



Total Thyroidectomy in Refractory Thyrotoxicosis

KEYWORDS

Thyrotoxicosis, Thyroidectomy.

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ABSTRACT *Thyrotoxicosis affects approximately 2% of women and 0.2% of men. Graves disease is the most common cause of thyrotoxicosis. We are hereby reporting a case of refractory thyrotoxicosis where total thyroidectomy was done which is usually not done.*

INTRODUCTION

Thyrotoxicosis affects approximately 2% of women and 0.2% of men. Graves disease is the most common cause of thyrotoxicosis. It is an autoimmune disorder characterized by a constellation of clinical features including hyperthyroidism, diffuse goitre, ophthalmopathy, and dermatopathy. Conventional management of thyrotoxicosis includes antithyroid drugs, radioactive iodine, and surgery while adjunctive treatment includes beta-blockers, corticosteroids, inorganic iodide and iopanoic acid. Very rarely, patients may be resistant to these modalities and require additional management. This case highlights an important yet uncommon clinical entity of resistant thyrotoxicosis. Our patient was resistant to the conventional management. Radioactive iodine and surgery are definitive modes of treatment in such complex cases while steroids and lithium play an important role in preparing patients for more definitive treatment

CASE REPORT

History: A 30 yr old patient came with c/o swelling in front of neck since 3 years. Swelling was initially of size 4x2 cm over anterior aspect of neck which gradually progressed to present size of 9x6 cm. No history of associated pain. No history of dysphagia or dyspnoea. H/o change in voice, tremors, B/L eye protrusion, loss of appetite, loss of weight, heat intolerance, palpitations, and hair loss.. On tablet carbimazole 10 mg BD from three years.

Examination: Inspection – 9x6 cm butterfly shaped swelling extending from thyroid bone above to 1 cm suprasternal notch, laterally up to medial border of sternocleidomastoid. Surface of swelling appears smooth. Swelling moves with deglutition, doesn't move with protrusion of tongue. Trachea appears to be deviated to left. Engorged veins seen over the neck. Palpation- swelling extending from hyoid bone above to the suprasternal notch with lateral borders merges with anterior border of sternocleidomastoid lower border felt. Surface is nodular, consistency soft to firm. Plane deep to deep fascia. Carotid pulsations felt. Cervical lymph nodes I b and II palpable. Kocher's test positive. Percussion- no parasternal dullness. Auscultation- no bruit heard.

Investigation: 2nd- TSH- 0.014. T3- 3.05. 4th- TSH- 0.008. T3 and T4 normal. 6th- TSH – 0.008 9th- FNAC- multinodular goitre .13/11/2015- TSH- 0.005 . 18th- biopsy- colloid goitre with hyperplastic changes.23/11/2015- TSH- 0.07 . T3- 0.19. T4- 2.18

Management: patient underwent total thyroidectomy on 18/11/2015. per op findings- hyper vascular multinodular thyroid gland. Tab propranolol, carbomazole, iopanoic acid and dexona were used to get thyroid functions normal before surgery.



Fig 1. Intraoperative specimen picture

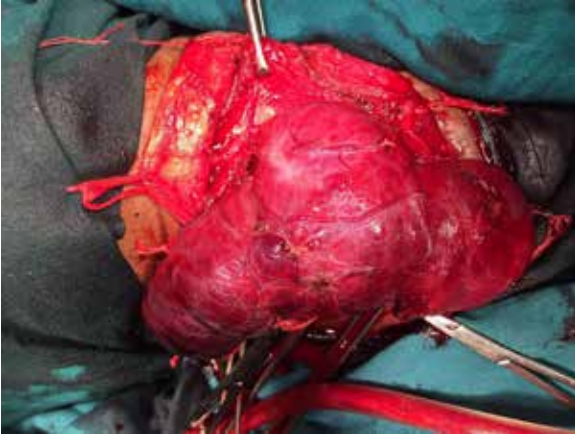


Fig 2: Intraoperative specimen picture.

Discussion: Etiologies of resistant thyrotoxicosis in literature include type I amiodarone-induced thyrotoxicosis (AIT) and Graves disease. Refractory cases have mostly shown resistance to high-dose thionamides and beta-blockers; rarely resistance to iodine has also been reported. Possible mechanisms mediating resistance in cases refractory to conventional treatment may range from drug malabsorption, rapid drug metabolism, antidrug antibodies, impairment of intrathyroidal drug accumulation or action, and predominant elevation of T3 rather than T4 levels. This case highlights an important yet uncommon clinical entity of resistant thyrotoxicosis. Our patient was resistant to the conventional management including beta-blockers and thyrostatics. Radioactive iodine or surgery are the definitive modes of treatment in such complex cases while steroids and lithium may play an important part in preparing the patients for more definitive forms of treatment.

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