

Megalo-Goitrous Form of Hashimoto's Thyroiditis: A Rare Indication for Surgery

PRK Bhargav, V Amar, SK Uday

ABSTRACT

Hashimoto's thyroiditis (HT) is the commonest cause of hypothyroidism, especially in iodine replete areas. The clinical presentation of HT is usually insidious with mild goiter and progressive hypothyroidism. But, HT presents with large goiter and compressive symptoms in some cases. The treatment of HT is mostly conservative with thyroxine treatment sooner or later. Occasionally, surgery is indicated for large goiters with persistent pressure symptoms or associated nodules. We report a rare case of unusually large goiter with compressive symptoms, hitherto unreported in literature.

Keywords: Hashimoto's thyroiditis, Large goiter, Thyroxine suppressive therapy.

How to cite this article: Bhargav PRK, Amar V, Uday SK. Megalo-Goitrous Form of Hashimoto's Thyroiditis: A Rare Indication for Surgery. *World J Endocr Surg* 2012;4(1):15-16.

Source of support: Nil

Conflict of interest: None declared

CASE REPORT

A 35-year-old man presented to us with history of slowly progressive goiter for 5 years. Clinical history was suggestive of hypothyroidism with symptoms of weight gain, lethargy, nocturnal muscular cramps over the past 1 year. He was suffering from the history of pressure symptoms due to large goiter in the form of nocturnal dry cough, voice fatigue and difficulty in swallowing for 1 year. He was already on irregular treatment with thyroxine replacement of 100 ug/day since 4 years. Physical examination revealed a grade 3 diffuse, firm goiter measuring 12 × 10 cm (Fig. 1). There was no cervical lymphadenopathy. Rest of the systemic examination revealed no abnormality. Serum thyrotropin (TSH) level was more than 100 μ IU/ml (normal laboratory range = 0.35 – 5.5). Indirect laryngoscopy confirmed right-sided vocal cord paresis. Fine needle aspiration cytology from both the lobes was diagnostic of florid Hashimoto's thyroiditis. Antithyroid peroxidase antibody titer was elevated. We placed him on suppressive doses of thyroxine (3 μ g/kg/day = 225 μ g). After 6 weeks, he was clinically euthyroid and biochemically in subclinical hyperthyroid state (TSH = 0.1 μ IU/ml).

We followed him up for 6 months with the hope of regression of goiter with suppressive doses of thyroxine, but it was static with persistent pressure symptoms. So, we proceeded with total thyroidectomy. There was no

infiltration of recurrent laryngeal nerve, but dense adhesions in various fascial planes was evident (Fig. 2). The weight of *ex vivo* specimen of goiter was 305 gm (Fig. 3). Postoperative period was uneventful. He was placed on thyroxine replacement dose of 125 μ g/day. Post-operatively, his pressure symptoms were relieved within 3 weeks.

DISCUSSION

Hashimoto's thyroiditis (HT) is the commonest cause of spontaneous hypothyroidism, especially in iodine replete

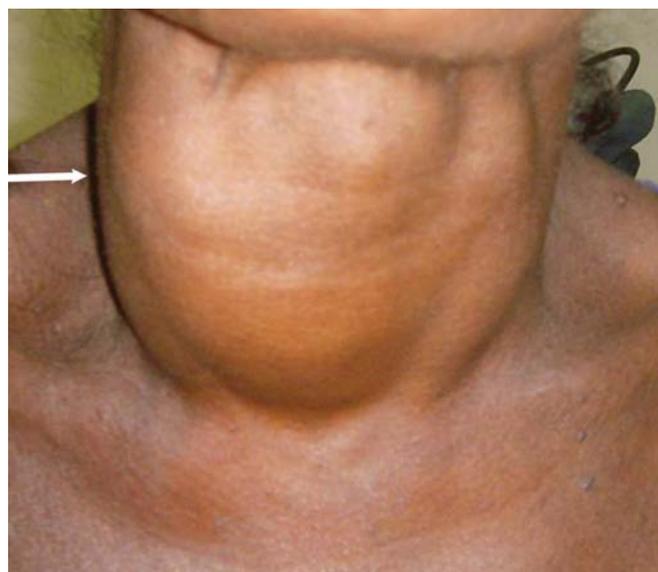


Fig. 1: Large grade 3 diffuse goiter (arrow)

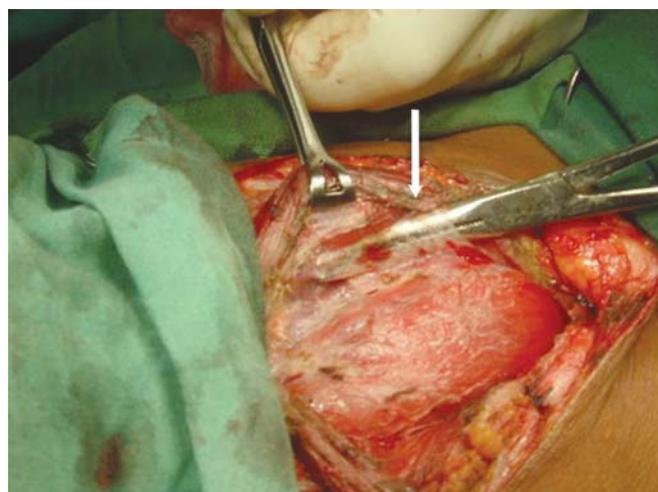


Fig. 2: Intraoperative picture showing dense pretracheal fascia (arrow)

