When Scleral Buckle is the best option !!

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Scleral buckle will never die

- Scleral buckling represents a valuable treatment option for retinal detachment repair that declined over the years due to increasing interest in vitrectomy.

- Lack of confidence in indirect ophthalmoscopy and difficulties in teaching this surgery have contributed to limiting its diffusion among young surgeons.

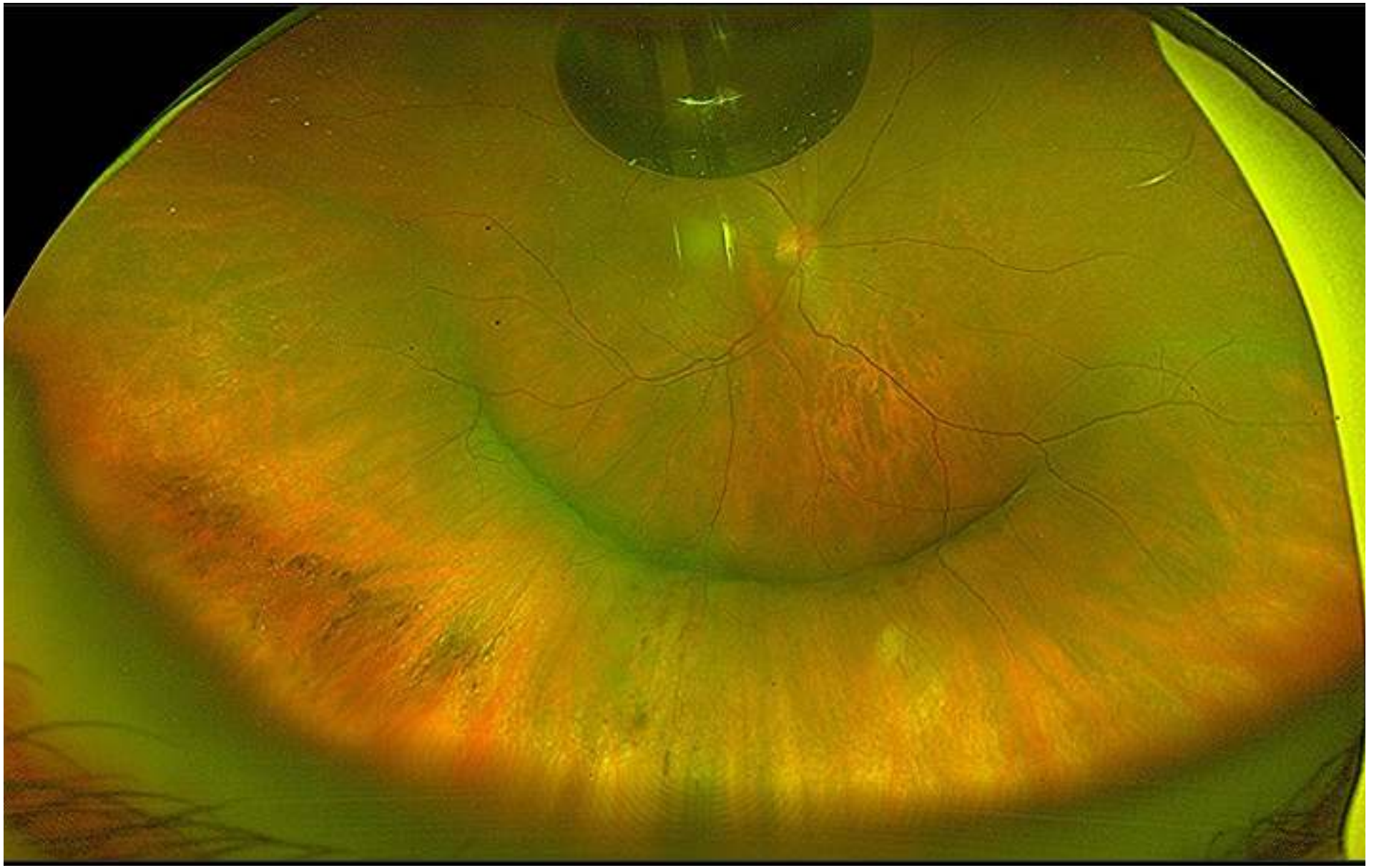
- In some cases, scleral buckling is much superior to vitrectomy.

Inferior retinal detachment

- All tamponades do not provide adequate support to the lower retina.
- Heavy silicone oil provides adequate tamponade to inferior retina but it is not widely available and its removal may be challenging.

Lower RD, macula on, and lower atrophic hole.

