

Failed Pneumatic Retinopexy versus Primary Operating Room Intervention for Retinal Detachments

March 15,
2025

Midwest
Retina

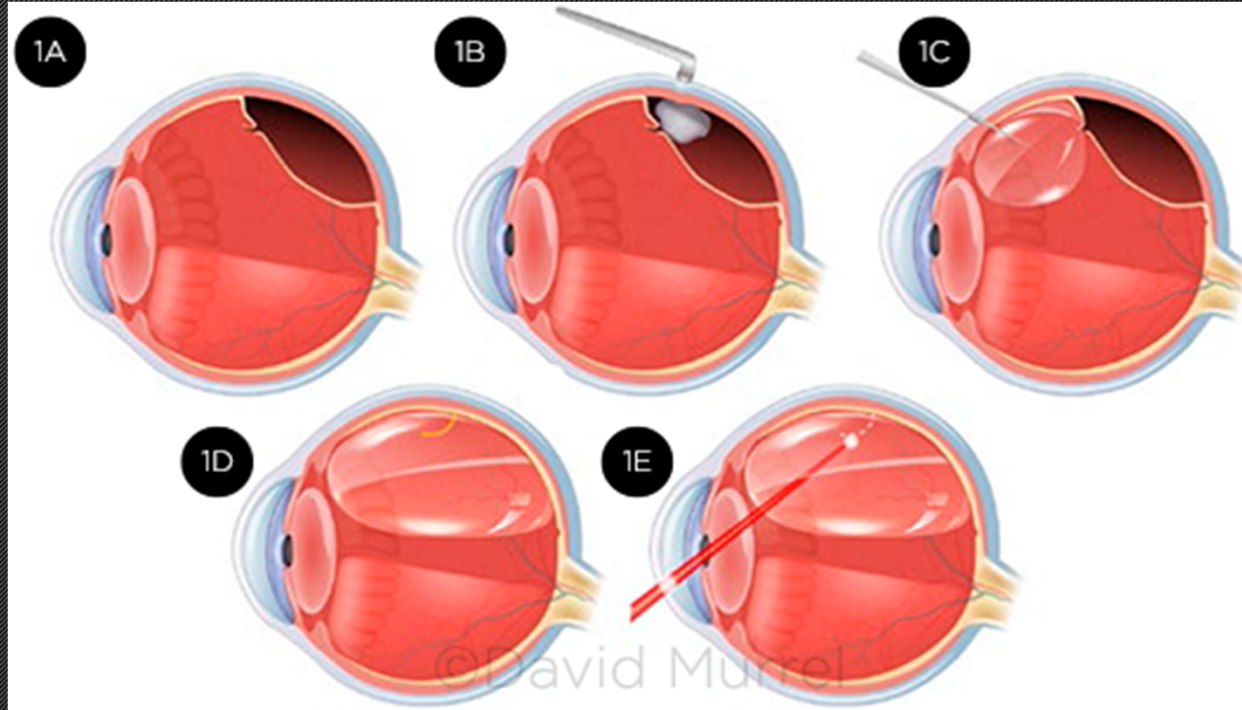
Albany
Medical
Center

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Retinal Detachment

- Incidence of 10-18 people per 100,000 in USA
- Treatment options for retinal detachment (RD) include pneumatic retinopexy (PnR), scleral buckle (SB), pars plana vitrectomy (PPV), or combination vitrectomy/buckle (PPV/SB)
- Pneumatic Retinopexy used less often
 - 8.3% of retina doctors never used in 1999, compared to >20% of retina doctors in 2021

Pneumatic Retinopexy



Pneumatic Retinopexy

Pros

- Decreased rates of metamorphopsia
- Promptness of treatment
- Does not require OR
- Cheaper

Cons

- Lower single procedure success rate
- Cannot be used for all RDs

Purpose

- Evaluate visual outcomes in failed pneumatic retinopexy patients (failed PnR) compared to those undergoing primary repair in the operating room (primary OR)

