A case of schwannoma in kidney

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Abstract: Schwannoma is a tumor derived from the Schwann cell of the peripheral nerve sheath and frequently occurs in the head, neck, or extremities. Schwannoma is extremely rare in the kidney, which has nonspecific symptoms and limited radiologic features, and is often diagnosed histologically after surgery. In this study, we report a case of a left renal schwannoma which was misdiagnosed as renal cell carcinoma and confirmed after the surgical removal of the affected kidney.

Key Words: Kidney; schwannomas; nephrectomy

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A 66-year-old man presented with half a month of intermittent painless gross hematuria. Physical examination was unremarkable, but the contrast-enhanced computed tomographic images revealed a solid lesion protruded into the renal sinus at the lower pole of the left kidney (*Figure 1*). The mass was assumed to be a renal cell carcinoma and the patient underwent a left radical nephrectomy. Gross specimen showed a 2.7 cm × 2.5 cm × 2.0 cm mass centered in the renal parenchyma with a brown to yellow colored interior (*Figure 2*). Under microscopic examination the lesion revealed spindle cells arranged in palisading fashion (Antoni A) and loose textured pattern (Antoni B) (*Figure 3*). The tumor cells showed immunoreactivity for S100 protein and NSE (neuron specific enolase), the positivity of cell proliferation marker Ki67 was less than 1%. These findings confirmed a diagnosis of renal schwannoma. The patient was discharged in the 5th postoperative day with no complications and he remained free from recurrence after 6 months of clinical observation. The majority of schwannomas are benign. Although it rarely arises in the kidney, it should be considered in the differential diagnosis with other renal tumors, which may prevent unnecessary radical nephrectomy.

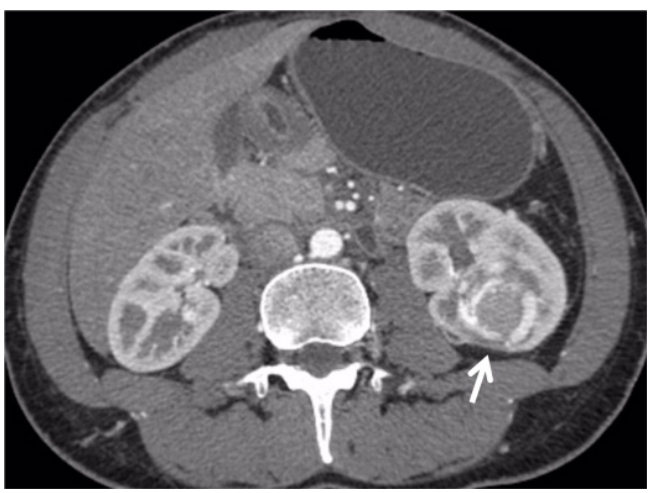

Figure 1 CT shows a solid lesion protrudes into the renal sinus at the lower pole of the left kidney

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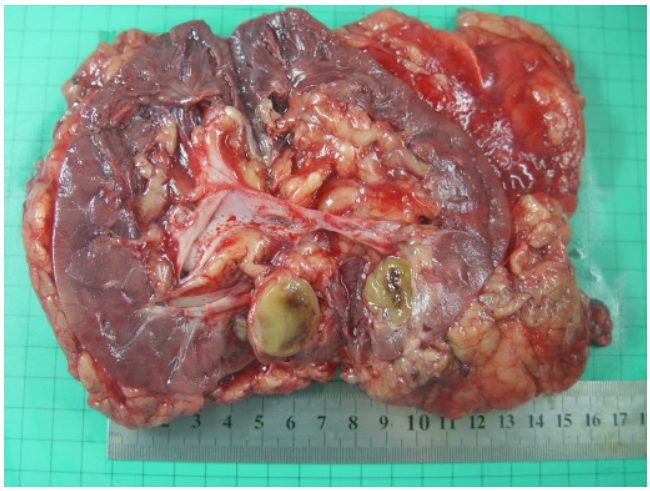

Figure 2 Gross pathologic examination shows a nodular mass of yellow to brown colored tissue with clear margin and the compression of the surrounding renal parenchyma

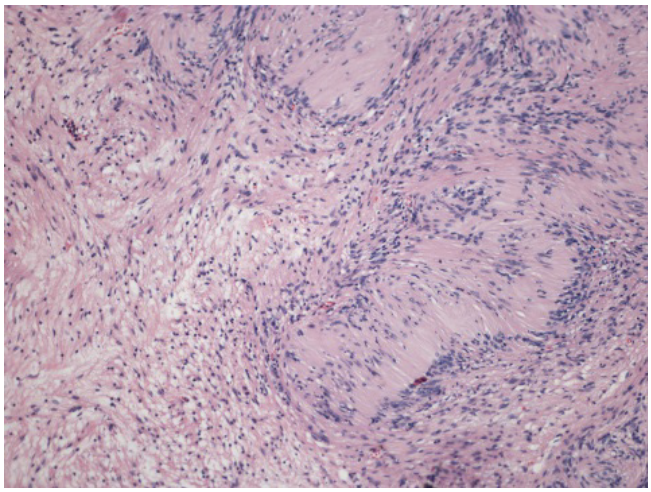

Figure 3 Pathological results (H&E stain ×100) demonstrate the tumor is characterized by a mixture of Antoni A and Antoni B patterns

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