



A RARE CASE OF NODULAR GOITRE PRESENTING AS A HASHIMOTO'S THYROIDITIS

General Surgery

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ABSTRACT

The prevalent thyroid condition Hashimoto's thyroiditis (HT) is now classified as the autoimmune thyroid disorder (AITD). A comprehensive medical history, clear assessment of the neck area, ultrasonogram of thyroid gland and fine needle aspiration cytology help to identify subjects who will profit from thyroid surgery. Hereby in this case report the flow of ideas and critical points of diagnostic work up for a patient presenting to us with a nodular goitre have been discussed. The diagnostic dilemmas faced at each step of evaluation showing the variety at which thyroid disorders present to us in the practice. The prevalence of Hashimoto's thyroiditis in surgical specimens is fairly high, particularly for a disease with clinicopathological characteristics that are so specific that thyroidectomy should hardly be utilized as a last resort for diagnosis and treatment. This is likely due to the difficulty of explaining the difference between thyroiditis and a thyroid neoplasm in few cases.

KEYWORDS

Hashimoto's thyroiditis, Hypothyroidism, Nodular goitre, Thyroidectomy.

1. INTRODUCTION

Autoimmune thyroid disorders are frequent causes of thyroiditis or thyroid inflammation, and one of the most common causes of hypothyroidism is Hashimoto's thyroiditis. These diseases are clinically diagnosed with a detailed history and physical examination, biochemically using autoimmune antibody levels, ultrasound and thyroid uptake scans radiographically. While the primary concern for care is not necessarily an surgical treatment, certain situations make surgery essential to the management of the disease.

2. Case Report

A 34 years old lady presented with the Chief complaints of swelling in front of the neck for the past 2 years. Patient noticed the Swelling in-front of the neck, insidious onset, gradually progressive in size to attain the present size. Associated with dull pain on and off since past 5 months. She is a known case of Hypothyroidism and on regular medication.

On examination Patient's general condition was fair and vitals stable. A single swelling of 3x3 cm present in-front of the neck that moves with deglutition at the region of thyroid more towards right with smooth surface, Soft-Firm in consistency and well-defined borders palpated deep to the Deep cervical fascia. Carotid pulsation felt equally at the same level on both sides. No other swellings palpable.

Thyroid profile showed TSH – 1.42, FT3 – 2.8, FT4 – 1.42 and Ultrasound of the Neck revealed A large well-defined round to oval iso-hypoechoic nodule of 3.1x2.6x3.3 cm in the right lobe of thyroid with significant internal and peripheral vascularity, An iso-hypoechoic nodule of 1.6x1.4x1.9 cm with cystic space measuring 5.4x4.8 mm in the left lobe of thyroid with significant internal and peripheral vascularity.

FNAC Picture suggestive of follicular neoplasm (Bethesda IV), Other lab parameters were normal. Patient was assessed and taken up for Total thyroidectomy under general anesthesia, intra-operatively Diffuse asymmetrical enlargement of thyroid, more of right lobe with a nodule of 4cm in the right lobe lower pole and a small nodule of 2cm present in the left lobe lower pole of thyroid was seen. Post-operative period was uneventful with excellent esthetic results.

HPE revealed proliferation of small and large acini many are colloid filled and lined by large cuboidal cells with pale nuclei, no overlapping. Fibrous tissue condensation seen around thyroid follicles showing varying levels of interstitial lymphocytes and fibrous tissue in between suggestive of NODULAR(ADENOMATOUS) GOITRE WITH HASHIMOTO'S THYROIDITIS CHANGES.

3. DISCUSSION

During 1912, Hashimoto identified four individuals with chronic disease of thyroid gland characterized by diffuse lymphocytic

infiltration, fibrosis, parenchymal atrophy, and eosinophilic variations in certain acinar cells.

Anti-thyroid antibodies, like anti-thyroid peroxidase (anti-TPO), anti-thyroglobulin (anti-Tg), and thyroid-stimulating hormone (TSH) stimulation blocking antibody (TSBAbs) causing inflammatory reactions.[3]

The progression of Hashimoto's thyroiditis is gradual and insidious. Hashimoto's thyroiditis evolves from gradual atrophy of follicular tissue secondary to infiltration of primarily mature lymphocytic cells. [6]

For most patients of Hashimoto's thyroiditis, medical treatment is generally chosen. This involves patients with both hypothyroidism and hyperthyroidism.

