Thyroid Ophthalmopathy

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Thyroid ophthalmopathy is often associated with thyroid autoimmune disease. It is generally accepted that the immune system has an important role in the initiation of the disease, but the exact pathogenesis is still unclear. The clinical features are variable, depending on the stage and severity of the disease, including dry eye, lacrimation, eye irritation, photophobia, eyelid retraction, lid lag, orbital congestion, proptosis, diplopia, extraocular muscle restriction, and optic neuropathy. All of these are due to increase in the volume of various tissues in the orbit and extraocular muscles. Accumulation of glycosaminoglycans and inflammatory edema are the causes of these changes. The management of thyroid ophthalmopathy is very complex and controversies still exist. Treatment of hyperthyroidism and hypothyroidism is crucial for the ophthalmopathy. Smoking, as a major risk factor, increases the severity of thyroid ophthalmopathy. The patients should be advised to stop smoking. The vast majority of patients with mild ophthalmopathy are treated with local therapeutic measures and reassurance. Patients with more severe ophthalmopathy are considered for more aggressive management. Corticosteroids are the mainstay of medical therapy, may be use alone or in combination with other immunosuppressive therapy, radiation, or surgery. Surgery is often needed in inactive stage to improve the function and cosmetic appearance of the eyes. Novel therapeutic perspectives are being investigated. Further developments into a complete understanding of thyroid ophthalmopathy are essential.