

Bilateral Exophthalmos - A Case Report and Review of Literature

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Abstract: *Grave's Ophthalmopathy (Dysthyroid Eye Disease) is the most common cause of unilateral or bilateral proptosis in adults between ages of 25-50 years, mostly females. Diagnostic clinical features include Proptosis, Eyelid retraction, restrictive myopathy and possibly Compressive optic neuropathy. Here in this case report we present a patient with Grave's disease with early ocular signs of Dysthyroid state. Mild Exophthalmos may be associated with Hyperthyroidism and an extreme Exophthalmos is seen in any state of thyroid activity but usually hypothyroidism.*

Keywords: Exophthalmos –Grave's Disease-Thyroid Eye disease-Proptosis-TSH.

1. Introduction

We present a case of bilateral Exophthalmos where a 53 year old male patient came with complaints of progressive painless protrusion of both eyes for six months with associated general symptoms like weight loss, palpitations, sweating, tremors. We diagnosed based on history, clinical examination and Thyroid Profile .

2. Case Report

A 53yr old male patient attended our O.P.D with complaints of progressive painless prominence of both eyes for six months , redness of both eyes and general complaints like palpitations, breathlessness and weight loss.

3. On Examination

Ocular examination-V.A is 2/60 in Both Eyes, on examination there is axial non pulsatile protrusion of both eyes 22mm measured by Lueddes Exophthalmometer and Conjunctival congestion present in both eyes more on the insertions of Horizontal Recti Muscles . Defective convergence in Near vision seen (Möbius sign). Extra Ocular movements are full and painless in all gazes. Fundus is normal in both eyes. B.P-130/80mm of Hg. **Thyroid Profile:** T3-3.23ng/ml, T4-14.56microg/dl, TSH-<0.01IU/ml , RBS-160mg/dl, ECG-within Normal limits. Echo B scan, CT Scan-within normal limits

4. Discussion

Proptosis is defined as forward displacement of eyeballs out of the orbital margins when the patient is looking straight ahead. Exophthalmos is a term reserved for describing the prominence of Eyeballs secondary to Thyroid disease and is most common cause of Orbitopathy (4)(1) .It is the most common cause of unilateral or bilateral proptosis in adults between the ages of 25 and 50 years more frequently seen in women(2)(3). Diagnostic clinical features include Proptosis, eyelid retraction, restrictive myopathy and possibly

compressive optic neuropathy(1). Exophthalmos is Axial, unilateral/bilateral, symmetrical/asymmetrical, and frequently permanent(2). The Exophthalmos is due to Edema, lymphocytic infiltration and fibrosis of orbital contents particularly the extra ocular muscles(1). These changes are probably due to a generalized disturbance of the endocrine system, possibly associated with Thyrotropic hormone secreted by the anterior lobe of Pituitary gland(1). Werner Classification reflects the severity of the Ophthalmopathy(1)(2) based on symptoms and signs . Clinically apparent ophthalmopathy occurs in only 30% of patients with GD (5) . In its severe expression, it is a disfiguring and potentially sight threatening disorder.

However, even mild to moderately severe ophthalmopathy profoundly influences and impairs the quality of life of affected individuals (3)

5. Treatment and Prognosis

The disease runs a self limited course (3) characterized by intermissions and relapses ,more or less unaffected by any kind of treatment ,but eventually there is spontaneous resolution which however is rarely complete(1)(3). It on an average, lasts for 1 year in nonsmokers and between 2 and 3 years in smokers. After the active disease plateaus, a quiescent burnt-out phase ensues. Reactivation of inflammation occurs in approximately 5%-10% of patients over their lifetime.(3) Most patients with TED require only supportive care, including use of topical ocular lubricants; in some cases, topical cyclosporine has helped to reduce ocular surface irritation. Patients may also find certain lifestyle changes helpful. For example, eating a reduced-salt diet limits water retention and orbital edema, and sleeping with the head of the bed elevated specifically reduces fluid retention within the orbit.(3) Poor prognostic features include smoking, rapidly progressive (typically congestive)TED, and the presence of pretibial myxedema. If orbital inflammation is severe, intervention may be necessary to prevent or ameliorate corneal exposure, globe subluxation, or optic neuropathy(3). Therapy usually is

directed towards either decreasing orbital congestion and inflammation (through use of periocular corticosteroids) or, if response is inadequate by administration of systemic corticosteroids or periocular radiotherapy (2000 cGy) or expanding the orbital bony volume (by surgical orbital decompression). Establishing a euthyroid state is an important part of the care of patients with TED. (3) Hyperthyroidism is treated with antithyroid drugs.

6. Conclusion

Patient was advised to consult Endocrinologist regarding management of Hyperthyroidism. Retinoscopy was done and Spectacle correction given. Lubricating Eyedrops were prescribed and reassurance given. Advised Regular follow up.



Figure 1: Shows both Eyes Proptosis



Figure 2: Shows Axial proptosis

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