

Tuberculous Fistulas of the Pharynx and Esophagus

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Abstract. Four patients with tuberculous fistulas communicating with the pharynx or the esophagus are reported. In 1 patient, there was strong evidence to suggest primary involvement of the esophageal mucosa. The other 3 cases were related to involvement of the pharynx or the esophagus from adjacent tuberculous process, as confirmed by histopathological proof.

The patients had varying degrees of symptoms, which in two dramatically responded to antituberculous therapy; the third patient needed surgery for complete cure and the last patient was lost to follow-up.

Key words: Esophagus, fistula – Tuberculosis, diagnosis.

Tuberculosis affecting the pharynx or the esophagus primarily or secondarily is not common even in areas with a high prevalence of the disease. We report a series of 4 cases of tuberculosis involving the pharynx or the esophagus and resulting in pharyngocutaneous and esophagobronchial fistulas.

Case Reports

Case 1

A 25-year-old male presented with a one-month history of discharging sinus in the left supraclavicular fossa; it had not responded to broad spectrum antibiotics. The patient did not give history of any swelling in the left supraclavicular fossa prior to the appearance of the discharging sinus. In view of

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the nonresponse to antibiotics, a tuberculous etiology was suspected and a biopsy of the fistulous tract was done. Histopathology showed tuberculous granulation tissue. The patient was referred for a barium esophagogram to rule out possible communication with the pharynx or the esophagus. This showed a sinus extending from the tip of the left pyriform sinus, tracking toward the cutaneous opening (Fig. 1). The patient was started on antituberculous drugs and at the time of reporting is asymptomatic, with the fistula having healed.

Case 2

A 65-year-old female patient presented with a one-month history of low-grade fever, neck pain, difficulty in swallowing followed by a discharging sinus from the lateral aspect of the neck. Physical examination revealed multiple matted lymph nodes in the neck. The chest radiograph showed findings consistent with right apical tuberculosis. A barium esophagogram showed leak of contrast from the posterior wall of the pharynx at the level of the pyriform sinus and extending behind the esophagus. No abnormality was seen in the cervical spine. A biopsy of the lymph node showed tuberculous granulation tissue. The patient was started on antituberculous treatment, but was lost to follow-up.

Case 3

A 35-year-old male, apparently in good health until one year prior to admission, presented with a history of cough with expectoration and left-sided chest pain. The cough was aggravated on lying in the left lateral position. An esophagogram (Fig. 2) showed leak of contrast from the infrabronchial segment of the esophagus along its left lateral wall. This leak communicated through a transverse track with the apical segmental bronchus of the left lower lobe.

Endoscopy showed a large opening of the fistulous track. Unfortunately, satisfactory biopsies could not be obtained. The patient was empirically started on antituberculous treatment and made symptomatic improvement. However, in view of the large size of the fistula, it was decided to subject the patient to surgery. At operation, the fistulous tract was dissected and the esophageal and bronchial ends sutured. Histopathology of the specimen showed chronic granulomatous tissue. The patient was continued on antituberculous treatment and is asymptomatic at this time.

