

^{99m}Tc -DTPA dynamic imaging of left retroperitoneal paraganglioma

To the Editor: We wish to present a 41 years old male who underwent spiral computed tomography (CT) and was found to have an heterogeneous huge tumor mass 17.2×13.4cm at the upper pole of the left kidney.

The left kidney was larger than normal and pressed downwards. Three days later the patient underwent a further enhanced CT scan (Fig. 1). To assess renal function, the dynamic technetium-99m-diethylenetriaminepentaacetic acid (^{99m}Tc -DTPA) scintigraphy was performed in the posterior view (Fig. 2, 3).

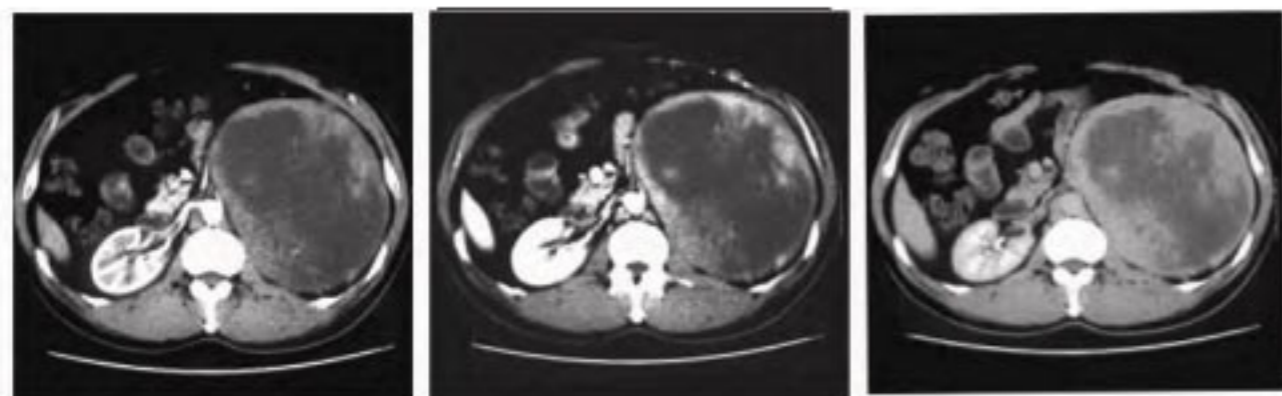


Figure 1. Contrast-enhanced CT Scans, from left to right: The arterial phase showed that behind left abdominal membrane, between spleen and kidney, a huge soft tissue mass was seen with irregular enhanced image in its edge, and blood vessels. Venous phase showed that more enhanced images were seen at the mass edge and less low density images in the mass. At delay phase, the degree of enhanced image was reduced at the edge of mass and non enhanced images were seen at the low density area.

