Spotlight Case Winter 2025

## TOPICAL THERAPY For macular hole

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# MICHIGAN RETINA CENTER

### History

A 58-year-old female patient was referred to our practice for evaluation of decreased vision in her right eye for one month. She works as a registered nurse and had no significant medical or ocular history.

#### Examination

Visual acuity was 20/40 OD and 20/20 OS. Intraocular pressures were 17 mmHg OD and 15 mmHg OS. There was no RAPD. Examination of the posterior segment revealed a small full thickness macular hole (FTMH) in the right eye. These findings

#### were confirmed by OCT imaging (Figure 1).

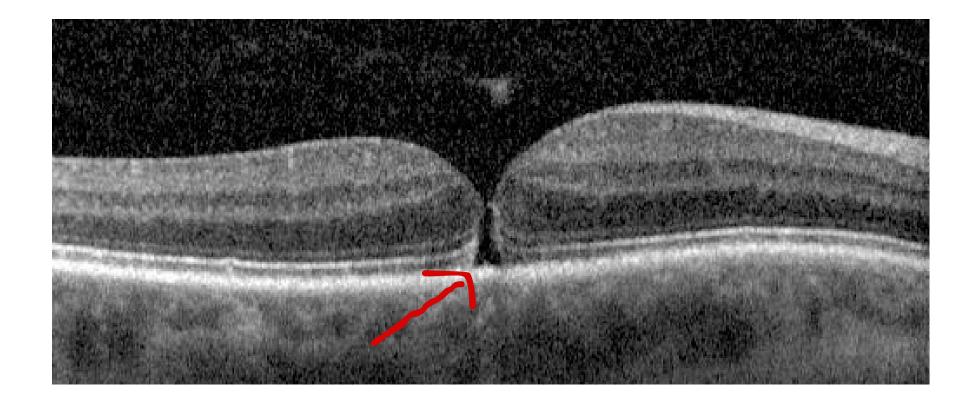


Figure 1. OCT of the right eye. The arrow indicates the small macular hole.

#### Treatment

We discussed treatment options including vitrectomy surgery. However, due to the small size of the hole, we attempted topical therapy first. She was started on Ketorolac 0.5%, Prednisolone Acetate 1%, and Dorzolamide 2% all three times a day in the right eye. At the 6-week follow-up visit, the hole had improved (Figure 2, a) and . at the 12-week follow-up, her vision improved to 20/25 OD and the hole closed (Figure 2, b).

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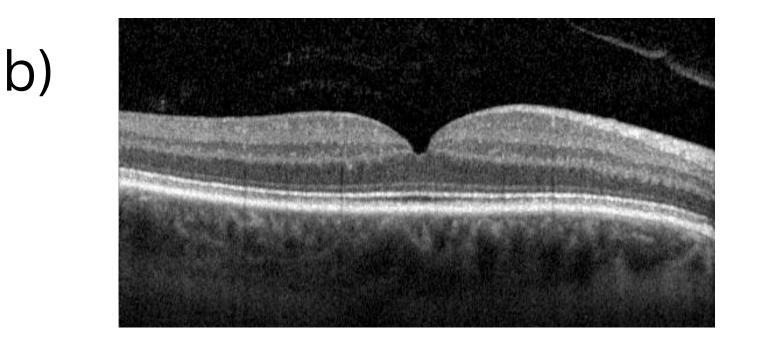
## TOPICAL THERAPY FOR MACULAR HOLE

a)

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FTMHs are caused by vitreoretinal traction of the posterior hyaloid on the fovea Topical steroids, NSAIDS, and carbonic anhydrase inhibitors are thought to reduce inflammation and macular edema. Although long-term use of topical treatments needs to be studied, they can be used for small holes or potentially in patients when surgery may not be feasible.



**Figure 2.** OCT of the right eye at 6 weeks (a) and 12 weeks (b) after topical treatment was initiated.

#### Locations

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