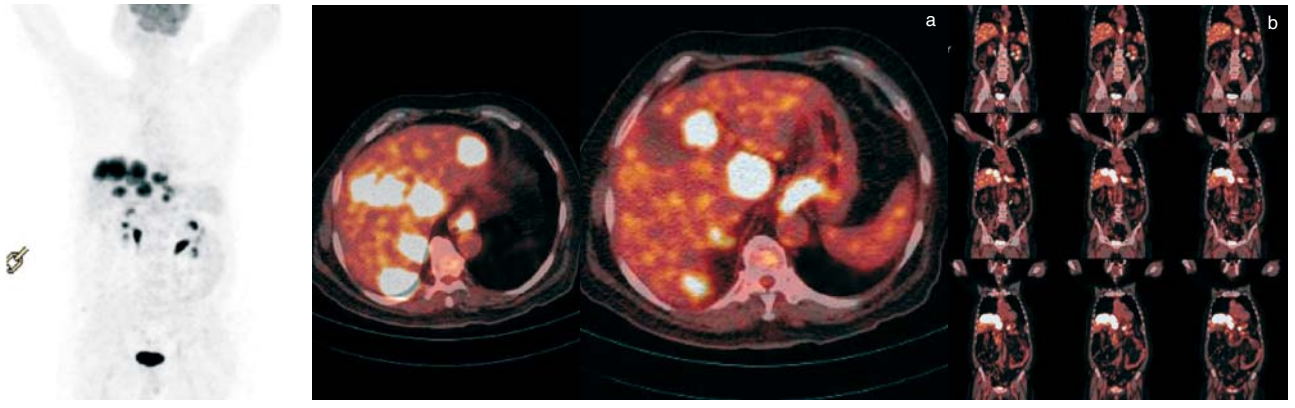
Metachronous second primary of the oesophagus detected by FDG-PET/CT in a patient with follicular variant of papillary thyroid carcinoma



FIGS 1a and 1b. Whole body FDG-PET/CT (a) MIP and (b) fused transaxial images showed intense FDG uptake in multiple hypodense lesions in the liver. The largest lesion measured 11.4×4.6 cm and SUV max 20.03. Intense FDG uptake was seen in the lower oesophagus at the gastro-oesophageal junction extending into the proximal stomach (SUV max 11.87).

A 71-year-old man, with follicular variant of papillary thyroid carcinoma, underwent total thyroidectomy and neck dissection followed by radioiodine ablation 2 years ago. His post-therapy whole body scan did not show any concentration except in the neck region. Subsequently, he was symptom-free for 2 years. He, recently, presented with abdominal discomfort and an ultrasound showed multiple, ill-defined, solid, irregular space-occupying lesions in the liver. Considering that (i) liver involvement from differentiated thyroid carcinoma is relatively uncommon; (ii) controlled serum thyroglobulin value was not consistent with thyroid primary; and (iii) the patient was on levothyroxine therapy, a whole body FDG-PET/CT (without contrast) was done before an ^{131}I scan and showed intense FDG uptake in multiple hypodense lesions in the liver (largest measuring 11.4×4.6 cm and SUV max 20.03; Figs 1a and 1b). Intense FDG uptake was also seen in the lower oesophagus at the gastro-oesophageal junction extending into the proximal stomach (SUV max 11.87) along with an enlarged FDG avid gastrohepatic lymph node (2.1×2.3 cm) with SUV max 15.17. An endoscopic biopsy showed that the growth was a poorly differentiated adenocarcinoma (grade 3) of the oesophagus.

Detection of an unsuspected second primary (either synchronous or metachronous) has been an important aspect of whole body FDG-PET/CT. This could be either in unsuspected incidentalomas or in the clinical oncology setting where metastases are not likely to be from the known primary and the tumour marker is normal/undetected. This could be useful because second primary cancers are the sixth commonest malignancy after those of the skin, prostate, breast, lung and colorectal carcinoma.[1,2]

REFERENCES

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