Clinical summary

- Female 50 year-old with history of lower oesophageal carcinoma
- Pre-treatment scan revealed primary disease with a gastrohepatic node
- Treated with neoadjuvant chemotherapy with an intent to downstage disease prior to surgery
- PET/CT for evaluation of treatment response
Baseline PET/CT scan shows uptake at primary mass in lower oesophagus and a gastrohepatic node (arrow). Post-treatment scan shows significant but incomplete metabolic response to treatment in both primary and nodal lesions. Physiologic colonic activity is noted.
Clinical summary

- Male 78 year-old with a distal oesophageal carcinoma
- Presents for evaluation of therapy response after completion of 3 cycles of neoadjuvant chemotherapy
Baseline PET/CT shows intense FDG uptake in the thickened distal oesophagus with a complete metabolic response on post-treatment PET/CT, with the metabolic activity within physiologic limits, and a reduction in the circumferential oesophageal thickening on CT. Physiologic colonic activity is noted on both baseline and post-treatment scans.
Clinical summary

- Male 74 year-old with oesophageal squamous cell carcinoma treated with neoadjuvant chemoradiotherapy completed 3 months ago

- Presents for assessment of therapy response prior to surgery
PET/CT findings

Baseline PET/CT

Post-treatment PET/CT

There is PET/CT scan evidence of significant reduction in metabolism and size of the primary oesophageal carcinoma, indicating excellent response to neoadjuvant therapy. Residual moderate FDG activity along the mid-oesophagus may represent a combination of post-radiotherapy oesophagitis and small volume residual disease.
Teaching points

• FDG PET/CT may be useful to assess treatment response and confirm disease downstage after neoadjuvant chemotherapy.

• Correlation with histological findings on endoscopy, as FDG PET may have false positive findings in post-therapy oesophagitis.