

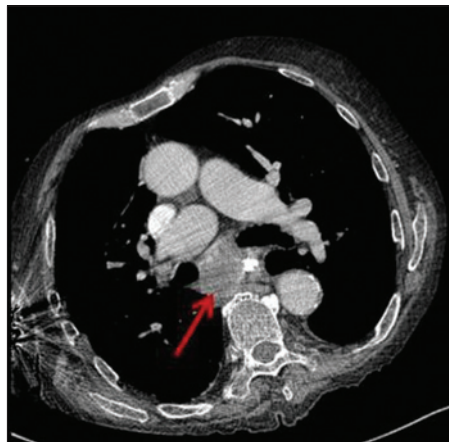
## Malignant mesothelioma presenting as dysphagia diagnosed by endoscopic ultrasound

**Badr Al-Bawardy, Emmanuel C. Gorospe, Cadman Leggett**

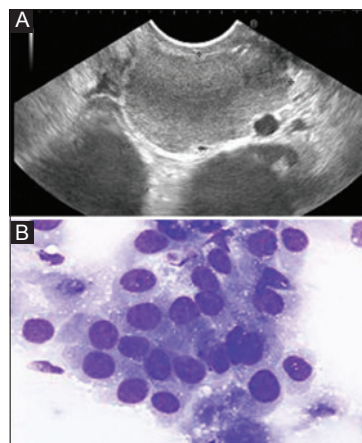
Mayo Clinic, Rochester, Minnesota, USA

Malignant mesothelioma is a tumor involving the pleura or peritoneum. It characteristically presents with dyspnea, pleural effusions and pleuritic chest pain. Its diagnosis is established by pleural fluid cytology or pleural biopsy [1]. Based on our literature review, there are less than 10 published cases of malignant mesothelioma in which the initial presentation was dysphagia and the diagnosis was established by endoscopic ultrasound (EUS) with fine needle aspiration (FNA) [2,3].

An 81-year-old man was referred to our hospital for worsening dysphagia. This was associated with unintentional 22 lbs (10 kg) weight loss in the past 3 months. He had underlying severe chronic obstructive lung disease and congestive heart failure. The physical examination was significant for cachexia and decreased bilateral breath sounds with occasional wheezing. He had a barium esophagogram which showed midesophageal narrowing. A computed tomography of the chest demonstrated a mediastinal mass (Fig. 1). He underwent an esophagogastroduodenoscopy which showed extrinsic esophageal compression but no evidence of an esophageal mass. EUS demonstrated an extra-esophageal, subcarinal mass that was sampled by FNA (Fig. 2A). Cytology was consistent with malignant mesothelioma (Fig. 2B). In light of his multiple medical comorbidities, the patient opted for palliative treatment. A percutaneous endoscopic gastrostomy tube was placed for nutritional support due to his ongoing dysphagia.



**Figure 1** Computed tomography scan of the chest demonstrating a 7 cm mediastinal mass (arrow)



**Figure 2** (A) Endoscopic ultrasound showing an extra-esophageal, subcarinal hypoechoic mass. (B) Fine needle aspiration cytology demonstrated malignant mesothelioma (1000x Diff-Quik stain). Immunostaining was positive for calretinin, CK5/6, D2-40 and WT1

Division of Gastroenterology and Hepatology, Mayo Clinic, Rochester, Minnesota, USA

Conflict of Interest: None

Correspondence to: Badr Al-Bawardy, M.D.,  
Division of Gastroenterology and Hepatology, Mayo Clinic, 200 First  
Street SW, Rochester, Minnesota,  
55905 USA, Tel.: +507 284 9456,  
e-mail: albawardy.badr@mayo.edu

Received 28 April 2014; accepted 29 April 2014

### References

1. Robinson BW, Lake RA. Advances in malignant mesothelioma. *N Engl J Med* 2005;353:1591-1603.
2. Bakdounes K, Jhala N, Jhala D. Diagnostic usefulness and challenges in the diagnosis of mesothelioma by endoscopic ultrasound guided fine needle aspiration. *Diagn Cytopathol* 2008;36:503-507.
3. Kahi CJ, Dewitt JM, Lykens M, et al. Diagnosis of a malignant mesothelioma by EUS-guided FNA of a mediastinal lymph node. *Gastrointest Endosc* 2004;60:859-861.