Doubt of malignancy, tracheal/esophageal compression and discomfort are the generally known indicators for surgery.

Nevertheless, for cosmetic reasons certain patients with chronic, largely asymptomatic and euthyroid goitre often undergo surgery. [5] Serum thyroid profile, autoimmune antibodies, neck ultrasonography and FNAC biopsy can confirm the diagnosis of Hashimoto's thyroiditis in majority of the patients While, in the remaining the diagnosis was based on the intraoperative findings as well as the histopathological examination results. Complications of thyroidectomy are more common in patients with Hashimoto's thyroiditis. Surgical dissection of the thyroid gland is more difficult with an enlarged and densely fibrotic gland.

The most serious complications are recurrent laryngeal nerve injury and hypocalcemia.[5] Utilising advanced high resolution ultrasound, thyroid nodules are found in up to 76 percent of healthy people yet only a handful of such nodules are malignant or symptomatic. Individuals diagnosed with Hashimoto's thyroiditis also have showed a risk of harbouring papillary thyroid carcinoma.[7]

Several classes for thyroid imaging reporting and data systems (TI-RADS) have been implemented in the last 10 years. The TI-RADS classification is a standardized examination of thyroid nodules and the thyroid ultrasound risk stratification system that helps to recognize those nodules with a significant risk of cancer. [8]

Thus a nodular goitre presenting clinically, FNAC revealing it to be a follicular neoplasm and post surgery HPE shows a picture of hashimotos thyroiditis is a rare scenario and so showing a wide variety and rarity of presentations of thyroid disorders.

4. CONCLUSION

Hashimotos thyroiditis is still a most common cause of thyroiditis in

this population and should always be thought of as it may present in different varieties. Total thyroidectomy can be considered as a treatment for such variable presentations of benign thyroid disorders in cases where malignant neoplasm of thyroid can't be ruled out.



5. Figures & Illustrations

- **Figure 1: (a,b) Intraoperative findings with total thyroidectomy specimen with Globular swelling of 3cm in diameter in the right lobe of thyroid.**

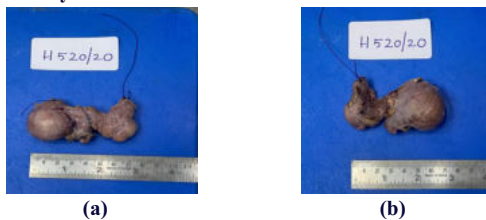
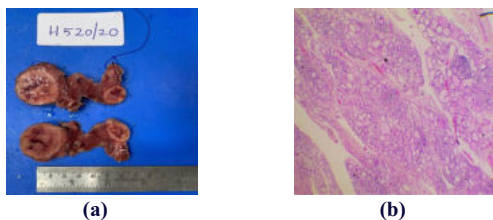


Figure 2 : (a,b) Total thyroidectomy specimen measuring 3.5x5.5x3cms in toto, Right lobe measures 5x3x2.5cms, left lobe measures 5x2.5x1.5cms and isthmus measures 1.5x2.5cms.



- **Figure 3 : (a,b) Cut surface of the total thyroidectomy specimen Shows right, single, well encapsulated nodule measuring 3cm in diameter, grey-white & focal grey-brown areas in the lower pole with surrounding compressed thyroid tissue. (a) varying size acini, fibrous tissue and lymphocytic infiltration of the thyroid gland. (b)**

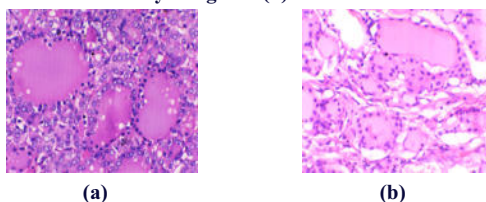


Figure 4 : (a,b) Large cuboidal cells, no pale nuclei, no overlapping of nuclei and colloid filled acini (a). Follicular cells and collection of oxyphilic cells (b).

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