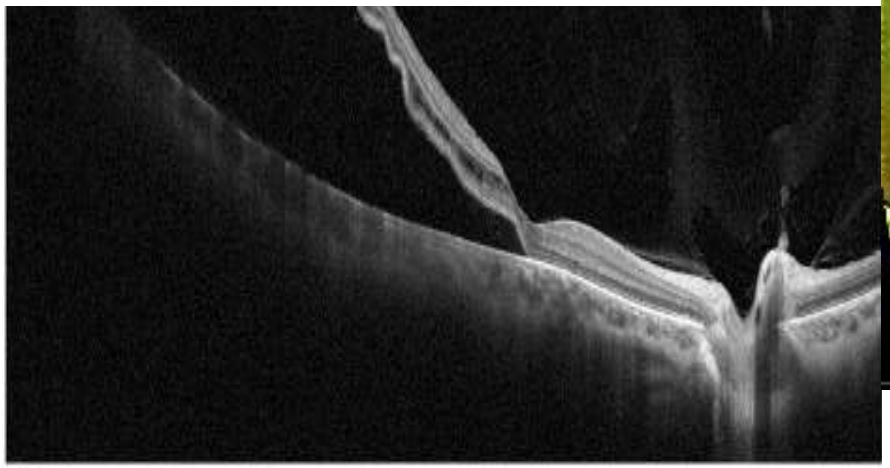
Post operative

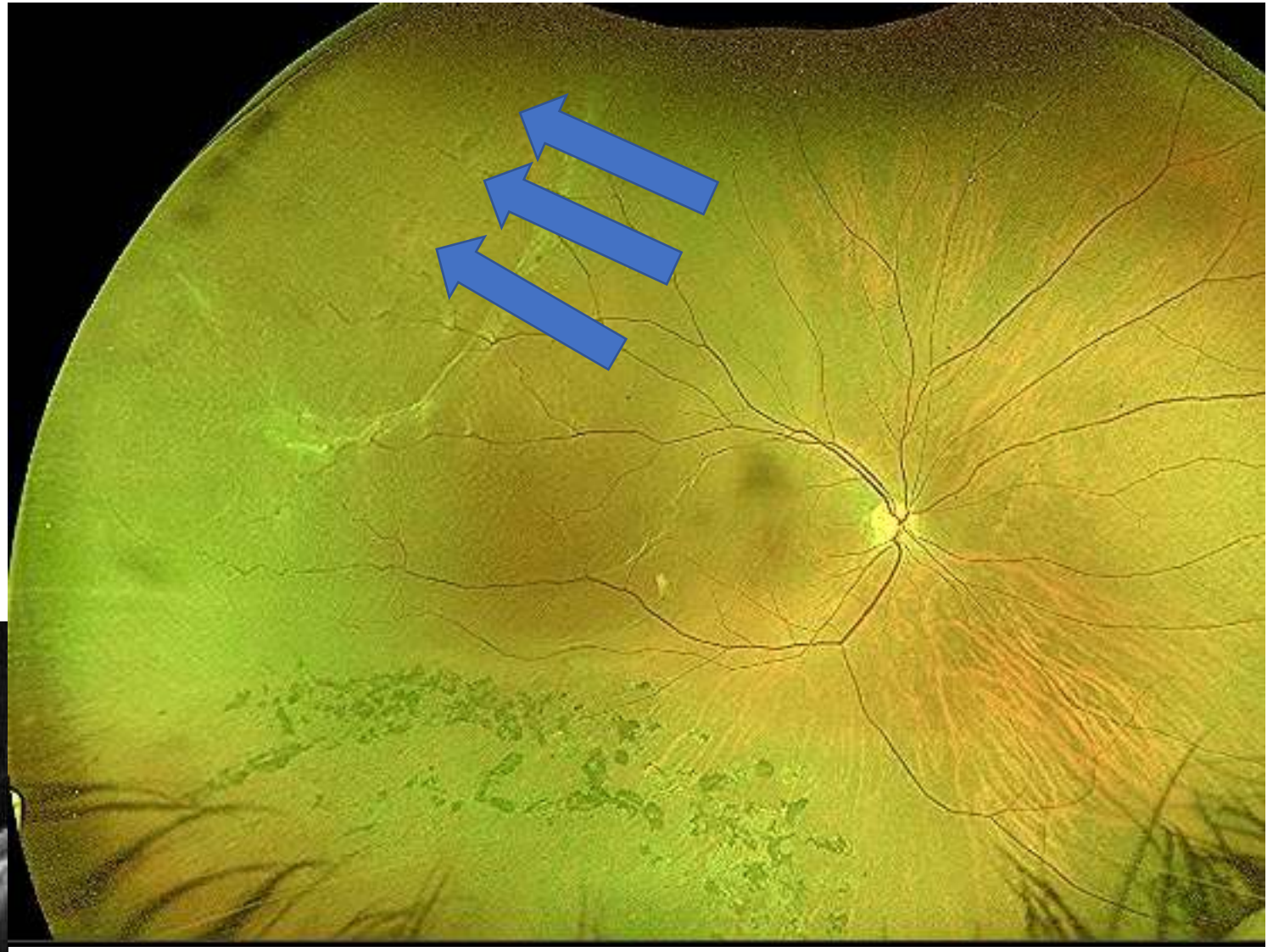


Myopic retinal detachment

Young patients with no PVD and clear lens .

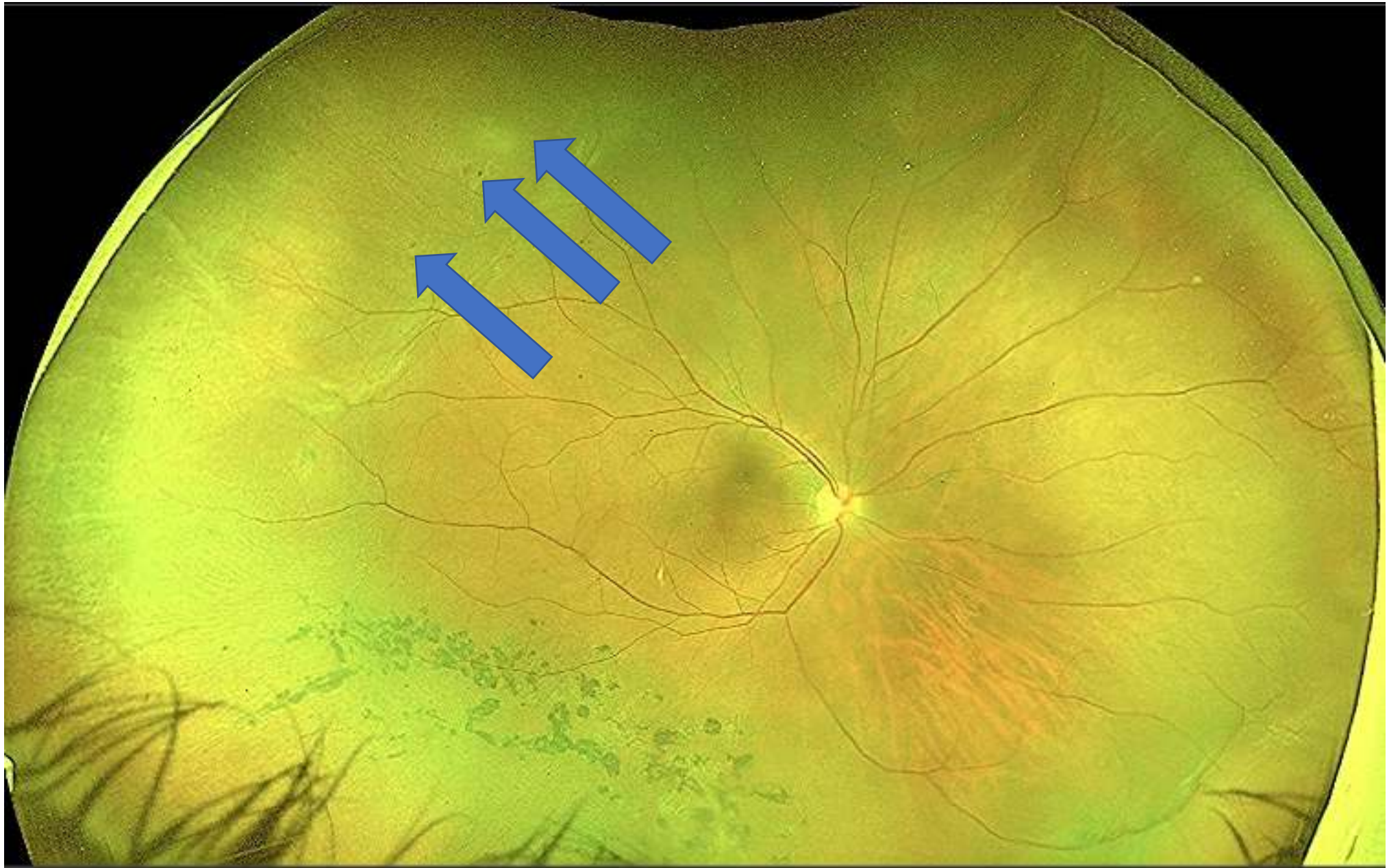
Induction of PVD can be challenging with the risk of iatrogenic tears.





Temporal RD, macula partially off, atrophic holes.

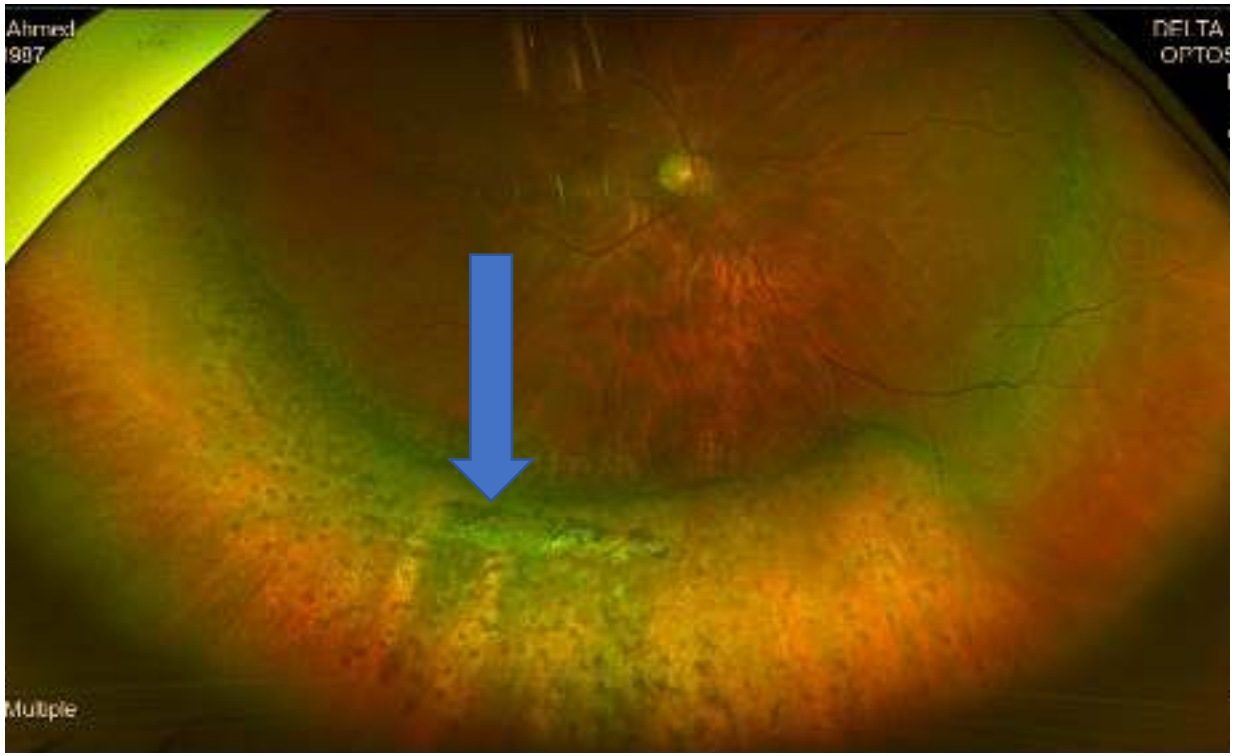
Post-operative



Inferior retinal detachment in myopic patient due to atrophic holes in lattice degeneration

