

Octreotide scanning in the detection of metastatic renal cell carcinoma

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Case report

A 63-year-old lady underwent right-sided nephrectomy for renal cell carcinoma (RCC) in 1991. She required a further nephrectomy in 2003 for RCC in the contralateral side rendering her haemodialysis dependent. Following 2-year disease free survival she was considered for transplantation. An initial CT scan of the abdomen in 2005 raised the possibility of bone metastases, promoting further investigation; however, isotope bone scanning and MRI revealed degenerative changes only. Her oncologist advised yearly surveillance CT scans following transplant listing. Following the routine work-up she was activated on the UK transplant deceased donor waiting list.

A CT scan in 2007 demonstrated two hyperdense lesions within the head and body of the pancreas, and a radioisotope octreotide scan was performed to exclude a non-functional neuroendocrine tumour. Appearances on the 24 and 48 h octreotide images demonstrated intense tracer accumulation within the left gluteus medius and the right-proximal vastus medialis muscles, confirmed on single photon emission computed tomography (SPECT) (Figure 1).

An ultrasound-guided muscle biopsy of the right-proximal vastus medialis muscle was performed which demonstrated a highly vascular clear cell tumour in keeping with metastatic RCC. Endoscopic ultrasound-guided fine needle aspiration (FNA) of the pancreatic lesions also demonstrated a vascular clear cell tumour. The patient remains completely asymptomatic. Given the low volume and

low turnover of her metastatic disease, interferon therapy has been deferred at present.

Following the diagnosis of *in situ* tumours such as RCC, European Best Practice Guidelines (EBPG) recommend a waiting time of at least 2 years before consideration for transplantation [1]. However, case reports have documented latency periods for recurrent RCC of up to 19 years [2]. Surveillance CT in this case proved to be useful.

Although skeletal muscle RCC metastases have been described, it is a rare occurrence. CT scanning is the method of choice in detecting usual sites of metastases [3]. In this case, skeletal muscle metastases were detected as an incidental finding as a result of investigating two hyperdense pancreatic lesions on CT.

RCC express somatostatin receptors that have the potential to be visualized with octreoscan scintigraphy [4]; however, this appears to be the first case of skeletal muscle metastases being detected using octreotide scanning.

Conflict of interest statement. None declared.

References

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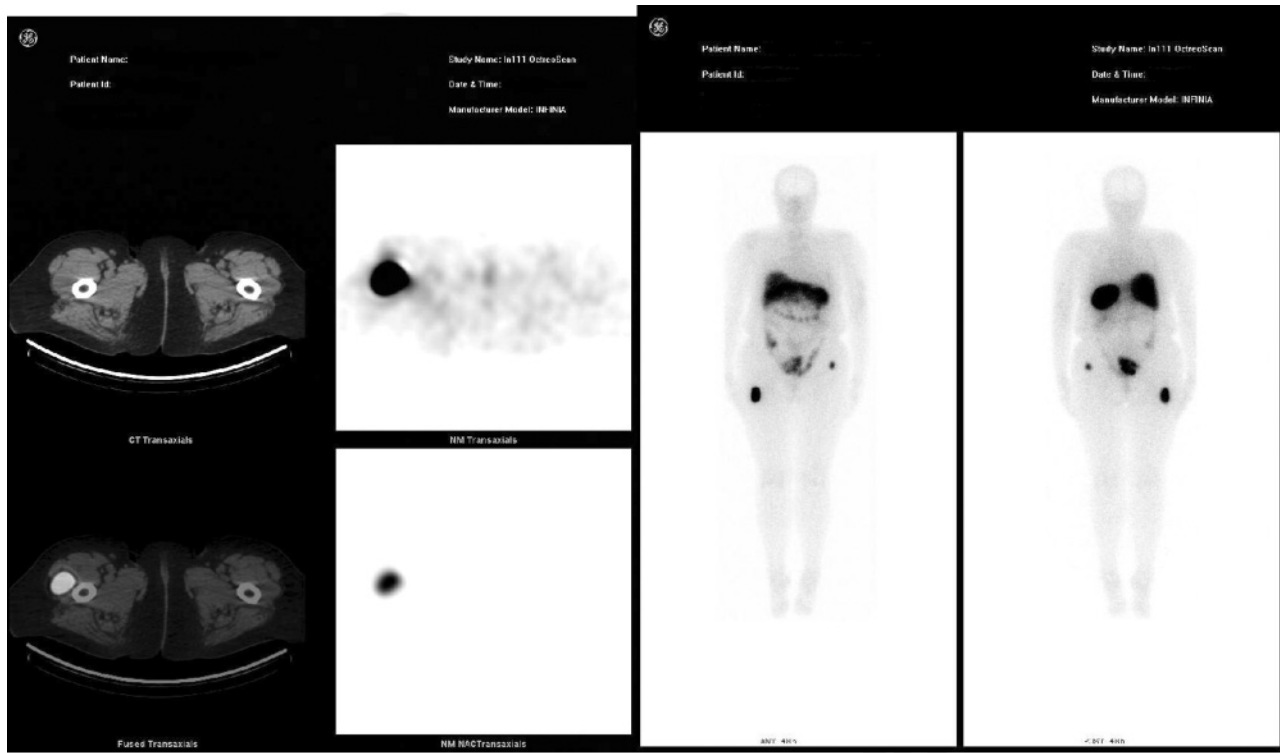


Fig. 1. Radioisotopes octreotide scan images demonstrating intense tracer accumulation within the left gluteus medius and the right proximal vastus medialis muscles, confirmed on single photon emission computed tomography (SPECT).