Spontaneous reno-colic fistula as initial presentation of renal cell carcinoma

Case 15065

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Section: Uroradiology & genital male imaging
Area of Interest: Abdomen
Procedure: Diagnostic procedure
Procedure: Contrast agent-intravenous
Technique: CT
Special Focus: Neoplasia Case Type: Clinical Cases
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Patient: 62 years, male

Clinical History:

The patient presented with non-specific abdominal pain in the right lumbar region with vague history of occasional fever.

Imaging Findings:

The plain abdominal radiograph showed a vague soft tissue in the right lumbar region with mottled air lucencies in the inferior aspect of the soft tissue. Right renal margins were unclear. A CT scan was performed with clinical suspicion of emphysematous pyelonephritis. CT scan showed irregular heterogeneously enhancing mass lesion at the lower pole of the right kidney with air lucencies within. A fistulous communication with the adjacent ascending colon was noted with air from the colon continuous with the renal mass. A lytic lesion was seen in one of the lumbar vertebral bodies. Based on imaging findings a diagnosis of reno-colic fistula was made with renal malignancy.

Discussion:

Most reno-colic fistulas are the result of infections like tuberculosis, trauma and rarely carcinomas [1]. In total there are about 130 reported cases in literature [2]. In renal malignancies reno-colic fistulas have been reported after radiofrequency ablation [3]. Spontaneous reno-colic fistula as initial presentation in a case of renal cell carcinoma [RCC] is rare. With the history of fever one would suspect infectious cause as the aetiology with the appearance of air pockets in the renal parenchyma rather than a malignancy. However, recognition of the underlying mass and careful identification of the fistulous communication would be crucial for surgical management. Differential diagnosis in our case would be an infection such as emphysematous pyelonephritis, tuberculosis, that too in a developing country where the prevalence of genitourinary tuberculosis is high. However, with the presence of a heterogeneously enhancing mass in the lower pole of the right kidney, also with a lytic lesion in the lumbar vertebral body (suggestive of metastasis) renal malignancy is the first diagnosis, which in our patient was proved clear cell carcinoma by histopathology.
**Differential Diagnosis List:** Reno-colic fistula with renal cell carcinoma, Emphysematous pyelonephritis, Renal tuberculosis

**Final Diagnosis:** Reno-colic fistula with renal cell carcinoma

**References:**

**Description:** Radiograph showing air lucencies in the right lumbar region at the lower pole of the right renal shadow. **Origin:** Kidwai cancer institute
**Description:** Contrast enhanced CT axial section at the level of right renal lower pole with air lucencies. Fistulous communication with the ascending colon can be seen (arrow).

**Origin:** Kidwai cancer institute
Description: Contrast enhanced CT axial section at the level of right renal lower pole with air lucencies. Fistulous communication with the ascending colon can be seen (arrow). Origin: Kidwai cancer institute
Description: Axial CT section in bone window: A lytic lesion is seen in the lumbar vertebral body suggestive of metastasis (star). Air in the renal mass is seen (arrow). Origin: Kidwai Cancer Institute