Pre

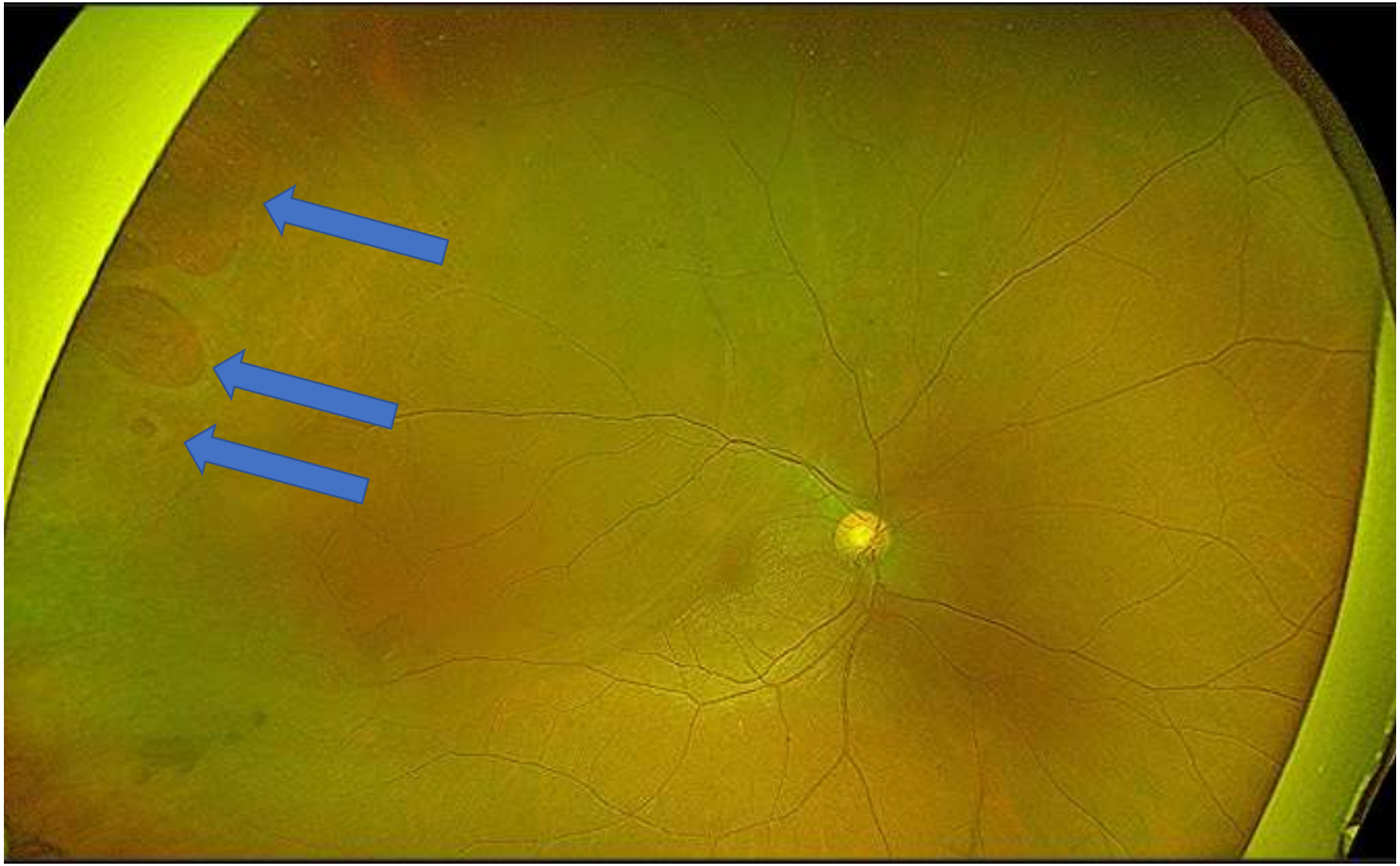
Post



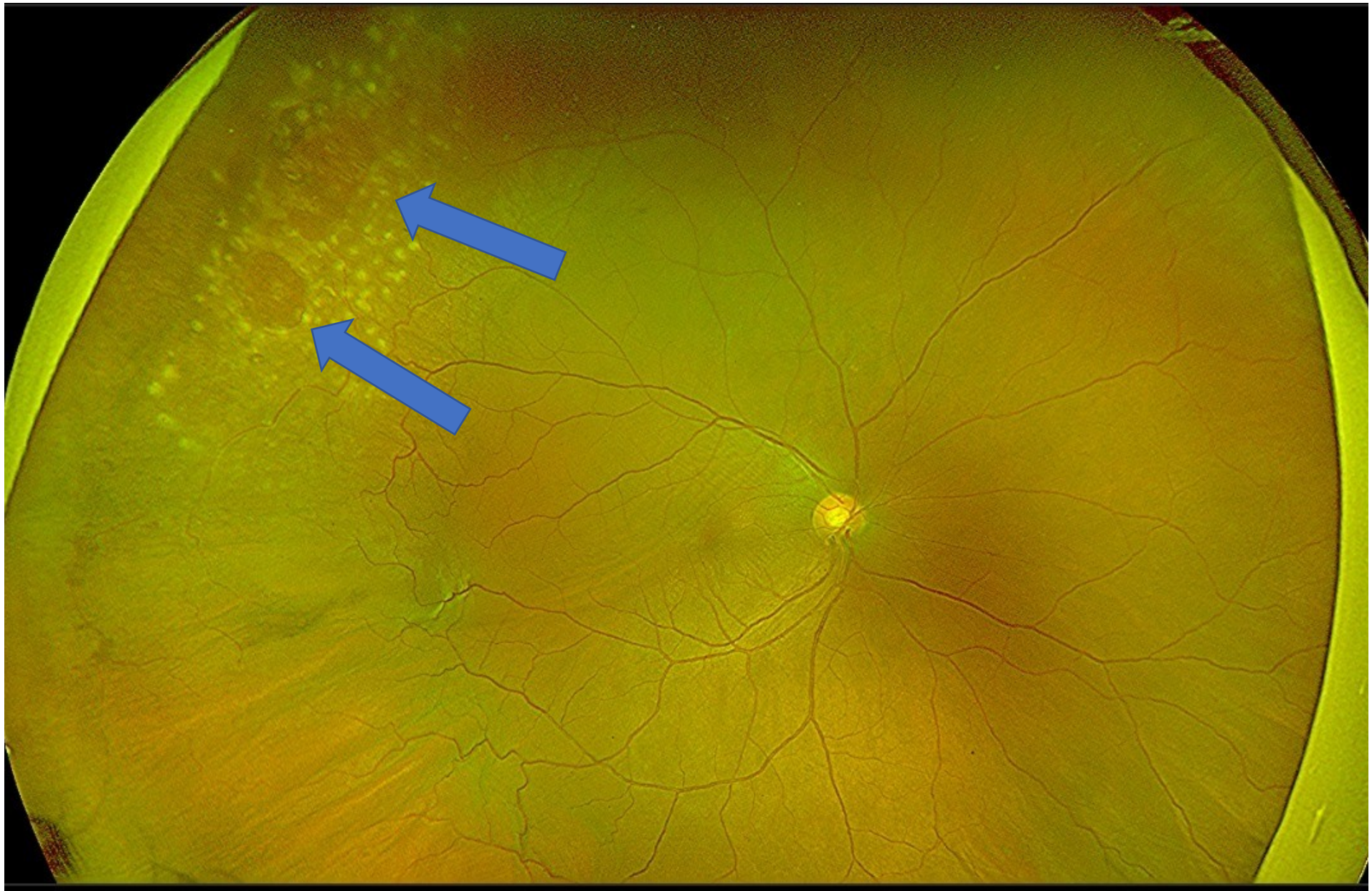
- 37 years old one eyed patient.

- Lost the other eye after vitrectomy for RD.

