

Follicular and papillary carcinoma in a subject with Graves disease having aggravated orbitopathy following remnant ablation

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Introduction

The risk for thyroid malignancy is higher in subjects with Graves' disease particularly papillary thyroid cancer (PTC). However coincidence of both PTC and Follicular thyroid cancer (FTC) in these subjects is rare. In this case report we present a subject with Graves' disease with a pathological diagnosis of PTC and FTC having aggravated orbitopathy following remnant ablation.

Discussion

Although occult microPTC is frequently observed in the thyroidectomy material of subjects with Graves' disease, it was surprising to visualize a 3cm tumor pathologically but not radiologically. This could be explained by the very heterogeneous parenchyma masking the tumor. Aggravation of orbitopathy can be observed following remnant ablation for thyroid cancer in these subjects and glucocorticoid prophylaxis should be considered.

Case Report

A 53 year old subject was referred to our Endocrinology Outpatient Clinic with symptoms of retro bulbar pain and having TSH levels <0.05 ($0.25-5.0 \mu\text{IU/L}$) and FT4 67.3 pmol/L ($10.6-19.4$). The TSH receptor antibody level was 44 U/L ($> 9 (+)$). She was negative for thyroglobulin and thyroid peroxidase antibodies. The thyroid ultrasound was reported as being compatible with thyroiditis with no visible thyroid nodule. Methimazole was initiated. 2 Months after initiation of the anti-thyroid drug her eye pain increased in intensity and periorbital edema occurred. Total thyroidectomy was decided as the treatment option and early postoperatively her eye symptoms resolved. The pathology report was surprising. It was compatible with a 3cm follicular carcinoma and a 3mm papillary carcinoma follicular variant in the left lobe together with lymphocytic thyroiditis despite the ultrasound revealing no visible nodule. She received 100mCi radioactive iodine for remnant ablation and glucocorticoid prophylaxis therapy was initiated. The patient lost contact and did not comply with the glucocorticoid treatment. 3 months after the radioiodine the patient admitted with diplopia, bilateral exophthalmos, chemosis, periorbital edema, spontaneous retro bulbar pain and pain on down gaze (Figure 1). Orbital MRI revealed bilateral diffuse thickening in the superior and lateral rectus muscles and also in the right medial and right inferior rectus muscles and mild compression of the optic nerve at the optic canal (Figure 2). She received 10 pulses of glucocorticoid therapy at a dose of 750mg/week and she is waiting to receive orbital radiotherapy.



Figure 1: Diplopia and periorbital edema

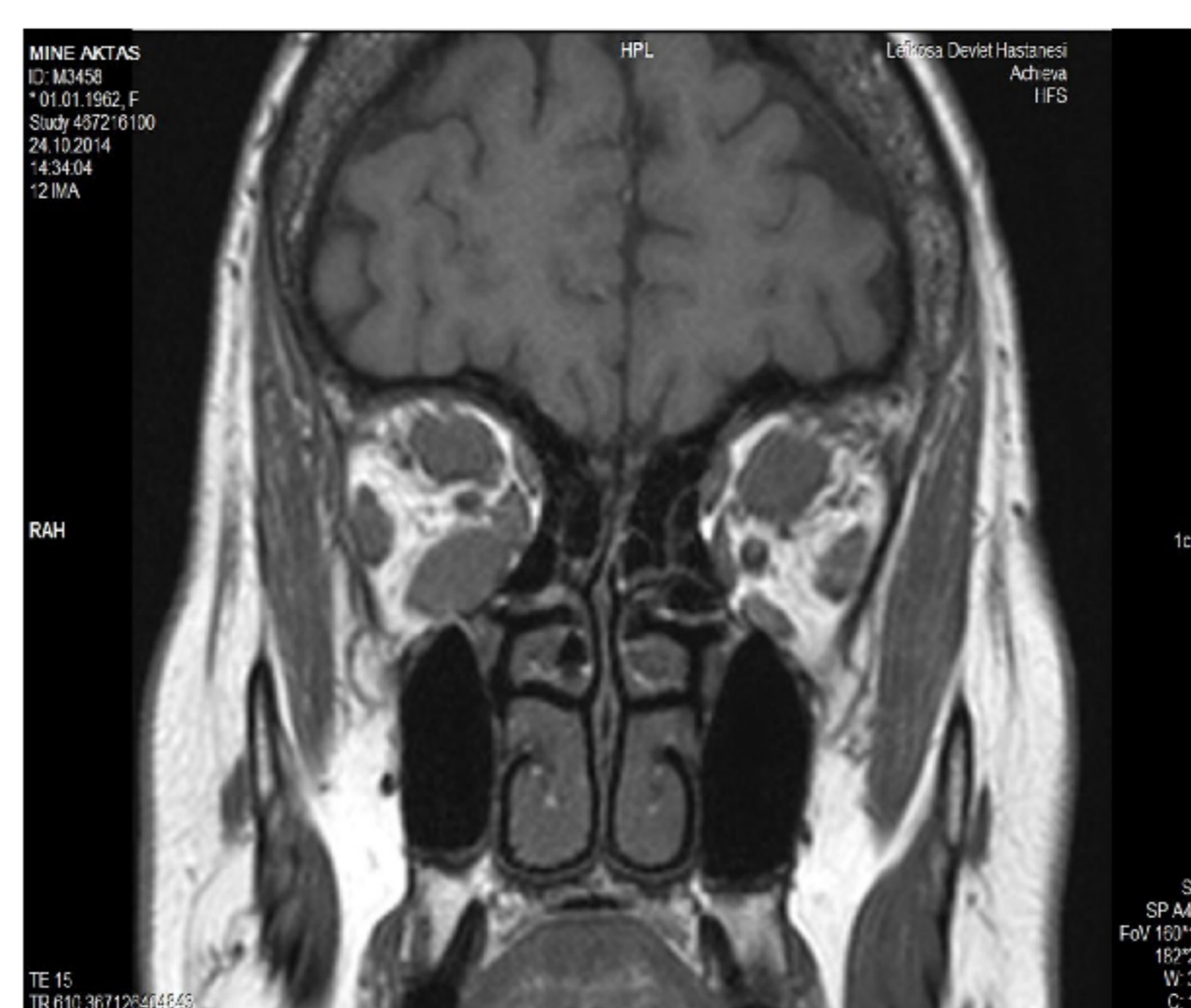


Figure 2: Orbital MRI showing diffuse thickening of rectus muscles

