Pathology (February 2007) **39(1)**, pp. 164–167

TEST AND TEACH

An interesting retroperitoneal mass Part 1

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CASE REPORT

A 45-year-old Caucasian woman living in Brisbane, Australia, presented to her general practitioner with increased urinary frequency and urgency over a 6-month period, not associated with haematuria or pain. Physical examination was unremarkable. Serial urine dipsticks, microscopy and cultures were normal. Pelvic ultrasound examination revealed a solid mass abutting the inferolateral aspect of the right kidney measuring up to 75 mm. Computed tomography showed the tumour at a higher resolution, and demonstrated focal involvement of the renal capsule and subjacent cortex. The radiological differential diagnosis was primary renal carcinoma, oncocytoma or connective tissue tumour (Fig. 1). The mass was removed as part of a radical nephrectomy. The resection specimen showed the tumour in retroperitoneal fat, attached to the capsular surface of the kidney, and bulging into subjacent renal parenchyma (Fig. 2). It was not encapsulated. Figures 3 and 4 show the H&E microscopic findings at medium and high power. Figure 5 demonstrates positivity of one of a panel of immunohistochemical stains (HMB45). Other stains performed but not shown included CAM5.2, vimentin, epithelial membrane antigen (EMA), CD10, CD56, synaptophysin, S-100, cytokeratin 7, cytokeratin 20 and neuron specific enolase (NSE). None of these stained positively. The patient did not have a personal or family history of tuberous sclerosis. She remains well more than 12 months after the operation.

Received 8 December, revised 21 December 2005, accepted 11 January 2006

See page 166 for explanation and diagnosis

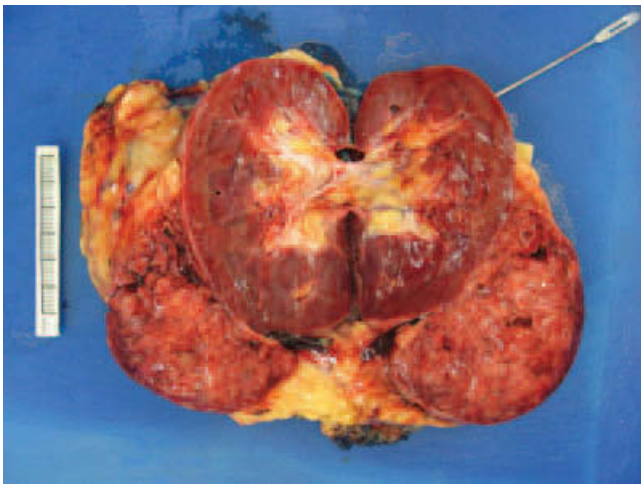

Fig. 2 Tumour located at the inferior pole of the right kidney. The cut surface is soft, friable and pinkish-red. The tumour is well demarcated but there is no distinct capsule.

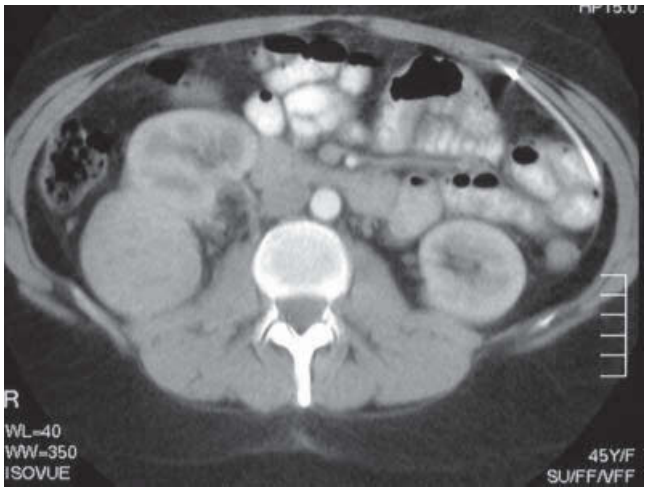

Fig. 1 CT of lesion adjacent to inferior pole of right kidney, with some contrast enhancement, but predominantly homogeneous internal architecture.

