

Focus: Esophagus



Figure 1



Figure 2

History

This is a case of a 57-year-old female with newly diagnosed esophageal cancer. Staging chest CT showed a very small nodule in the right upper lobe of the lung. There were also a few nonpathologic-sized lymph nodes in the mediastinum.

Finding

PET/CT showed a focus of intense uptake in the distal esophagus, two additional foci of hypermetabolism in the azygoesophageal recess and left perispinal region at the base of the heart (Figure 1). There is no significant uptake corresponding to the right upper lobe pulmonary nodule.

Follow-up

The patient received chemotherapy and radiation therapy. A repeat FDG PET was performed three months later, demonstrating complete resolution of the azygoesophageal uptake and the left perispinal uptake. There was residual uptake in the distal esophagus which can be related to post-radiation change or residual tumor (Figure 2). Follow-up CT scan again noted the small right upper lobe pulmonary nodule without significant change. PET findings upgraded the stage of this patient and thus changed the management plan. Moreover, PET proved useful for monitoring the therapy response.

Discussion

PET has been used to detect lymph nodes metastases that are undetectable on CT or endoscopic ultrasonography. Studies show that PET detects metastatic esophageal cancer in 15% of patients who were thought to have only localized disease on conventional images. PET can help monitor therapy response and predict overall survival and freedom from disease after induction therapy and resection in patients with esophageal cancer (1). Although thoracoscopic or laparoscopic staging is highly accurate, these procedures are invasive and have been replaced by PET at many institutions (2).