

Case Report

Isolated tuberculous thyroiditis

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Abstract

Tuberculosis is a widespread infectious disease caused by various strains of Mycobacteria, usually Mycobacterium tuberculosis¹. Tuberculosis generally affects the lungs, but can also affect other parts of the body. Tuberculosis of the thyroid gland is an extremely rare condition.

We report a case of a 35 years old female patient with isolated Tuberculous Thyroiditis presented as diffuse tenderness and pain in lower part of anterior neck with no visible neck swelling. Fine needle aspiration cytology (FNAC) from the thyroid gland revealed caseating epithelioid granulomas consistent with tuberculosis.

Key words: thyroiditis, Tuberculosis.

Introduction

Isolated involvement of the thyroid gland by tuberculosis though extremely rare has been reported in literature¹. Tuberculosis of thyroid gland is more commonly associated either with miliary, disseminated tuberculosis or with contiguous involvement from the adjacent viscera and spine. We report the case of 3 Isolated tuberculous thyroiditis³ presenting as diffuse tenderness in lower part of anterior neck.

Case report

A 35 years old lady reported sick to us in our hospital with gradually increasing pain and diffuse tenderness in the lower part of the anterior neck for one month. She had no history of fever, weight loss or anorexia. There is no past or family history of tuberculosis.

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Examination of the patient revealed mild visible diffuse swelling but only moderate tenderness in the lower part of the anterior neck on palpation. She had no associated cervical lymphadenopathy. Systemic examinations especially respiratory system and per abdominal examination revealed no abnormalities. Patient was clinically euthyroid.. Clinically our diagnosis was chronic thyroiditis especially autoimmune thyroiditis.

Investigations

The patient underwent a series of investigations initially those included were Complete Blood Counts (CBC), Urine Routine Examination, Blood Sugar (random), FT4, TSH, thyroid antibodies, Chest X-ray, Ultrasound of the neck especially Thyroid gland and Fine Needle Aspiration Cytology (FNAC) of Thyroid gland.

The patient's thyroid function tests were normal. There was no evidence of autoimmune thyroiditis. Ultrasonogram of the thyroid gland revealed mild enlargement of both lobes with heterogenous echotexture with small multiple nodules suggestive of inflammation. There was no cystic lesions

and cervical lymphadenopathy. Ultrasound guided FNAC of the thyroid gland showed caseating epitheloid granulomas establishing a diagnosis of tuberculosis of the thyroid gland. To find out possible source we advised few other investigations i.e. Ultrasonogram of whole abdomen, Echocardiogram, X ray of spine and HIV serology. All revealed no abnormality. Mantoux test result was 10mm×17mm.

The patient was referred to National TB Hospital, Mohakhali, Dhaka for proper supervised antituberculous treatment. She responded well with complete recovery after a standard short course antituberculous therapy of six months.

Discussion

Tuberculous thyroiditis was first recognized in the 1860s. The true incidence of the tuberculous thyroiditis is difficult to determine. Klassen et al reviewed 130 cases reported in world literature before 1945 and concluded.

Mondal et al in their study of the fine needle aspiration cytology (FNAC) of thyroid gland over a period of 9 years observed that tuberculosis of the thyroid though rare is efficiently detected by FNAC. They isolated caseating necrosis with epitheloid granuloma and AFB in all 18 cases, of these only 11 cases had isolated tuberculosis thyroid⁴. The pathogenesis of isolated tuberculous thyroiditis is not clear. It may be haematogenous spread of organisms from the port of entry to the thyroid gland. Many cases appear to be associated with disseminated or millitary tuberculosis or extension from the adjacent viscera, vertebra and even pericardium. that there were considerable differences in the criteria used to establish the diagnosis in those cases². The majority of cases were diagnosed on the basis of

histological demonstration of lymphocytic infiltrate and mere presence of granulomas without acid fast bacilli having been seen either on smear or in tissue or on culture. These changes are nonspecific and may be seen in sarcoidosis, goitrous autoimmune thyroiditis or other noninfectious conditions. Thus it is likely that some of these cases did not represent tuberculosis of the thyroid. But caseating epitheloid granulomas whenever found establishes a diagnosis of tuberculosis. Autopsy study of thyroid disorders (infectious and neoplastic) in 100 AIDS patients isolated Mycobacterium tuberculosis was found in 23% of cases³.

Tuberculous thyroiditis in contrast to bacterial thyroiditis has a subacute history and usually presents with persistent mild to moderate pain, mild tenderness, mild swelling and some times non tender modularity in most reported cases. A differentiation from thyroid cancer is essential to avoid unnecessary thyroid surgery⁵.

Resolution without residual usually follows appropriate antituberculous therapy or in case of a fluctuant abscess ready to drain spontaneously, the combination of surgical drainage (or resection) and anti mycobacterial treatment is considered the treatment of choice.

Tuberculous thyroiditis has to be kept in mind in the differential diagnosis of mild pain, tenderness, swelling and modularity of thyroid gland especially with resurgence of tuberculosis in this era of AIDS epidemics.

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