

# Dysphagia due to tubercular mediastinal lymphadenitis diagnosed by endoscopic ultrasound fine-needle aspiration

Malay Sharma, Adnan Rafiq<sup>1</sup>, Vijendra Kirnake

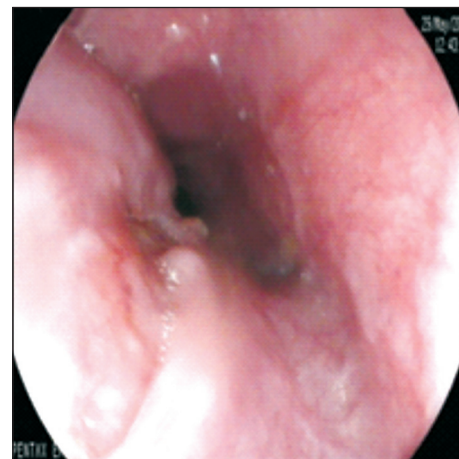
Jaswant Rai Speciality Hospital, Meerut, Uttar Pradesh, <sup>1</sup>ASCOMS and Hospital, Sidhra, Jammu Kashmir, India

A 50-year-old male presented with a history of dysphagia to solids, anorexia and weight loss for last 3 months without any pain during swallowing. EGD revealed an ulcerated lesion in the upper esophagus lesion at “27 cm from incisors” without any luminal narrowing [Figure 1]. Biopsy from ulcerated site was inconclusive. EUS revealed multiple large necrotic lymph nodes [Figure 2]. The cluster of lymph nodes was forming mediastinal abscess with breach in the esophageal wall [Figure 3]. EUS guided fine-needle aspiration (FNA) was done using the Pro Core (EchoTip Pro Core, Cook Medical, Bloomington) 22-gauge needle using “fanning” technique with 10 passes. On-site evaluation by pathologist revealed caseating granulomas [Figure 4a]. Smear examination revealed acid-fast bacilli positivity [Figure 4b]. CT chest revealed necrotic mediastinal lymphadenopathy [Figure 5a] with presence of air within the lymph node [Figure 5b].

fibrosis, ulceration and/or polypoidal lesions in the esophagus, or altered motility.<sup>[1-8]</sup> The esophagus provides an important window for the evaluation of mediastinal lymph nodes by means of EUS and EUS-FNA cytology and many operators prefer the use of esophagus as the route for obtaining tissue by EUS-FNA in benign mediastinal lymphadenopathy rather than bronchus.<sup>[9]</sup> EUS has been demonstrated to be an excellent tool for detection for tubercular mediastinal lymph nodes as well as to obtain specimens from these lymph nodes using FNA.<sup>[10]</sup> EUS features have been evaluated for differentiating between benign and malignant lymphadenopathy. On EUS, the tubercular lymph nodes are generally multiple, large, coalescing and predominantly found in the subcarinal, right hilar/paratracheal, aorto-pulmonary and lower para-esophageal regions. The lymph nodes are predominantly hypochoic

Patient was started on four drugs antitubercular treatment and were responding well to the treatment.

Esophageal mucosal involvement by tubercular lymphadenitis is rare. In patients with tuberculosis, dysphagia can occur because of various mechanisms like compression by the surrounding tubercular peri-esophageal lymph nodes, associated mediastinal



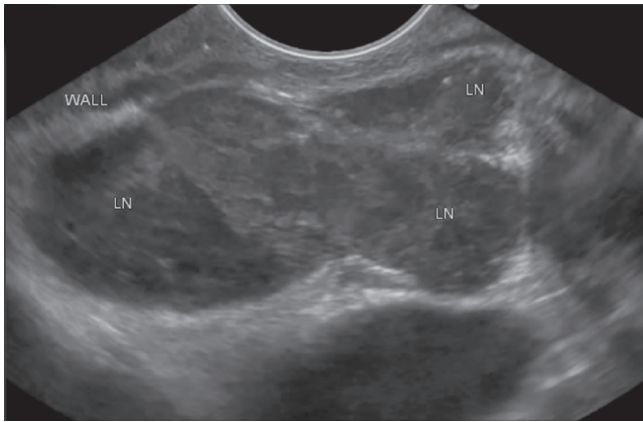
**Figure 1.** Esophagogastroduodenoscopy revealed an ulcerated lesion in upper esophagus lesion at 27 cm from incisors ± without any luminal narrowing

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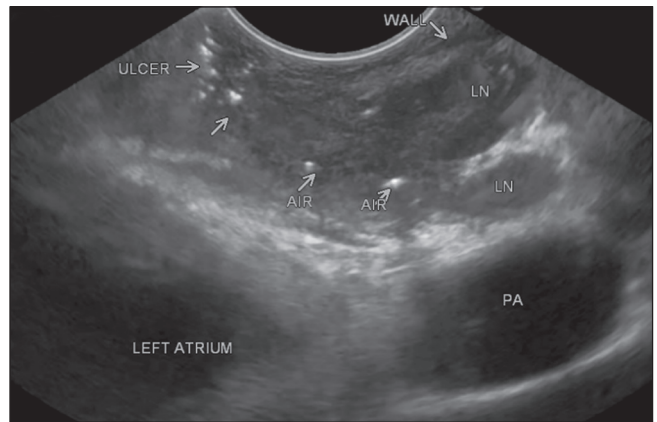
**Address for correspondence**

