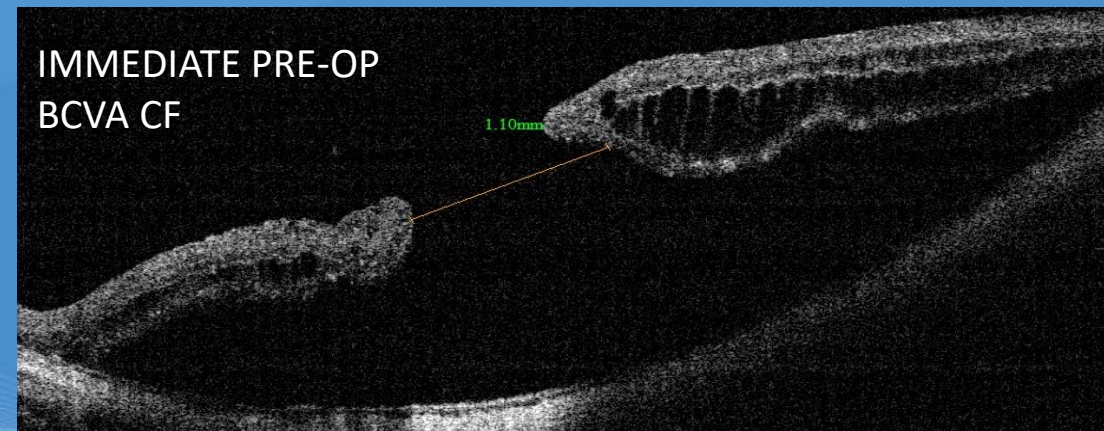
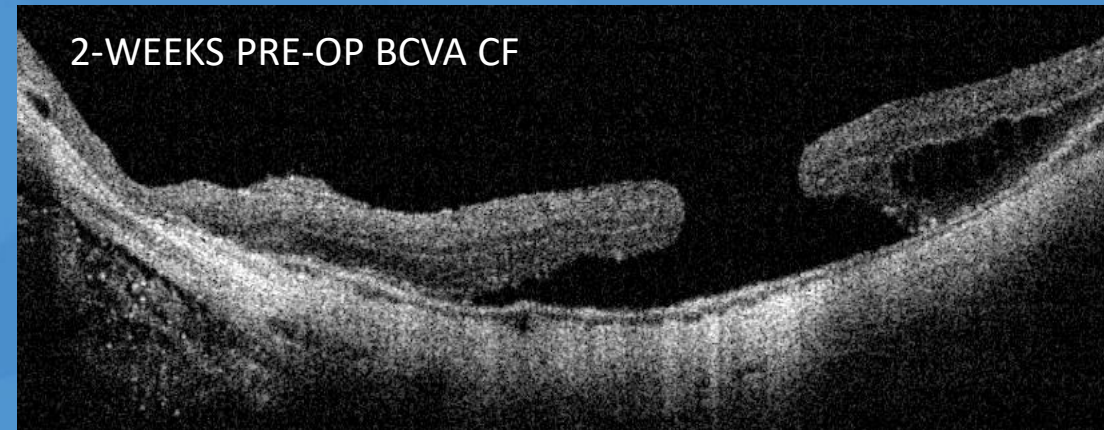


Vitrectomy with the use of an amniotic membrane graft for persistent macular hole- retinal detachment in high myopia.

