Renal myxoma: An unforeseen diagnosis

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Summary
Myxomas are rare tumours that can be found in many anatomical locations. There are only 17 cases of renal involvement documented. Our case is an 85 year-old man followed in our Institution since January 2017 for bladder tumour. After treatment, the patient had completely symptom-free and the annually routine CT didn’t show relapse. He died one year and a half after the surgery from myocardial infarction.

Imaging findings
Ultrasound: Renal ultrasound revealed a solid nodular lesion in the middle third of the left kidney with about 23 x 18 mm. Right Kidney had no alterations.
CT: CT scan confirmed a solid lesion partially obliterating the left inferior calyx, suspected of urothelial neoplasia (Figures 1, 2). MRI was not done in our case, as the patient had a past history of urothelial tumour, and CT was high suspicious for urothelial neoplasia.
Renogram: He performed renogram showing normal renal function (Left Kidney - 57% and Right Kidney 43%).

Pathological findings
Lesion within renal parenchyma adjacent to the renal pelvis, circumscribed, somewhat lobulated, composed of plump mildly atypical spindle cells distributed in a copious myxoid matrix. Immunohistochemical staining for Vimentine, Pankeratin (AE1/AE3-), CD34, CD31 and smooth muscle actin were negative. With these histopathological and immunohistochemical findings, the case was diagnosed as renal myxoma.

Case presentation
We present an 85-year-old man, followed in our Institution since January 2017 for bladder tumour. After surgery the patient maintained haematuria. Follow-up cystoscopy (3 months after the surgery) did not show lesions suggestive of relapse. The patient had an emergency in June 2017 due to massive haematuria with clots and with repercussion in the hemogram, hemoglobin of 6.5 g/dL, receiving two units of erythrocyte concentrate. Evaluation with Computed Tomography (CT) showed a solid lesion with 23 x 18 mm partially obliterating the left inferior calyx (Figures 1, 2). At this time, surgery was recommended for this patient not only due to malignant features on CT but also for his past history of urothelial tumour. He underwent a left laparoscopic nephroureterectomy. After one year of follow-up, the patient was well and completely symptom-free and the annually routine CT didn’t show relapse. He died one year and a half after the surgery from myocardial infarction.

Discussion
There is no reports of specific clinical presentation for renal myxoma and, due to its rarity, renal myxoma is often mislead with other malignant lesions (1). When there were clinical manifestations, flank pain was the most common presenting symptom reported in the 17 cases (2). It is known so far that there is no invasion, metastasis or tumour recurrence (3). In our renal myxoma case, the patient had concomitant past history of...
Renal myxoma is a large heterogeneous mass in imaging, predominantly hyperechoic in ultrasonography (US) and hypodense in CT. Myxomas characteristics in imaging is a relatively regular, multilobulated and well-defined mass, only displacing the adjacent structures without invading them. Therefore, pre-operative imaging cannot confidently distinguish myxoma from other renal masses and therefore histopathological confirmation is the only reliable way of doing so. In this context, what is the role of percutaneous biopsy? In general, a biopsy should be performed only to avoid unnecessary or incorrect treatment. Appropriate laboratory and diagnostic imaging tests should be exhausted first. Only when these steps prove to be inconclusive should a patient be subjected to the risks, discomfort, and expense of a biopsy (4). In our case, as the patient had a history of urothelial bladder tumour, and the CT was highly suspicious for urothelial neoplasia, a percutaneous biopsy was not indicated.

As the radiological characteristics are very close to those of malignancy, they must be treated as malignant tumors, with the patient being surgically treated. For most cases reported, nephrectomy was the treatment of choice due to suspicion to malignancy. Although imaging is required to differentiate a myxoma from malignancy. Advanced imaging models such as CT guided biopsy can help us to get closer to the diagnosis, but for definitive diagnosis, we need immunohistochemistry evaluation (5). Tumour enucleation of the myxoma would be enough not only for diagnosis but also for treatment, and overall prognosis of this disease is good (1).

CONCLUSIONS

- Renal myxomas are extremely rare mesenchymal tumours of the kidney.
- The radiological characteristics are very close to those of malignancy, therefore they must be treated as malignant tumors.
- Pathological evaluation is needed to differentiate a myxoma from malignancy.
- If the diagnosis of the lesion before surgery is renal myxoma for sure, the best treatment option would be, tumour enucleation.

REFERENCES


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