INTRODUCTION
Thyroid Tuberculosis is extremely rare. Only 200 cases have been recorded in the English language literature since the first case reported by Leber (Sadykov and Mukhtarov, 1987; Pazaitou et al., 2002; Terzidis et al., 2007; Mondal and Patra, 1995; Ghosh et al., 2007). It is observed that certain tissues are relatively resistant to tuberculous infection, and so it is rare to find tubercles in heart, striated muscle, thyroid and pancreas. The exact incidence of thyroid tuberculosis is not known, although various studies report a frequency varying from 0.2% in chronic thyroiditis to 7% among miliary tuberculosis cases (Simkus, 2004). Most of the cases in literature have been reported in middle-aged females, with the most common presentation being a solitary thyroid nodule.

Case report
We recently came across an interesting case of a 31 year old woman who presented with gradually increasing swelling over the anterior part of the neck on left side since 6 months. There was a recent development of painful deglutition for the past 1 month. She had undergone subtotal thyroidectomy 5 years back for multinodular goiter. There was no history of dyspnea or hoarseness of voice. Local examination revealed solitary nodule of thyroid on left side measuring 3.5 x 3 cms in size and moving well with deglutition but not with protrusion of tongue.

There was no fixity or retrosternal extension of thyroid swelling. No cervical or axillary lymphadenopathy was noted. Routine hematologic and biochemical investigations were within the normal range. The thyroid-stimulating hormone, free T4 and free T4 were within the reference ranges. Chest radiograph and electrocardiogram was normal. Ultrasonography of the neck revealed localised collection adjacent to remaining left lobe of thyroid probably infective in etiology. Fine-needle aspiration cytology (FNAC) of the swelling was suggestive haemorrhagic smear with no evidence of thyroid follicular cells. Thyroid Scan showed multiple foci of radiotracer concentration corresponding to clinically palpable neck swellings in operated thyroid bed suggestive of recurrent multinodular goiter. In view of solitary thyroid nodule, the patient posted for left hemi-thyroidectomy. Intraoperatively, caseating material was seen which was sent for histopathological examination. Histopathological Examination reported tuberculous inflammation of thyroid. Microscopically, there were epithelioid cell granulomas, dense lymphoplasmacell and neutrophilic infiltrate along with extensive caseous necrosis. Patient started on anti-tuberculous therapy and is being followed up.

DISCUSSION
Tuberculosis can affect any part of the body, yet thyroid involvement is extremely rare. The exact reason for the rarity of the tuberculosis of thyroid is unknown. Primary involvement of thyroid gland is difficult to explain. A latent focus of infection perhaps is of great importance in the development of such type of extra-pulmonary tuberculosis (Barnes and
Weatherstone, 1979). This is in contrast to the thyroid involvement associated with pulmonary or extra-pulmonary tuberculosis, where spread of disease occurs by hematogenous or lymphogenous route, or directly from larynx or tubercular cervical lymphadenitis. Miliary spread to thyroid gland as a part of generalized dissemination has never been diagnosed preoperatively (Simkus, 2004). Few cases of tubercular abscess may need drainage and surgical removal of the thyroid gland is required only very rarely, especially in cases simulating carcinoma.

The important differential diagnoses are thyroid cancer, acute thyroiditis, Riedel thyroiditis and thyroid nodules. Lymphocytic infiltration and presence of granulomas may also be seen in sarcoidosis, subacute granulomatous thyroiditis and goitrous autoimmune thyroiditis. Sarcoidosis and subacute granulomatous thyroiditis may also produce epithelioid cell granulomas in the thyroid gland but these can be differentiated from tuberculous thyroiditis by the presence of caseation necrosis in the latter. Subacute granulomatous thyroiditis demonstrates giant cells surrounding the foci of degenerating follicles. There are few reports of tuberculous thyroiditis coexisting with a thyroid carcinoma, and this should be borne in mind in cases of granulomatous thyroiditis (Bulbuloglu et al., 2006).

**Conclusion**

The atypical manifestation of tuberculosis of thyroid suggested that it is important to reinforce the knowledge of this disease. Although a rare condition, tuberculosis of thyroid should be considered in the differential diagnosis of thyroid swellings, particularly in areas with high prevalence of tuberculosis. It can have a varied presentation as a solitary nodule, multinodular goiter, or a diffuse goiter. FNAC may help in arriving at a preoperative diagnosis and institution of medical therapy. In cases where this is not possible, surgery may be required, especially to exclude the possibility of carcinoma of the thyroid. Preoperative diagnosis of thyroid tuberculosis is important because of the availability of medical treatment and the limited role of surgery.

**REFERENCES**


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