Terrien’s Marginal Degeneration with Hydrops

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Abstract

We report a case of bilateral Terrien’s Marginal Degeneration with Hydrops. A 59 year old man presented with diminution of vision in both eyes since 3 years. On examination both eyes had superior ectatic changes with right eye having scarred Descemet’s membrane indicating a healed hydrops and left eye showing superior corneal edema indicating resolving hydrops.

Keywords: Anterior segment; Cornea; Ectasia; Hydrops; Terrien’s

Background

Terrien’s Marginal Degeneration (TMD) is a rare, slowly progressive, peripheral corneal ectasia of unknown etiology. The condition is most commonly seen in males past the age of 40. Initially, TMD presents as small, yellow-white, stromal opacities composed of lipids with some superficial vascularization, which begins superiorly and spreads circumferentially. With progression, a gutter forms in the affected area due to stromal thinning, leaving the epithelium intact. The condition is often bilateral and asymmetric. Perforation of the cornea is rare but may occur spontaneously or secondary to trauma. Patients are often asymptomatic but may complain of mild irritation or vision changes due to increasing against-the-rule or oblique astigmatism. Very few cases have been reported of hydrops in TMD.

Case Description

A 59 year male presented with diminution of vision in both eyes since 3 years. There was no history of trauma and no significant family history. His best corrected visual acuity was 6/24 (+5.50D/-10.00D/90) and Hand movement close to face with no improvement with glasses in right and left eye respectively. Slit lamp examination revealed superior ectatic changes in right eye with scarred Descemet’s Membrane (DM) and left eye revealed superior ectatic changes with edema. Right eye had senile immature cataract and left eye presented with senile mature cataract. Right eye fundus examination revealed no abnormalities; left eye fundus could not be viewed on slit lamp examination. B-scan ultrasound was within normal limits (Figures 1-4).

Therapeutic Intervention

Patient was started on Sodium chloride (5%w/v) eye drops 5 times a day in left eye and Carboxy Methyl Cellulose (0.5%w/v) eye drops in both eyes.

Cataract surgery for left eye was advised to patient once the stromal edema reduces.
Literature Review

Terrien’s marginal degeneration is a slowly progressive thinning of the peripheral cornea.

It usually begins superior-nasally and progresses circumferentially. Yellow-white stromal opacities with superficial neovascularization are present. These stromal opacities are composed of scarring and lipid infiltration, and there is a distinct interval between the limbus and site of infiltration. Ultimately, stromal degeneration occurs, causing formation of a peripheral gutter [1]. The exact etiology of TMD is unknown, but there is male predilection (3:1). The condition usually appears in the third to fifth decade of life, but it can occur at any age [2]. Both eyes are commonly affected, but presentation can be asymmetric [1].

Discussion

Although Terrien’s marginal degeneration is rare, it is important that eye care providers differentiate it from other conditions so they can set patient expectations and initiate proper management and treatment. A thorough case history and careful slit lamp examination are essential.

Conflict of Interest

The Author declares that there is no conflict of interest.

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References
