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CASE REPORT

RARE CASE OF TUBERCULOSIS OF THYROID

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Abstract

Tuberculosis of thyroid is a very rare disease even in countries in which tuberculosis constitutes an endemic disorder[1][2].The incidence of extra pulmonary tuberculosis has been showing a progressive increase in recent years. We present a rare case of tuberculosis of thyroid .

KEYWORDS: Tuberculosis, Thyroid, Extra pulmonary tuberculosis.

INTRODUCTION

Thyroid gland infections are uncommon because of its high resistance to infection. Inspite of this fact, tuberculosis of thyroid gland can be rarely seen with an incidence of 0.1% - 0.4%[3]. The clinicians rarely take tuberculosis of thyroid into consideration in the different diseases of goiter and midline neck swellings. Tuberculosis of thyroid can be seen in the various histological forms like multiple thyroidal granulomata, goiter with caseation, cold abscess, chronic fibrosing thyroiditis and acute abscess[4,5,6]. Diagnosis is based on histological study and demonstration of multiple coalesced and caseated epithelioid cell, granulomas with giant cells.

CASE REPORT : We report two cases of tuberculosis of thyroid.

Case 1: A 30 year old female presented to surgical op with history of swelling in the front of the neck on right side of five years duration, gradually increasing in size with no compressive or any associated symptoms. On examination, she had a non tender nodule in right lobe thyroid. No palpable lymph nodes in drainage area. Systemic examination was unremarkable. Patient was clinically in euthyroid state. FNAC showed as nodular goitre. Chest x-ray was normal. Routine investigations were normal.

Rthemithyroidectomy was performed. Histopathology report showed, follicular adenoma with chronic granulomatous inflammation along with caseation necrosis; suggestive of tuberculosis. She was put on four drug regimen of ATT for the first three months, followed by three drug regimen for next six months. She completed her treatment and remained asymptomatic

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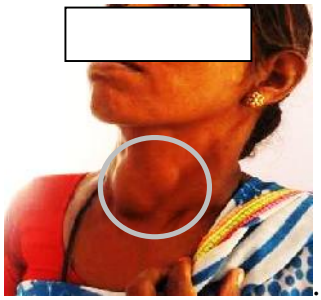

Fig1.Thyroid nodule

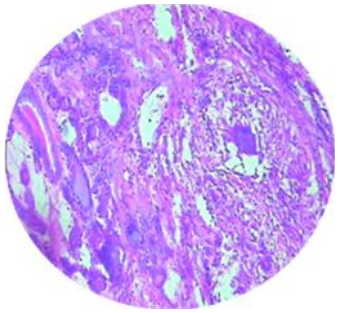

Fig 2. Caseation & a few giant cells

Case 2 : A 62 year old female presented as thyroid cyst on left side of the front of the neck of eight years duration; Four years back swelling was aspirated regressed completely; but reappeared after one year. The swelling was gradually increasing in size ; no associated symptoms. On examination, there was a solitary, non tender, firm nodular swelling on the left side of neck; no cervical lymphadenopathy. Systemic examination was unremarkable. Patient was clinically in euthyroid state. Routine investigations were normal. Ultrasound of thyroid revealed adenoma in the left lobe of thyroid. FNAC revealed granulomatous thyroiditis with caseation necrosis and Langerhan's type giant cells; suggesting tuberculosis.

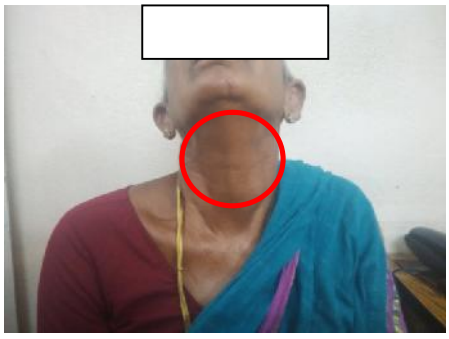

Fig 3.Thyroid nodule

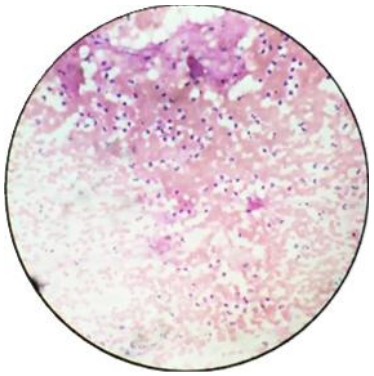

Fig 4.Caseation & giant cells

DISCUSSION:

It is generally considered that certain tissues like heart muscle, striated muscle, thyroid and pancreas are relatively resistant to tuberculosis infection [7].

In tuberculosis of thyroid, the duration of symptoms vary from two weeks to one year. Patients usually present with dysphagia, dyspnoea and rarely recurrent laryngeal nerve palsy. The affected thyroid is always enlarged, smooth and firm in consistency. It may be fixed to underlying tissue. There is no predilection for any age or sex.

The pathology of thyroid in tuberculous inflammation is as follows[8] (1) Multiple lesions throughout the gland like military tuberculosis, (2) Enlargement of gland due to caseating granulomas, (3) Cold abscess formation, sometimes associated with multiple sinuses, (4) Chronic fibrosing tuberculosis, difficult to distinguish from DeQuervan's thyroiditis, (5) Acute abscess formation, when there is danger of making wrong diagnosis of carcinoma.

Many diseases may cause granulomatous inflammation in thyroid, like granulomatous thyroiditis, fungal infection, tuberculosis, sarcoidosis, granulomatous vasculitis and foreign body reaction. However, caseating necrosis is seen only in tuberculous inflammation. The criteria[9] for diagnosis of tuberculosis of thyroid are : (1) demonstration of AFB in a necrotic or abscessed gland, (2) a definite aetiological focus in the body, outside the thyroid. There is no doubt that the presence of AFB is the confirmatory evidence of tuberculosis, but it is not often possible to demonstrate AFB, therefore the diagnosis of tuberculosis of thyroid is usually made only after histopathological examination. In thyroid tuberculosis, the diagnosis is rarely made clinically or during operation and, therefore, the gland is not subjected to culture examination. AFB are usually not seen in histology sections[10]. Therefore the diagnosis of tuberculosis is usually made on histological grounds.

In tuberculosis, involvement of thyroid is always secondary and the spread occurs by lymphogenous or haematogenous route or as contiguous spread from larynx or cervical lymph nodes[4][5]. Thus, even though rare, possibility of tuberculous thyroiditis should be considered in the differential diagnosis of thyroid diseases.

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