Non PVD RD with multiple atrophic retinal breaks



Postoperatively



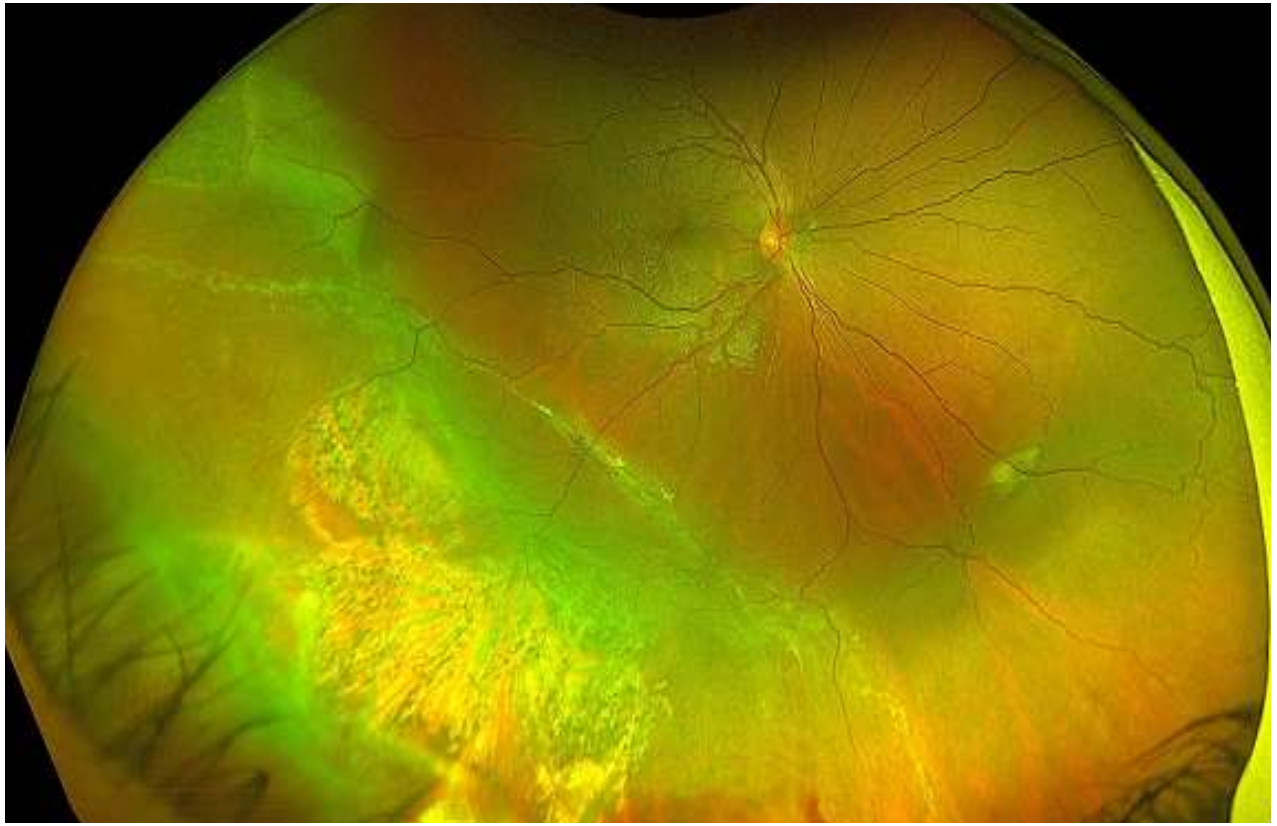
Retinal detachment due to dialysis

No PVD

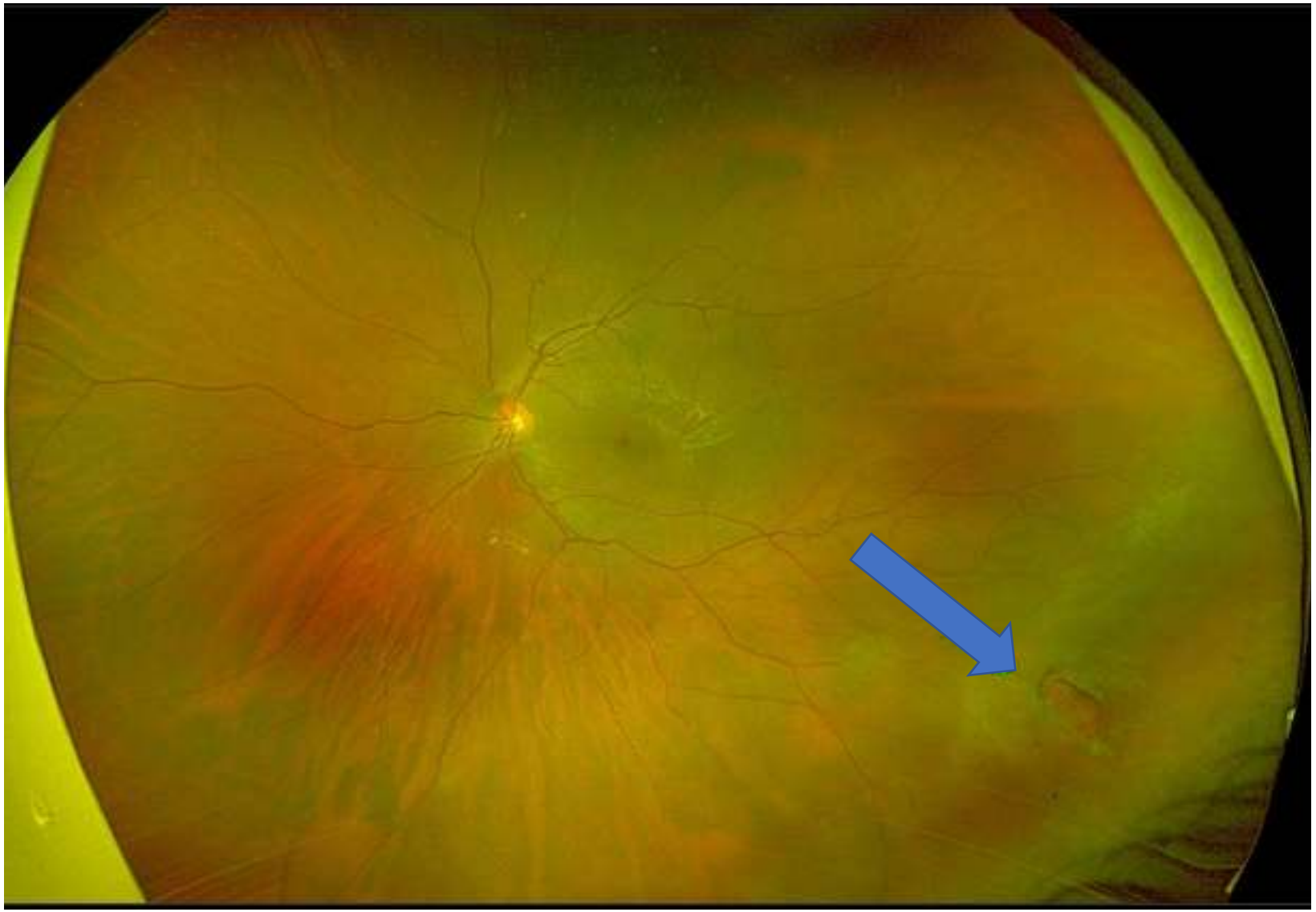
Hard access to the periphery with PPV (lens touch)

11 years old phakic patient with bilateral RD secondary to dialysis.
Right eye macula on & Left eye macula off

