

Sight threatening thyroid eye disease

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ABSTRACT

Thyroid eye disease (TED) is a chronic immune-mediated inflammation of the orbit affecting nearly half of patients with Grave disease. Cigarette smoking is one of the strongest modifiable risk factors of TED. We report a case of rapidly progressive TED. A 51-year-old gentleman, a heavy smoker with underlying hyperthyroidism presented with bilateral eye (BE) pain for 3 days. BE visual acuity (VA) was 6/9 with no relative afferent pupillary defect (RAPD). Extraocular muscle (EOM) was restricted (-1) in all gazes with intact optic nerve function. BE were proptosed with lagophthalmos, injected conjunctiva, and punctate epithelial corneal erosions. Fundus examinations were unremarkable. Patient was treated for exposure keratopathy secondary to lagophthalmos associated with TED and was prescribed artificial tears. Condition worsened after 1 month associated with diplopia. EOM showed restriction (-3) in all directions with reduced vision. Clinical activity score was 6. Contrast enhanced computed tomography (CECT) of orbit showed EOM thickening and proptosis corresponding to TED. Revised impression was BE moderate-severe TED (EUGOGO classification). Patient was advised for medication compliance and smoking cessation. Despite on six cycles of IV Methylprednisolone, BE VA became counting fingers and RAPD turned positive. Repeated CECT orbit showed worsened TED. Oral immunosuppressive course of 6-months was commenced. BE medial wall orbital decompression was then performed. Post-operatively, his symptoms resolved, however, vision remained poor. Smoking has a detrimental effect in TED as it has been shown to worsen the disease. The response to treatment is delayed and considerably poorer in smokers. Smoking cessation and medication adherence are necessary for a successful TED treatment.