CASE REPORT

Unusual presentations of tuberculosis – A case series

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Abstract  Tuberculosis (TB) is commonly found in developing countries. Lung is predominantly affected while extra pulmonary tuberculosis (EPTB) is rarely encountered. The clinical features of EPTB can be non-specific that mimics other diseases and is usually misdiagnosed. Thus, it is very important to be aware and be highly suspicious of EPTB infection especially in endemic area. We share 3 cases of different uncommon presentations of head and neck TB, which involved larynx, parotid salivary gland and cervical lymph node. The diagnosis was made by histopathological examination and positive Acid Fast Bacilli (AFB) smears. They were successfully treated with anti-tuberculosis treatment.

1. Introduction

Tuberculosis (TB) is a common granulomatous disease caused by Mycobacterium tuberculosis, which primarily affect lungs in about 80% of cases.1 Extrapulmonary TB (EPTB) is defined as TB of organs other than lung.

TB is a common disease worldwide especially in developing countries. Approximately, 8.8 million new TB cases have been reported globally with 1.1 million mortality among non-HIV cases and 0.35 million among HIV-positive patients in 2010.2 TB has been a major health problem in Malaysia, which leads to high morbidity and mortality.3 In Malaysia, about 10% of TB cases were among the immigrant population, particularly from high TB burden neighbouring countries.3 Around 10–11% of EPTB cases were notified at a tertiary level chest clinic.3 In addition, about 14% of pulmonary tuberculosis patients were concomitant with extra pulmonary involvement.4

The most common forms of EPTB in Malaysia are TB lymphadenitis, bone and joint TB and miliary TB.5 TB lymphadenitis is the commonest form of EPTB and mainly affects cervical part of the lymph nodes.6,7 In Otorhinolaryngology, head and neck TB cases have been reported to involve cervical lymph nodes, middle ear, larynx, pharynx, paranasal sinus and temporal bone.

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Approximately about 15% EPTB of head and neck region has been reported. About 35.6% presented with lymph node TB, followed by 27.4% laryngeal TB, 13.7% oropharyngeal TB, 12.3% with salivary gland tuberculosis, 4.1% with TB of paranasal sinuses and aural tuberculosis, and the least is 2.7% with sinus, nose, tonsil and salivary gland. The sign and symptoms of EPTB vary, depending on the organs involved.

2. Case 1

A 13-year-old boy presented with one-month duration of a painful right neck swelling. He denied constitutional symptoms such as fever, loss of weight and loss of appetite. There were no obstructive symptoms such as dysphagia, odynophagia, change of voice or stridor. Furthermore, there was no history of night sweat, chronic cough and TB contact. On physical examination, there was a right level II neck swelling measuring 3 cm × 4 cm, firm, mobile, non tender, no skin colour changes and not attached to the skin. The erythrocyte sediment rate (ESR) was 75 mm/h. Mantoux test was positive with 25 mm diameter reading. Chest radiograph was normal. Needle aspiration of the swelling which revealed pus was done and sent for AFB, culture and sensitivity (C&S) but the result was unsatisfactory smear. After completing the one-week course of oral antibiotics, the swelling became fluctuant. He underwent an incision and drainage of right neck swelling and pus sent for AFB smear and C&S. Eventually the specimen (pus) for AFB was positive (2+). The culture showed positive to Mycobacterium tuberculosis. He was diagnosed as tuberculous lymphadenitis and treated with anti TB drugs. During intensive phase within 2 months, he took oral AKuriT-4 (isoniazid 75 mg + rifampicin 150 mg + pyrazinamide 400 mg + ethambutol 275 mg) 3 tablets daily with Vitamin B6 20 mg daily (OD) and followed by maintenance phase of oral isoniazid 300 mg OD, rifampicin 600 mg OD and vitamin B6 20 mg OD. After completion of 6 months of anti TB treatment regime, he was well and asymptomatic.

3. Case 2

A 65-year-old male presented with dysphagia, odynophagia and hoarseness for one-month duration. He also complained of cough and weight loss. However, he denied of night sweat, fever and tuberculosis contact. The laryngoscopic examination revealed ulcerative lesions with whitish patches over the supraglottic area (Fig. 1). The arytenoid and vallecula were oedematous. There was no palpable neck node. The initial tuberculosis work-up and HIV serology tests were negative. He was treated as acute supraglottitis with intravenous antibiotic, systemic steroid and trial of antifungal treatment. Despite being on medications, the symptoms were not resolved. The repeat laryngoscopy after a week showed extension of the whitish patchy lesions, which involved the epiglottis, arytenoid, vallecula, false cord and arypepiglottic fold. The vallecula was oedematous. Flexible nasopharyngolaryngoscopy (FNPLS) was done and biopsy of the epiglottic tissue was sent to histopathological examination. The AFB stain result revealed positive (3+). The ESR was 29 mm/h. Chest radiograph was normal. However the repeated sputum AFB was positive (2+). He was referred to respiratory team and started on anti-TB medications. The follow up was done after completing treatment of anti TB for 9 months. He had taken daily oral HRZE regime (isoniazid 300 mg, rifampicin 600 mg, pyrazinamide 1250 mg and ethambutol 1200 mg) and vitamin B6 20 mg OD for 2 months duration during the intensive phase followed by 7 months of the maintenance phase by taking oral isoniazid 300 mg, rifampicin 600 mg od and vitamin B6 20 mg OD. There were no more complaints of constitutional and local symptoms as well. Repeated FNPLS showed normal laryngeal appearance.

4. Case 3

A 65-year-old lady, with underlying diabetes mellitus and hypertension presented with left pre-auricular swelling for a five-day duration. It was associated with redness and pain over the left pre-auricular area. The swelling was extended to left pinna, left supra-auricular and left post-auricular region. There was minimal pus discharge noted from left pre-auricular sinus. She denied chronic cough, fever, loss of weight, appetite and TB contact. On examination there was a diffuse, tender, fluctuant area over the left pre-auricular region with minimal pus discharging fistula over the left parotid (Fig. 2). Facial nerve was intact. There was no palpable neck node. Incision and drainage of the left pre-auricular lesion was commenced under local anaesthesia. The pus smear was positive for AFB (2+). Her ESR was not raised. The sputum AFB was negative and chest radiograph was normal. She was treated as parotid tuberculosis and started anti TB treatment, which was oral AKuriT-4 4 tablets OD and vitamin B6 20 mg OD in intensive phase for 2 months, followed by oral isoniazid 300 mg OD, rifampicin 600 mg OD and vitamin B6 20 for 7 months. She had completed 9 months of treatment and been asymptomatic since then.

5. Discussion

Figure 1  Endoscopic view of laryngeal tuberculosis. Ulcerative lesions of supraglottic structures involving epiglottis, arypepiglottic fold, arytenoid and false cord.