

Esophageal tuberculosis initially misdiagnosed by endoscopy as a submucosal tumor

A 65-year-old woman presented with dysphagia and retrosternal pain of 6 months' duration. She had no weight loss or past medical history. The results of physical examination and contrast-enhanced computed tomography of the chest were normal. Gastroscopy revealed a lesion in the middle esophagus with a bulging mucosa, smooth surface, and clear boundary (● Fig. 1 a). The lesion was considered to be a submucosal tumor, and biopsy specimens were not taken. The patient did not receive any treatment.

One month later, an ulcer with a clear boundary was observed endoscopically (● Fig. 1 b). Endoscopic ultrasonography showed the esophageal wall to be interrupted and incrassated, and hypoechoic lumps with heterogeneous internal echo were observed (● Fig. 1 c). Eight biopsy specimens were taken in areas suspicious for tuberculosis. Histopathologic examination of a specimen revealed acid-fast bacilli (● Fig. 2 a). The result of a polymerase chain reaction assay of the specimen was positive for tubercle bacilli (● Fig. 2 b). The patient then received antituberculosis treatment. The follow-up endoscopy 6 months later showed that the ulcer had healed with scar formation (● Fig. 1 d). The treatment lasted for a total of 12 months, with a satisfactory outcome.

Esophageal tuberculosis is extremely rare, and it is often misdiagnosed and inappropriately treated [1]. In the patient we report here, a submucosal tumor was diagnosed at first, and therefore treatment was delayed. Some doctors believe that it can be difficult to diagnose esophageal tuberculosis because evidence of infection, such as the isolation of tubercle bacilli and caseous necrosis, is not usually detected. This case shows that when esophageal submucosal bulges are found

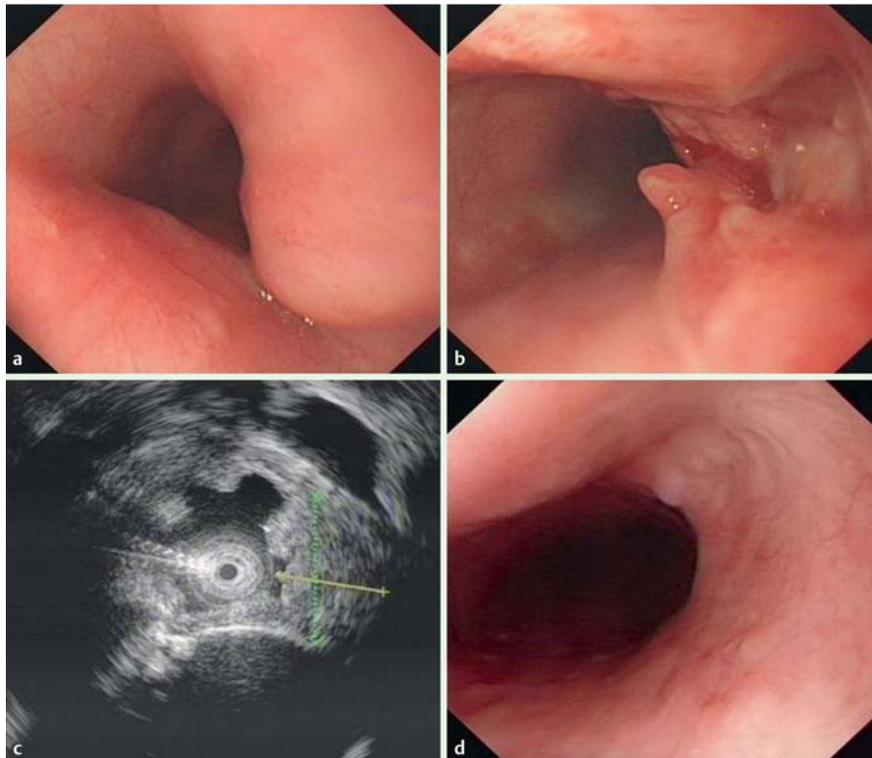


Fig. 1 Esophageal tuberculosis is initially misdiagnosed by endoscopy as a submucosal tumor. **a** The initial gastroscopy reveals a lesion in the middle esophagus with a bulging mucosa, smooth surface, and clear boundary. **b** Gastroscopy 1 month later reveals an ulcer with a clear boundary. **c** Endoscopic ultrasonography at the same time as **b** shows the esophageal wall to be interrupted and incrassated. **d** Gastroscopy after 6 months of antituberculosis treatment shows that the ulcer has healed with scar formation.

at gastroscopy in patients with dysphagia, endoscopists should be alert to the possibility of tuberculosis, especially in developing countries. Vigilance, biopsy, endoscopic ultrasonography [2], and contrast-enhanced computed tomography may help increase the correct diagnosis rate.

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Competing interests: None

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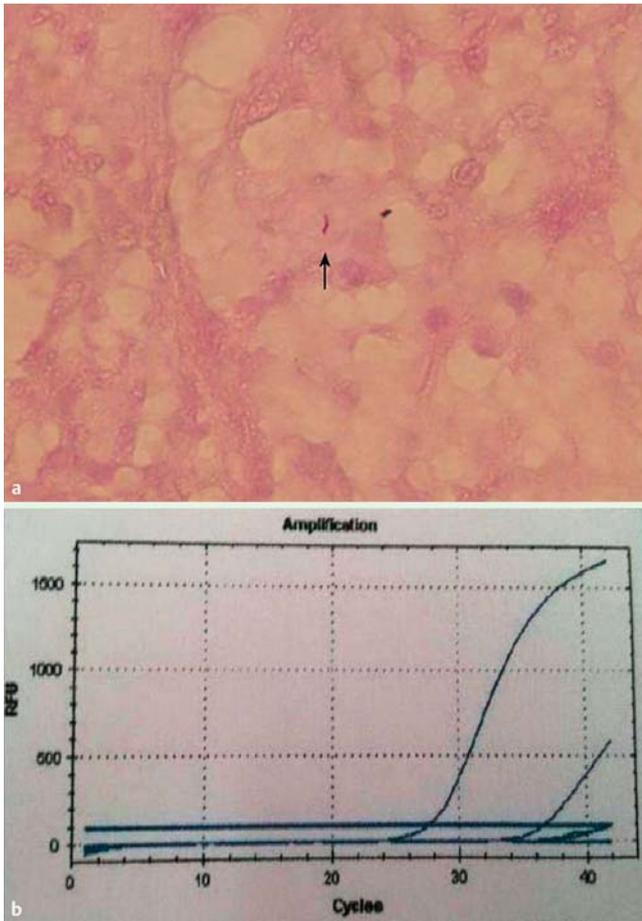


Fig. 2 a Histopathologic examination reveals acid-fast bacilli from the lesion (arrow). b The result of a polymerase chain reaction assay for tubercle bacilli is positive.

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