Dr. Malay Sharma, Jaswant Rai Speciality Hospital, Meerut, Uttar Pradesh, India. E-mail: sharmamalay@hotmail.com

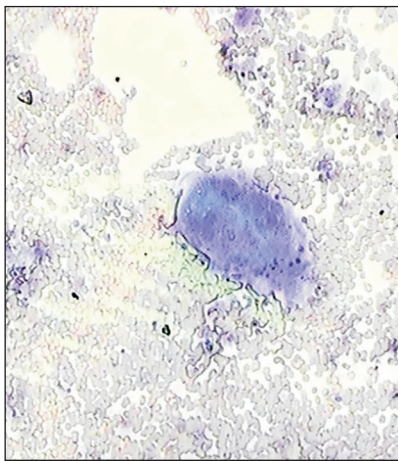
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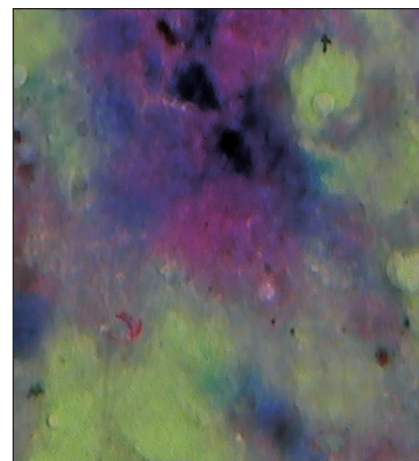
**Figure 2.** Biopsy from ulcerated site was inconclusive. Endoscopic ultrasound revealed multiple large necrotic lymph nodes



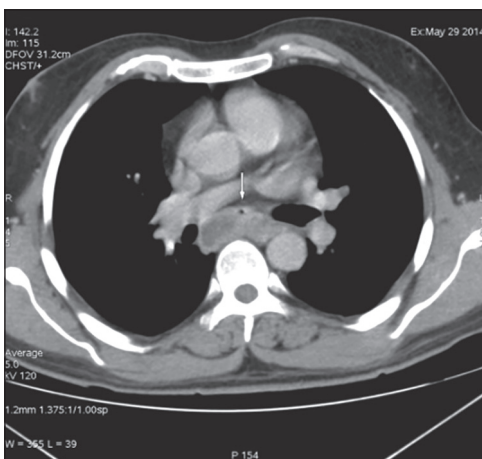
**Figure 3.** The cluster of lymph nodes was forming mediastinal abscess with breach in the esophageal wall



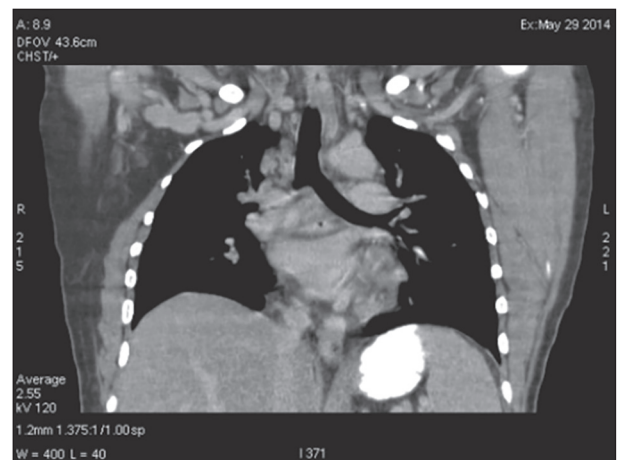
**Figure 4a.** Endoscopic ultrasound guided fine-needle aspiration was done using the Pro Core (Echotip Pro Core, Cook Medical, Bloomington) 22-gauge needle using fanning technique with 10 passes. On site evaluation by pathologist revealed caseating granulomas



**Figure 4b.** Smear examination revealed acid-fast bacilli positivity



**Figure 5a.** Computed tomography chest revealed necrotic mediastinal lymphadenopathy



**Figure 5b.** With presence of air within the lymph node

with anechoic areas representing necrosis.<sup>[10]</sup> EUS findings suggestive of malignant lymphadenopathy are size more than 1 cm, hypoechoic echotexture,

rounded contour and sharply demarcated border.<sup>[11,12]</sup> A large series has however shown that EUS features alone cannot reliably differentiate between malignant and benign lymphadenopathy.<sup>[13]</sup> The EUS features in this case support the pathogenesis of tubercular lymph nodes, which tend to liquefy initially in the central part,

followed by formation of coalescent nodes due to fusion of inner borders of adjacent lymph nodes. As the disease process evolves the outer boundaries of the cluster of lymph nodes may break down and produce an abscess.

In this patient, multi-modality approach was used for diagnosing this uncommon problem and patient were started on definitive treatment.

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