Renal cell carcinoma with extension to the heart

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A 59-year-old woman with hypertension presented with right flank pain. Magnetic resonance imaging of the abdomen revealed a 9 cm × 8 cm right renal mass and a filling defect (tumour extension) in the inferior vena cava (IVC), with protrusion into the right atrium (Figure 1).

Transthoracic echocardiography showed a large mobile mass (Figure 2) protruding from the IVC into the right atrium. The patient underwent radical right nephrectomy and excision of the mass from the IVC and right atrium. Microscopic examination of the renal mass and its intracaval and intracardiac extension demonstrated renal cell carcinoma of clear cell type. The patient remained stable on follow-up examination.

Figure 1) Magnetic resonance imaging of the abdomen showing a 9 cm × 8 cm right renal mass and a filling defect (tumour extension) in the inferior vena cava (thin arrow) with protrusion into the right atrium (thick arrow)

Figure 2) Transthoracic echocardiogram showing a large mobile mass (arrow) protruding from the inferior vena cava (IVC) into the right atrium. Ao Ascending aorta; RV Right ventricle

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