Pigment dispersion syndrome: a unique presentation with extensive retina pigment deposition

Síndrome de dispersão pigmentar: uma apresentação rara com deposição extensa de pigmento na retina

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How to cite:
Martins PM, Fonseca AS. Pigment dispersion syndrome: a unique presentation with extensive retina pigment deposition. Rev Bras Oftalmol. 2024;83:e0075.

doi:
https://doi.org/10.37039/1982.8551.20240075

Received on:
Sep 2, 2024

Accepted on:
Sep 25, 2024

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Conflict of interest:
no conflict of interest.

Financial support:
no financial support for this work.

CASE DESCRIPTION

An 81-year-old woman presented to our department for a routine appointment. She denied recent trauma or other ocular events. Ophthalmologic history comprises complicated phacoemulsification for LE cataract in 2009 with single-piece intraocular lens placement in the sulcus due to posterior capsule rupture. Upon examination, visual acuity was 10/10 and intraocular pressure was 10 mmHg in LE. There was anisocoria with LE > RE in photopic conditions. LE slit-lamp examination showed diffuse pigment deposition in the corneal endothelium and uneven, extensive, 360º iris transillumination defects. Gonioscopy demonstrates extensive angle pigment deposition. Fundoscopy revealed posterior vitreous and retina pigment deposition, mainly in the perivascular and peripapillary areas. No changes were observed in RE. Optical coherence tomography ruled out glaucomatous damage to the optic nerve and showed mild, focal hyperreflectivity of the inner limiting membrane associated with pigment deposition. In fundus autofluorescence and fluorescein angiography, this pigment deposition corresponded with areas of hypoautofluorescence and hypofluorescence, respectively.

Pigment dispersion syndrome may arise from the iatrogenic damage to the iris of a single piece sulcus-placed intraocular lens and typically presents with extensive pigment deposition in the structures of the anterior segment, along with iris transillumination defects. To our knowledge, this is the second report of pigment dispersion syndrome (PDS) with pigment deposition in the posterior segment. Indeed, although rare, convection currents may carry pigment to the vitreous and retina, which justifies the unusual findings in this patient and warrants a complete ophthalmologic evaluation in such cases.

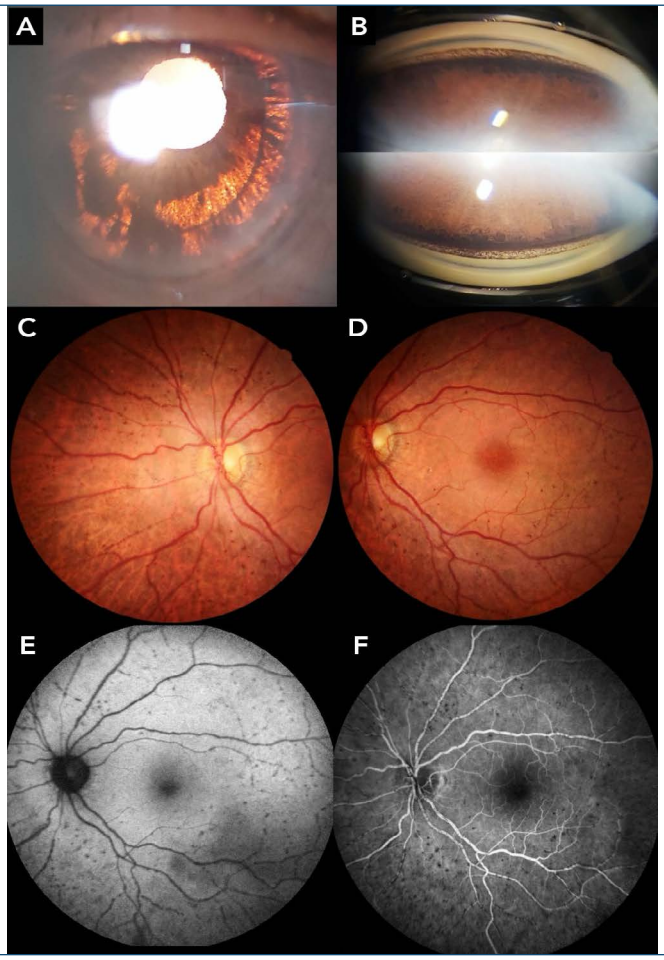

Figure 1. Slit lamp photographs of the aforementioned anterior and posterior segment changes. (A) Extensive iris transillumination defects; (B) increased angle pigment deposition; (C and D) retina pigment deposition, mainly in the perivascular and peripapillary areas; (E and F) fundus autofluorescence and fluorescein angiography, with hypoautofluorescence and hypofluorescence in the areas of pigment deposition.

AUTHORS' CONTRIBUTION

Pedro Manuel Moreira Martins contributed to the conception and design of the study, analysis and interpretation of results, writing, and critical review of the manuscript's content. Ana Sofia Lopes Fonseca contributed to the analysis and interpretation of data, and critical review of the manuscript's content. All authors approved the final version of the manuscript and are responsible for all aspects of the manuscript, including ensuring its accuracy and integrity.