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Primary nasopharyngeal tuberculosis: About 5 cases

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Abstract

Nasopharyngeal tuberculosis is a rare entity of extrapulmonary tuberculosis. We describe here 5 cases of primarily tuberculosis presented in ENT outpatient department of 20 August Hospital of CHU Ibn Rochd of Casablanca. 5 patients were enrolled in this study (3 males and 2 females). The main complaints were nasal obstruction and epistaxis. Clinical examination found no cervical lymphadenopathies and nasal endoscopy found a pale pink mass in all patients. Histological examination confirmed the diagnosis of tuberculosis. All patients showed a complete resolution of the disease after 6 months treatment.

Introduction

Tuberculosis is the leading cause of infectious mortality and continues to be a major challenge to global health [1]. With most frequent site being lungs, nasopharyngeal tuberculosis is a rare type of extrapulmonary tuberculosis comprising only less than 1% of tuberculosis found in the upper respiratory tract [2].

We are presenting here 5 cases of primary tuberculosis affecting the nasopharynx which is one of rare differential diagnosis of nasopharyngeal mass.

Methods

We report 5 cases of nasopharyngeal tuberculosis presented in ENT outpatient department of 20 August Hospital of CHU Ibn Rochd of Casablanca between September 2016 and February 2018. The management of these patients was based on nasal endoscopy with biopsy and histological examination and x-ray chest. Epidemiological, clinical, therapeutic and evolutionary parameters were studied. A control by nasal endoscopy was carried out after 6 months of treatment.

Results

This retrospective descriptive study enrolled 5 patients (3 females and 2 males) with mean age of 36 years, range 25-53. No significant past medical or surgical history could be elicited. The main complaints were nasal obstruction and epistaxis. No history of evening rise fever, weight loss, cough or contact with tuberculous patients was noticed. Clinical exam found no cervical lymphadenopathies in all patients. Nasal drip on examination of throat was noticed in 3 patients. Normal tympanic membranes were found in all patients. Nasal endoscopy showed pale pink mass of the nasopharynx in all patients. Biopsy of the nasopharyngeal mass was performed in all patients and unveiled multiple intense chronic inflammatory reaction along with Langerhans giant cells and epithelioid cells. Special stains were employed and showed the presence of acid-fast bacilli.

All patients had normal X-ray chest. Final diagnosis of primary nasopharyngeal was made. The patients were treated by antitubercular drugs for six months as per WHO recommendation. A 6-month follow-up for all patients was done and revealed normal nasopharyngeal mucosa with good recovery.

Discussion

Nasopharyngeal lesions have many differential diagnoses including malignancy (squamous cell carcinoma, lymphoma), fungal infection (aspergillosis, mucormycosis), granulomatous inflammation (sarcoidosis, leprosy, syphilis, tuberculosis) and autoimmune disease [3].

Nasopharyngeal tuberculosis is a rare entity, even in endemic tuberculosis areas [4-6]. Two potential pathways of infection have been described. In primary nasopharyngeal tuberculosis, infection occurs directly via nasal ventilation. In secondary disease, infection spreads from site which is mostly lungs, or via haematogenous or lymphogenous spread [7].

The most common symptoms of nasopharyngeal tuberculosis are cervical lymphadenopathy, weight loss, fever, epistaxis, nasal obstruction, hearing loss, otalgia, tinnitus, postnasal drip and night sweats [8]. In the present cases, the main symptoms were epistaxis and nasal obstruction. No cervical lymphadenopathy was found, and no lesion of pulmonary tuberculosis was noticed on x-ray chest.

The diagnosis of nasopharyngeal tuberculosis is based on the histopathological and microbiological findings from biopsy material [9]. Histopathological examination typically reveals granulomatous inflammation with epithelioid giant cells and caseous necrosis. Ziehl-Neelsen staining can reveal acid-fast bacilli but biological culture after four to six weeks is more sensitive. The Polymerase Chain Reaction (PCR) test is the gold standard of identifying the tuberculous bacilli [10]. With oral samples, sensitivity increase from 2 to 17 % on culture to 89-100 % on PCR. In our cases, PCR have not been used due to its inaccessibility.

The treatment of nasopharyngeal tuberculosis is anti-tuberculous triple therapy including isoniazid, rifampicin and ethambutol, or quadritherapy with pyrazinamide for at least six months [6].

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When treated correctly, nasopharyngeal tuberculosis carries an excellent prognosis, and complete resolution of disease is the rule [4].

Conclusion

Nasopharyngeal mass should be nasopharyngeal carcinoma until otherwise. Histological examination of multiple (and sometimes repeated) biopsies is needed both to exclude malignant mass and to confirm tuberculosis. PCR can be very helpful when tuberculosis is strongly suspected, and the culture is negative.

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