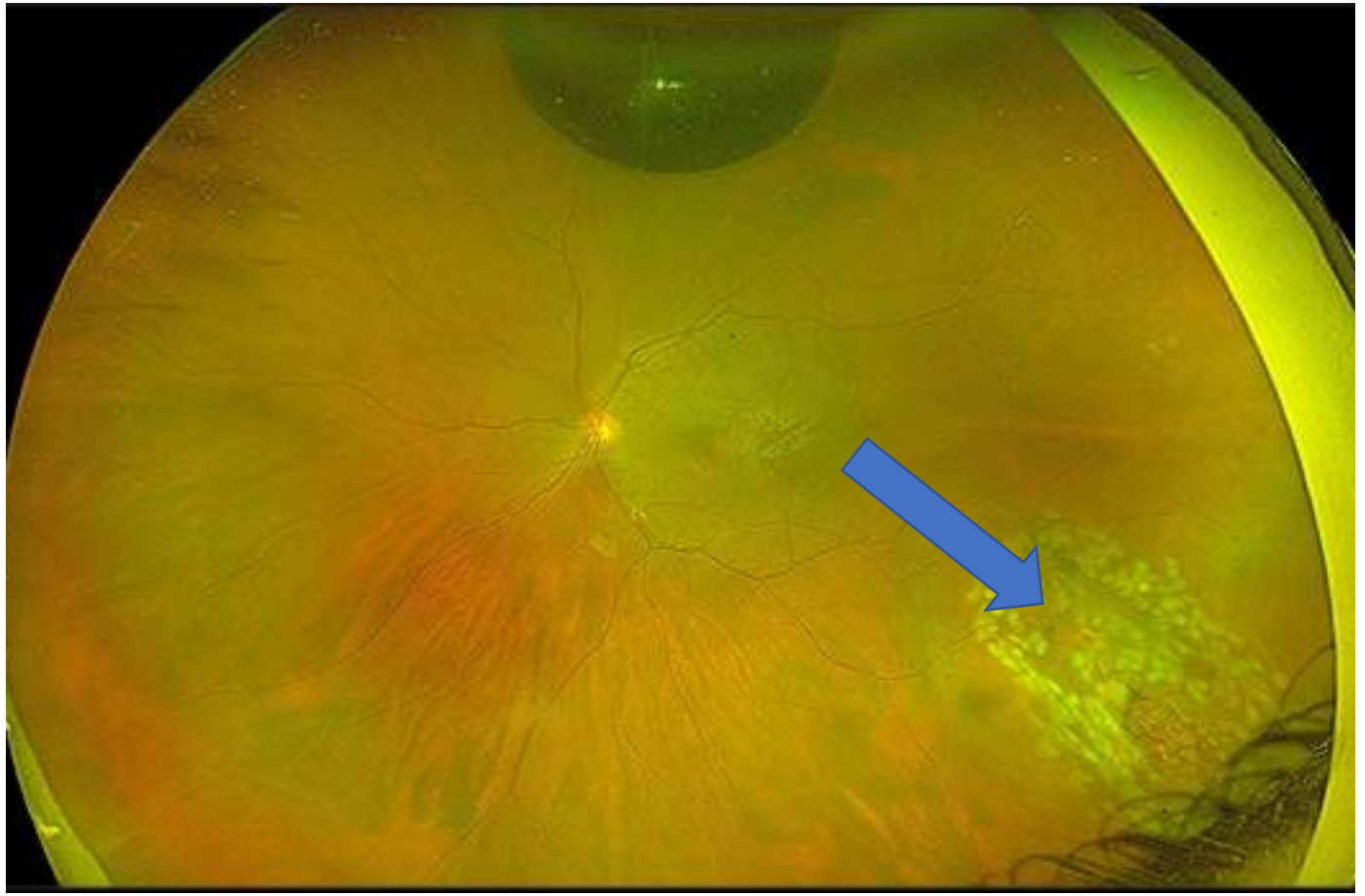
Postoperatively



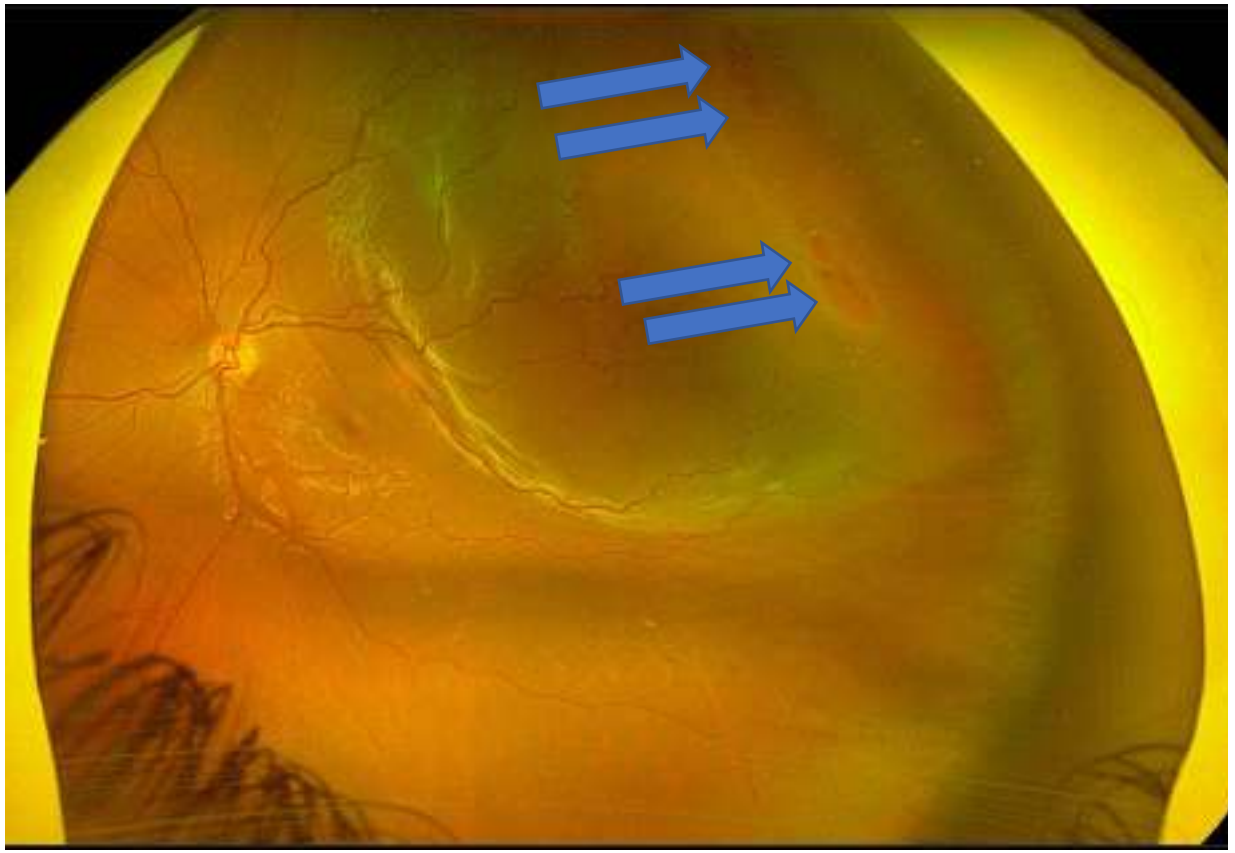
Lower temporal RD with a relatively posterior break



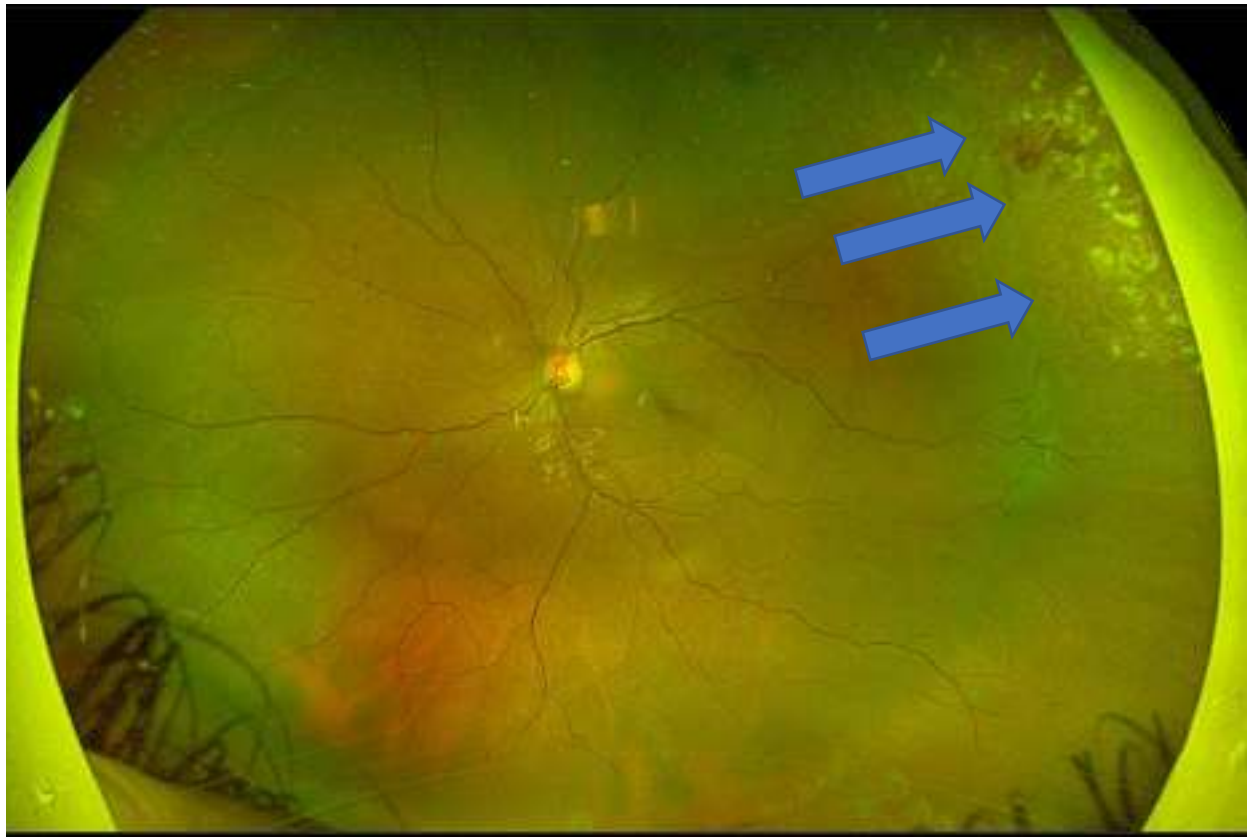
Radial buckle can catch such a posterior break



