ChatGPT o3 >

Chief complaint: right eyemarked decrease in visionhalf a month;
OCT findings: right eyeextensivemacular regionneurosensory retinal detachment，full-thickness hole>541μm，epiretinal membrane formation.
Preoperative best-corrected visual acuity (BCVA): OD CF/20 cm (with habitual correction +2.00 DS / −1.50 DC × 180° → 0.1).

Please answer in three numbered paragraphs using precise clinical terminology:
1. Diagnosis and supporting rationale.
2. Recommended treatment plan and justification.
3. Predicted uncorrected visual acuity (UCVA) one month after treatment and a brief explanation for your prediction.

Strictly base your answer on the provided information and add no unstated assumptions.

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1. **Diagnosis and rationale**

Right-eye *large full-thickness macular hole (FTMH) with associated macular neurosensory retinal detachment and epiretinal membrane (ERM)*. The OCT demonstrates a full-thickness defect > 541 μm, classifying it as a large (Stage 4) FTMH; the concomitant widespread neurosensory detachment indicates macular-hole–related retinal detachment. The ERM visible on OCT denotes tangential traction that likely contributed to hole enlargement and detachment. The profound loss of vision to counting-fingers at 20 cm corroborates the structural findings.

2. **Recommended treatment and justification**

Perform pars plana vitrectomy with complete posterior hyaloid removal, ERM excision, and internal limiting membrane (ILM) peeling using an inverted-flap technique, followed by long-acting gas tamponade (e.g., 14 % C_3F_8) and strict prone positioning post-operatively. Vitrectomy eliminates anteroposterior and tangential traction; ILM peeling (inverted flap) is standard for closing large (>400 μm) holes and promotes gliotic sealing of the defect; gas tamponade apposes the edges and supports re-attachment of the detached neurosensory retina. This combined approach offers the highest anatomic closure and reattachment rates in large FTMH with detachment.

3. **Predicted uncorrected visual acuity (UCVA) at one month**

Expected UCVA ≈ 0.05 (Snellen ~20/400). While primary closure is probable within the first month, photoreceptor realignment and foveal remodeling are still incomplete at this early stage; hence only a modest gain from counting-fingers to roughly 20/400 is anticipated, with further gradual improvement possible over subsequent months.

Ask anything

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Fig. S1. Screenshots of ChatGPT-o3 responses for a macular hole case.