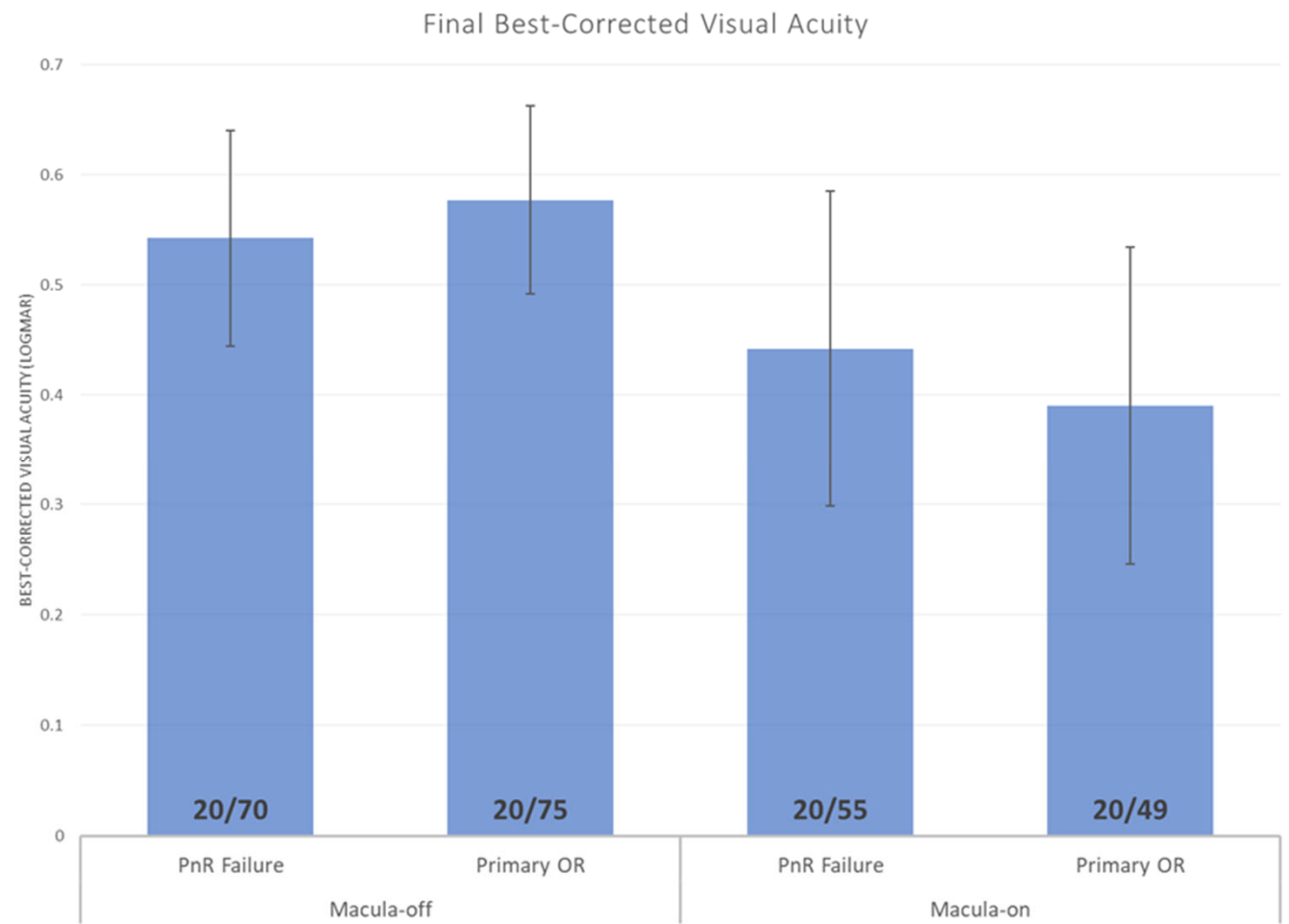
Methods

- Retrospective study, 2012-2022, single tertiary retina practice
- Matched those that failed primary PnR and required secondary OR intervention to similar eyes that underwent primary OR intervention
- Excluded patients that were absolute contraindications to PnR
- Secondary surgery type at surgeon discretion
- 130 eyes, 70 failed PnR, 60 primary OR (PPV, SB, or PPV/SB)

* Student's t-test
† Fisher's Exact Test
‡ One patient without documentation of ethnicity

