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Esophageal tuberculosis mimicking esophageal carcinoma

Özofagus karsinomunu taklit eden özofagus tüberkülozu

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Esophageal tuberculosis is rare. In some cases, the clinical presentation of this infection may mimic esophageal carcinoma. Differential diagnosis may be difficult and may result in an unnecessary surgical therapy such as esophagectomy. In this report we document the endoscopical, radiological, histological and bacteriological features of esophageal tuberculosis in a 62-year-old woman. She was admitted to our hospital complaining of dysphagia and odynophagia. Upper gastrointestinal endoscopy revealed an ulcerovegetant lesion in the right wall of the esophagus suggesting esophageal carcinoma. Further investigation resulted in a diagnosis of esophageal tuberculosis. She was successfully treated by antituberculous chemotherapy. We suggest that esophageal tuberculosis has to be kept in mind in the differential diagnosis of esophageal ulcerovegetant lesions.

Key words: Esophageal tuberculosis, esophageal carcinoma, tuberculous lymphadenitis

Özofagus tüberkülozu nadir görülür. Bazı olgularda, bu enfeksiyonun klinik prezentasyonu özofagus karsinomunu taklit edebilmekte ve ayırıcı tanısı zor olabilmektedir. Ayırıcı tanıdaki bu zorluk, özofajektomi gibi gereksiz cerrahi tedavilere yol açabilmektedir. Bu yazıda, 62 yaşında kadın olguda saptanan özofagus tüberkülozunun endoskopik, radyolojik, histolojik ve bakteriyolojik özellikleri sunulmaktadır. Olgu, hastanemize disfaji ve odinofaji yakınmaları ile başvurmuştur. Yapılan üst gastrointestinal endoskopisinde, özofagus sağ duvar yönünde, özofagus karsinomunu anımsatan ülserövejetan bir lezyon saptanmıştır. İleri incelemeler sonucunda olguya özofagus tüberkülozu tanısı konmuştur. Olgu, antitüberküloz tedavi ile başarılı bir şekilde tedavi edilmiştir. Özofagusta saptanan ülserövejetan lezyonların ayırıcı tanısında özofagus tüberkülozunun hatırlanması gerektiğini düşünmekteyiz.

Anahtar kelimeler: Özofagus tüberkülozu, özofagus karsinomu, tüberküloz lenfadeniti

INTRODUCTION

Esophageal tuberculosis (ET) is extremely rare, even in countries which have a high incidence of tuberculosis (1). In some cases, differential diagnosis of ET from esophageal carcinoma is very difficult and may result in an unnecessary esophagectomy (2). One of the main reasons for this difficulty is the poorly described clinical, radiological and endoscopical features of ET because of its rarity. Another is that the evidence of this infection, such as isolation of tubercle bacilli and caseous necrosis, is not usually detected (3). Herein, we present a patient with ET mimicking esophageal carcinoma by endoscopic features who was successfully treated by antituberculous chemotherapy.

CASE REPORT

A 62-year-old woman was admitted to our hospital suffering from dysphagia and odynophagia for four months. Her past medical history revealed no previous tuberculosis infection or any other disease. She was on no medication. Physical findings on admission were normal except for the presence of multiple soft, tender and mobile cervical lymph nodes of about 1 to 2 cm in size. In the laboratory findings, hemoglobin was 10.2 g/dl, hematocrit 32%, and erythrocyte sedimentation rate 96 mm in the first hour. All the other routine biochemical parameters were normal.

