

Primary tracheal tuberculosis in an otherwise healthy 65-year-old Caucasian woman

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Abstract

We report a case of primary tracheal tuberculosis that presented with a hard, fixed lymph node in the right supraclavicular fossa, and progressive dysphagia due to an inflammatory mass caused by a tuberculous lesion in the trachea. This case underlines the old adage that tuberculosis is 'the great masquerader'.

Key words: Tuberculosis, trachea

Introduction

Tuberculosis of the trachea is usually considered to be secondary to pulmonary tuberculosis (Salkin *et al.*, 1943). Primary tuberculosis of the trachea and endobronchial tree is rare, with a few isolated cases reported in the literature (Volkaert *et al.*, 1987; Wathen *et al.*, 1987; Watson and Ayres, 1988).

Case report

A 65-year-old woman presented at our hospital with a three-month history of progressive dysphagia to solids. During this time she had lost approximately seven pounds in weight. Both her brothers had died from oesophageal carcinoma. On examination, there was a 3 × 3 cm mass in the medial part of the right supraclavicular fossa. This was firm, irregular, nontender and fixed to deep structures. An initial diagnosis of hypopharyngeal carcinoma with an involved neck node was made, and she was referred to the ENT surgeons. ENT examination revealed no further clinical abnormalities. Barium swallow showed an extrinsic mass compressing the cervical oesophagus (Figure 1). A standard PA chest radiograph was normal. Panendoscopy and fine needle aspiration of the neck node was performed under general anaesthesia. A 2.5 × 1.5 cm friable mass was found involving the upper trachea on the left side, beginning 1 cm from the glottis and extending caudally. This was biopsied. The fine needle aspirate produced thick, yellow, fluid. Ziehl-Neelsen staining of this fluid showed acid- and alcohol-fast bacilli. Multiple inflammatory cells, consistent with chronic inflammation were seen on cytological examination. There were no malignant cells. The histology showed chronic inflammatory changes as seen in tuberculosis. There was no evidence of malignancy. A computerized tomography (CT) chest and neck scan was obtained, which confirmed the presence of a noninvasive paratracheal mass, arising from the trachea (Figure 2). The erythrocyte sedimentation rate (ESR) was 65 mm per hour. The patient was commenced on standard antituberculosis doses of rifampicin, isoniazid, pyrazinamide and pyridoxine. Two months later, the results of Lowenstein-Jensen culture showed a profuse growth of *Mycobacterium tuberculosis*, sensitive to the above agents.

Following 12 months of close outpatient review, the patient is

asymptomatic, with full clinical regression of the neck mass. The ESR has returned to normal.

Discussion

The incidence of tuberculosis in the Western world has been falling over the last 50 years, due to improving living standards and methods of treatment. When it does occur, it is usually in immigrant populations or the underprivileged. It is very rare to see the disease in a previously healthy Caucasian woman, with no history of tuberculosis contact.

In this case, there may have been a subclinical tuberculous infection many years ago, leaving a small inactive focus in a paratracheal lymph node. Approximately three months before presentation when the symptoms started, this node may have been activated. The secondary lymph node in the right supraclavicular fossa is consistent with infection in the paratracheal area.

Isolated mediastinal lymph node involvement in tuberculosis is rare in adults (Lyons *et al.*, 1959; Khan *et al.*, 1977), and when it does occur, it is usually found in the nonCaucasian population (Dhand *et al.*, 1979; MRC, 1987).

Fine needle aspiration with Ziehl-Neelsen staining and/or fluoroscopy can be a very useful investigation in the diagnosis of neck masses, and is a relatively reliable way of diagnosing tuberculosis although a negative result does not necessarily rule out the presence of *Mycobacterium tuberculosis* (Lau *et al.*, 1988). However, this case illustrates that it can be an essential part of the investigation of non-neoplastic neck masses.

Malignant change can occur in the presence of underlying tuberculous infection, and it is important to continue to observe patients such as this, although in this case the falling ESR and clinical response to antituberculosis chemotherapy make this unlikely at this stage. Reactivation of old tuberculous disease may also be associated with occult malignancy.

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FIG. 1

There is a space occupying lesion in the upper oesophagus (arrowed). This is extrinsic in nature, since mucosal folds can be seen over the surface of the mass.

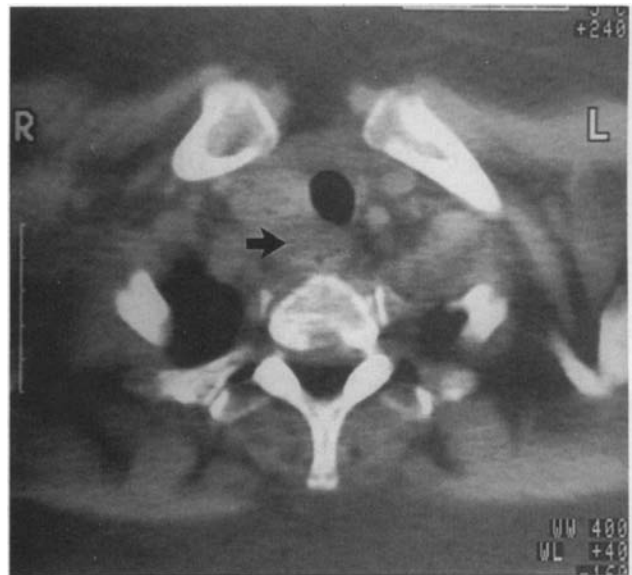


FIG. 2

A paratracheal mass can be seen behind the trachea, continuous with the trachea (arrowed).

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