Pyogenic Renal Abscess Masquerading as Malignancy

Dear Editor,
Renal abscess may arise from both an initial urinary tract infection and hematogenous spreading of bacteria from a primary focus of infection outside the kidney.[1] We present a case of pyogenic renal abscess which presented to us masquerading as renal malignancy.

A 64-year old male farmer presented in the emergency unit of Medical College, Kolkata with history of painless hematuria for 1 month and severe loss of weight and appetite for 2 months. There was a history of single episode of fever for 1 day without chills and rigors, about 1 month ago. There was no history of tuberculosis.

On examination the patient had severe pallor, tachycardia but no fever and no obvious swelling palpable per abdomen. The renal angle was nontender. His hemoglobin on admission was 5.7 g% and the total count of white blood cells was 4500. His erythrocyte sedimentation rate was 15 mm/h and C-reactive protein was 3.4 mg/l (normal < 10 mg/l). Ultrasonography showed a hypoechoic lesion 3.1 × 2.5 cm at the lower pole of the right kidney. The patient was non-diabetic and did not have any features suggestive of vesico-ureteral reflex, nephrolithiasis or urinary tract obstruction.

The patient received 6 units packed cell transfusion and was put on intravenous ciprofloxacin 500 mg IV twice daily which the patient received for 5 days. Contrast-enhanced CT scan showed right kidney having

![Contrast-enhanced CT of the patient showing the right kidney having irregular low density lesion with perirenal collection. Left kidney appears normal](image-url)

**Figure 1:** Contrast-enhanced CT of the patient showing the right kidney having irregular low density lesion with perirenal collection. Left kidney appears normal
irregular low-density lesion with perirenal fluid collection. Left kidney, ureters, urinary bladder, and prostate were normal [Figure 1]. Urine for culture sensitivity showed growth of *Escherichia coli* with colony count of 100,000/ml sensitive to norfloxacin. The patient was then put on oral norfloxacin 400 mg twice daily for 14 days.

History and presentation were suggestive of renal malignancy, but CECT showed a low-density lesion and urine had no malignant cell. Pyogenic abscess was a possibility but the patient had no burning sensation of urine, single episode of fever without chills and rigor or back pain and total count of white blood cells was also normal. Tubercular abscess was another possibility as the patient presented with pallor and weight loss but his chest X-ray was normal, sputum and urine for acid fast bacilli was negative, and a Montaux test was also negative.

Repeat hemoglobin was after 2 weeks of presentation was 9.8 g% and the total count of white blood cells was 4000. A CT-guided fine-needle aspiration biopsy was planned for the patient for a definite diagnosis, but a repeat ultrasonography before the procedure showed both kidneys to be normal. A thin rim of perirenal collection was seen around the right kidney with minimal collection noted in hepatorenal pouch of Morrison. The lesion had vanished! The patient had been on oral norfloxacin for about 2 weeks. The patient was then asked to continue the antibiotic for 2 more weeks. On follow-up, after 6 months of discharge the patient was asymptomatic with normal kidneys on ultrasonography.

Image-guided renal biopsy is safe, reliable, and accurate. It changes clinical management in many cases avoiding nephrectomy or other surgical options. It should be promoted as a potentially useful option for managing suspicious or indeterminate renal masses. This case did not require image-guided biopsy but one should not hesitate in cases of suspicious renal lesions.

Various conditions seem to predispose to renal abscesses urinary tract infection, urinary calculi, and diabetes mellitus being a common cause. Treatment of renal abscess requires at least 4 weeks of antibiotic therapy according to etiological agent. Larger abscess may require parenteral antibiotic or surgical intervention if fever or symptoms do not settle down.

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