

Unilateral Pigment Dispersion Syndrome

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DESCRIPTION

A 40-year-old woman who presented for prescription of glasses. She had no history of ocular trauma, inflammation, or any ocular disease. Refraction was -1,25D in the right eye, and -1 in the left eye. Corrected Visual acuity was 6/6 in both eyes. Slit-lamp biomicroscopy revealed a Krukenberg spindle in the right eye. At gonioscopy, the iridocorneal angle was widely open, with posterior insertion of the iris, and a Sampaolesi line (Figure 1). The angle of the left eye was normal (Figure 2). The intraocular pressure (IOP) was 14 mm of Hg. Fundus examination was normal, with no optic disc alterations in both eyes [1].

Pigment dispersion syndrome (PDS) is an ophthalmic condition defined as a dispersion of melanin pigment in the anterior segment. The release of melanin pigment results from the friction of the peripheral region of the posterior epithelium of the iris against the anterior zonular fibers. This friction phenomenon indeed requires a particular ocular anatomical configuration associating a deep anterior chamber (case of myopia), a widely open iridocorneal angle, a more posterior insertion of the iris and a backward bowing iris. The friction of the zonular bundles with iris movements causes pigment dispersion and iris transillumination [2,3].

PDS, more common in myopes, typically involves both eyes. The differential diagnosis, especially when it's unilateral can be challenging and meticulous examination is warranted to make a distinction from other conditions where there is dissemination of pigment such as trauma, inflammation, tumors, and pseudoexfoliation [4].

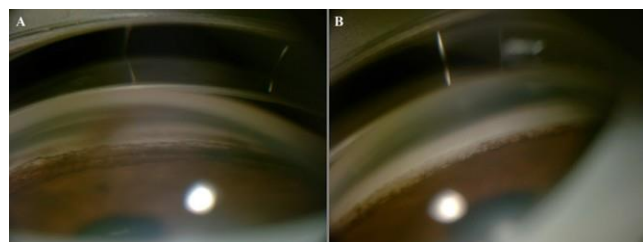


Figure 1: Gonioscopy of the right eye, compared with the left eye.

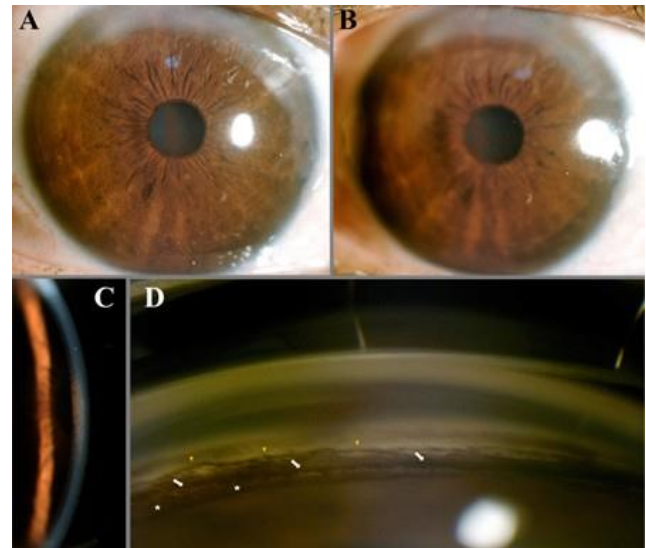


Figure 2: Right eye examination; Krukenberg spindle, widely open iridocorneal angle with a posterior insertion of the iris (asterisk), pigment accumulation on the trabecular meshwork (arrows) with a Sampaolesi line (arrowheads).

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