

Importance of diffuse versus focal F-18 fluoro-deoxy-glucose uptake in oesophagus

Sir,

A 60-year-old female patient presented with progressive dysphagia for solids for the past 18 months. The patient did not have any history of reflux symptoms or history of corrosive intake. Barium swallow study showed long segment narrowing involving the thoracic oesophagus. Contrast enhanced computed tomography showed smooth circumferential mural thickening. Positron emission tomography/computed tomography (PET/CT) was performed to look for any evidence of malignancy. Intense fluoro-deoxy-glucose (FDG) uptake was seen throughout the entire length of the thoracic oesophagus [Figures 1a-d]. Though FDG uptake was intense, benign pathology was suspected based on the diffuse uptake pattern. An upper gastrointestinal endoscopy (UGIE) showed inflamed hyperaemic indurated mucosa at about 20 cm and non-negotiable narrowing at 23 cm from the incisor. Biopsy revealed acute on chronic inflammation [Figure 1e and f] confirming benign pathology. The patient was then managed conservatively and was healthy until 1 year of follow-up.

The oesophagus is usually not avid for FDG. Inflammation can mimic oesophageal malignancy. FDG uptake in the oesophagus has been reported in benign pathologies.^[1-3]

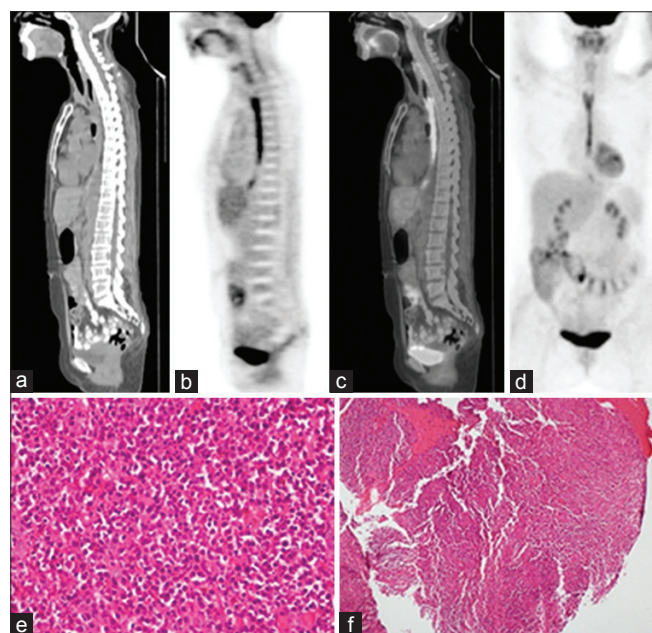


Figure 1: F-18 FDG PET/CT images Sagittal CT (a), PET (b), fused PET/CT (c) and MIP PET image (d) showing intense diffuse FDG uptake along the thickened thoracic esophagus. Eosin-Hematoxylin stained fragments (e and f) show acute and chronic inflammatory cells with abundant plasma cells along with extensive vascular proliferation, fibrin and hemorrhage

Combined focality-eccentricity score defined by Roedl, *et al*,^[4] may help in the interpretation of non-specific oesophageal uptake on PET/CT examinations and could assist in making the decision of referring to endoscopy. Candidial esophagitis masquerading esophageal cancer has been reported.^[5] Endoscopy has the highest malignancy yield when FDG uptake is focal and/or eccentric. FDG-PET, hence, could guide the biopsy site. Even though the FDG uptake was intense, the diffuse pattern of uptake in our case, directed the diagnosis towards a benign condition. The pattern of FDG uptake could guide while reporting FDG-PET/CT of patients with a suspicion of malignant oesophageal stricture.

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