

Rare Presentation of a Common Disease (Tuberculous Retropharyngeal abscess)

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Abstract

The retropharyngeal space lies in the posterior pharyngeal wall between the middle and deep layers of the deep cervical fascia. It extends from the base of the skull to the mediastinum and frequently serves as a conduit for spread of disease from the neck into the chest. Spinal tuberculosis is the commonest extra pulmonary manifestation of tuberculosis. Clinical findings of cervical tuberculosis included neck pain, restricted neck movements, quadriplegia, radicular manifestations, kyphosis, and sensory disturbance. It should be suspected in an adult person who presents with a destructive lesion of the cervical vertebra and retropharyngeal mass. Early diagnosis and treatment are necessary to prevent the serious complications of the disease. We present here a 28 years old Indonesian female came to the Accident & Emergency Department, Hamad General Hospital, Doha, Qatar. She was complaining from retropharyngeal abscess with extensive C3, C4 vertebra erosion on CT scan. After history taking, clinical examination doing then followed by hematological & radiological investigations. The patient was admitted to the hospital. Patient treated with trans-oral Incision and Drainage under GA plus anti tubercles medication. Patient improved & followed for 3 months then she went back for good to here original country.

Key words: Retropharyngeal space, Abscess, Tuberculosis, Cervical vertebra, Anti Tuberculosis drugs

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Introduction

Retropharyngeal abscess results from suppuration of retropharyngeal lymph nodes in patients with upper respiratory tract infection or from traumatic perforation of the pharynx or upper esophagus by a foreign body. If the abscess compresses the larynx and upper trachea, symptoms of upper airway obstruction develop. Spinal tuberculosis (Pott's disease) the most common form of skeletal TB is considered the most dangerous because involvement of the spinal cord results in neurological impairment. Lumbar and thoracic regions are more often involved, whereas the incidence of cervical involvement is 2 to 3 %. [1,2].

The sites of spinal involvement with tuberculous spondylitis are paradiscal lesion, which is the most common site, central body lesion, anterior type in the anterior part of the vertebrae, appendicular type in the pedicle, lamina, transverse process and articular type in the posterior intervertebral joint. [3,4].

The neurological deficit occurring with tuberculous spondylitis either due to cold abscess, granulation tissue, necrotic debris and sequestrae from bone or the inter-

vertebral disc tissue, and occasionally vascular thrombosis of the spinal arteries. [5].

Case report

A 28 years old Indonesian female presented to the Accident and Emergency Department at Hamad Hospital complaining from swelling at both sides of the neck for 5 days. The condition associated with difficulty in swallowing and slight shortness of breath & restriction in neck movement.

On examination the patient looks ill with bilateral upper neck swelling tenderness & fluctuation sign is positive with no cervical lymphadenopathy. Examination of the oral cavity shows anterior displacement of the posterior pharyngeal wall with congested mucosa overlying. Her vital signs were within normal range.

She gave history over the last 5 months of low grade fever, night sweat, anorexia, and 10Kg weight loss & both shoulders pain with numbness of both upper limbs. No history of cough, sputum, hemoptysis, chest pain or dyspnea.



Figure1. Sagittal CT scan image with contrast showing the big abscess extending to the level of posterior aspect of superior mediastinum with narrowing of supraglottic area. There is marked erosion of C2 & C3 vertebra.

She did not complain from any chronic illness & she did not take any medication.

Urgent Ultrasound and CT scan was done. It confirms a (right side 5.9*3.8 cm & left side 2.3*83.0 cm) retropharyngeal abscess with extensive C2, C3 anterior erosion.

Hematological investigation shows: WBC 6.4 mainly polymorph, hematocrit 34.8, ESR 103 mm/h.

Admission of the patient to the hospital put her on dual aerobic and anaerobic empirical IV antibiotic medications (Rocefine, Clindamycin). Within less than 12 hours from admission patient was on the Operating room table. Under GA trans-oral drainage of this big abscess took place. Swab was taken for gram stain, Acid-fast smear, culture and sensitivity.

2 days later the result of the smear came with positive for acid fast bacilli (4 AFB/100 Fields), Infectious team consulted & they transfer the patient to an isolated room & they starts Anti TB medications (INH, Pyridoxine, Rifampicin, Ethambutol, Pyrazinamide) for 6-12 months.

A Neurosurgery physician consulted to examine her. The patient does not show any neurological deficit. He recommends wearing a Philadelphia neck collar for her & follows up at out patient.

Early morning sputum samples were collected for 3 consecutive days were negative for acid fast bacilli, blood culture was negative as well as the chest x-ray did not show



Figure2. Axial CT scan image showing the prevertebral collection (retropharyngeal & parapharyngeal) at level of C3. Carotid vessels displace laterally.



Figure 3. Lateral CT scan image with out contrast showing the big abscess. There is marked erosion & rarefactions of C2 & C3 vertebra.

any sign for pulmonary TB. On the 4th day MRI on the neck did which shows mild recollection at the same place of the previous abscess.

Patient followed up with daily hematological investigations and clinical examination. She starts to improve dramatically from her presenting symptoms. Patient discharged from the hospital after 10 days & referred to the

TB clinic for follow up. She followed up with them for 3 months then she went back to her home country for good.

Discussion

Retropharyngeal tuberculous abscess is a rare presentation of the disease even in the presence of extensive pulmonary tuberculosis [6]. Sometimes, retropharyngeal tuberculous abscess causing stridor and threatening respiratory obstruction may be the only manifestation [7]. Tuberculous retropharyngeal abscess in adults is usually secondary to tuberculous involvement of cervical spine. [8]. the probable route of spread of tuberculosis to retropharyngeal space is via the lymphatic to a persistent retropharyngeal lymph node. Rarely, the abscess may be due to hemotogenous spread from pulmonary tuberculosis or tuberculosis elsewhere [9]. Tuberculous infection causes destruction, caseation, and necrosis of vertebrae or may present as an abscess. The abscess may remain close to the vertebra and present on the radiograph as pre vertebral or Para vertebral abscess or it may move distally along the tissue planes to present as cold abscess. [3,10]. A delay in diagnosis and treatment can increase the risk of complications, including a spontaneous rupture of the abscess that can lead to trachea-bronchial aspiration or stridor secondary to laryngeal edema. Early diagnosis is also essential in order to prevent the onset or progression of the neurological sequel of Pott's disease. [12].

A retro-pharyngeal abscess can be drained safely via a trans-oral route or by an external route. [11]. It is well accepted that if the spine is stable and there is no neurological deficit, or minimal neurological signs, anti tuberculosis drug therapy and conservative neck stabilization should be the initial treatment. If neurological signs are prominent on patient admission or develop later, or if there is cervical instability or significant degree of subluxation, then surgical debridement and stabilization are indicated. [13,14]

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