



## **Hashimoto Thyroiditis: Near Total Thyroidectomy in A Non-Responsive Multi Nodular Goitre**

Harsha MP<sup>1</sup>, Karan Padha<sup>2\*</sup>

1. General Surgeon, MH Bhuj, India.
2. Oral & Maxillofacial Surgeon, 2075 Fd Hospital, India.

**Corresponding Author: Karan Padha**, Oral & Maxillofacial Surgeon, 2075 Fd Hospital, India

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**Abstract**

**Background:**

*Hashimoto thyroiditis is an autoimmune disorder that leads to decreased thyroid function and is traditionally treated with conservative levothyroxine therapy. In certain circumstances like presence of persistent symptoms, increase in goiter size or suspicion of malignancy, a surgical approach in the form of thyroidectomy can be adopted keeping possible complications in mind. Case presentation:*

*The authors in this case report, describe a case of Hashimoto thyroiditis treated with near total thyroidectomy due to the presence of compressive symptoms not responding to conservative therapy.*

**Conclusions:**

*The study adds to the clinical knowledge regarding Hashimoto thyroiditis and adds a treatment modality to the repertoire of the operating surgeon.*

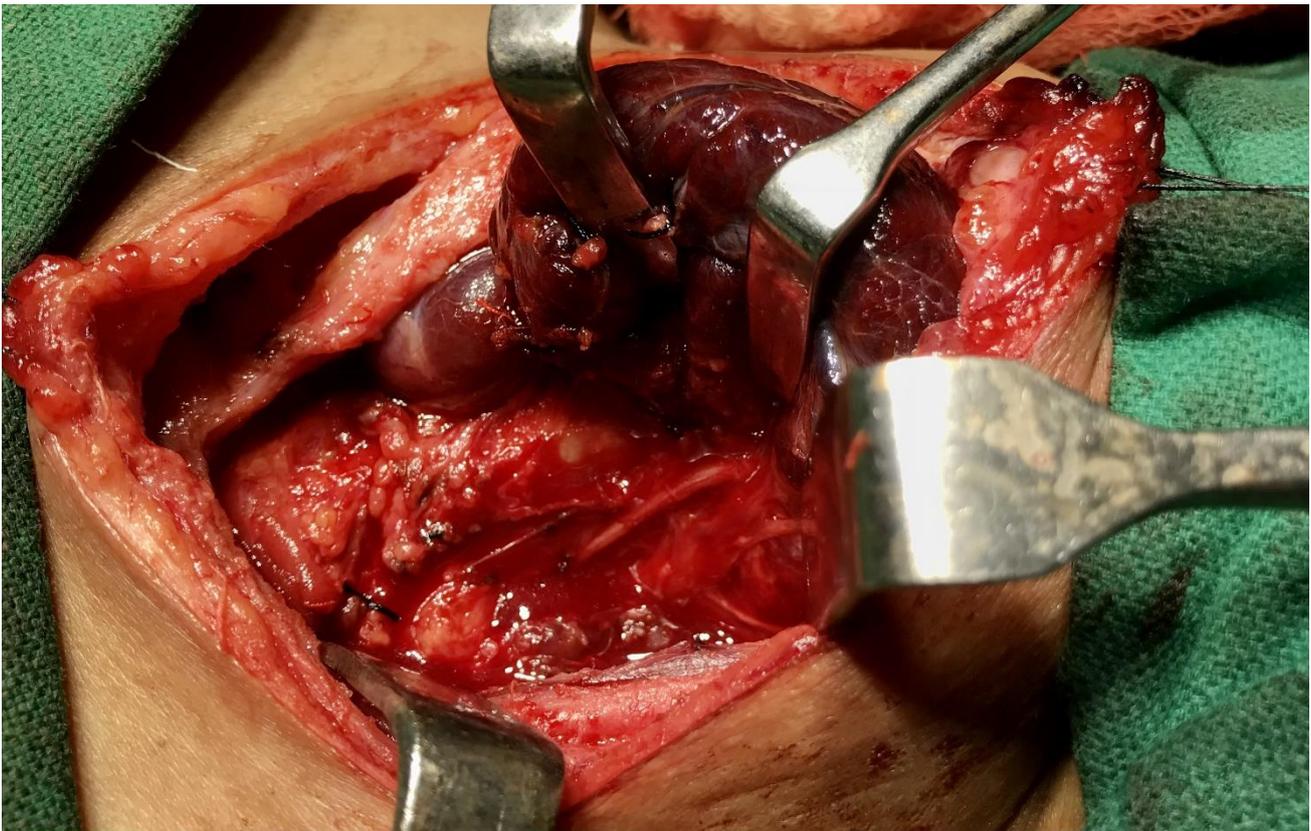
**Keywords:** *Hashimoto thyroiditis, Thyroidectomy, RLN*

