Solitary Fibrous Tumour of the Retroperitoneum Mimicking a Renal Mass

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Authors report a case of solitary fibrous tumour of the retroperitoneum that mimicked a renal mass. A review of the literature and a discussion on the biologic meaning of the lesion are presented.

Solitary fibrous tumour is the name generally given to a neoplasm that most frequently occurs in the pleura [1–3].

The occurrence of such a neoplasm at sites other than the pleura had been sporadically reported [4–6], with a very few occurring in the abdominal cavity [7, 8].

We report here a case of retroperitoneal solitary fibrous tumour that caused considerable diagnostic problems due to its unusual site of origin.

Case report

A 51-year-old Caucasian woman was referred to our Institute for evaluation of a left renal mass in a single functioning kidney discovered during a screening for renal failure. Her past medical history revealed that she was subjected to right nephrectomy for tuberculosis in 1972. In 1990 she was again evaluated by us for symptoms suggesting early painful bladder disease; she underwent bladder distension with definitive improvement. By that time the medical history was mute until the present problem.

On admission creatinine was 134 μmol/l (n.v.: 44–115 μmol/l), Na 141 mmol/l (n.v.: 136–145 mmol/l), K 4.1 mmol/l (n.v.: 3.5–5.0 mmol/l), Cl 108 mmol/l (n.v.: 96–108 mmol/l). Urine examination was normal.

Ultrasonography performed elsewhere showed a hyperechoic renal mass about 6 cm in diameter.

She was then subjected to a CT scan that demonstrated a mass about 7 cm in diameter extending from the renal pelvis and involving the renal parenchyma with post-contrast enhancement (Fig. 1). Surgical planning also included arteriography. The patient was then subjected to explorative laparotomy; this revealed an apparently capsulated, well circumscribed, firm mass involving the middle third of the kidney but easily dissectable from it (Fig. 2). The postoperative course was uneventful; on discharge creatinine was 144 nmol/l.
Fig. 1. CT shows a mass of 7 cm extending from the renal pelvis and involving the parenchyma with post-contrast enhancement

Fig. 2. Surgical specimen

Histology

The lesion presented a cellular density area greater at the periphery, with pleomorphic round/ovalar and spindle cells, scanty cytoplasm in a myxoid component of collagenized and haemangiopericytoma-like areas. We found no necrotic areas and mitoses were very rare (1×10 HPF) (Fig. 3). The immunohistochemical finding showed strong positivity to vimentin (HHF 35 was positive for the vascular areas); keratins, desmin, neuroendocrine marker (S-100) and EMA were negative.