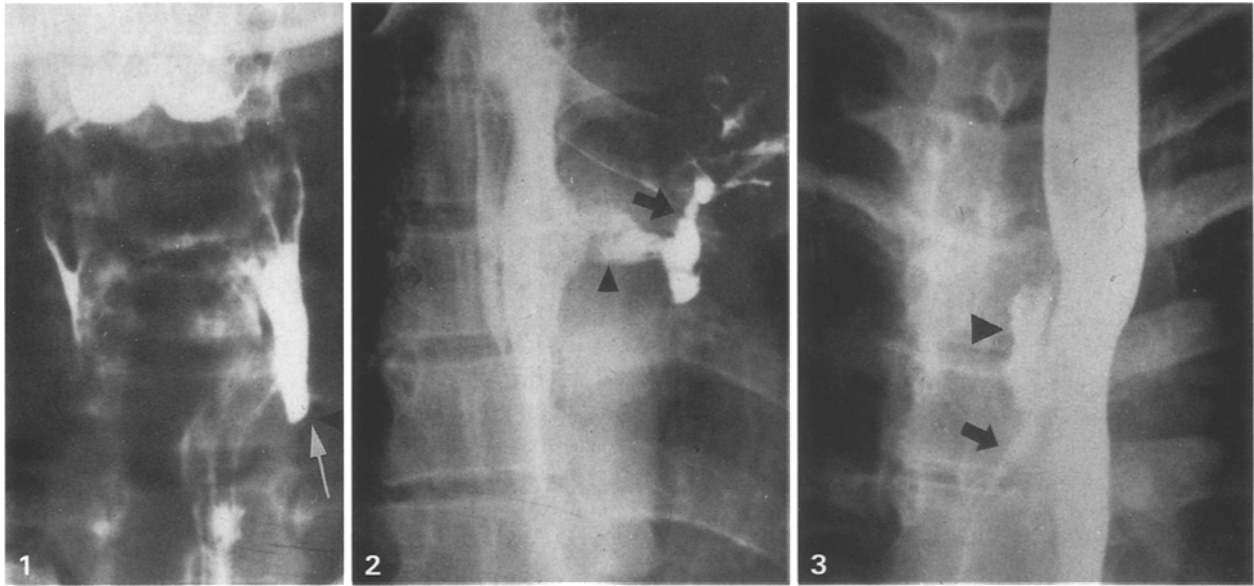


Fig. 1. Frontal view of pharyngogram (Case 1) shows opacification of the sinus tract (*arrow*) leading off from the left pyriform fossa. The entire length of pharyngocutaneous fistula is not visible.

Fig. 2. Esophagogram (Case 3) showing fistulous tract arising from the left wall of the esophagus (*arrowhead*). Note communication with the left lower lobe bronchus (*arrow*).

Fig. 3. Barium esophagogram (Case 4) showing opacification of the fistulous tract originating from the ulcerated right wall of the esophagus (*arrowhead*) and communicating with the right main bronchus (*arrow*).

Case 4

A 26-year-old female presented with a history of dysphagia and pain in the neck for three months. There was history of fever and weight loss with cough and expectoration related to eating.

An endoscopic examination of the esophagus showed ulcerated mucosa at 20 cm. Multiple biopsies were taken from this site. No obvious fistulous tract was seen at endoscopy. The biopsies were reported to show tuberculous granulation tissue.

A barium esophagogram (Fig. 3) showed a leak of contrast from the aortic segment of the esophagus along its right wall and communicating through a fistulous tract with the right main bronchus.

The patient was started on antituberculous treatment with remarkable improvement of symptoms over a period of six weeks. A repeat esophagogram done at this time showed closure of the fistula with mild irregularity of the esophagus at the site where the fistulous opening was present.

Discussion

The pharynx and esophagus are infrequently affected by tuberculous process. Although primary

esophageal involvement is rare [1], secondary involvement and fistula formation is not uncommon [1–4]. This is often due to spread from adjacent tuberculous lymph nodes or pulmonary foci [2, 5]. Fistulous communication with the pharynx produced by parapharyngeal tuberculous process is also uncommon.

The clinical manifestations vary, depending upon the presence of compression or associated fistula formation. Two of our patients had dysphagia; the other 2 had symptoms related to the presence of a fistula.

Presence of tuberculous disease elsewhere is not invariable and laboratory findings are often not contributory. A high index of suspicion of tuberculous etiology in a susceptible population mandates pathological confirmation.

In none of our cases could bacteriological proof be obtained, but histological evaluation in 3 of the 4 cases showed classic tuberculous granulation tissue. In the fourth patient (Case 3), although histology did not show tuberculous granulation tissue, symptomatic improvement on antituberculous therapy prior to surgery suggests a strong possibility of tuberculosis.

Medical therapy alone may be curative, as in 2 of our patients – especially if the fistulous openings are small [2]. On the other hand, if the fistulous openings are multiple or large, surgical therapy is essential [6, 7]; this was the case in case 3.

A barium esophagogram is the mainstay of diagnosis, and delineates the extent and site of the fistula. Endoscopic examination with biopsies helps in histopathological confirmation of tubercu-

losis as the underlying cause of such pharyngoesophageal lesions.

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