**Background**

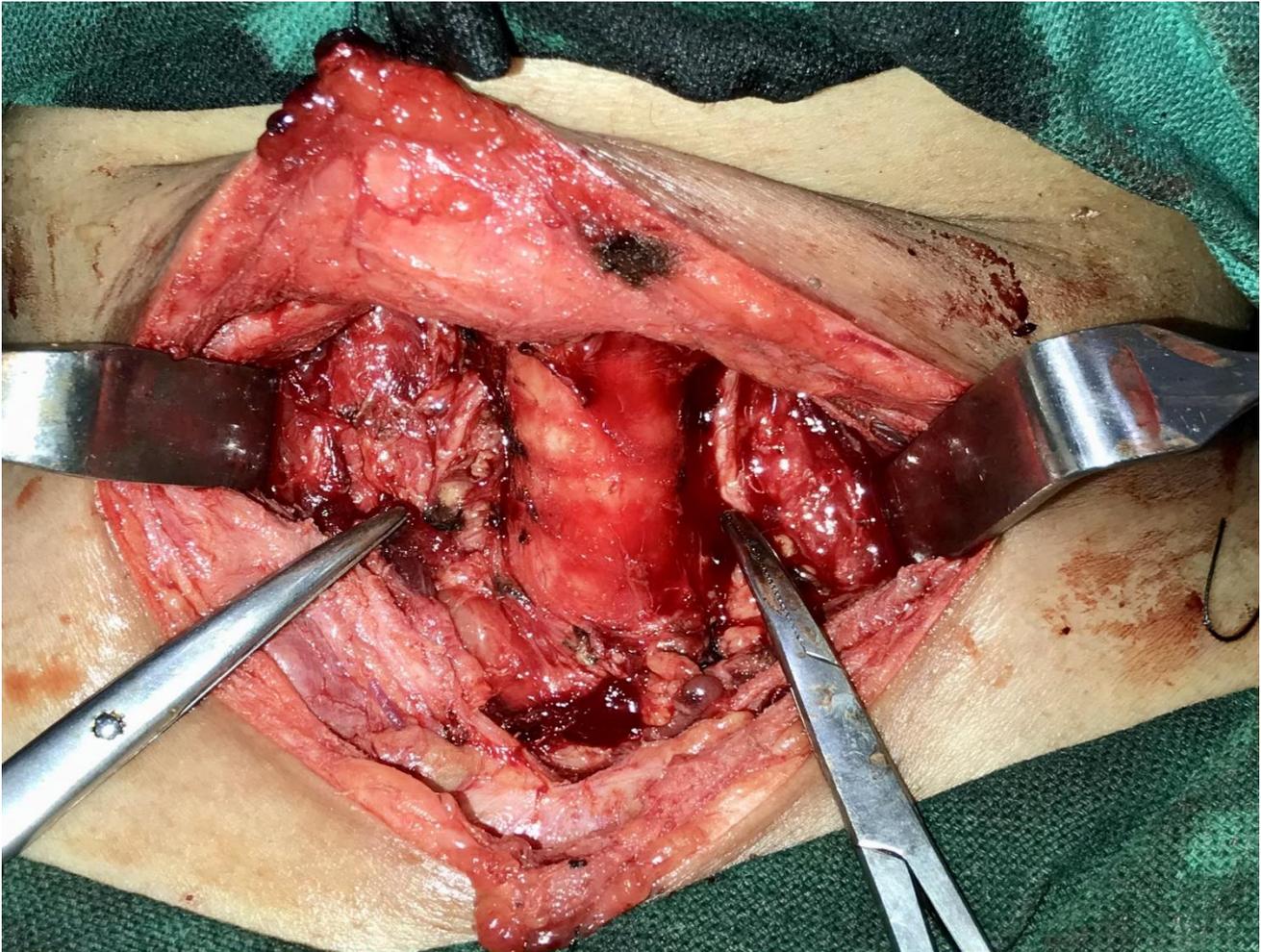
Hashimoto thyroiditis is an autoimmune disease characterized by autoantibodies and CD4 T cells leading to decreased thyroid function. Hashimoto thyroiditis patients are traditionally treated with conservative levothyroxine therapy however in certain circumstances like presence of persistent symptoms, increase in goiter size or suspicion of malignancy, a surgical approach can be adopted. In this case report the authors describe a case of Hashimoto thyroiditis which was treated surgically to alleviate increasing patient symptoms.

