

(X) R1 () R2 () R3 () PG0 () PG1 () Estagiário () Tecnólogo () PIBIC

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Service (sector)

Cornea and External Disease

Nº CEP

Diagnostic Importance of Posterior Corneal Dystrophies

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Purpose: To report and analyze four distinct cases of posterior corneal dystrophies ..

Methods: Aim to correct ametropia, four patients looked for assistance and were admitted at Department of Ophthalmology – UNIFESP - EPM. Ophthalmological examination was performed in all patients, consisting of visual acuity, biometry, tonometry, noncycloplegic and cycloplegic refraction. Patients 3 and 4 underwent ceratometry (Eye Sys topography system ä) and specular microscopy. Patient 4 also underwent ultrasonic biomicroscopy.

Results: Patient 1: A 56 year-old woman with 6 months progressive vision reduction in right eye (OD) . Best corrected visual acuity was counting fingers at 2 meters in the right eye (OD) and 0.5 in left eye (OS). Biomicroscopy: moderate intensity corneal edema and guttae both eyes.

Patient 2 A 37 year old woman complained of nearsight. Uncorrected visual acuity (UCVA) was 1.0 in both eyes and near visual acuity was J4 in both eyes. Biomicroscopy: vesicle in posterior corneal surface in both eyes.

Patient 3: A 26 year-old woman complaining about low vision in both eyes. Visual acuity without correction was 0.1 OD and 0.5 OS .Best corrected visual acuity was 0.8 OD and 1.0 OS with correction of – 4.25 SD – 1.00 CD 40° OD and –1.25 SD OS . Biomicroscopy: OD linear corneal endothelial opacities and Descemet 's membrane rupture.

Patient 4 : A 27 year -old man with UCVA of counting fingers in OD and 0.1 OS and best correct visual acuity of 0.1 OD and 0.8 OS with – 6.00 SD –7.50 CD 20 and +8.00 SD - 8.00 CD 90°. Biomicroscopy: bilateral, symmetric, broad, sheet-like opacification of the posterior corneal stroma, most marked centrally, but also affecting the far periphery. The opacification was deep stromal just anterior to the level of Descemet's membrane.

The four cases described could be at a glance confused with each other, if considering only corneal endothelial features. These are also similar with other conditions not included in corneal dystrophies group.

Conclusion: Different features of Posterior Corneal Dystrophies are presented by these four cases. Great similarity between corneal dystrophies and the broad spectrum of conditions with endothelial changes and corneal decompensation could lead to a misdiagnosis and change the correct management and prognosis of each condition. Corneal dystrophies should always be considered, and a good clinical history, examination and diagnostic exams are required to differentiate these rare inherited and usually bilateral diseases.