*) with adherent thrombus (arrow). Right image: Manual compression redemonstrates these findings and makes the carotid artery partially visible.

Teaching Points:

Catheter associated thrombosis (CAT) is a common complication of central venous catheters. The risk factors for CAT include device-related factors (large catheter size to vein diameter ratio, number of lumens and catheter size, catheter material), improper technique (multiple insertion attempts, improper tip position), and patient factors (cancer, age, obesity, and critical illness). A 14 French (4.66-mm catheter; 1 French=0.33 mm) dialysis catheter inserted into a central vein in an immobilized, bacteremic, critically ill patient creates a high-risk situation violating all components of Virchow’s triad. Management depends on the size and location of the thrombus. A localized thrombus near the insertion site only, as in our case, generally can be managed with catheter removal without therapeutic anticoagulation. The management of a centrally located CAT requires further evaluation and a multidisciplinary treatment plan including anticoagulation and/or surgical intervention (1,2).

References:


(Images and text provided by Michael George, Cleveland Clinic Foundation, Department of Kidney Medicine, Cleveland, Ohio; James Lane, Cleveland Clinic Foundation, Critical Care, Respiratory Institute, Cleveland, Ohio; and Tushar Vachharajani, Cleveland Clinic Foundation, Department of Kidney Medicine, Cleveland, Ohio)