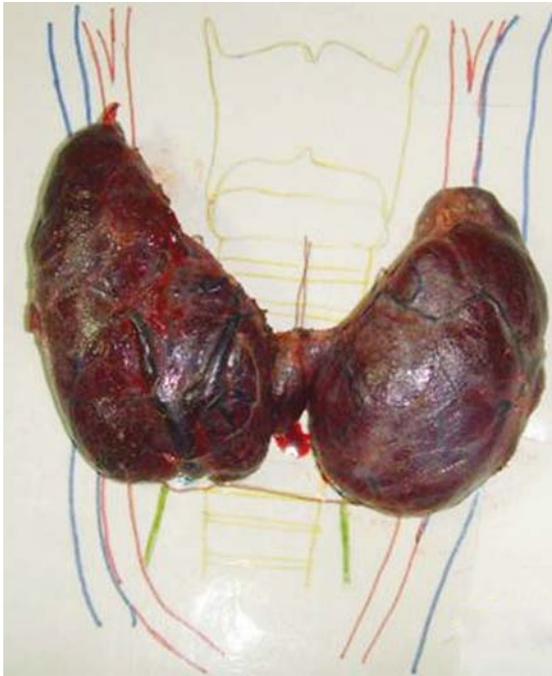


Fig. 3: *Ex vivo* specimen of large diffuse goiter on grossing chart

areas.¹ The natural course of a classical case of HT is mild goiter with subtle symptoms of hyperthyroidism with or without pain initially, followed by end stage hypothyroidism after few self-limiting attacks of mild thyroiditis. Most of the goiters are small to moderate and usually less than 100 gm. In our extensive literature search, the largest diffuse goiter in HT was 269 gm, but it was estimated weight on radiological imaging.² Some of the cases are associated with nodules either benign or malignant. Different pathological types described for HT are hyperplastic, adenomatous or atrophic forms. Treatment is mostly conservative with analgesics with or without steroids in acute stages and thyroxine replacement in later stages.³ Surgery is rarely required for associated malignancy, large nodules, painful thyroiditis⁴ or suspected lymphoma.⁵ Diffuse goiters rarely need surgical treatment. One of the surgical indication for diffuse goiter is refractory goiter, inspite of long-term thyroxine replacement or suppressive thyroxine therapy (STT).⁶ But, the duration and dose of STT are not clear from the published literature. Moreover, STT is associated with osteoporosis and risk of tachyarrhythmias. In addition,

the present case had pressure symptoms due to large goiter, strengthening the case for surgical intervention. Tajiri et al² have used radioiodine therapy (RAI) for large goiter in HT with successful regression, but it is not widely practiced. In our case, continued pressure symptoms precluded us from persisting with STT beyond 6 months. We conclude that there are occasionally large (megalo-goitrous) forms of HT, for which surgery appears to be the optimal treatment.

REFERENCES

1. Burrow GN. Damage and disease due to iodine toxicity. In: Preedy VR, Burrow GN, Watson R (Eds). *Comprehensive handbook of iodine: Nutritional, Biochemical, Pathological and Therapeutic Aspects*, Academic Press: Elsevier Inc 2009;866.
2. Tajiri J. Radioactive iodine therapy for goitrous Hashimoto's thyroiditis. *J Clin Endocrinol Metab* 2006;91(11):4497-500.
3. Hegedus L, Hansen JM, Feldt-Rasmussen U. Influence of thyroxine treatment on thyroid size and antithyroid peroxidase antibodies in Hashimoto's thyroiditis. *Clin Endocrinol (Oxf)* 1991;35:235-38.
4. Kon YC, DeGroot LJ. Painful Hashimoto's thyroiditis as an indication for thyroidectomy: Clinical characteristics and outcome in seven patients. *J Clin Endocrinol Metab* 2003;88:2667-72.
5. Holm LE, Blomgren H, Lowhagen T. Cancer risks in patients with chronic lymphocytic thyroiditis. *N Engl J Med* 1985;312:601-04.
6. Shimizu K, Nakajima Y, Kitagawa W, Akasu H, Takatsu K, Ishii R, Tanaka S. Surgical therapy in Hashimoto's thyroiditis. *J Nihon Med Sch* 2003;70(1):34-39.

ABOUT THE AUTHORS

PRK Bhargav (Corresponding Author)

Associate Professor, Department of Endocrine and Metabolic Surgery Mamata Medical College and Superspeciality Hospital, Khammam Andhra Pradesh-507002, India, e-mail: kingbhargav@gmail.com

V Amar

Consultant and Advanced Laparoscopic and Bariatric Surgeon, Prime Hospitals, Hyderabad, Andhra Pradesh, India

SK Uday

Associate Professor of General Surgery, Mamata Medical College Hospital and Superspeciality Hospital, Khammam, Andhra Pradesh India