

# EFFECT OF R-TPA MEDICATION AND INTRAVITREAL GAS IN THE TREATMENT OF HEMORRHAGIC VASCULAR MEMBRANE

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## OBJECTIVE

To report a case of unilateral Subretinal hemorrhage (SMH) secondary to Age-Related Macular Degeneration (AMD), treated with intravitreal injection of tissue plasminogen activator (r-tPA) and perfluoropropane gas (C3F8).

## METHODS

Analysis of medical records.

## RESULTS

Male, 65 years old, goes to the ophthalmology service complaining of low visual acuity in the left eye for 05 days. Past ophthalmological history of AMD and phacoemulsification in both eyes. Wide-field colour-corrected imaged showed SMH due to an active choroidal neovascular membrane (CNV) - also demonstrated in optical coherence tomography (OCT) (figure 1). Pars plana vitrectomy was indicated with r-tPA associated with anti-VEGF and C3F8. Patient follow up demonstrated significant improvement and complete resolution of the subretinal hemorrhage was observed (figure 2).

## IMAGES

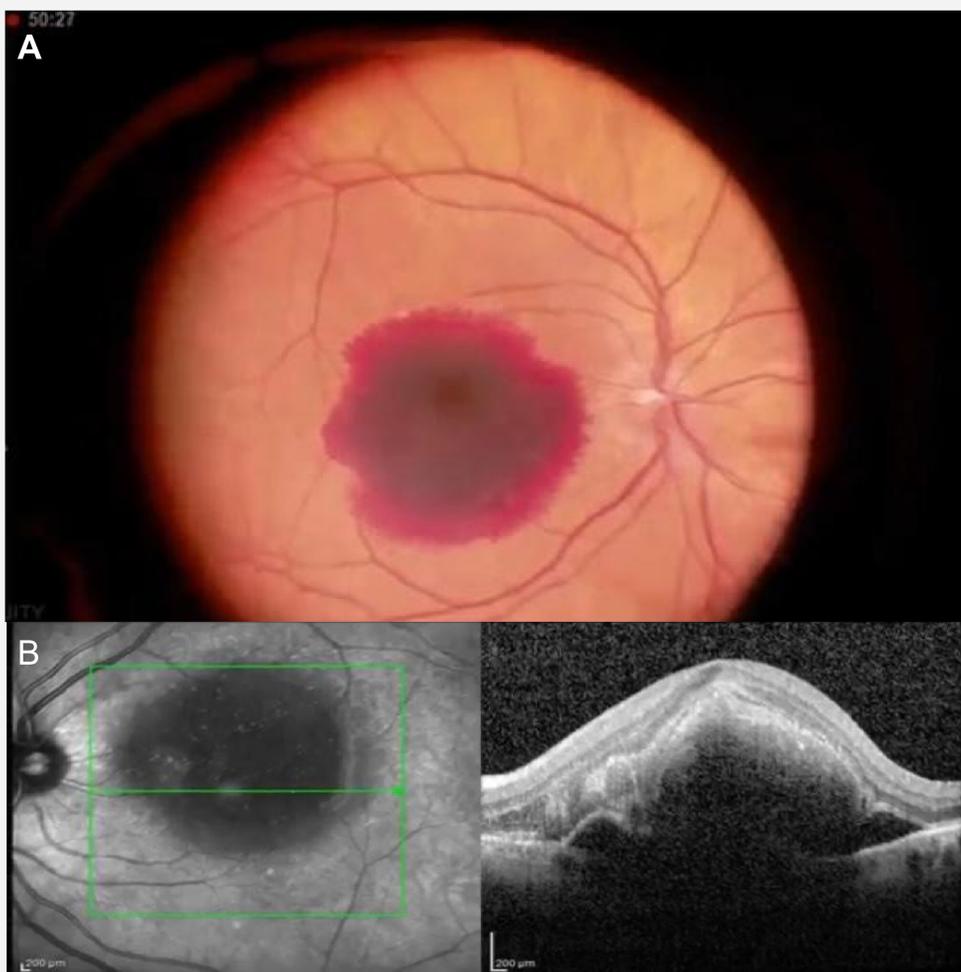


Figure 1. Preoperative color fundus (A) and OCT (B)

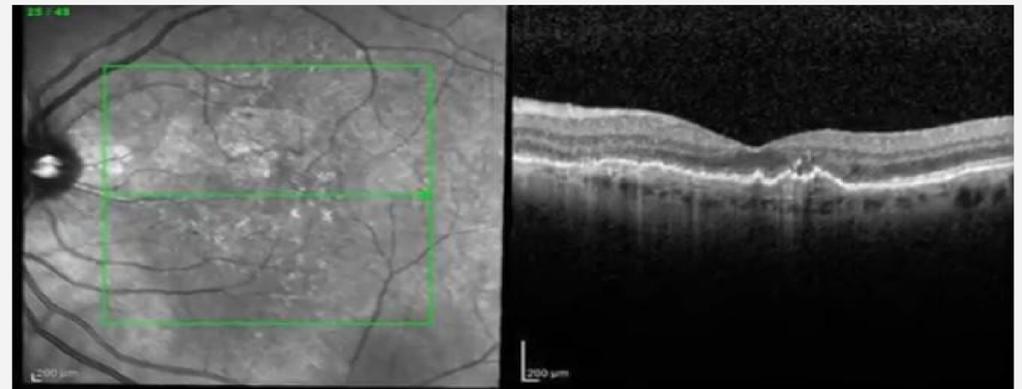


Figure 2. Postoperative OCT

## DISCUSSION AND CONCLUSIONS

SMH is one of the main causes of severe decrease in visual acuity in patients with the exudative form of AMD. If not treated, it can lead to severe and permanent vision loss since the blood that accumulates damages the photoreceptors, leading to rupture of the retinal pigment epithelium and macula scarring.

There are 3 main treatment strategies, such as a) intravitreal gas tamponade - aim of displacing the hemorrhage - associated or not an anti-VEGF therapy; b) vitrectomy with subretinal injection of tPA and gas including or not anti-VEGF therapy; c) anti-VEGF monotherapy.

In this case, the technique of vitrectomy with subretinal injection of r-tPA and anti-VEGF, associated with C3F8 was chosen.

This case elucidates the pathology, reinforces the role and importance in the early approach to SMH and encourages research on ways to manage the disease and its complications.

## REFERENCES

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