

# Vitreoretinal Lymphoma: Morphological Features on Optical Coherence Tomography

## Linfoma Vitreoretiniano: Características Morfológicas na Tomografia de Coerência Óptica

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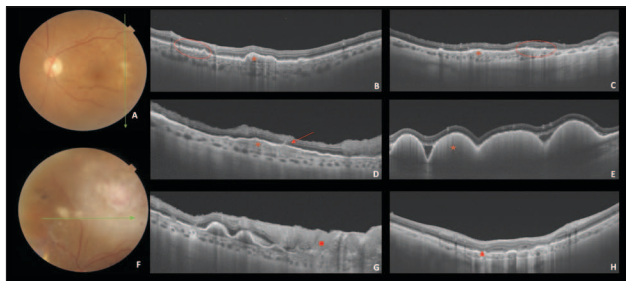
**KEYWORDS:** Intraocular Lymphoma; Retinal Neoplasms/diagnostic imaging; Retinal Pigment Epithelium/diagnostic imaging; Tomography, Optical Coherence.

**PALAVRAS-CHAVE:** Epitélio Pigmentado da Retina/diagnóstico por imagem; Linfoma Intraocular; Neoplasias da Retina/diagnóstico por imagem; Tomografia de Coerência Óptica.

Composite image with the main distinctive optical coherence tomography (OCT) features in vitreoretinal lymphoma.

The educational aim of this composite is to review and disclose the OCT features that point us towards a diagnosis

of vitreoretinal lymphoma diagnosis, namely: retinal pigment epithelium (RPE) nodularity, sub-RPE infiltrates, vertical hyperreflective columns and disorganization of retinal layers.<sup>1-4</sup>



**Figure 1. Figure A:** Fundus photography of the left eye depicting yellowish nodular lesions. The correspondent OCT slab (Fig. B) displays retinal pigment epithelial (RPE) nodularity and sub-RPE infiltrates. **RPE nodularity** is an early disease sign that may be adjacent to a sub-RPE deposit (circle in Figs. B and C); **Sub-RPE infiltrates** may have a dome-shape appearance (star in Figs. B and E) or a flatter cell distribution (star in Figs. C and D). The most accepted theory is that lymphocyte cells entry the eye via the retinal circulation, eroded through the retina and rest on sub-RPE space<sup>1-3</sup>. This gives rise to **vertical hyperreflective columns** extended from the inner retina to the sub-RPE space. (arrow in Fig. D).

**Figure F:** Fundus photography with whitish retinitis-like lesions and hemorrhages. The correspondent OCT slab (Fig. G) shows disorganization of retinal layers (square in Fig. G). In contrast to viral retinitis, these lesions show massive retinal thickening, with multiple peaks with a “rounded roof” appearance, associated sub-RPE infiltrates and partial restoration of retinal layers architecture after therapy<sup>4</sup>. After lymphocyte death, the sub-RPE infiltrations reach an atrophic appearance (triangle in Fig. H)

## RESPONSABILIDADES ÉTICAS

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## ETHICAL DISCLOSURES

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

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**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.

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