## Case Presentation

A 50-year-old male presented with multi nodular goiter. The patient complained of swelling of the neck and hoarseness of voice. The patient was in a hypothyroid state according to thyroid function tests and was under levothyroxine for the past one and half year. CT scan revealed a enlarged thyroid mass compressing the larynx and esophagus. The patient was taken up for near total thyroidectomy. Under GA a skin crease incision was given and a subplatysmal flap was raised. The deep cervical fascia was incised and the strap muscles were retracted. Dissection was started on the left side and inferior thyroid and superior thyroid pedicels were ligated. Subsequently the dissection for identification of RLN in relation to inferior thyroid artery pedicel and the tracheoesophageal groove was undertaken (Figure 1). After safe identification of RLN and retraction, the dissection was subsequently completed on the contralateral side. After confirming the safe dissection of RLN on both sides, the thyroidectomy was completed (Figure 2). The excised gland was sent for histopathological examination corroborating a diagnosis of Hashimoto thyroiditis. Post op recovery was uneventful with no stridor and improvement in the hoarseness of voice.



**Figure 1:** RLN identification in the tracheo-oesophageal groove



**Figure 2:** Bilateral safe preservation of RLN

## Discussion

Hashimoto's thyroiditis named after Hakarau Hashimoto is an autoimmune disorder causing varying degrees of thyroid enlargement and has been associated with symptoms like fullness in the neck, choking or dysphagia [1,2]. The principal treatment modality in these cases being levothyroxine therapy to replace the thyroid hormone and/or to reduce the volume of the enlarged diffuse goiter [3]. Thyroidectomy is considered as a treatment modality in cases of suspicion of malignancy, discomfort or compressive symptoms not responding to suppression therapy [3,4,5].

In the study conducted by Shimizu et al subtotal thyroidectomy was recommended for Hashimoto's thyroiditis with none of the patients presenting with postoperative complications [3]. Shih et al evaluated postoperative complications after thyroidectomy in patients with Hashimoto's thyroiditis. Out of 474 patients, 152 had transient hypocalcemia, 2 had transient RLN palsy.

However, none had permanent complications [4]. In contrast the study conducted by McManus reported a higher number of complications in the patients undergoing thyroidectomy with Hashimoto's thyroiditis in terms of overall, transient and permanent complications [6].

## Conclusion

In the case report described, the authors went with near total thyroidectomy due to the presence of compressive symptoms not responding to conventional conservative therapy. The safe dissection of RLN and preservation of parathyroid glands ensured no postoperative complications and a healthy recovery signifying the importance of keeping this more aggressive treatment modality in the repertoire of the treating physician.

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