



Obstructive nephropathy: simple yet complicated!

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Received: 17 October 2018 / Accepted: 23 October 2018 / Published online: 1 November 2018
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It is a standard practice to exclude obstructive nephropathy in any patient presenting with acute kidney injury as prompt intervention can lead to improvement or complete recovery of renal function. Obstruction to urinary flow may occur at any site in the urinary tract, and the causes vary with the age of the patient. Congenital anatomic abnormalities account for the majority of cases in children, while calculi are most common in young adults. Prostatic disease and intra-abdominal malignancy have to be considered in older adults [1].

A 72-year-old woman with a history of Crohn's disease on Vedolizumab therapy, hypertension and chronic kidney disease stage III (baseline serum creatinine ~ 1.4 mg/dL) presented with worsening pedal edema and decreased urine output. She also complained of drenching night sweats, and a dry cough for about a week. Blood pressure at presentation was 221/72 mmHg despite being compliant with home anti-hypertensives. Serum creatinine was 5.8 mg/dL, and a focused renal sonogram revealed bilateral mild

hydronephrosis (Fig. 1, top panel). A Foley catheter was placed, but the renal function continued to worsen. Repeat sonogram demonstrated a large heterogeneous mass around the left kidney in addition to worsening hydronephrosis (Fig. 1, bottom panel). A computed tomography (CT) scan of the abdomen done on the same day demonstrated an enlarging multilobulated retroperitoneal soft tissue mass encasing the left kidney. There was a similar mass involving the right kidney, but to a lesser extent (Fig. 2). Bilateral ureteral stents were placed, and the patient's renal function improved to 2.3 mg/dL over the next few days. Her blood pressure stabilized as well. Biopsy of the left retroperitoneal mass revealed aggressive B cell lymphoma, and the patient was started on chemotherapy. Interestingly, she had been on Vedolizumab therapy for her inflammatory bowel disease about a year prior, and review of a CT scan from 10 months prior to presentation did not reveal any signs of malignancy.

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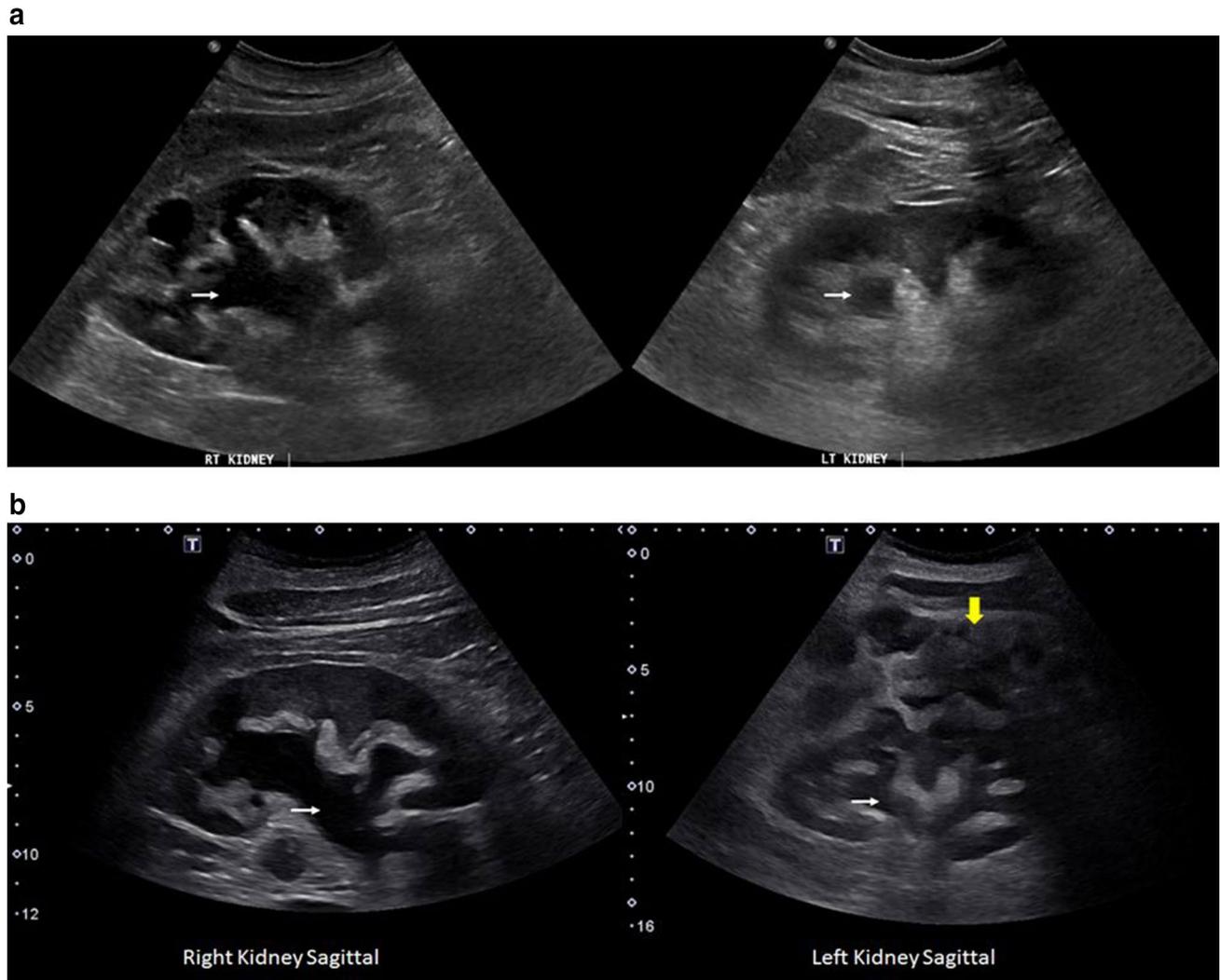


Fig. 1 Top panel: Renal sonogram at presentation demonstrating bilateral mild hydronephrosis (arrows). Bottom panel: Repeat renal sonogram demonstrating increasing hydronephrosis (white arrow),

as well as a large heterogeneous mass around the left kidney (yellow arrow) (color figure online)

Our case has several teaching points: (1) though uncommon, lymphoma can present as obstructive nephropathy; (2) ‘focused’ renal ultrasonography, especially in the emergency

department, is a good initial test to detect hydronephrosis, but may not always identify the cause; (3) obstructive nephropathy can present with hypertensive urgency, which



Fig. 2 CT scan of the abdomen demonstrating a multilobulated retroperitoneal soft tissue mass (arrow) encasing the left kidney (LK) causing its displacement anteriorly and superiorly. Similar mass involving the right kidney (RK) can be noted, but to a lesser extent (arrow)

may be due to retained salt and water, because of oligoanuria or activation of the renin–angiotensin system [2]; and (4) Vedolizumab, a humanized anti- α -4- β -7 integrin

monoclonal antibody used for the treatment of inflammatory bowel disease, can be associated with B cell lymphoma. However, a single case study cannot establish causative relationship.

Author contributions Both the authors made substantial contribution to the preparation of this manuscript and approved the final version for submission.

Financial support None.

Compliance with ethical standards

Conflict of interest The authors have declared that no conflict of interest exists.

Statement of human and animal rights This article does not contain any studies with animal or human subjects performed by any of the authors.

Informed consent Obtained from the patient for their anonymized data to be published.

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