Retinal Pigment Epithelial Rip

Category(ies): Retina, Vitreous

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This patient is a 78-year-old man with known history of high-risk non-exudative age-related macular degeneration, and full-thickness macular hole in the left eye, presented for annual follow-up. He noted rapid decline in vision in his formerly better-seeing right eye since three months prior to presentation. No pain or irritation. He has no history of prior intravitreal injections. No other complaints.

BCVA cc:

- right eye (OD) 20/160 (previously 20/32-1)
- left eye (OS) 20/125-2 (previously 20/160) with eccentric fixation

IOP: OD 15, OS 14

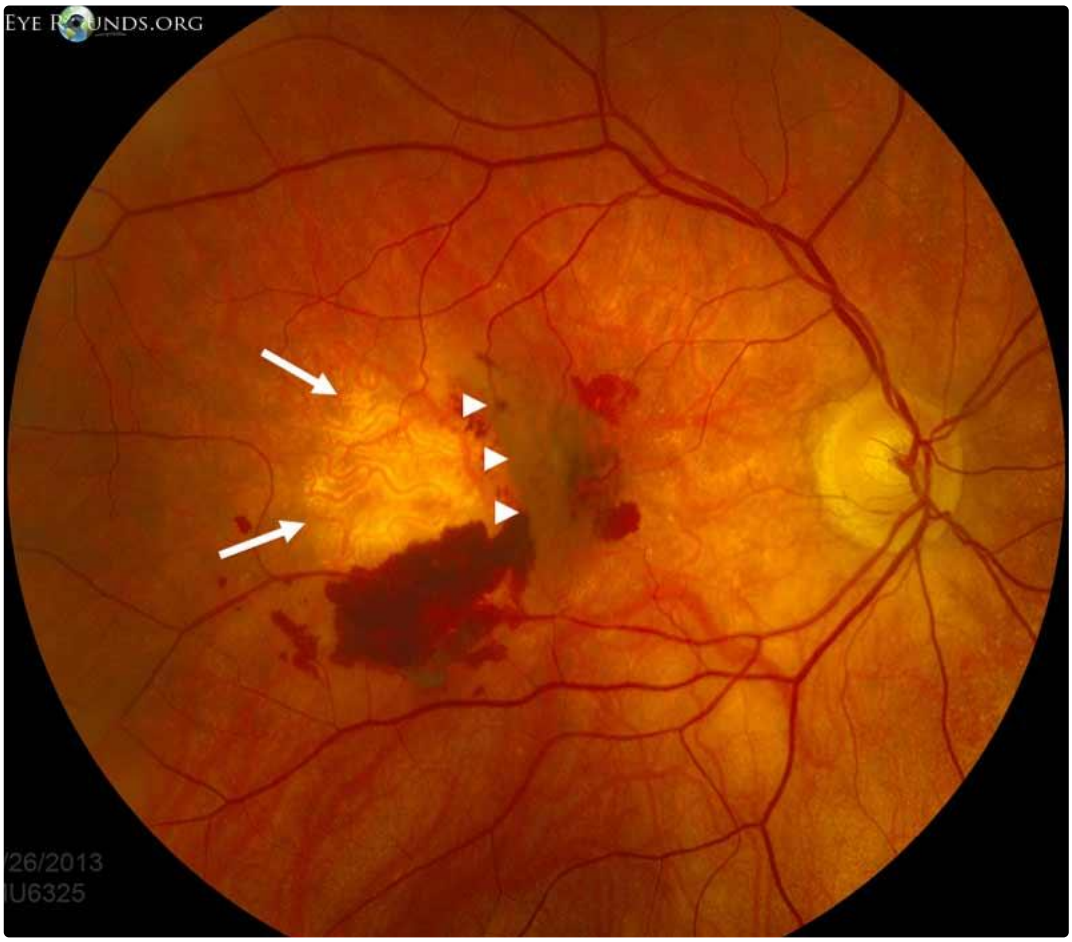

Image 1. Right eye. Subretinal fluid and dense subretinal hemorrhage adjacent to an area of "scrolled" retinal pigment epithelium (RPE) temporally to nasally; long white arrows point to the temporal edge of a well-demarcated area that lacks RPE, as a result of it curling nasally (white arrow heads) toward the optic nerve.

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Image 2. Left eye. Full thickness macular hole with difficult to delineate margins, due to extensive large high-risk drusen and RPE clumping throughout the macula

