



# A Case Report Of Hashimotos Thyroiditis Presenting As A Nodular Goitre

Dr. Ganesh Guru<sup>1\*</sup>, Dr. Vaishali R<sup>2</sup>

<sup>1\*</sup>Senior Resident, Department of General Surgery, Sree Balaji Medical College and Hospital Chromepet

<sup>2</sup>Post Graduate, Department of General Surgery, Sree Balaji Medical College and Hospital Chromepet

\*Corresponding Author: Dr Ganesh Guru

\*Senior Resident, Department of General Surgery, Sree Balaji Medical College and Hospital Chromepet

**Citation:** Dr. Ganesh Guru, Dr. Vaishali R.(2024), A Case Report Of Hashimotos Thyroiditis Presenting As A Nodular Goitre, *Educational Administration: Theory And Practice*, 30(4), 5625-5627

Doi:10.53555/kuevy.v30i4.2258

## ARTICLE INFO

## ABSTRACT

Thyroid disease is widely present in our population nowadays. Hashimoto's thyroiditis (HT) is now classified under Autoimmune Thyroid Disorder (AITD). It is also called chronic lymphocytic thyroiditis. The immune system produces antibodies that target the gland. A thorough history, a complete examination of the neck, thyroid ultrasound, and a FNAC can reveal the real pathology of the thyroid problem so that we can decide about the line of management. In this case report, we discuss the ideology and components of various steps involved in the treatment and management of nodular goitre. The challenges encountered at every step of the evaluation highlight the wide spectrum of thyroid issues we see in everyday practice. Thyroidectomy should be considered as the last modality for diagnosis and therapy because the occurrence of Hashimoto's thyroiditis in HPE is very common. This is owing to the difficulty in conveying the complexities involved in distinguishing thyroiditis from thyroid cancer in a few cases.

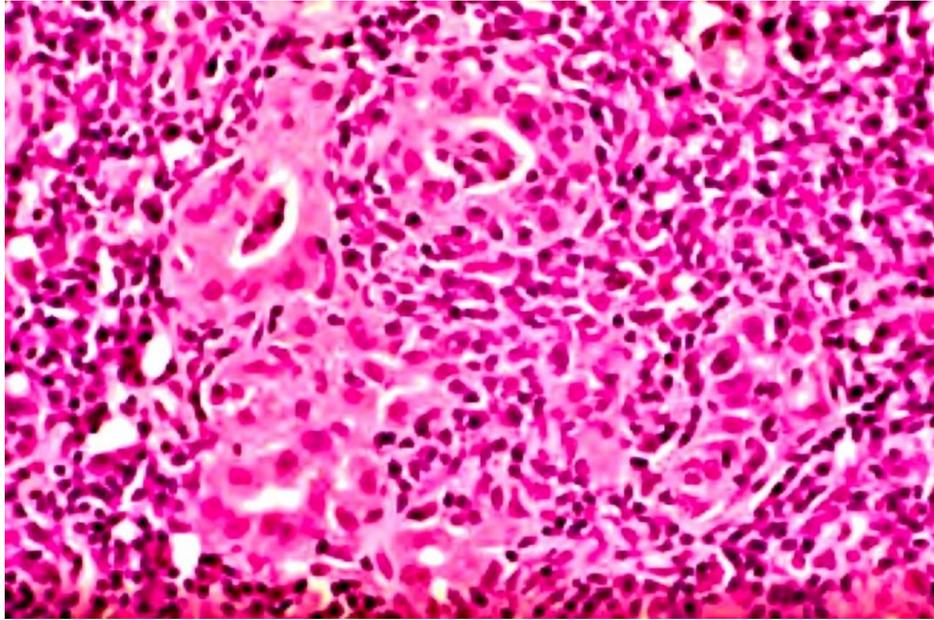
**KeyWords:** Nodular goitre, Hashimoto's thyroiditis, thyroidectomy

## Introduction

Thyroiditis or thyroid inflammation is commonly caused by autoimmune thyroid disorders, and Hashimoto's thyroiditis is one of the major causes of hypothyroidism. Clinically, these disorders are identified through medical history, general physical examination, autoimmune antibody levels, ultrasonography, and radiography with an uptake scan of the thyroid gland. Surgery is not always required, there are some special instances that require surgery as a treatment.

