

Pneumatic retinopexy made easy: conclusions from a case series

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Purpose: To present outcomes of pneumatic retinopexy (PnR) with simplified single procedure approach

Methods:

A consecutive case series of 25 patients, (14 male, 11 female, age: 36-83) PnR for rhegmatogenous retinal detachment (RRD).

Inclusion: criteria from PIVOT trial.

Procedure:

Cryotherapy to the retinal tear, anterior chamber paracentesis and gas tamponade (100% SF6, C2F8, C3F8) into the vitreous cavity.

Follow up: 6 months

Results:

Image 1: visual acuity results: mean improved from 0,27 LogMAR to 0,09 LogMAR. Success 21/25 patients (84%).

Image 2: summary on results depending on the break location

2 pseudophakic patients included, both of whom had failed procedures.

No case of proliferative vitreoretinopathy or significant epiretinal membrane.

Secondary surgery success 100%

Mean vision improved from 0,27 LogMAR to 0,09 LogMAR.

1 patient with a large tear developed vitreous haemorrhage, which cleared

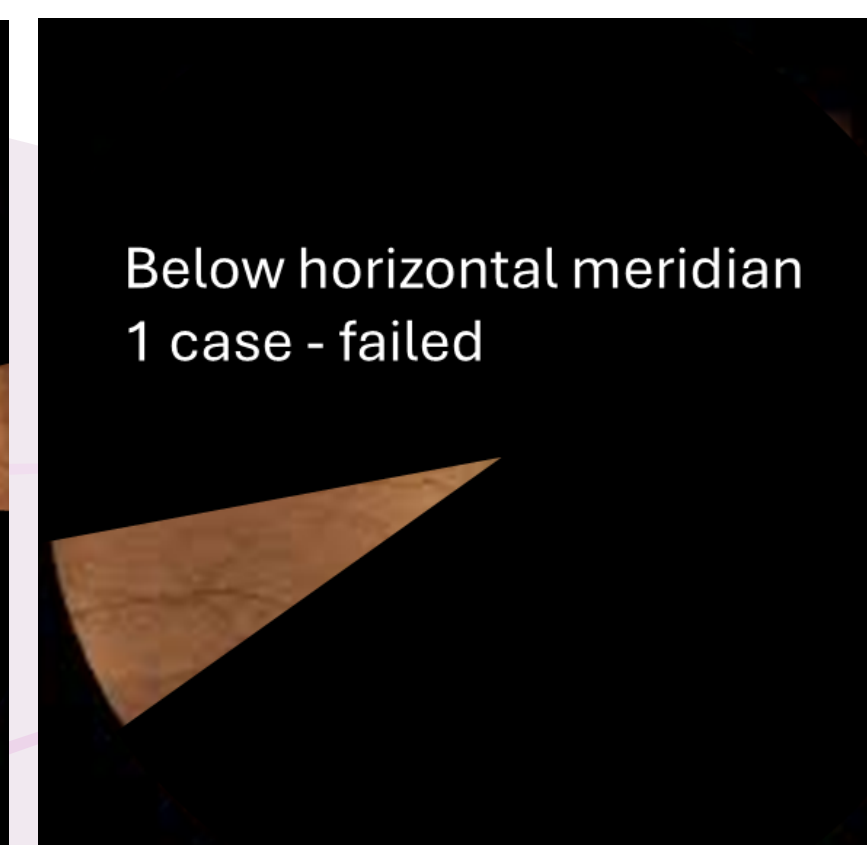
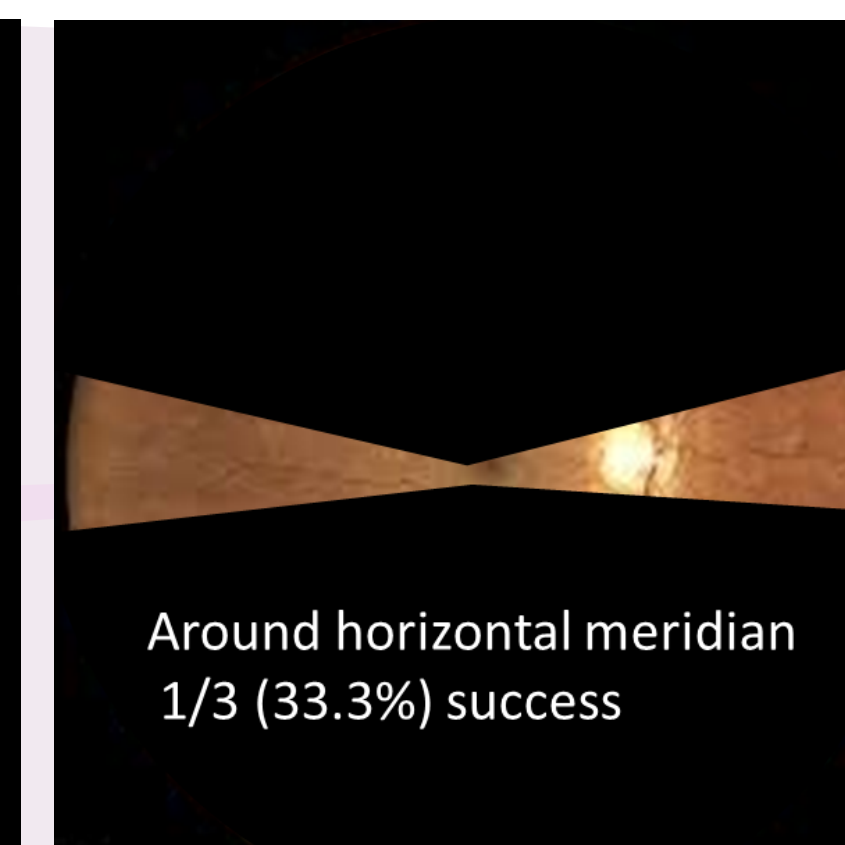
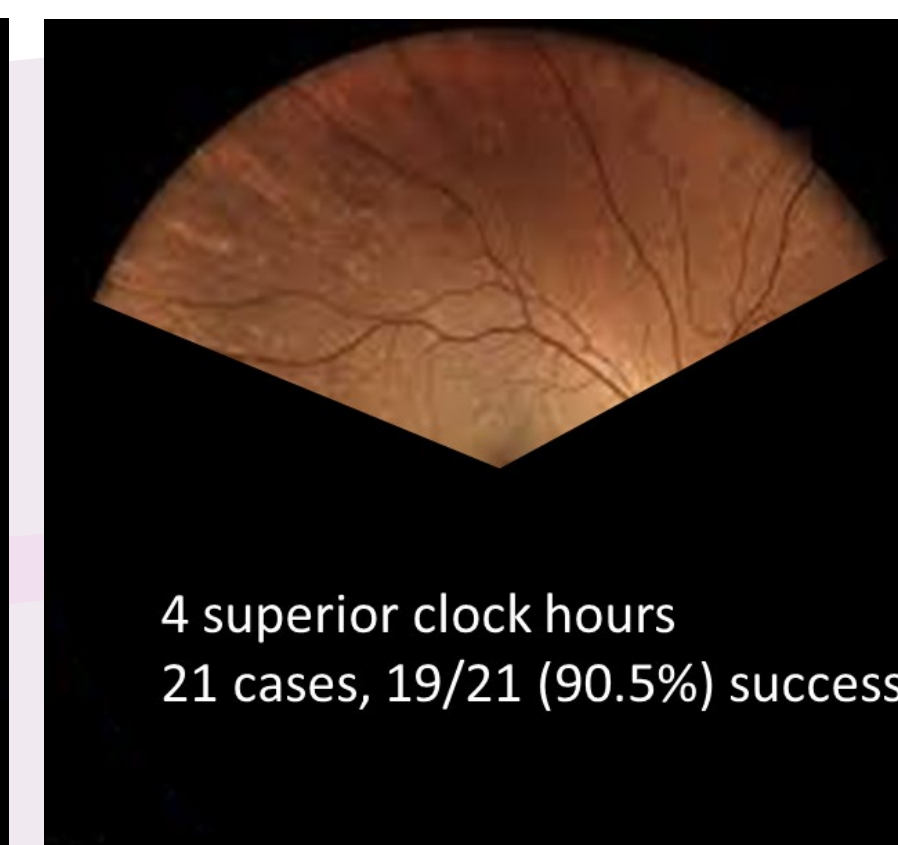


