

TUBERCULOSIS OF THYROID GLAND

Khalid Hussain, Aurangzeb*, Jovaria Masood

Combined Military Hospital Multan,* Military Hospital Rawalpindi

INTRODUCTION

Tuberculosis of the thyroid gland is extremely uncommon even in areas where tuberculosis is a common disease¹. Barely 200 cases of thyroid tuberculosis have been reported in world literature and almost all have been associated with tuberculosis elsewhere in the body². In most of the reported cases, patients were clinically and biochemically euthyroid. Although tuberculosis of the thyroid gland is uncommon, it should be included in differential diagnosis of every thyroid swelling.

CASE REPORT

A 55 year old female reported to the emergency department with history of dysphagia, low grade fever, anterior neck swelling and weight loss of 3.5 kg for the last 3-4 months. On examination, she had a multinodular, firm neck swelling with dominant nodule in the left lobe (Fig). Swelling was moving with swallowing, there was no lymphadenopathy and carotids were palpable bilaterally. Clinically she was euthyroid. Her lab investigation revealed hemoglobin 12.2 gm/dl, TLC $14.0 \times 10^9/L$ (Neut 57% and lymph 31%); platelet $328 \times 10^9 /L$ and ESR 36 mm fall at the end of 1st hour. Her biochemistry including urea, creatinine, LFTs and bleeding profile were within normal limits. Thyroid functions tests (TSH, FT4 and FT3) revealed euthyroid. Chest X-Rays showed right apical healed tuberculous lesion. Her family history was significant for tuberculosis in one brother. Fine needle aspiration cytology (FNAC) of the dominant nodule in left lobe showed granulomatous inflammation.

Surgical plan was made to relieve obstructive symptom of dysphagia. After pre anesthesia assessment and counseling, bilateral near total thyroidectomy was performed. Post-

operative recovery was uneventful and the final histopathological report showed chronic granulomatous inflammation consistent with tuberculosis of the thyroid gland. Anti tuberculous treatment was prescribed for 9 months along with thyroid replacement therapy with a plan to regularly follow in surgical OPD.

DISCUSSION

The first case of tuberculosis of the thyroid gland was described by Lebert in 1862³. It is found in about 0.1% tuberculosis cases and very few cases have been reported even in high prevalence areas of the world³. The reason for the rarity of the disease is attributable to various factors including bactericidal action of colloid material, increase in blood flow and enhanced phagocytic activity of macrophages in the thyroid tissues⁴.

Symptoms may vary from asymptomatic



Figure: Thyroid swelling due to tuberculosis.

mass in the neck to low grade fever, malaise and weight loss. There may be symptoms of disease elsewhere. Advanced cases may present with dysphagia, dyspnea and recurrent laryngeal nerve palsy. The affected side is enlarged, smooth and firm in consistency. It may be fixed to the underlying structures and sometimes mimic carcinoma.

Diagnosis depends upon high index of suspicion. Most patients are clinically and biochemically euthyroid. Raised ESR and positive Mantoux test may provide a clue to the

Correspondence: Dr Khalid Hussain, CMH, Multan, Pakistan

Email: khalid2170@yahoo.com

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diagnosis⁴. FNAC and histopathology provide definitive diagnosis of the disease on the basis of caseating granuloma and culture of the Acid Fast Bacilli. Chest X-Ray and PCR are other investigation modalities⁵.

Anti tuberculous drugs are the mainstays of treatment. Incision and drainage is performed in case of abscess to preserve thyroid tissue from destruction and thyroidectomy of obstructive symptoms⁵.

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