

PHOTO QUIZ

What is your diagnosis?



Fig 1. The collecting system of the right kidney is distorted by the tumoral mass



Fig 2. Hypoechoic renal mass

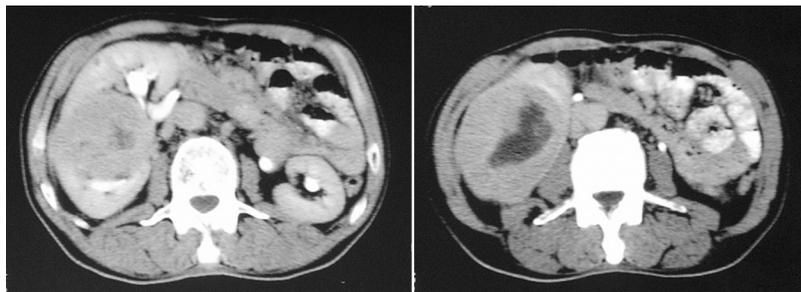


Fig 3. Well-defined tumoral mass with an enhancing central scar on CT

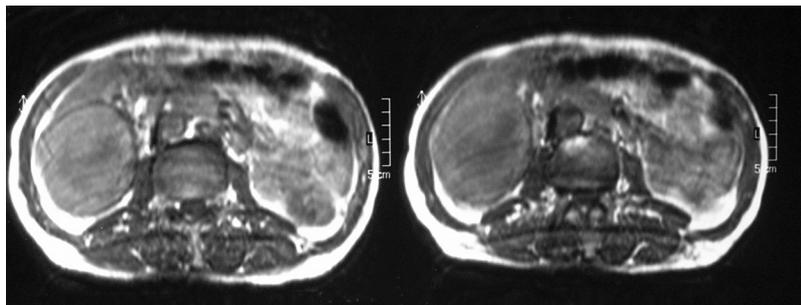


Fig 4. T1WI, non-fatty tumor in the kidney

A 64-year-old man was admitted in our department for MR imaging of a renal mass. He had history of right flank pain with intermittent hematuria for 4 months. He did not report fever, anorexia or significant weight loss during that period. He had excretory urography (Figure 1), ultrasound (Figure 2) and an enhanced abdominal CT (Figure 3) completed by MR study (Figure 4). The diagnosis was confirmed by pathology after surgery.

Diagnosis: Oncocytoma

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Oncocytoma is a benign renal epithelial neoplasm which comprises 3-7% of primary renal tumors. Men are affected twice as often as women and its peak is at the seventh decade of life.¹ Most oncocytomas are detected incidentally as a big mass (more than 7cm). However, it may cause pain, hematuria or flank mass.² On excretory urography it appears as a solid nonspecific renal mass. On sonography it appears as a smooth hypoechoic lesion. Rarely, central scar is detectable at sonography.³

On CT, it is mostly a well-defined mass with sharp borders. Central stellate non-enhancing scar is best seen on CT, but is not pathognomonic. MRI reveals a low signal intensity mass on T1WI which differs from

the high or intermediate signal often seen in renal cell carcinoma.² Angiography showed a vascular tumor with spoke-wheel peripheral vasculature.⁴

References

1. Sternberg SS. Diagnostic surgical pathology. 3rd ed. Philadelphia: Lippincott Williams and Wilkins; 1999:1799-1800
2. Dunnick NR, Sandler CM, Newhouse JH, Amis SJR. Renal tumors. In: Textbook of urology. 3rd ed. Philadelphia: Lippincott Williams and Wilkins, 2001 : 132-133
3. McGahan. Diagnostic ultrasound: a logical approach. Philadelphia: Lippincott-Raven, 2000: 807-808.
4. Rickards D, Jones S. The kidneys. In: Sutton D. Textbook of radiology and imaging. 6th ed. Edinburgh: Churchill Livingstone, 1998:1150