CASE STUDY

Cervical Vertebral Tuberculosis Simulating a Peritonsillar Abscess

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Received 8 March 2010; accepted 19 July 2010

KEYWORDS
Tuberculosis; Pott’s disease; Peritonsillar abscess

Abstract
We report the case of a 28-year-old woman initially diagnosed with a left peritonsillar abscess, which was drained, resulting in clinical relief. Twelve days later, a bulge was observed in the posterior pharyngeal wall. CT and MRI showed a tumour with destruction of atlas lateral mass, with a soft tissue component in prevertebral, retropharyngeal, left carotid, and paraspinal spaces. Biopsy and microbiological study confirmed the presence of Mycobacterium tuberculosis. Therapy was initiated with isoniazid, pyrazinamide, rifampicin, and ethambutol, an occipitocervical-C1-C2 arthrodesis was performed, and the patient improved successfully.

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Clinical Case

We present the case of a 28-year-old woman, a native of Pakistan, living in Barcelona. She attended the Emergency Service referring intense odynophagia and malaise of 3 days' duration. At the same time, she also reported mild neck pain of 4 months’ evolution. The exploration revealed trismus, as well as swelling of the palate and left anterior pharyngeal pillar. Analgesic and intravenous corticosteroid treatment was administered and a relieving incision was carried out, which discharged abundant purulent material and obtained symptomatic improvement. This led to the diagnosis of left peritonsillar abscess and she was discharged with amoxicillin/clavulanate oral treatment. She returned after 12 days, presenting painful dysphagia, trismus, and predominantly left swelling of the posterior pharyngeal wall. She also presented multiple left lateral-cervical lymphadenopathies.
in soft areas II–III, mobile and painful on palpation. Fiberoptic laryngoscopy revealed a bulging of the posterior wall of the naso-opharynx.

Chest radiograph was normal. A CT scan showed soft tissue swelling in the retropharyngeal space, predominantly on the left side, with cranial extension towards the nasopharynx, lytic lesion in the left anterolateral C1 region, with disruption of the posterior cortex and thinning of the anterior of some $15\,\text{mm} \times 13\,\text{mm}$ in diameter (Fig. 1). Magnetic resonance imaging showed a soft tissue component extending towards the posterior paravertebral, epidural, paravertebral, and left lateral prevertebral spaces, up to the level of the rhinopharynx and oropharynx (Fig. 2).

The Mantoux test was positive. Fine needle aspiration cytology of the lateral cervical lymph node showed lymphoid cellularity with reactive characteristics. A transoral biopsy of the retropharyngeal mass was performed. Its analysis described tuberculoid granulomas with caseous necrosis. The microbiological study confirmed the presence of *Mycobacterium tuberculosis*.

We initiated treatment with isoniazid, pyrazinamide, rifampicin, and ethambutol, as well as prednisone. In addition, we performed occipitocervical C1–C2 arthrodesis.

The patient presented resolution of symptoms. The control at 8 months found no recurrence.

**Discussion**

This was a case of extrapulmonary tuberculosis that caused a deep neck abscess with protrusion of the palatine tonsil, initially oriented as a peritonsillar abscess.

Peritonsillar abscess is the most common cause of deep infection of the head and neck region, not always accompanied by follicular tonsillitis, since it has been shown that it can be caused by an obstruction of the excretory ducts of the Weber saliva glands. In more than 90% of cases, drainage of the abscess combined with the use of antibiotics leads to the resolution of the symptoms. In our case, the torpid evolution prompted us to request additional tests that led to the definitive diagnosis.

Only one in of every five cases of tuberculosis is extrapulmonary, with cervical location being rare. The most common manifestation in the head and neck region is cervical lymphadenitis (95%), followed by laryngeal. Involvement of the spine accounts for 5% of extrapulmonary tuberculosis cases and the dorsal and lumbar locations are predominant. Pharyngeal involvement represents less than 1%. In recent decades, the incidence of tuberculosis in Western countries had lowered. However, the spread of acquired immunodeficiency syndrome, the growth in immigration and the ever-more frequent drug resistances have led to a renewed increase in countries such as Spain. Because ENT areas are infrequently involved, the symptoms are nonspecific and simultaneous pulmonary involvement is of low incidence, the diagnosis of tuberculosis is often unexpected and delayed.

The therapeutic approach, based on the location in this patient, should firstly be aimed at stabilising the lesion to prevent neurological damage, and administering anti-TB drugs to achieve healing. All close contacts should also be studied so as to prevent the spread of the disease.

This case reminds us that we must continue to bear tuberculosis in mind in our environment, now that its incidence appears to be increasing. This may lead to new forms of presentation that are unusual and atypical.
Conflict of Interests

The authors have no conflicts of interest to declare.

References