Barium swallow showed narrowing and an irregularity of the right cervico-thoracic esophageal wall 6 cm in length. Diverticulum was also present. Computed tomography (CT) of the neck showed

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multiple cervical and supraclavicular lymph nodes with peripheral rim enhancement and thickening of the proximal esophageal wall (Figure 1). Chest X-ray was normal and chest CT revealed no pulmonary lesion, or mediastinal or hilar lymphadenopathy. Human immunodeficiency virus antibody test was negative. Using upper gastrointestinal (GI) endoscopy, an ulcerovegetant lesion was identified in the right wall of the esophagus at 18 to 23 cm from the incisors (Figure 2). Histological

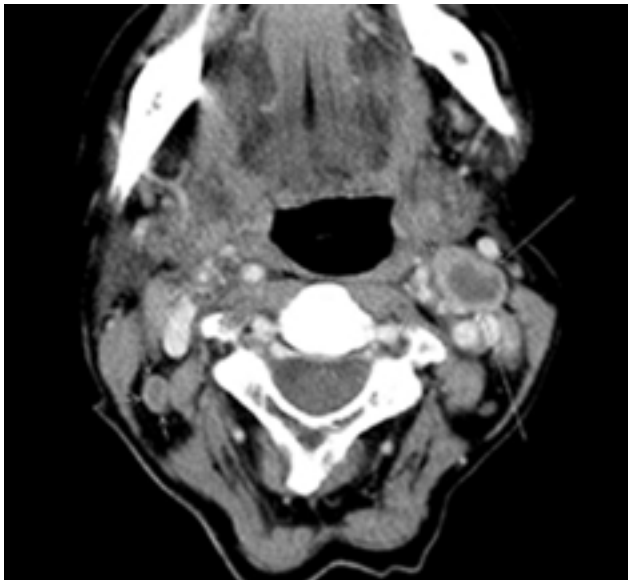

Figure 1. Computed tomography of the neck demonstrating a lymph node (18x14 mm) in anterior cervical triangle (big arrows). Note the central hypodensity and peripheral rim enhancement. Small arrows show another lymph node (8x5 mm) in the posterior cervical triangle

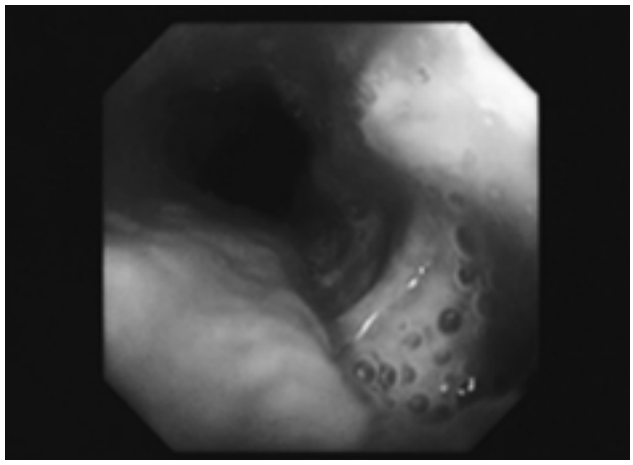

Figure 2. Upper gastrointestinal endoscopy revealed an ulcerovegetant lesion in the right wall of the esophagus, 18 to 23 cm from the incisors. Endoscopic feature was strongly suggestive of esophageal carcinoma

examination of the biopsy specimen obtained during upper GI endoscopy showed epithelioid granulomas, Langhans type multinucleated giant cells and a caseous necrosis in one area. The Mantoux test revealed a negative reaction 6 mm in diameter.

Polymerase chain reaction assay of the specimen was positive for tubercle bacilli. Histological examination of the excisional cervical lymph node biopsy specimen revealed tuberculous lymphadenitis, and the bacilli were detected on Ziehl-Neelsen staining (Figure 3). Based on these radiological, histological, endoscopical and bacteriological features, antituberculosis chemotherapy consisting of isoniazid (300 mg per day), ethambutol (1000 mg per day), rifampicin (600 mg per day) and pyrazinamide (2000 mg per day) was started with a diagnosis of ET. No side effect occurred and her symptoms resolved in the sixth week of treatment. From the culture of the biopsy specimen which was obtained from the esophageal lesion, tubercle bacilli were isolated on Lowenstein-Jensen medium in the eighth week of treatment. After six months, control upper GI endoscopy revealed disappearance of the ulcerovegetant lesion and showed only a mild granular region at the same localization. The patient is healthy without any complaints and still has no recurrence after 11 months of follow-up.

