Concurrent miliary tuberculosis with secondary laryngeal involvement

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Paraschivescu Iuliana Cosmina1, Zainea Viorel1,2, Tănase Asmara2, Ioniţă Irina-Gabriela1,2, Pietroşanu Cătălina1,2, Rusescu Andreea1,2, Pulpă Raluca Oana1,2, Alius Ruxandra Oana2, Hainăroşie Răzvan1,2
1."Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania;
2."Prof. Dr. D. Hociotă" Institute of Phonoaudiology and Functional ENT Surgery, Bucharest, Romania;

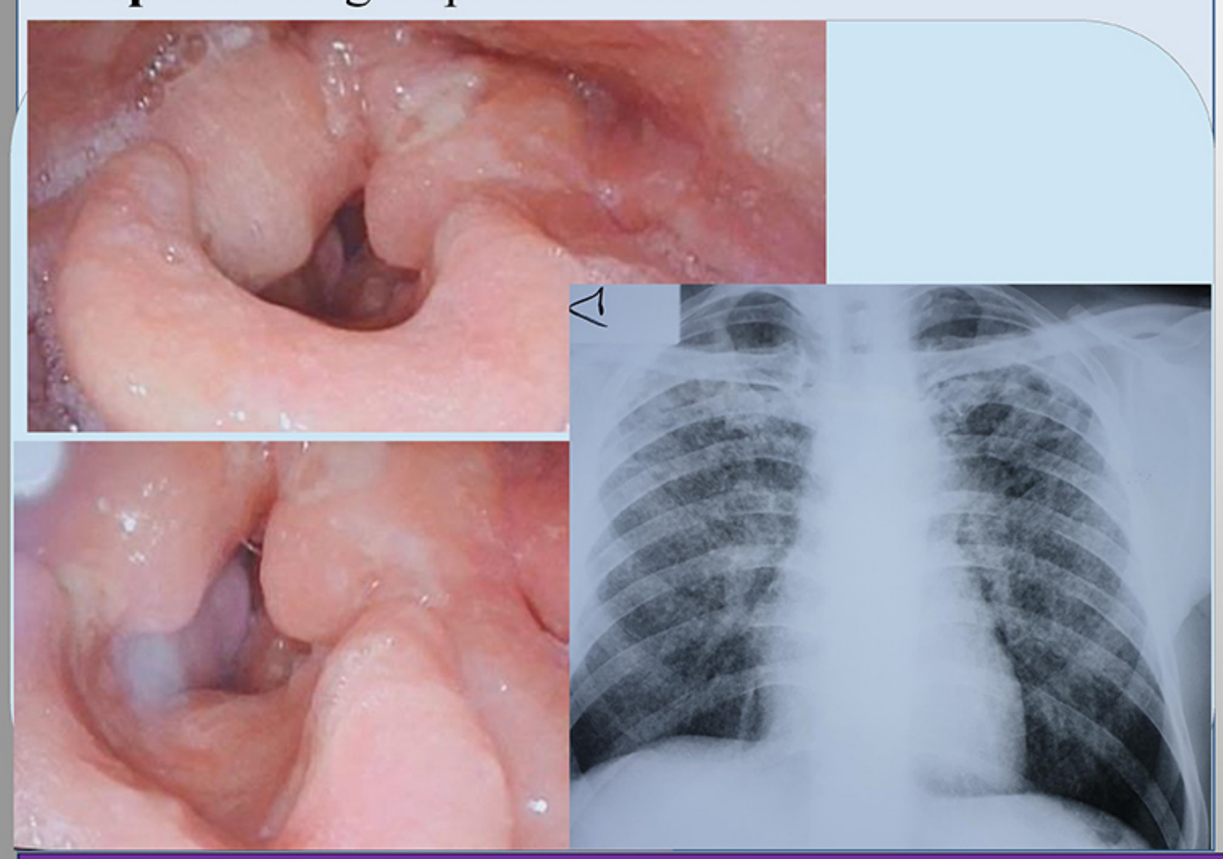
Introduction

Laryngeal TB is the most frequent **granulomatous disorder** of the larynx.[1,2]
The pathogenesis of laryngeal tuberculosis is explained both by a **primary infection** and by the possibility of a **secondary infection**. Typically it originates as a consequence of **direct contamination** with mycobacterium tuberculosis of the larynx from infected sputum. But it can also occur on account of **hematogenous dissemination**. As a result of hematogenous and lymphatic spreading, **the specific lesions** of LT may concern **all parts of the larynx**.
With the beginning of the **antibiotic era**, the involvement of the larynx in tuberculosis has become **a rare phenomenon**, with an incidence of 1%. [3,4]

Materials and Methods

Case Report

A 48-year-old man, presented in our clinic with a six-month history of persistent **dysphonia, odynophagia**, associated with **weight loss, cough and muco-purulent expectoration**.
His **medical history** revealed a pleural pericarditis for which a pleural biopsy was practiced. The histopathological examination showed **granulomatous foci** but did not support the diagnosis of TB pleurisy.
Indirect laryngoscopy reveled major edema of both ary-epiglottic folds, edema of the epiglottis, whitish ulcero-proliferative lesion in the anterior two-thirds of bilateral true vocal cords.
The anteroposterior chest X-ray (made as routine diagnostic work-up) showed miliary nodules that were uniform in size and uniformly distributed in both lung parenchyma.
The Xpert MTB/RIF Assay from raw sputum samples which confirmed a high level off Mycobacterium tuberculosis complex.
The patient **was transferred to a specialized hospital** to begin specific treatment.



Results

Extra pulmonary TB in the head and neck region most frequently occurs in the **cervical lymph nodes** (>90%), followed by the **larynx** (2% to 6%). [5]
Over time, the clinical appearance of laryngeal tuberculosis has clearly improved. If patients used to show symptoms of advanced lung disease with productive cough and general systemic symptoms such as fever, weight loss and night sweats, **today the symptoms are very variable**. Often only hoarseness is in the spotlight. [6,7]
Clinically, **a mixture of ulcerous and granulomatous lesions** can be found that resemble the appearance of laryngeal carcinoma.
The differential diagnosis between laryngeal TB and chronic laryngitis or laryngeal carcinoma. in particular, **has become difficult**.
In cases of suspected laryngeal tuberculosis, **chest radiography** or **chest CT** are appropriate first steps to evaluate for pulmonary involvement. The next step in diagnosis management are **sputum cultures** which should also be obtained in all patients with suspected laryngeal tuberculosis. [8]
There are two peculiarities of the present case
1- **the presence of the miliary tuberculosis** which is a potentially fatal form of the disseminated disease;
2 – the clinical presentation of **highly suggestive laryngeal carcinoma.**

Conclusions

Laryngeal tuberculosis is a **rare condition** that requires a **high degree of clinical suspicion** for diagnosing.
If misdiagnosed, laryngeal TB can have severe consequences for the patient and anyone he comes in contact with. For that reason, it is important for otolaryngologists to acknowledge the altered pattern of laryngeal TB and to be familiar with **its similarity to malignancy.**

References

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