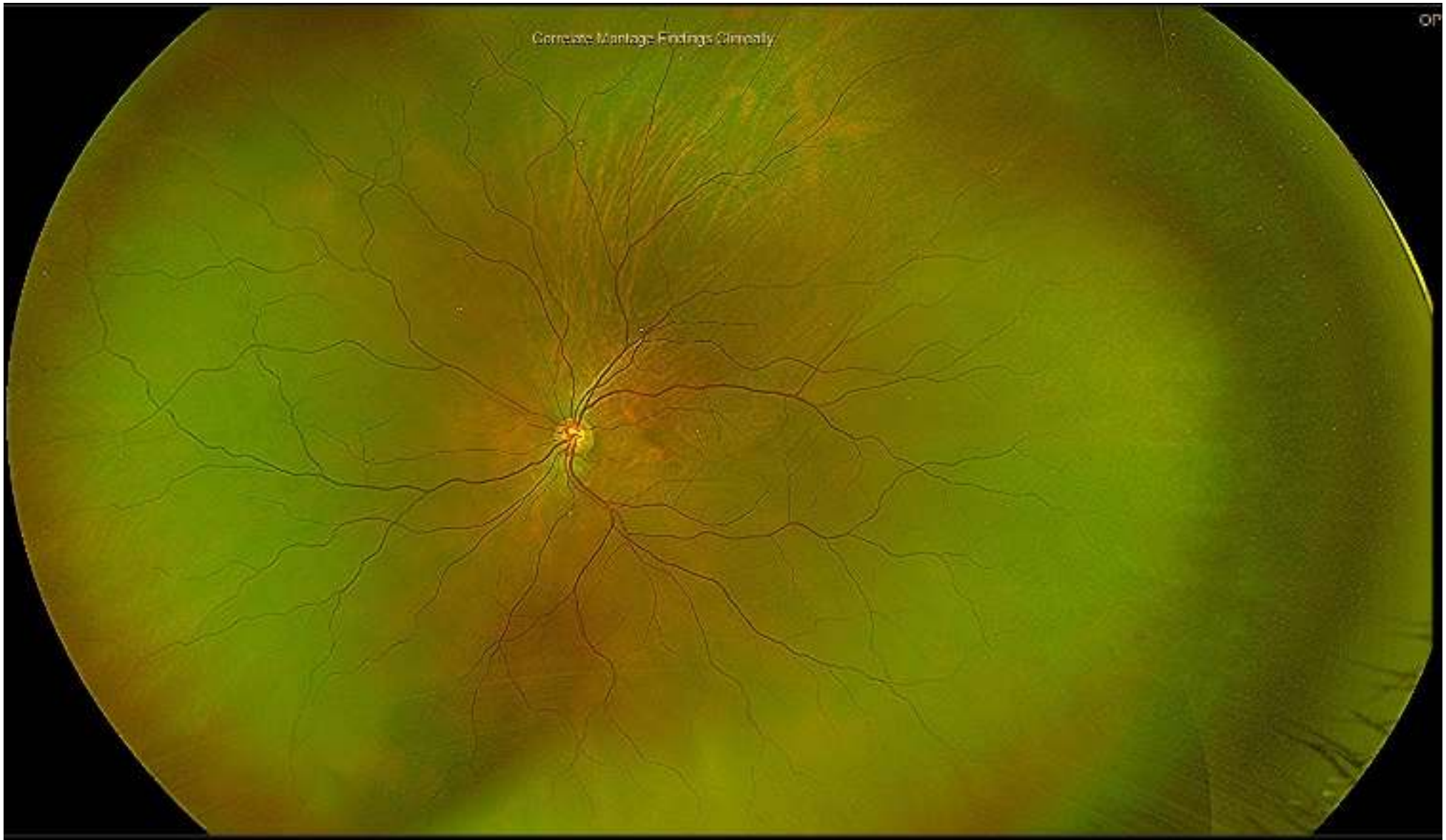
Young patient with multiple breaks at different quadrants



41 encircling band can catch multiple breaks in different quadrants if they are at the same line



RD with undetectable tear



Postoperative

RD in the pediatric age group

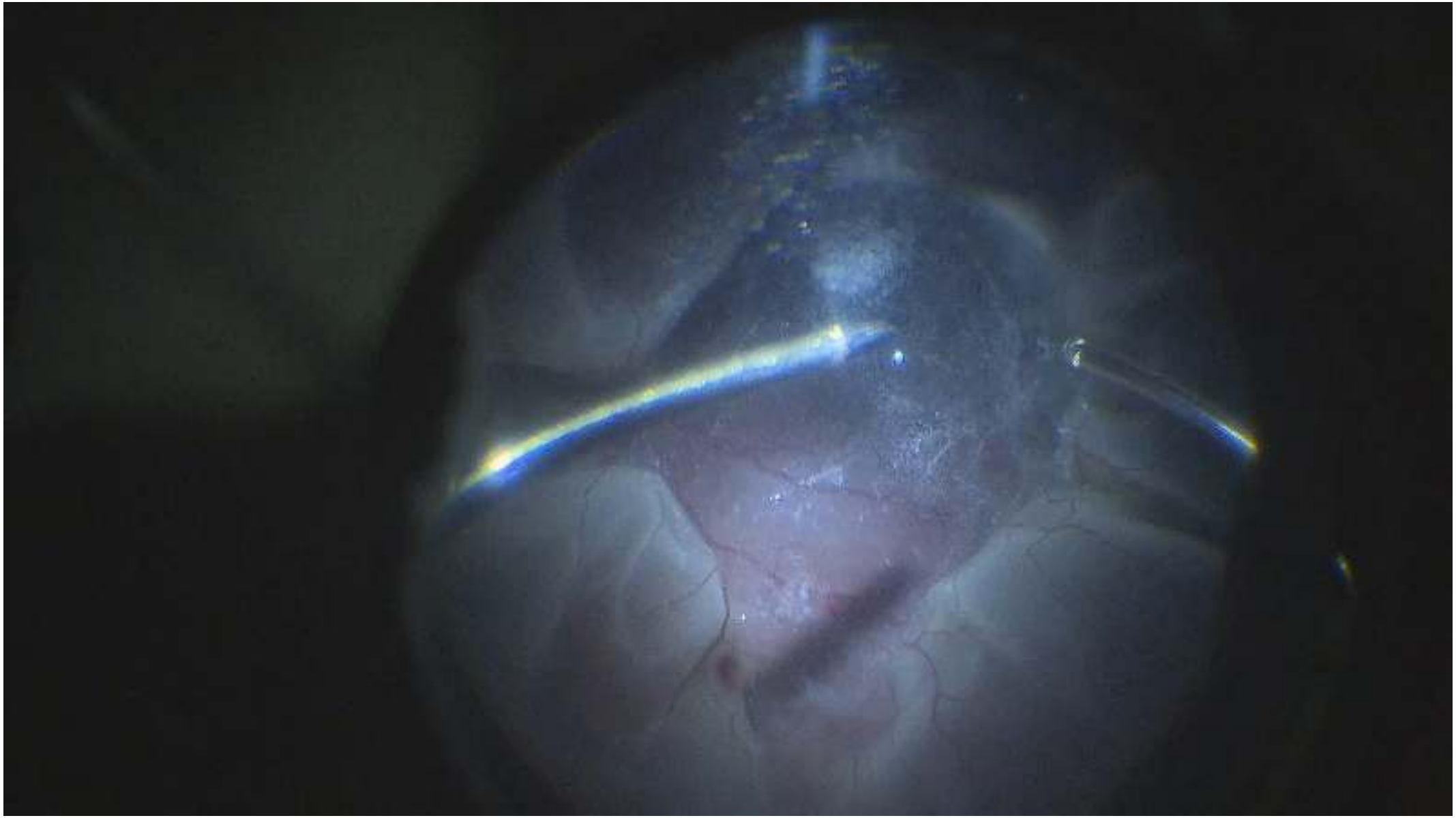
Vitrectomy in kids is very challenging

Absence of PVD in most cases.