Image 2 : success rates depending on the position of the retinal tear

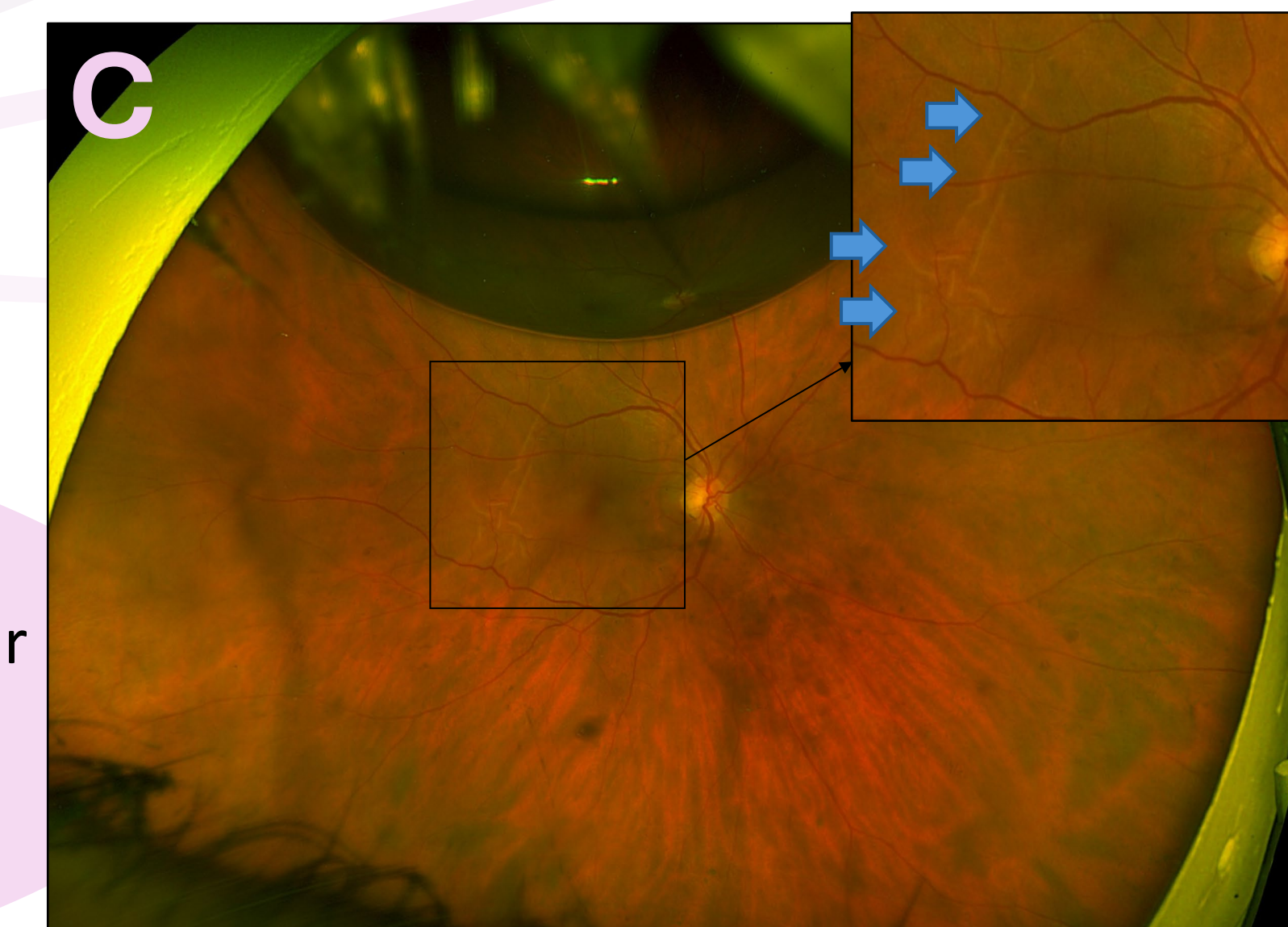
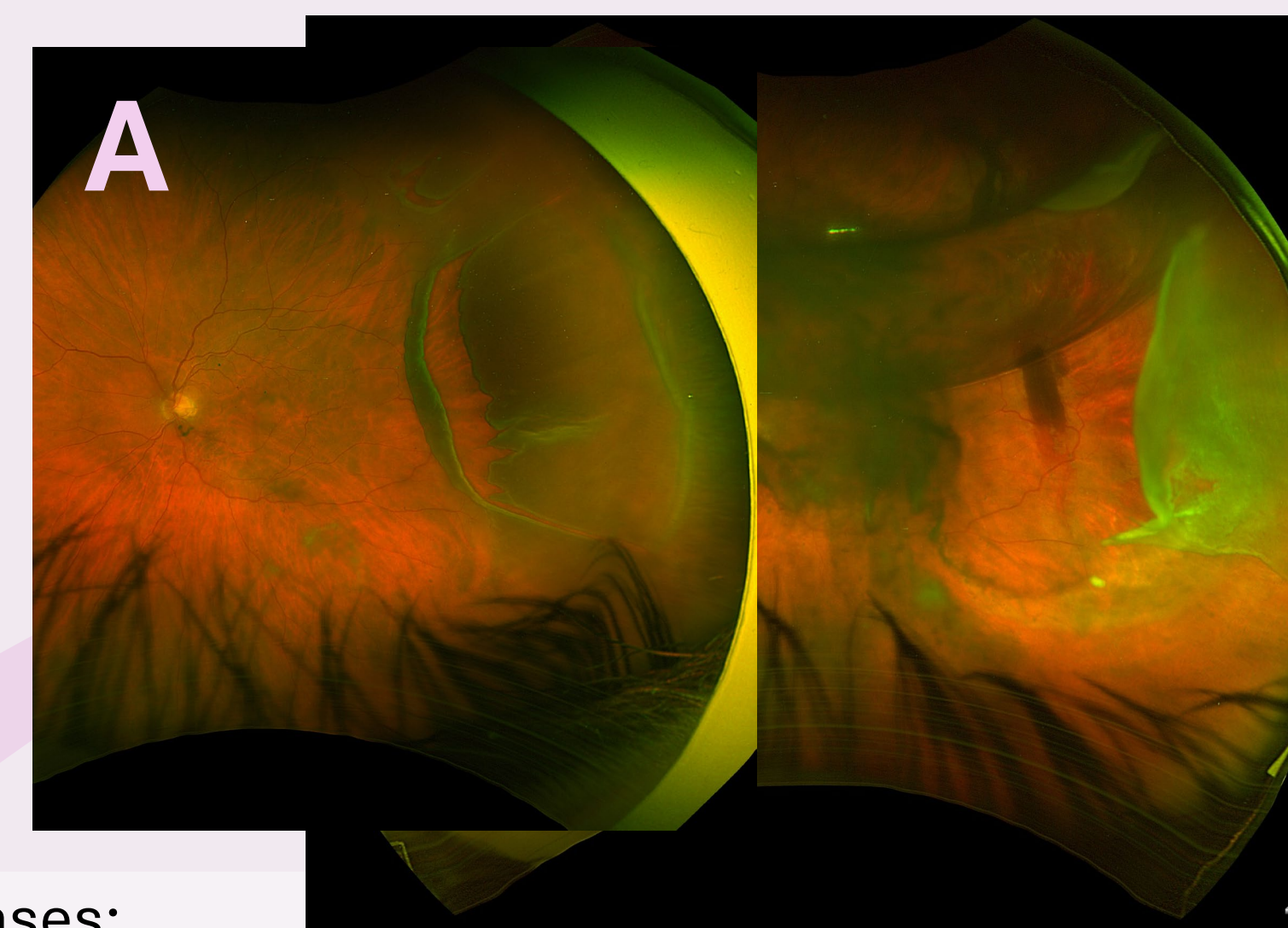


Image 3: example cases:

A: Patient 12: Large retinal tear with smaller break, successfully treated with C3F8 tamponade: vitreous haemorrhage cleared over time and retinal flap atrophied

B: Patient 11: Attached retina with gas in situ; subretinal band from chronic detachment visible (green arrows)

C: Retinal attachment, SF6 tamponade; unexpected perimacular folds with no impact on VA (blue arrows)

Conclusions:

PnR with cryotherapy is a safe and efficient technique of RRD repair

Pros: Good success rate, low cost, short time required, quick visual recovery, potentially less visual distortion in macula off RRD

It seem to work best if the breaks are in 4 superior clock hours and in phackic patients

Image 1: visual acuity change (LogMAR)