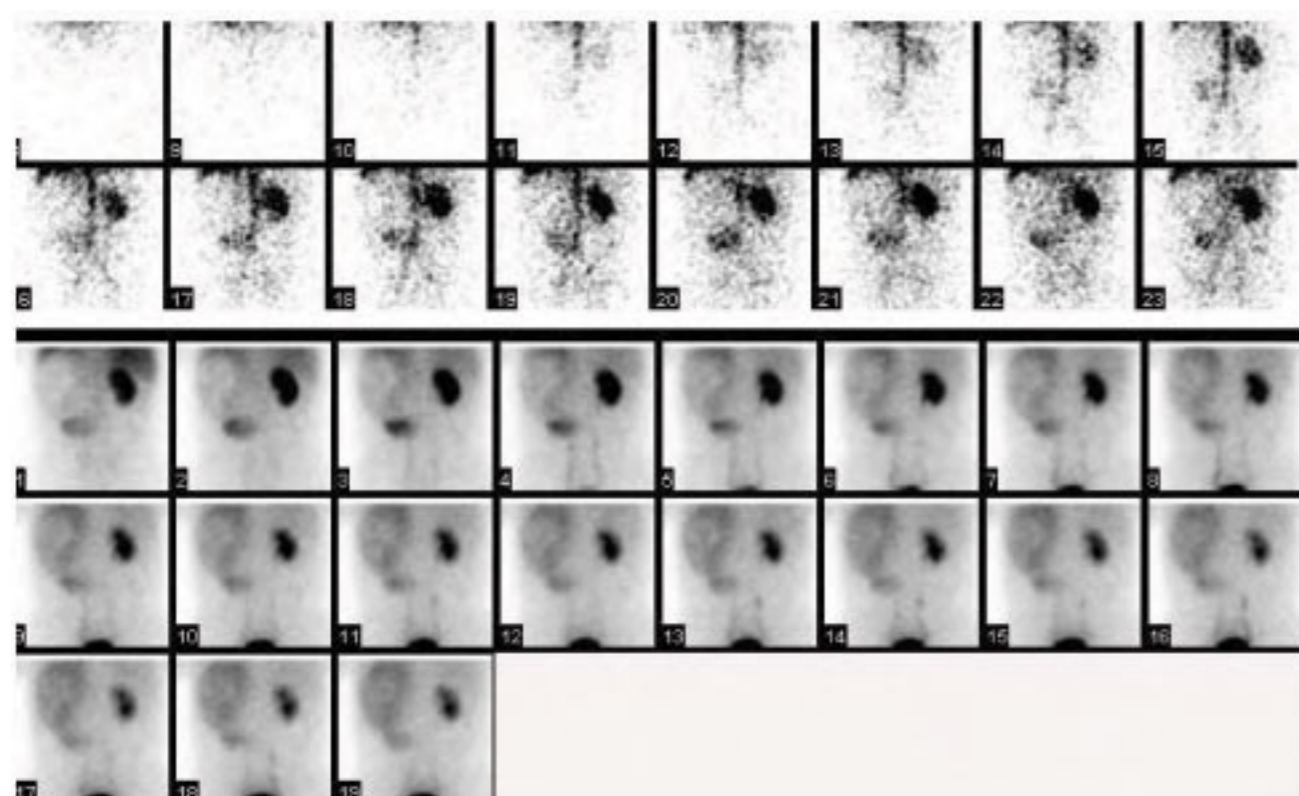


Figure 2. Renal dynamic imaging, posterior view. The bloodstream phase imaging showed obscure renal images in the left renal and a photopenic area at the location of the mass. Interestingly, abnormally increased activity in the mass area was found in the function phase.

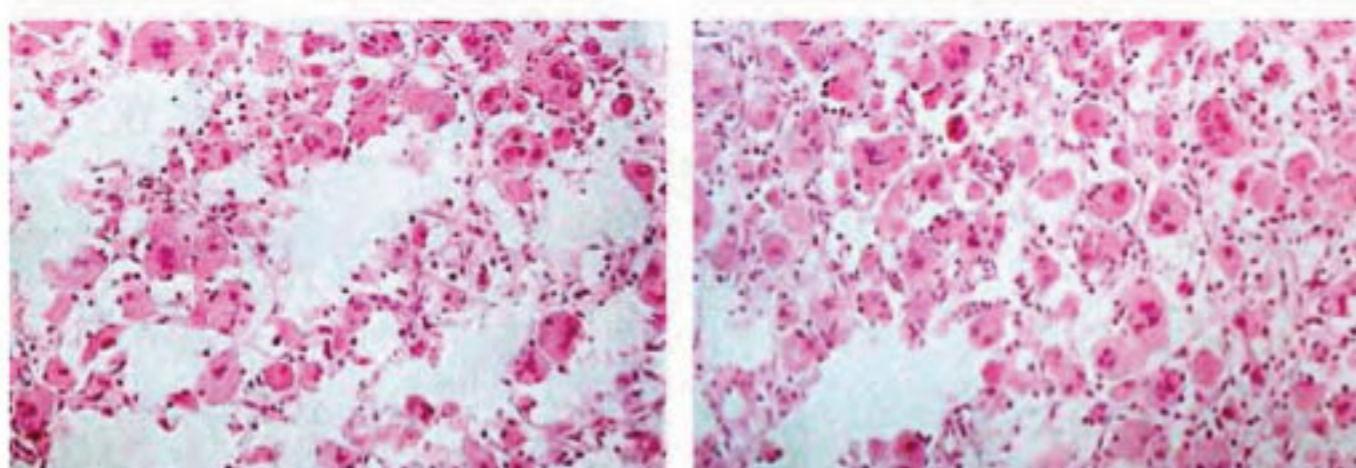


Figure 4. Histopathological examination. Paraganglioma. HE stain, ×200.



Figure 3. Renal delayed imaging, posterior view. Delayed image was acquired after about 120min, and then the most intense radiotracer accumulation was observed, which was later confirmed to be retroperitoneal paraganglioma.

The patient subsequently underwent surgery, and pathology examinations were performed on the surgical specimens. Photomicrography showed the tumor cells arranged as aciniform, the cells volume was bigger than normal and in the cytoplasm more basophilic granulo-chromatin was seen. Many more than usual blood capillaries, blood sinuses and fibrous tissue were seen in the stroma (Fig. 4). Immunohistochemistry results showed: Creatine kinase (CK) (+), vimentin(+), synaptophysin (syn)(+), chromogranin A (CgA)(+). Pathologic diagnosis was paraganglioma.

There are some reports using ^{99m}Tc -DTPA to indicate its use in some neoplasms [1-4]. Here we contrasted briefly the findings of ^{99m}Tc -DTPA dynamic imaging and the enhanced CT scan. *In conclusion*, this case illustrates the utility of dynamic ^{99m}Tc -DTPA scintigraphy in left retroperitoneal paraganglioma, indicating the mass of though the mechanism of uptake is not entirely understood.

Bibliography

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