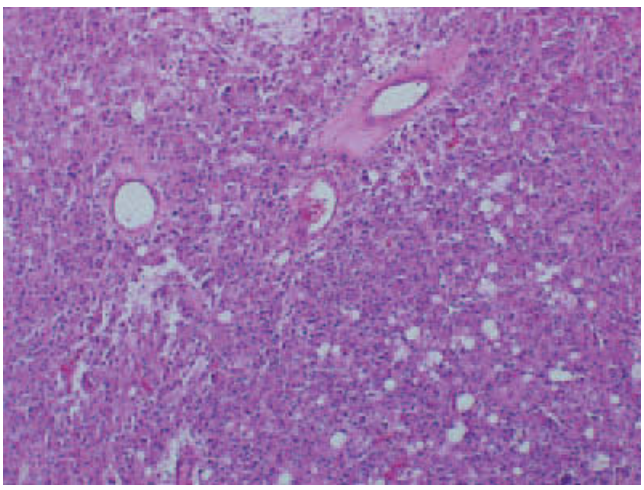

Fig. 3 Tumour displays relative homogeneity, with no areas of haemorrhage or necrosis. Occasional mature adipocytes are interspersed throughout the tissue (H&E, ×100).

ISSN 0031-3025 printed/ISSN 1465-3931
DOI: 10.1080/00313020601123847

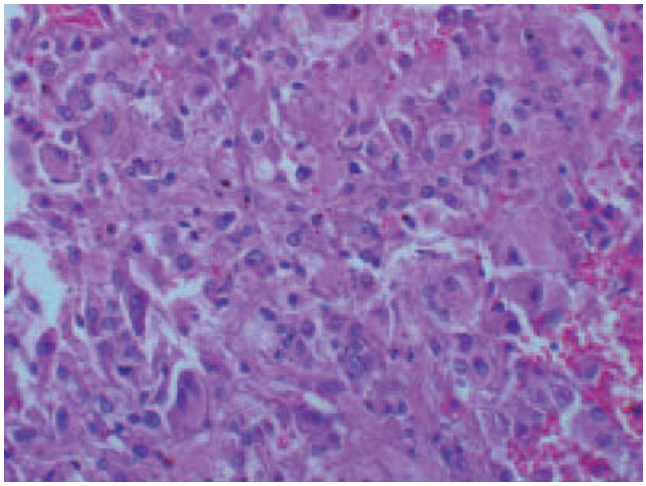

Fig. 4 Large epithelioid cells with abundant eosinophilic cytoplasm and occasional bizarre cytological forms constitute the majority of the tumour (H&E, ×400).

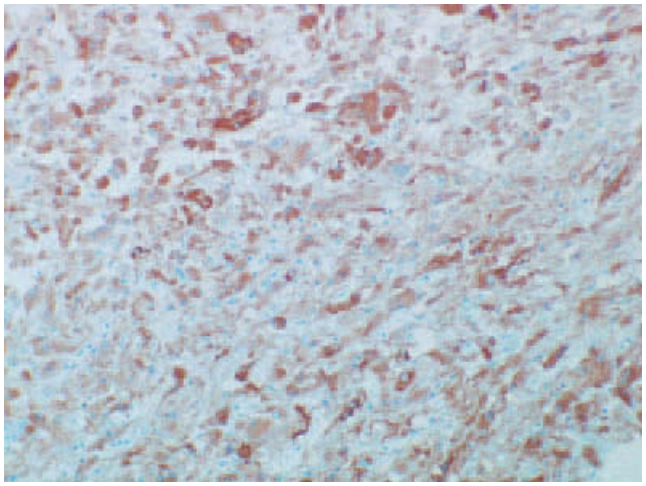

Fig. 5 Strong, diffuse, positive staining for HMB45 (×200).