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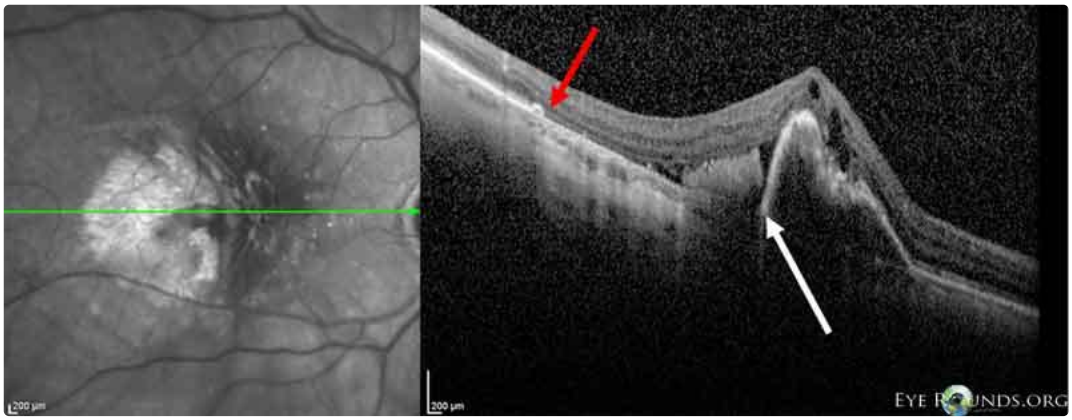

Image 3. OCT, Right eye. Red arrow points to an area where the RPE ends abruptly. White arrow points to an area of "scrolled" RPE adjacent to moderate subretinal fluid.

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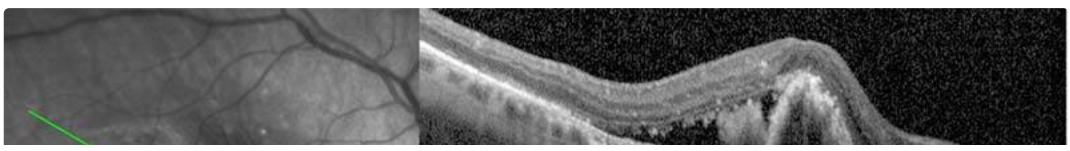

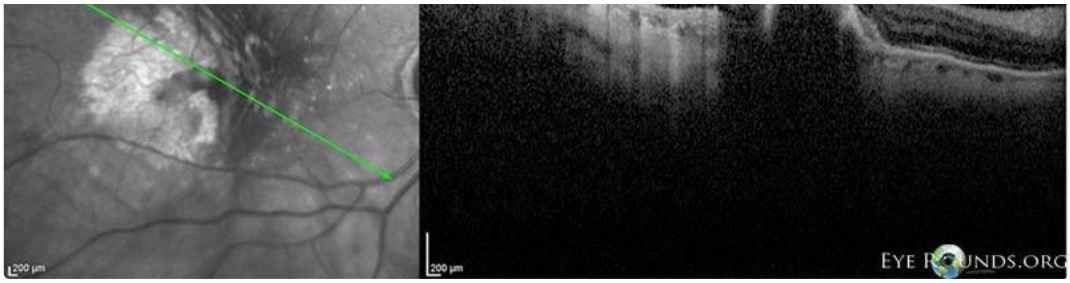

Image 4. OCT, Right eye, alternate view.

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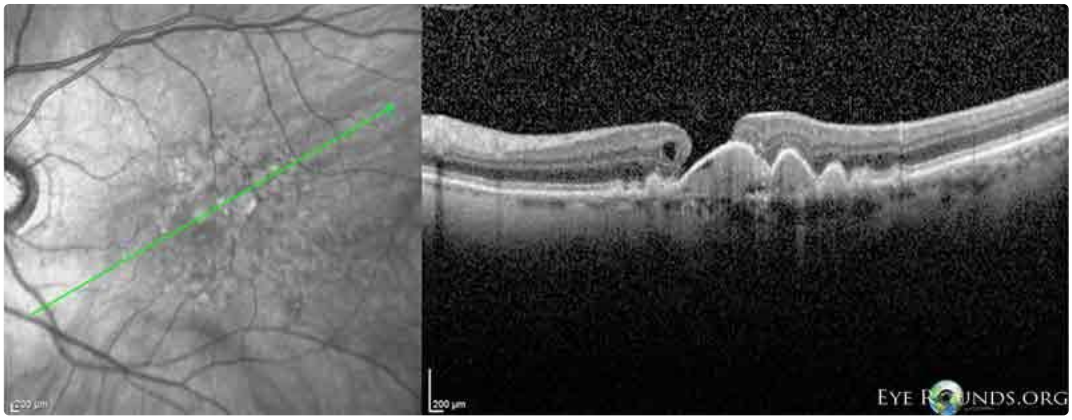

Image 5. OCT, left eye. Full thickness macular hole with adjacent and underlying large high-risk drusen

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Comments

RPE detachments have known to develop RPE rips, either spontaneously or following laser photocoagulation, photodynamic therapy, or intravitreal injection. They usually occur at or along the edge of the serous RPE detachment.

Mechanisms include fibrovascular contraction of choroidal neovascular membranes, mechanical forces from vitreomacular traction or interruption of tight junctions due to anti-VEGF therapy.

An incidence of 10% has been reported as part of the natural history of macular degeneration.

Improvement in visual acuity may occur after treatment (usually anti-VEGF or photodynamic therapy) despite RPE rips, but the patient and clinician need to be aware of this situation, as it may warrant close follow-up and re-treatment in cases of deterioration.

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