

Images in...

A full house of metastatic carcinoid disease

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These are images of an elderly man presenting with back pain, weight loss and diarrhoea. Clinical examination revealed peripheral oedema, pan-systolic murmur and a non-tender mass in his left iliac fossa. Abdominal CT revealed a calcified mass in the left iliac fossa with a characteristic spoke wheel appearance of carcinoid tumour (see arrow in figure 1) and solid and cystic liver lesions, consistent with multiple metastases.

An ¹¹¹In-Octreotide examination demonstrated somatostatin-receptor-positive metastatic disease in the liver, abdominal lymph nodes and abnormal uptake in the bones, suggesting widespread skeletal metastases (figure 2 shows tumour sites identified by uptake of Octreotide, arrows indicate hepatic metastases and small bowel tumour). Transthoracic echocardiography revealed a thickened, immobile tricuspid valve, with mild tricuspid stenosis and severe regurgitation (figure 3; dense continuous wave Doppler signal through tricuspid valve representing severe tricuspid regurgitation).

Unfortunately, despite treatment, the patient died during the same hospital admission.

Neuroendocrine tumours are rare (incidence: 1.2–2.1 per 100 000 of the general population per year¹) malignancies originating from the enterochromaffin cells in the gastrointestinal tract, causing the release of vaso-active substances into the systemic circulation. The most common sites are the terminal ileum and appendix and up to 22% have evidence of liver metastases at diagnosis.²

Multiple imaging modalities assist in both the diagnosis of carcinoid disease and its complications. Large tumour burden, widespread disease and carcinoid heart disease are

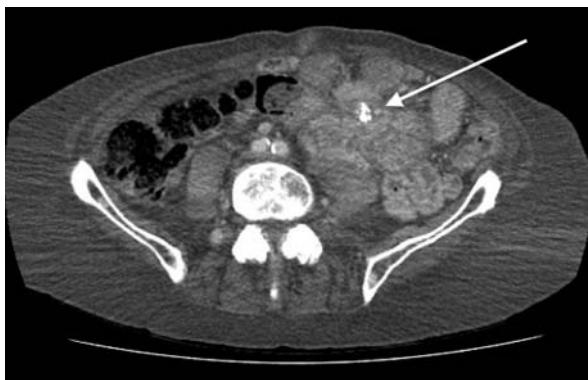


Figure 1 Abdominal CT scan.

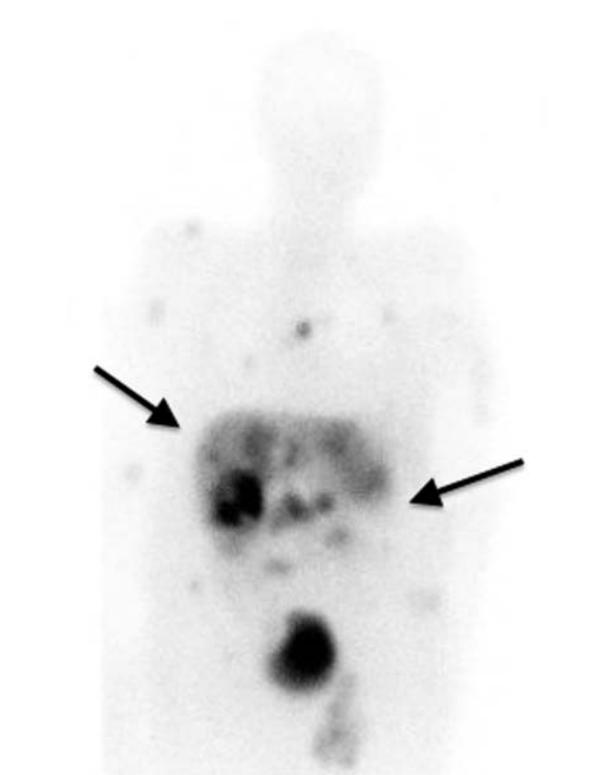


Figure 2 ¹¹¹Indium-Octreotide scan.

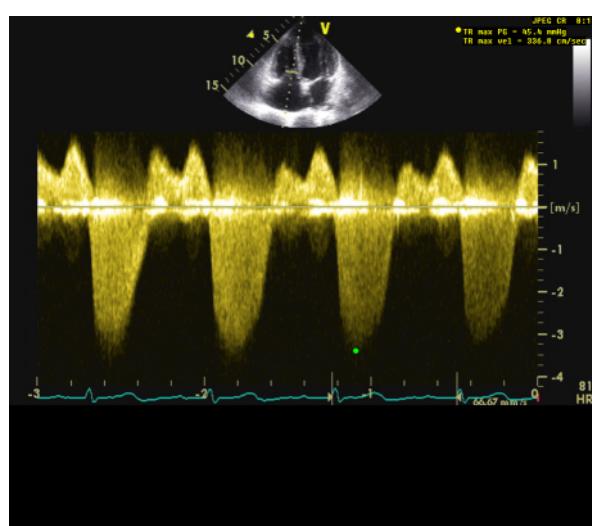


Figure 3 Transthoracic echocardiogram; continuous wave Doppler through a tricuspid valve.

poor prognostic indicators, and as typified by our patient, a poor outcome is almost inevitable with the combination of these factors.

Learning points

- An Octreoscan is a functional imaging modality that may be useful in localising the primary tumour site and in determining the extent of tumour burden in patients with neuroendocrine tumours.
- The combination of different imaging modalities may provide complementary information regarding disease burden and its multiple complications.
- Large tumour burden, widespread disease and carcinoid heart disease are poor prognostic indicators, and a poor outcome is almost inevitable with the combination of these factors.

Competing interest None.

Patient consent Obtained.

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