Images in Nephrology
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A giant sarcomatoid renal cell carcinoma

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Case report

A 42-year-old male patient was hospitalized for lower leg oedema, shortness of breath and body-weight loss of 5 kg over a 2-month period. Physical examination identified a pale appearance, cachexia, and a palpable abdominal mass of about 20 $\times$ 18 cm$^2$ in the right abdomen. Ultrasound study verified the existence of a massive right-side abdominal heterogeneous tumour. Due to renal failure with severe metabolic acidosis, the patient underwent haemodialysis.

Abdominal computed tomography (CT) with contrast (Figure 1) and angiography (Figure 2) demonstrated a substantial right-side renal tumour, roughly 28 cm in size. The tumour directly invaded the right lobe and caudate lobe of the liver, right retroperitoneum space and hepatic flexure of the colon. Close attachment of the tumour with the duodenum and pancreatic head was noted in addition to displacement. Inferior vena cava (IVC) was effaced and the adrenal gland was encased by the huge tumour. Kidney biopsy confirmed the diagnosis of sarcomatoid RCC.

Sarcomatoid renal cell carcinoma (RCC), first described by Farrow \textit{et al.} in 1968, is defined pathologically by highly pleomorphic spindle cells and/or giant cells resembling sarcoma, with varying degrees of clear or granular epithelial cells that characterize RCC. A sarcomatoid component is indicative of an aggressive tumour \cite{1}. RCC can generate many paraneoplastic manifestations. Common paraneoplastic syndromes of RCC are cachexia, hypertension, anaemia, non-metastatic hepatic dysfunction, erythrocytosis and amyloidosis. Clinically, sarcomatoid RCC is associated with poor prognosis, due to locally aggressive and potential metastasis \cite{2}. Recognizing paraneoplastic syndrome can facilitate prompt diagnosis and intervention. Cytoreduction of the primary malignancy is the mainstay therapy.

Conflict of interest statement. None declared.

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Fig. 1. Contrast computed tomography demonstrated a right-side renal tumour with heterogeneous density invading the right lobe and caudate lobe of the liver.
Fig. 2. (A and B). Angiography indicated that the IVC is compressed and severely invaded by the tumour without intraluminal thrombosis.

References


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