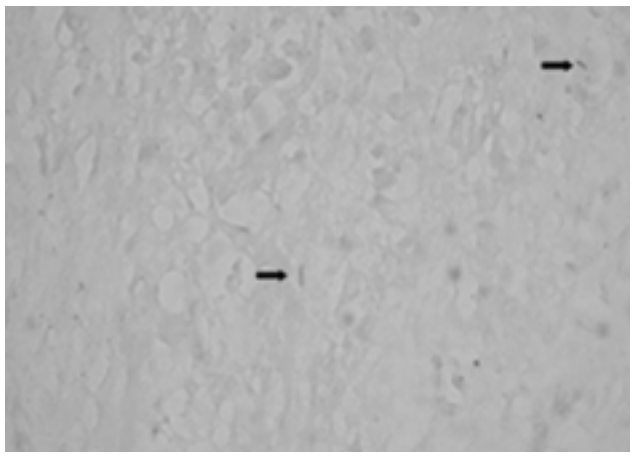

Figure 3. Rod-shaped, beaded, acid-fast stained bacilli (arrows) in area of caseous necrosis in lymph node parenchyma (Ehrlich-Ziehl Neelsen, x 1000)

DISCUSSION

Esophageal tuberculosis is very rare and has poorly described clinical, radiological and endoscopical features. Furthermore, evidence that would suggest this infection, such as isolation of tubercle bacilli from the lesion and caseous necrosis on biopsy, usually cannot be established (3). Esophageal carcinoma, fungal and viral infections, ingestion of caustic material, syphilis and Crohn's disease are considered in the differential diagnosis (4). In some cases, since no diagnosis is obtained and malignancy cannot be excluded, an unneccessary esophagectomy may be performed (2, 5).

The main presentation of ET is dysphagia (6). Patients with ET may also suffer from odynophagia, weight loss or retrosternal pain. Barium swallow shows variable features. In a review of 23 cases of ET, barium swallow studies showed extrinsic compression, traction diverticula, stricture, kinking of the esophagus, sinus/fistulous tract and pseudotumoral mass (7). In our patient, barium swallow showed irregularity of the right cervicothoracic esophageal wall 6 cm in length. Narrowing and diverticulum were also present. Typical CT features of tuberculous lymphadenitis are central hypodensity with rim enhancement and calcification (8). CT findings of our patient showed multiple cervical and supraclavicular lymph nodes with central hypodensity and peripheral rim enhancement. Calcification was not present.

Primary ET is very rare and esophageal involvement of tuberculosis usually results from direct extension from adjacent mediastinal or hilar lymph nodes, reactivated lung infection, infected vertebral bodies or aortic aneurysms (7). Since chest CT showed none of these foci, we considered that diagnosis of our patient as primary ET and that cervical, supraclavicular lymphadenopathy might have been caused by primary ET. On the other hand, primary tuberculous lymphadenitis could not be excluded in our patient.

The most common endoscopic finding of ET is the ulcerative form (9). The ulcers of ET usually have a shallow, smooth border with a gray purulent base and irregularly infiltrated edges (10). In one study with eight ET cases, linear ulcer was seen in six cases (11). In our patient, on upper GI endoscopy, an ulcerovegetant lesion which was strongly suggestive of esophageal carcinoma was identified.

In conclusion, even though it is rare and a problem of undeveloped and developing countries, the prevalence of ET in developed countries will probably increase because of the worldwide increase in human immunodeficiency virus infection, which may be complicated by tuberculous infection. On the other hand, clinical, radiological and endoscopical features of ET are poorly described. Clinicians, therefore, must be aware of the features of this infection in order to make differential diagnosis carefully and avoid an unnecessary esophagectomy, since ET can be successfully treated by antituberculous chemotherapy.

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