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Primary Tuberculosis of Larynx- a Case Report

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Abstract **Case Report**

Laryngeal tuberculosis is a rare disease, it can mimic a malignant tumor delaying the diagnosis and worsening the prognosis. Histological examination is a reliable and easy to perform element for positive diagnosis. We report isolated laryngeal tuberculosis case histologically confirmed. The medical treatment with antibacterials antibacillary has been continued for 6 months. The evolution was good, with an average decline of one year.

Keyswords: Odynophagia, epiglottis, tuberculosis, chemotherapy.

INTRODUCTION

Tuberculosis is an infection caused by Mycobacterium tuberculosis. Laryngeal localization is very rare. Clinical symptomatology, and macroscopic lesions may mislead the clinician into a neoplastic etiology.

Clinical and endoscopic examinations have no specificity in the case of laryngeal tuberculosis. Only the typical histological results or the bacteriological results make it possible to confirm the tuberculous origin of the laryngeal symptomatology.

The purpose of this study is to underline the difficulties of laryngeal tuberculosis diagnosis, which may simulate tumors, lymphoma, vasculitis or other infections.

Case Report

It's an 25 years old woman, having as antecedents a mother treated for pulmonary tuberculosis for 3 years, consulting for an odynophagia with night fever and sweats evolving for a month, without notion of slimming. She was vaccinated with BCG and had received no corticosteroid or immunosuppressive therapy.

The physical examination revealed a fever of 38°C. There was no lymphadenopathy or hepatosplenomegaly. Cardiac, respiratory, neurological, muscular, ophthalmological and osteoarticular examinations were without abnormalities.

The biological examination revealed an inflammatory syndrome with a sedimentation rate at 50 mm, a C reactive protein at 25 mg / l. The blood count study showed an inflammatory microcytic hypochromic anemia (hemoglobin: 10.5 g / dl), white blood cells at 6000 / mm3 and a normal platelet count of 450,000 / mm3. There was no biological stigma of malabsorption. Renal and hepatic functions were normal.

In addition, bacteriological examinations of sputum in search of Mycobacterium tuberculosis were negative. Laryngoscopy shows whitish nodules on the free edge of the epiglottis, without any thickening or paralysis of the vocal cords.

The histological examination made from the epiglottis biopsies objectified a tissue bordered by regular squamous epithelium and resting on a chorion dissociated by a lymphoid inflammatory infiltrate sheltering a small epitheloid follicle without giant cell or caseous necrosis, compatible with a tubercular origin. No signs of malignancy or vasculitis were objectified (Figure-1). Culture of laryngeal tissues injured on Lowenstein Jensen medium was positive.

No other TB sites were found by physical examination or imaging (standard radiography and computed tomography).

Treatment was corresponding to a combination of isoniazid, rifampicin, pyrazinamide and ethambutol for two months and then relayed by isoniazid and rifampicin combination for ten months has a total resolution of clinical, biological and endoscopic signs

equilibration with diabetes. The patient did not experience any adverse effects of his TB treatment.

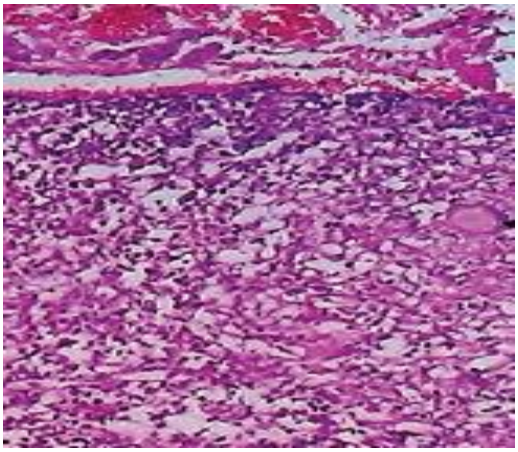

Fig-1: Histopathology showing ill-defined granulomas and giant cells beneath the lining epithelium

DISCUSSION

Laryngeal tuberculosis was a classic presentation of the disease before the onset of antibiotic treatment. Laryngeal tuberculosis accounts for 1% of all extrathoracic locations of tuberculosis [1].

It can be seen at all ages, but especially in young adults between 20 and 50 years without BCG vaccination and malnourished, or may be associated with AIDS and smoking [2, 3].

The primitive location is exceptional [1, 2]. The most common symptoms are hoarseness, odynophagia and dyspnea [4].

Other rarer clinical signs have been reported: stridor, persistent dry cough, sleep apnea syndrome. The existence of lymphadenopathy and / or recurrent paralysis can guide the diagnosis to a cancer etiology [5].

Many non-specific clinical elements make possible to suspect this diagnosis, such as the low socioeconomic level of the patient, short history disease, pain, febrile syndrome and cutaneous fistulization [6].

The vocal cords remain the most common localization, followed by the arytenoid cartilage, the false vocal cords and the epiglottis [3].

The spread is due either to the aerosolization of the germ in the context of an associated pulmonary involvement, or to the hematogenous and lymphatic system [7].

Laryngeal computed tomography (CT) demonstrates diffuse, bilateral lesions without destruction of the laryngeal architecture. The amputation of the epiglottis free edge, sometimes present, leads to the diagnosis [8].

Laryngeal tuberculosis can manifest itself as a lesion ranging from erythema to ulceration to a pseudotumoral mass appearance.

An intra-dermal positive tuberculin reaction and positive Quantiferon test favor tuberculous lesions. The typical anatomopatological findings are represented by granulomas with caseous necrosis at their center associated with giant cells of the Langhan type or atypical (inflammation chronic granulomatosis or chronic inflammation without necrosis) responsible for a diagnostic delay. The presence of acid-fast bacilli in the biopsy room confirms the diagnosis [9].

The bacteriological diagnosis is based on the detection of tuberculosis bacilli, M. tuberculosis (the most common), M. bovis or M. africanum, all three species called "complex tuberculosis" [10].

Among the 25 cases of laryngeal tuberculosis in the Hasibi M et al series, 19 cases had typical histological lesions whereas 6 patients had atypical pathological features (granulomatous or chronic inflammation without necrosis). The diagnostic delay was 2-12 months since the onset of symptoms. This delay in diagnosis may worsen the laryngeal prognosis, especially in immunocompromised patients [11].

Histological examination, without bacteriological study, does not differentiate. Tuberculosis of another granulomatous condition such as sarcoidosis, amyloidosis, laryngeal syphilis (actinomycosis, blastomycosis, histoplasmosis), Wegener granulomas ,Laryngeal cancer, a chronic laryngitis resistant to conventional treatments, are the main differential diagnoses [12].

HIV serology should be proposed, taking into account the frequency of both AIDS and tuberculosis infections coexistence [13].

The treatment is based on conventional anti-tuberculosis chemotherapy which must be initiated as soon as possible after the diagnosis [14].

Laser excision of lesions before diagnosis confirmation should be avoided because well-managed antituberculous treatment allows a favorable evolution and reversibility of vocal cord paralysis [15]. Rapid amendment of symptoms is obtained in a few weeks, andof the lesions in a few months.

CONCLUSION

An ulcerated or pseudo-tumoral lesion of the larynx must be systematically searched for laryngeal

tuberculosis whose diagnosis of certainty is histological and / or bacteriological.

The excellent functional prognosis under antibacillary chemotherapy makes rapid diagnosis, in order to avoid the use of invasive therapeutic procedures such as surgery in the acute or chronic phase

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