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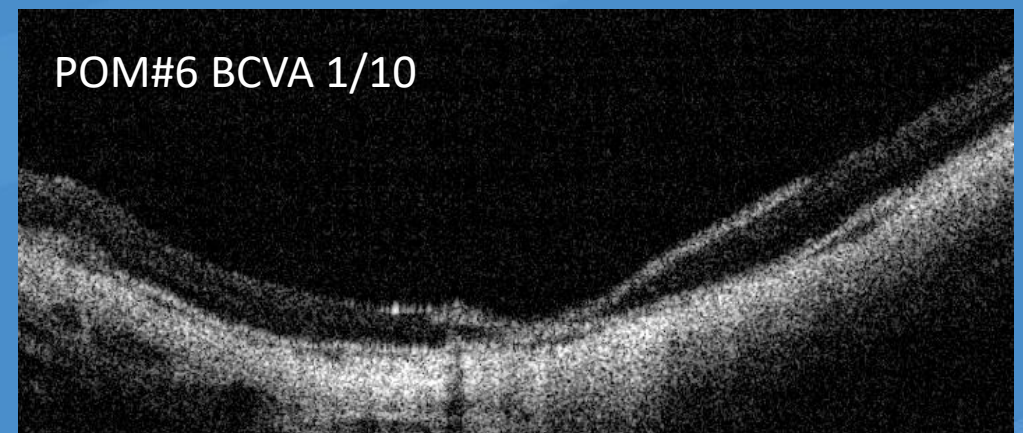
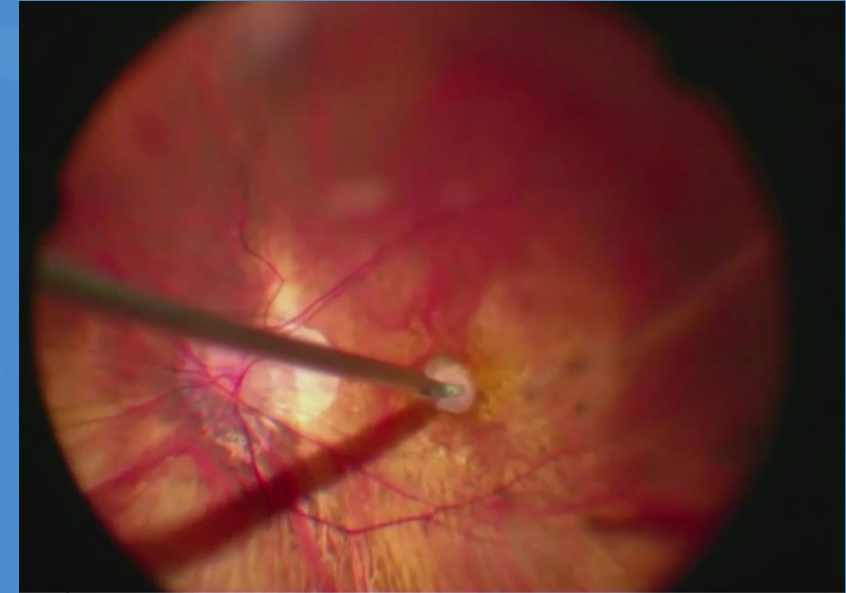
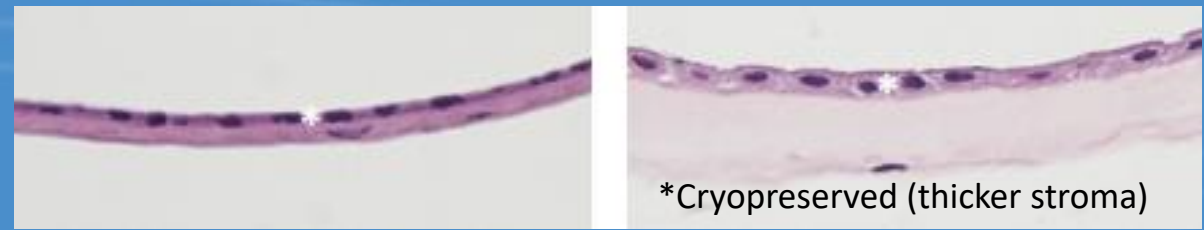
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- **Aim:** Case report and review of pertinent literature.
- **Materials/Methods:** Case report.
- **Results (1):**
 - 59 year old Caucasian female presenting with a persistent macular hole-retinal detachment.
 - Preoperatively, we observed rapid evolution of the posterior retinal detachment with the SRF extending to the vascular arcades.



- **Results (2):**

- The patient underwent pars plana vitrectomy, placement of a cryopreserved amniotic graft over the hole.
- Intraoperatively, we observed wrinkling of the graft upon entering the heavy fluid interphase requiring bimanual manipulation. This was further facilitated with removal of the heavy liquid while maintaining temporary reattachment of the posterior pole.
- Postoperatively we observed closure of the macular hole with a smooth retinal reattachment and improvement of her BCVA to 1/10.
- The graft remained tomographically intact under silicone oil well beyond 6 months postoperatively.