Difficult induction of PVD

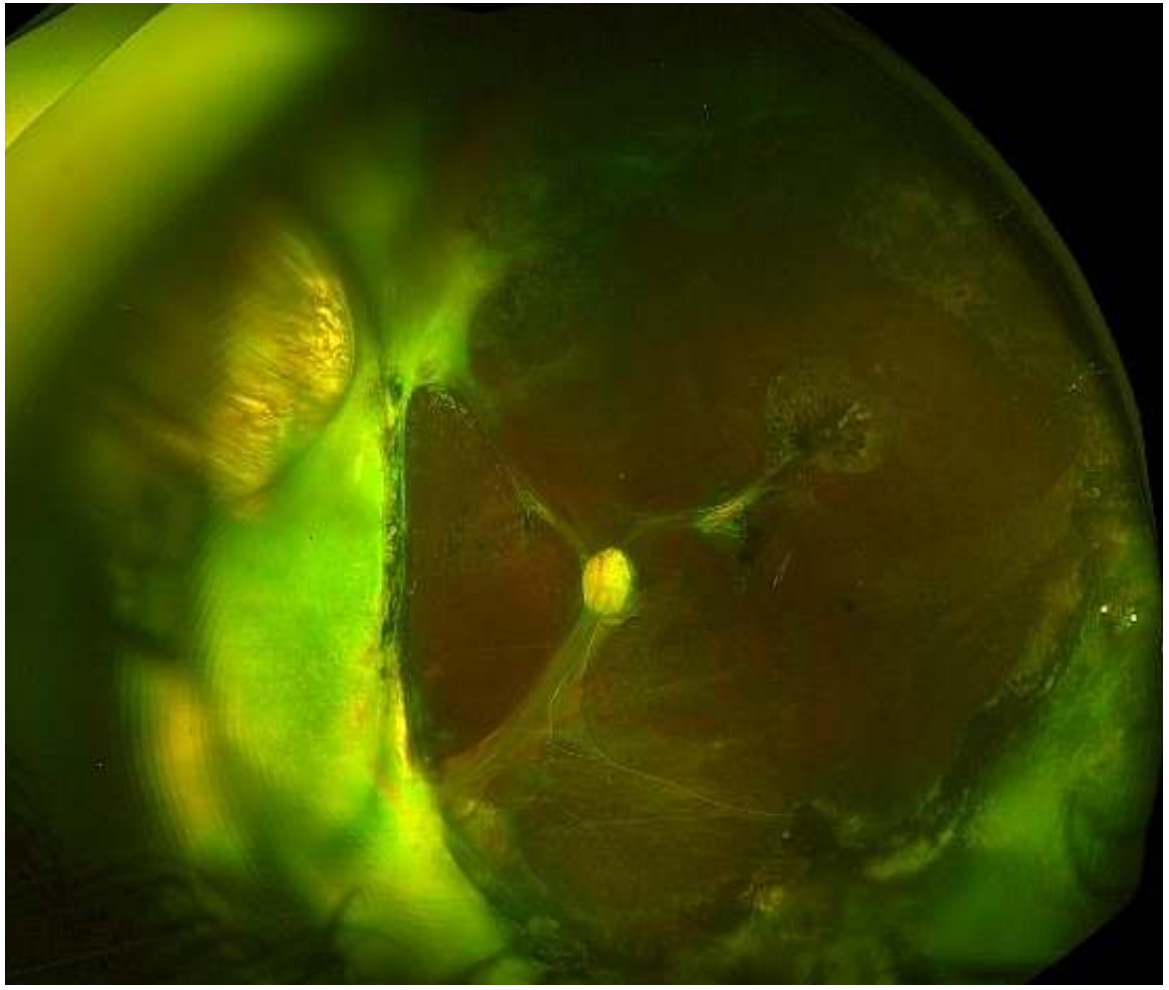
Higher risk of PVR and recurrent RD.

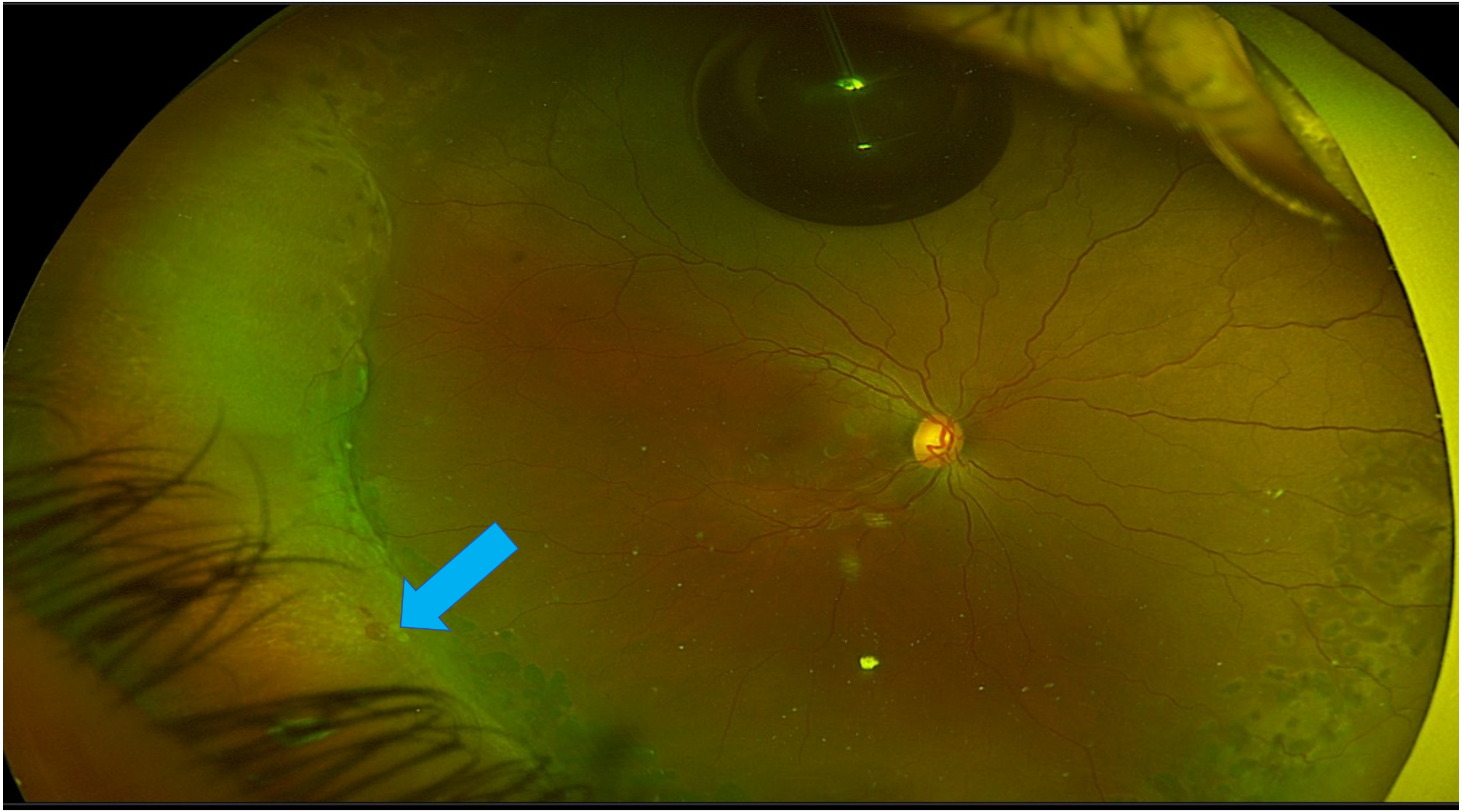
Very adherent hyaloid in a 5 years old patient



