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Special Feature

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Erratum

891 Correction

 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? Microscopic examination of the spun urine sediment often provides a window into a patient's disease. In patients with hematuria, a number of different urinary red blood cells (RBCs) may be seen. Most commonly, isomorphic or normal appearing RBCs are noted, typically indicative of non-glomerular bleeding from the kidney, collecting system, bladder, or urethra. The most common causes of isomorphic urinary RBCs are nephrolithiasis and renal or other genitourinary cancers. However, non-isomorphic RBCs may also appear in the urine; some unique examples are pictured on this CJASN cover. In the upper left panel, sickled RBCs are present. Hematuria occurs in approximately 3-4% of patients with sickle cell disease. These RBCs are similar in morphology to the sickled RBCs found on peripheral blood smear. Case reports describe the diagnosis of sickle cell disease following recognition of these RBCs in patients presenting with hematuria. Acanthocytes, the classic dysmorphic RBC found in the urine most often reflects glomerular bleeding. In patients who present with hematuria, RBC casts and acanthocytes are usually indicative of glomerular injury from an underlying glomerulonephritis or other form of glomerular injury. Elliptocytes, as seen in the lower left panel are elongated RBCs, which are classically described as "cigar shaped". These RBCs are extremely rare in the urine. These cells were observed in the urine of a patient with hemolytic anemia, which was associated with elliptocytes in the peripheral blood. Dacrocytes, like elliptocytes are rarely seen in the urine and reflect peripheral blood dacrocytes that enter the urine following glomerular injury. These cells, noted in the lower right panel are "tear drop" shaped and are a form of poikilocyte, sometimes found in patients with myelofibrosis and myelophthistic anemia. (Images and text provided by Jose Antonio Tesser Poloni, Irmandade da Santa Casa de Misericordia de Porto Alegre, Porto Alegre, Brazil, and Mark A. Perazella, Yale University, New Haven, Connecticut)