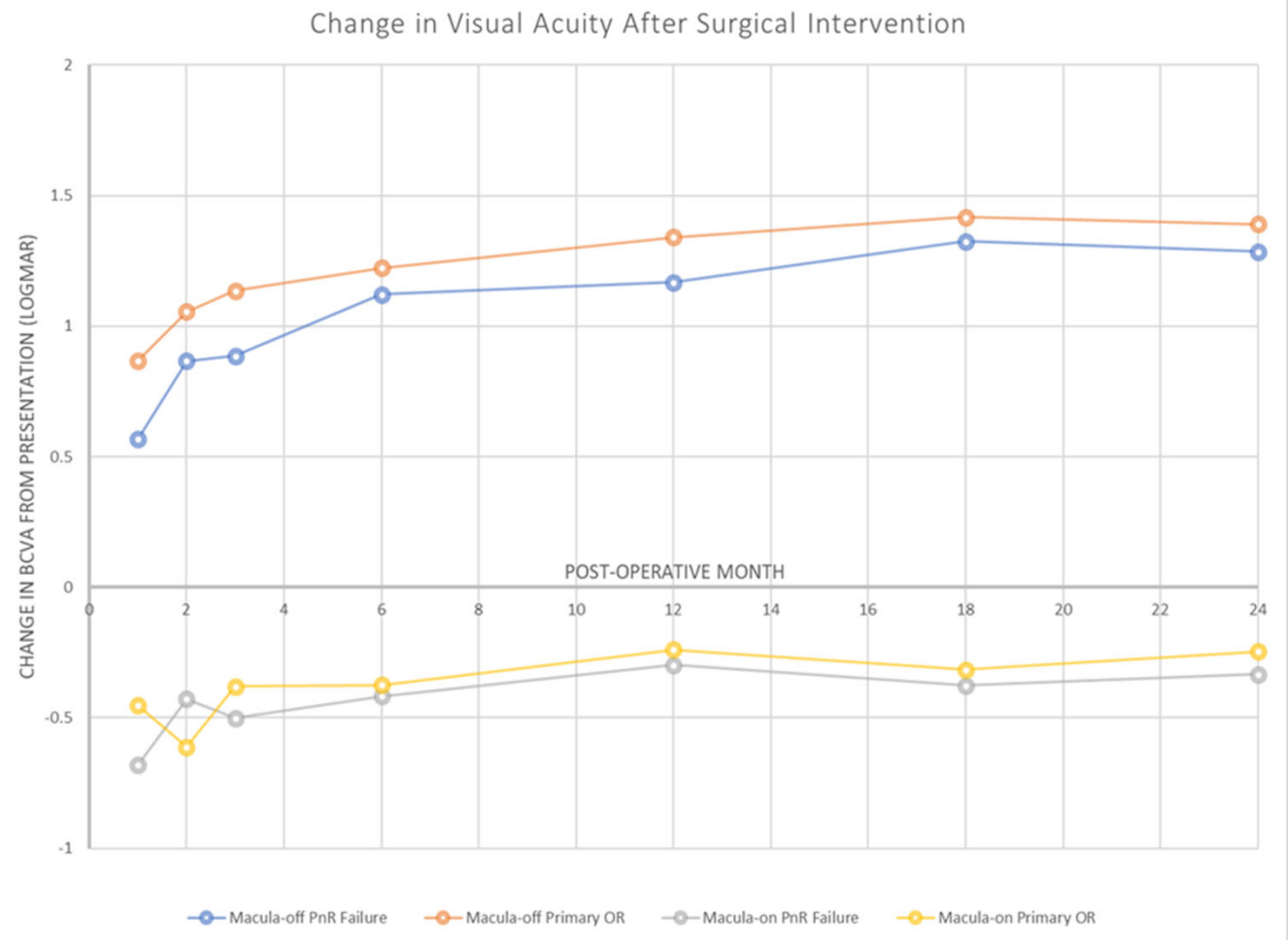
Results

- No significant differences in visual outcomes for PnR failure vs primary OR



Results

- No significant difference for failed PnR vs primary OR at any time point



Discussion

- No significant difference in final BCVA for detachments that failed primary PnR vs those undergoing primary repair in the OR
- Limitations

Thank you!

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Questions?

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