

Non-Neovascular Age-Related Macular Degeneration with Subretinal Fluid

Degenerescência Macular da Idade Não-Neovascular Associada a Flúido Subretiniano

 Joana da Silva Fernandes¹,  Ricardo Machado Soares¹,  Filipe Sousa-Neves¹

¹ Department of Ophthalmology - Centro Hospitalar de Vila Nova de Gaia e Espinho EPE, Vila Nova de Gaia, Portugal

Recebido/Received: 2022-11-09 | Aceite/Accepted: 2023-01-27 | Publicado online/Publicado online: 2023-02-15 | Publicado/Published: 2023-03-28

© Author(s) (or their employer(s)) and *Oftalmologia* 2023. Re-use permitted under CC BY-NC. No commercial re-use.

© Autor (es) (ou seu (s) empregador (es)) e *Oftalmologia* 2023. Reutilização permitida de acordo com CC BY-NC. Nenhuma reutilização comercial.

DOI: <https://doi.org/10.48560/rspo.28526>

KEYWORDS: Macular Degeneration; Subretinal Fluid.

PALAVRAS-CHAVE: Degenerescência Macular; Líquido Sub-Retiniano.

A 68 year-old woman with intermediate age-related macular degeneration - AMD (AREDS category 3)¹ presented to our department with complaints of progressively diminished visual acuity in the right eye (RE). On examination, her visual acuity was 20/40 in the RE. Spectral-domain optical coherence tomography (OCT) revealed a large drusenoid pigment epithelial detachment (PED) with subretinal fluid (SRF) located at the angle (Fig. 1A; arrow). Neovas-

cular AMD was suspected due to disease presentation but neovascularization was not identified in any retina layer on OCT-angiography (Fig. 1B). One year after the diagnosis, SD-OCT showed partial collapse of the PED with incomplete retinal pigment epithelial and outer retinal atrophy.

Although the presence of SRF in age-related macular degeneration (AMD) is considered a biomarker of neovascular activity, SRF may be found in the setting of non-neovascular AMD. Despite being rare, it is important to identify this clinical entity to avoid unnecessary anti-vascular endothelial growth factor treatment.² Multimodal imaging plays an important role in clarifying the prognosis and treatment options of these patients as some may be misdiagnosed as having neovascular AMD. Particularly the OCT-A stands out for being a more readily accessible weapon to exclude macular neovascularization, clarifying the prognosis and therapeutic options in these cases that raise doubts.³

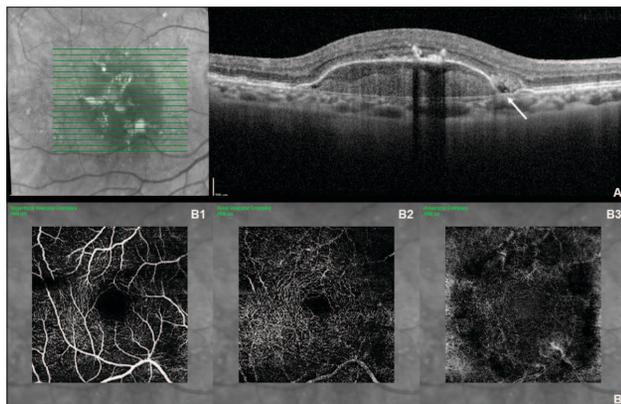


Figure 1. A – Spectral-domain OCT image of the drusenoid pigment epithelial detachment with SRF (arrow). Note the associated findings of choroidal hypertransmission, hyperreflective sub-retinal pigment epithelium, (RPE) space, focal RPE thickening and intraretinal hyperreflective material. B – OCT-angiography in the superficial vascular (B1), deep vascular (B2) and avascular (B3) complex. No neovascularization was identified.

CONTRIBUTORSHIP STATEMENT / DECLARAÇÃO DE CONTRIBUIÇÃO:

JSF: Drafted the manuscript.

FSN and RMS: Substantially revised the manuscript.

All authors approved the final submitted version of the manuscript.

RESPONSABILIDADES ÉTICAS

Conflitos de Interesse: Os autores declaram a inexistência de conflitos de interesse na realização do presente trabalho.

Fontes de Financiamento: Não existiram fontes externas de financiamento para a realização deste artigo.

Confidencialidade dos Dados: Os autores declaram ter seguido os protocolos da sua instituição acerca da publicação dos dados de doentes.

Consentimento: Consentimento do doente para publicação obtido.

Proveniência e Revisão por Pares: Não comissionado; revisão externa por pares.

ETHICAL DISCLOSURES

Conflicts of Interest: The authors have no conflicts of interest to declare.

Financing Support: This work has not received any contribution, grant or scholarship.

Confidentiality of Data: The authors declare that they have followed the protocols of their work center on the publication of data from patients.

Patient Consent: Consent for publication was obtained.

Provenance and Peer Review: Not commissioned; externally peer reviewed.

REFERENCES

1. Davis MD, Gangnon RE, Lee L-Y, Hubbard LD, Klein BEK, Klein R, et al. The Age-Related Eye Disease Study severity scale for age-related macular degeneration: AREDS Report No. 17. *Arch Ophthalmol* (Chicago, Ill 1960). 2005;123:1484–98. doi: 10.1001/archophth.123.11.1484.
2. Hilely A, Au A, Freund KB, Loewenstein A, Souied EH, Zur D, et al. Non-neovascular age-related macular degeneration with subretinal fluid. *Br J Ophthalmol*. 2021;105:1415–20. doi: 10.1136/bjophthalmol-2020-317326.
3. Sikorski BL, Bukowska D, Kaluzny JJ, Szkulmowski M, Kowalczyk A, Wojtkowski M. Drusen with accompanying fluid underneath the sensory retina. *Ophthalmology*. 2011;118:82–92. doi: 10.1016/j.ophtha.2010.04.017.



**Corresponding Author/
Autor Correspondente:**

Joana da Silva Fernandes
Rua Conceição Fernandes, S/N,
4430-000 Vila Nova de Gaia
joanasilvafern@gmail.com



ORCID: 0000-0002-0373-9535