

Diagnostic Images

Abdominal mass

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The patient

A male aged 65 presented with left-flank and lower chest pain and shortness of breath. On examination there was a large left upper abdominal mass and a large left pleural effusion confirmed by sonography.

Investigation

Computed tomographic scan of the abdomen.

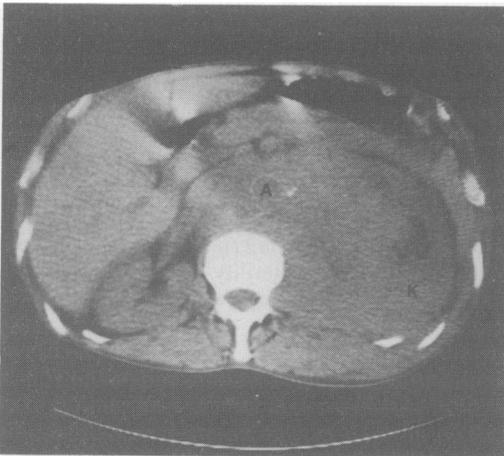


Figure 1 Non-enhanced CT demonstrates a large left upper quadrant mass, engulfing the aorta (A) with minimal wall calcification and a few spots of calcification in the left renal artery. The kidney (K) is displaced laterally merging with the mass.

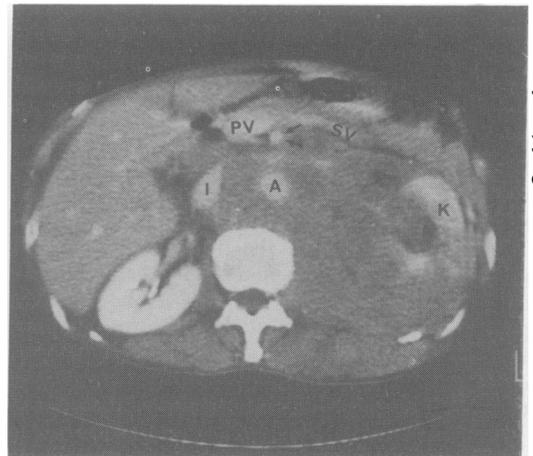


Figure 2 Following contrast enhancement the inferior vena cava (I) can be seen displaced to right, the aorta (A) surrounded by the mass and the residual left kidney infiltrated by tumour both in the parenchyma and renal hilum. The splenic (SV), portal vein (PV) and superior mesenteric artery (arrows) are displaced anteriorly.

Comment

Large abdominal mass lesions involving a kidney may be benign such as cysts or angiomyolipoma both readily recognized by virtue of their specific features, round well defined, water attenuation areas in the case of cysts and mixed fatty soft tissue density lesions in angiomyolipomas. Benign mass lesions by definition do not have associated lymphadenopathy. Malignant mass lesions disrupt the renal anatomy with irregular margins and show irregular contrast enhancement. Renal cell carcinoma has very irregular enhancement and may have lymphadenopathy but these lymph nodes are usually discrete, and slightly to moderately enlarged. Metastases to a kidney may have similar appearances but are much less common. Other malignant tumours such as sarcoma are rare but lymphoma, especially non-Hodgkin's lymphoma, is apparently more common in Africa and Asia than in the West.

In this case CT shows massive paraaortic lymphadenopathy, becoming continuous with the mass infiltrating the left kidney. The tumour itself is homogeneous and does not enhance following intravenous contrast medium. These features are highly suggestive of non-Hodgkin's lymphoma, subsequently proven by percutaneous biopsy.

Acknowledgements

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References

1. Moss, A.A. Computed tomography of the kidneys. In: Moss, A.A., Gamsu, G. & Genant, H.K. (eds), *Computed Tomography of the Body*, Academic Press, New York and London, 1980, chapter 15, p. 801.