



Riedel's Thyroiditis – Presentation and Surgical Management of a Rare Thyroid Disorder

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Objectives:

Riedel's thyroiditis is a rare form of thyroiditis, found in only 0.06% of thyroidectomy specimens. Treatment is challenging, consisting of medical and surgical strategies. We present a case of Riedel's thyroiditis diagnosed intra-operatively and discuss diagnosis and treatment strategies for this disease.

Methods and Materials:

A 39-yo male with PMH of OSA, HTN was referred to our institution for management of multinodular goiter. Preoperative thyroid hormone studies showed mildly elevated TSH and elevated anti-TPO. FNA was benign though CT of the neck showed increasing size of a diffusely enlarged, heterogeneous multinodular thyroid. Due to increasing compressive symptoms, the patient elected to pursue total thyroidectomy.

Results:

Intra-operatively, the thyroid was noted to be firm and nonpliable with diffuse adherence to surrounding structures. Initially concerning for malignant etiology, frozen section showed dense fibrosis replacing thyroid stroma. Given the extensive tissue plane destruction, the operation was curtailed to left thyroid lobectomy and isthmusectomy with the goal of alleviating compressive symptoms and avoiding an unacceptably high complication risk. Final pathology, examining a 73.5g, 8.2cm lobe (Figure 1), confirmed Riedel's thyroiditis with features of IgG4 related disease.



Figure 1: Cross-section of thyroid demonstrating the characteristic hard, white, avascular thyroid parenchyma

Conclusions:

Given its rarity, Riedel's thyroiditis is described only in case reports and small case series. Recently, an association with Hashimoto's and IgG4-related disease has been described. Glucocorticoids are the mainstay of medical therapy though use of tamoxifen and chemotherapy agents have been described. Total thyroidectomy is associated with a complication rate as high as 39%, though surgery is indicated to relieve significant obstructive symptoms, as in our patient.