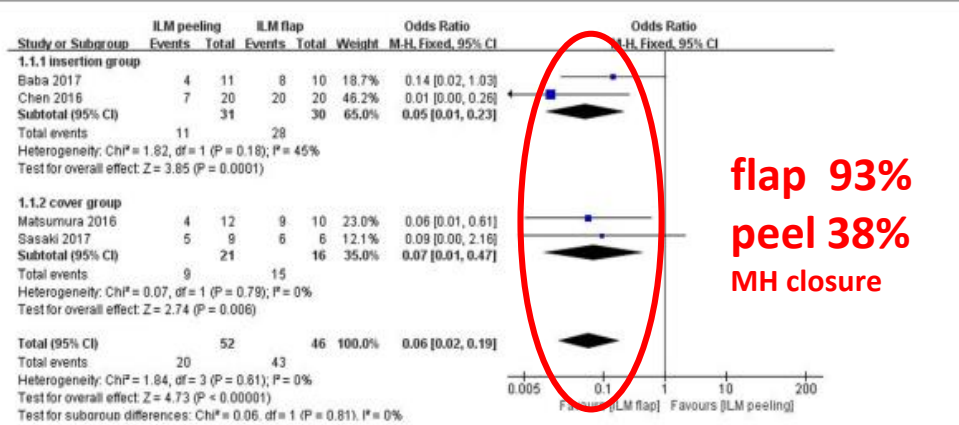


Fig. 3 Meta-analysis comparing the rate of macular hole closure between ILM peeling and ILM flap groups 6 months later after initial surgery.

Author	Year	Country/district	Design	Mean follow-up time, months (range)	Disease status	Sample size	Gender Male/female	Previous intervention	Mean age	MH closed	VA improved
Caporossi et al.	2019	Italy	P	12	Recurrent HMMH	16	5/11	PPV + ILM peeling	68.25 ± 11.04	16/16	8/16
Caporossi et al.	2021	Italy	P	12	Recurrent MH	20	8/12	PPV + ILM peeling	67.95 ± 11.96	20/20	15/20
Huang et al.	2020	Taipei	R	6	Persistent MH/Returrent MH-RD	10	3/7	PPV + ILM peeling	63 ± 19.44	9/13	3/13
Garcin et al.	2021	France	P	12-18	Recurrent MH-RD	14	3/11	PPV + ILM peeling	62.3 ± 8.82	8/10	9/10
Moharram et al.	2020	Egypt	P	6	Recurrent MH-RD	14	3/11	PPV + ILM peeling	58.71 ± 10.69	13/14	12/14
Ferreira et al.	2021	Brazil	R	1-14	Persistent MH	13	1/12	PPV + ILM peeling	66.54 ± 10.45	13/13	5/13
Szurman et al.	2021	Canada German	R	1-63	Failed MH	7	NA	PPV + ILM peeling	NA	5/7	NA
Caporossi et al.	2019	Italy	P	6	Recurrent MH-RD	10	4/6	PPV + ILM peeling	62.2 ± 9.38	10/10	9/10

P: prospective, R: retrospective, HMMH: high myopia macular hole, PPV: pars plana vitrectomy, ILM: internal limiting membrane, MH: macular hole, RD: retinal detachment.

Closure 94%
Graft Δ 6%

• Conclusions:

- Persistent myopic macular holes can evolve rapidly into retinal detachment.
- Although ILM flap remains the first option in primary repairs, amniotic graft placement over the hole is an efficacious surgical option for persistent myopic macular hole retinal detachments.

References:

- Matsumae H et al, *Ophthalmol Retina* 2020;4(9):916-926
- Wakabayashi T et al, *Graefes Arch Exp Clin Ophthalmol* 2018;256(8):1387-1393
- Sasaki H et al, *Eye(Lond)* 2017;31(4):545-550
- Zhang H et al, *J Fr Ophthalmol* 2023;46(3):276-286
- Yuan J et al, *BMC Ophthalmol* 2017;17(1):219