

The Iridocorneal Endothelial Syndrome

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The iridocorneal endothelial syndrome (ICE) represents a unique group of ocular pathologies (Chandler syndrome, progressive iris atrophy, and Cogan-Reese syndrome) characterized by the proliferation of corneal endothelial cells that migrate toward the iridocorneal angle and iris surface causing, to a degree varying according to the subtype, corneal edema and decompensation, and secondary glaucoma, whether by obstructing the angle or producing peripheral anterior synechiae by contraction of the basement membrane of the migrating cells over the surface of the iris.

A triggering factor, possibly viral, induces the corneal endothelial cells to proliferate and behave like epithelial cells. Diagnosis is made based on typical ocular findings on the cornea and iris. ICE is more frequent in young women, with unilateral involvement in most cases. In-vivo confocal microscopy is an excellent diagnostic tool, especially in borderline presentations like early cases of Chandler syndrome, which affects the cornea predominantly.

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