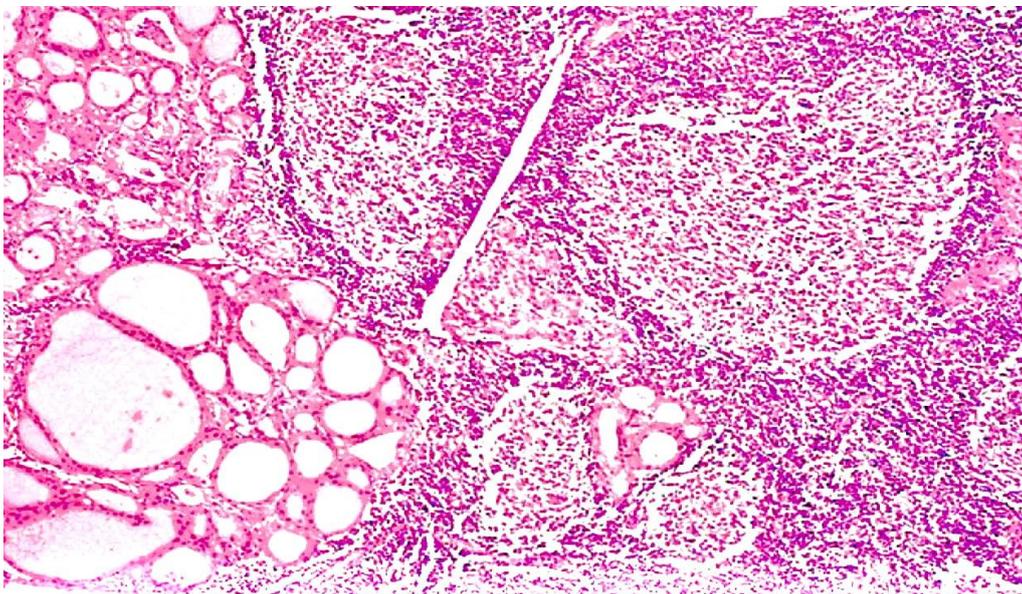
## Case report

A 36-year-old woman arrived at the hospital with swelling in front of her neck over the last three years. The swelling was insidious in onset and steadily increased in size until it reached its current size. The patient also had pain which was dull aching in nature and non-radiating. She has hypothyroidism and is taking medications for the same. The patient's overall health was fair, and her vital signs were stable. A single 4\*4 cm swelling in the right lobe of the thyroid that moves with deglutition, with a smooth surface, soft-firm consistency with well-defined margins, and less prominent on contraction of the neck muscles and fascia. Carotid pulse was felt equally on both sides. No additional swellings were noted.



**Figure 1 shows acinar destruction and fibrosis in Hashimoto's thyroiditis<sup>7</sup>**

Thyroid profile revealed TSH-1.48, iFT<sub>3</sub>-3.2, FT<sub>4</sub>- 1.89 and neck ultrasound showed a large well-defined round to oval hypoechoic nodule of 4.2 \* 3.1 \* 4.2 cm in the right lobe of thyroid with significant internal and peripheral vascularity and a hypoechoic nodule of 2.1 \* 1.7 \* 2.4 cm with cystic space measuring 5.2 \* 4.7 mm in the left lobe of thyroid with significant internal and peripheral vascularity. FNAC showed follicular neoplasm. The laboratory parameters were found to be normal. Pre anesthetic workup was done, patient was prepared for total thyroidectomy. Intra op findings: Irregular thyroid enlargement was seen; in the lower pole of the right lobe a 4 cm nodule was seen and in the lower pole of the left lobe 2 cm nodule was noted within the thyroid gland. No complications were noted in the postoperative period and the aesthetic results were achieved.



**Figure 2 shows dense lymphocytic infiltrates with germinal centers along with hurtle cells**

Histopathological examination report showed the growth of smaller and larger acini, many of which are colloid-filled and surrounded by huge cuboidal cells with pale nuclei that do not overlap. Fibrous tissue condensation surrounding thyroid follicles with differing degrees of interstitial lymphocytes and fibrous tissue in between, indicating Nodular Goitre showing changes of Hashimoto's Thyroiditis.

### **Discussion**

Hashimoto discovered some patients who had chronic thyroid illness with extensive lymphocytic infiltration, fibrosis, and atrophy of parenchyma with some acinar cells showing eosinophilic alterations. Hashimoto's

thyroiditis is a disease that develops slowly and gradually. Hashimoto's thyroiditis develops over time when follicular tissue deteriorates due to the invasion of primarily mature lymphocytic cells.<sup>1</sup>

Medical therapy is usually recommended for Hashimoto's thyroiditis for both patients with hypothyroidism and hyperthyroidism. Surgery is recommended when there is a suspicion of neoplasia, tracheal/esophageal pressure effects, or discomfort. However, some people with prolonged illness, usually not symptomatic, and euthyroid goitre undergo surgery for aesthetic reasons. Many individuals are diagnosed with Hashimoto's thyroiditis using a serum thyroid profile, autoimmune antibodies, neck ultrasonography, and FNAC biopsy.

The rest of the cases were diagnosed based on observations of the gland on the table in addition to the results of the histological analysis. In individuals with Hashimoto's thyroiditis, thyroidectomy complications are more prevalent. A thyroid gland that is large and highly fibrotic makes surgical dissection more challenging.

Damage to the recurrent laryngeal nerve (RLN) and hypocalcemia are the dreaded complications of the surgery.<sup>2</sup> Thyroid nodules are discovered in up to 76% of healthy adults using advanced high-resolution ultrasonography, at most a few of these nodules are cancerous or symptomatic. Individuals with Hashimoto's thyroiditis have a higher chance of developing papillary thyroid cancer.<sup>3</sup>

In the last ten years, many types of thyroid imaging reporting and data systems (TI-RADS) have been developed. The TI-RADS classification includes a standardized thyroid nodule examination and thyroid ultrasonography risk stratification approach that aids in identifying nodules with a high risk of malignancy.<sup>4</sup> Thus, a thyroid swelling initially presents as a nodular goitre upon clinical examination while the FNAC indicates it to be a follicular tumor, and post-surgery HPE displaying a picture of Hashimoto's thyroiditis is an uncommon situation, demonstrating the great variation and rarity of thyroid problem presentations.

### Conclusion

Hashimoto's thyroiditis is still the most prevalent cause of thyroiditis in this demographic population and it should always be considered because it can mimic various other thyroid problems.<sup>5</sup> In situations when a malignant tumor of the thyroid cannot be ruled out, total thyroidectomy may be considered a treatment option.

### Conflicts of Interest

The authors declare that they have no conflicts of interest.

### Acknowledgments

The authors would like to acknowledge the Department of General Surgery, Sree Balaji Medical College and Hospital, Chrompet, Chennai.

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