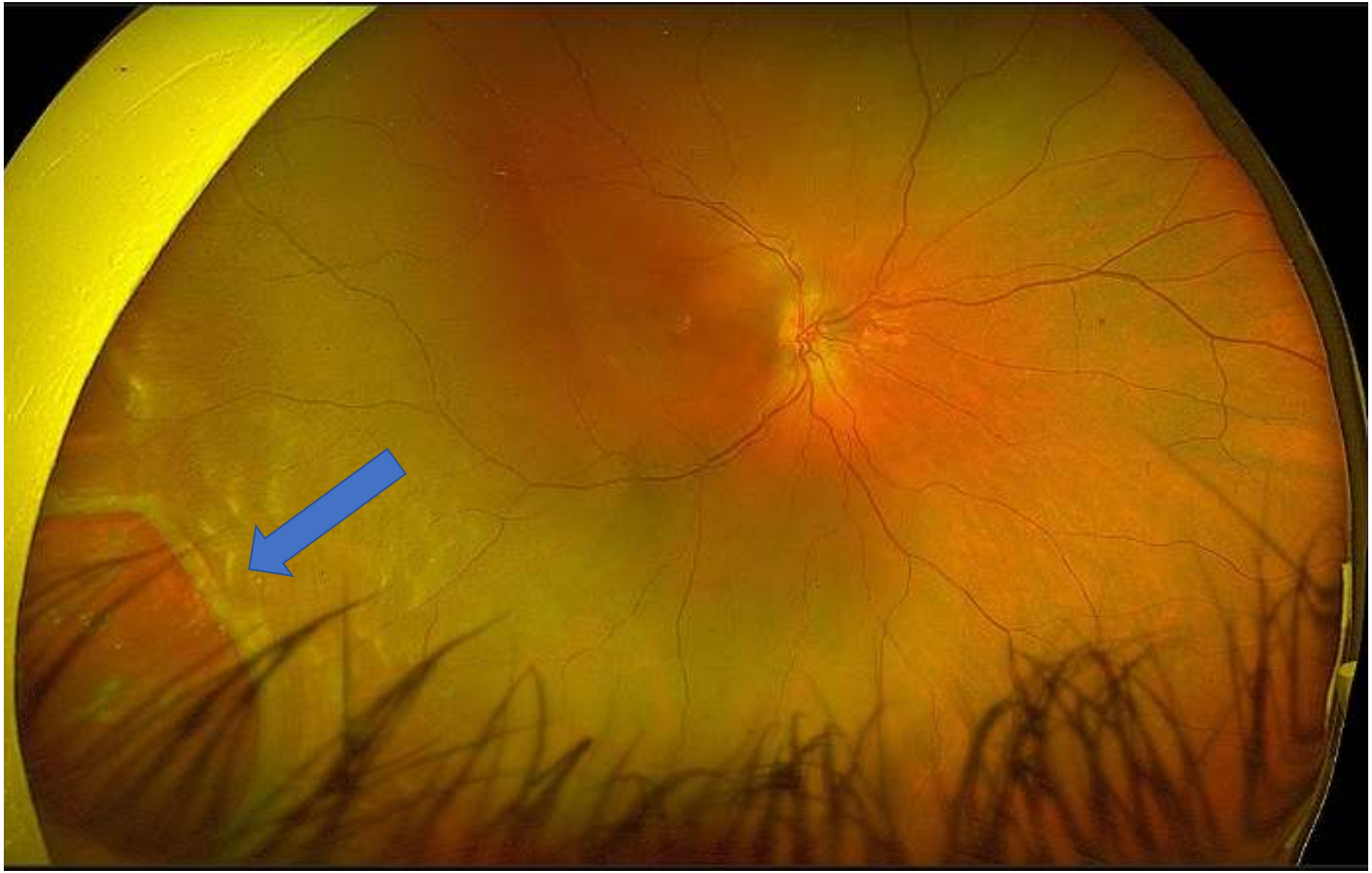
13 years old one eyed patient with right RD with macula partially off.

Left eye was lost after multiple vitrectomies.

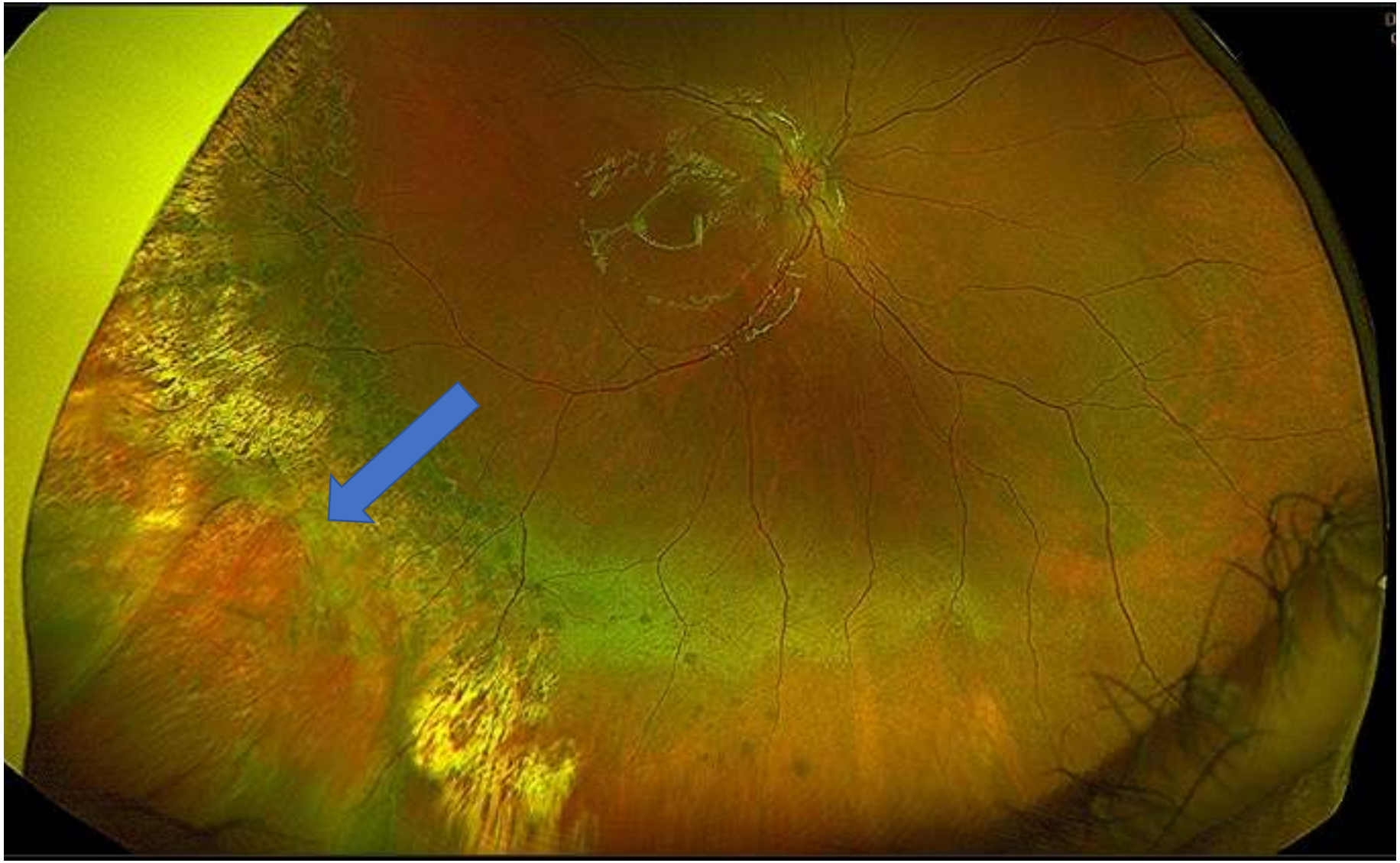




7 years old patient with lower temporal RD and large break with rolled edges



287 tyre provides broad indentation that can support such a large break

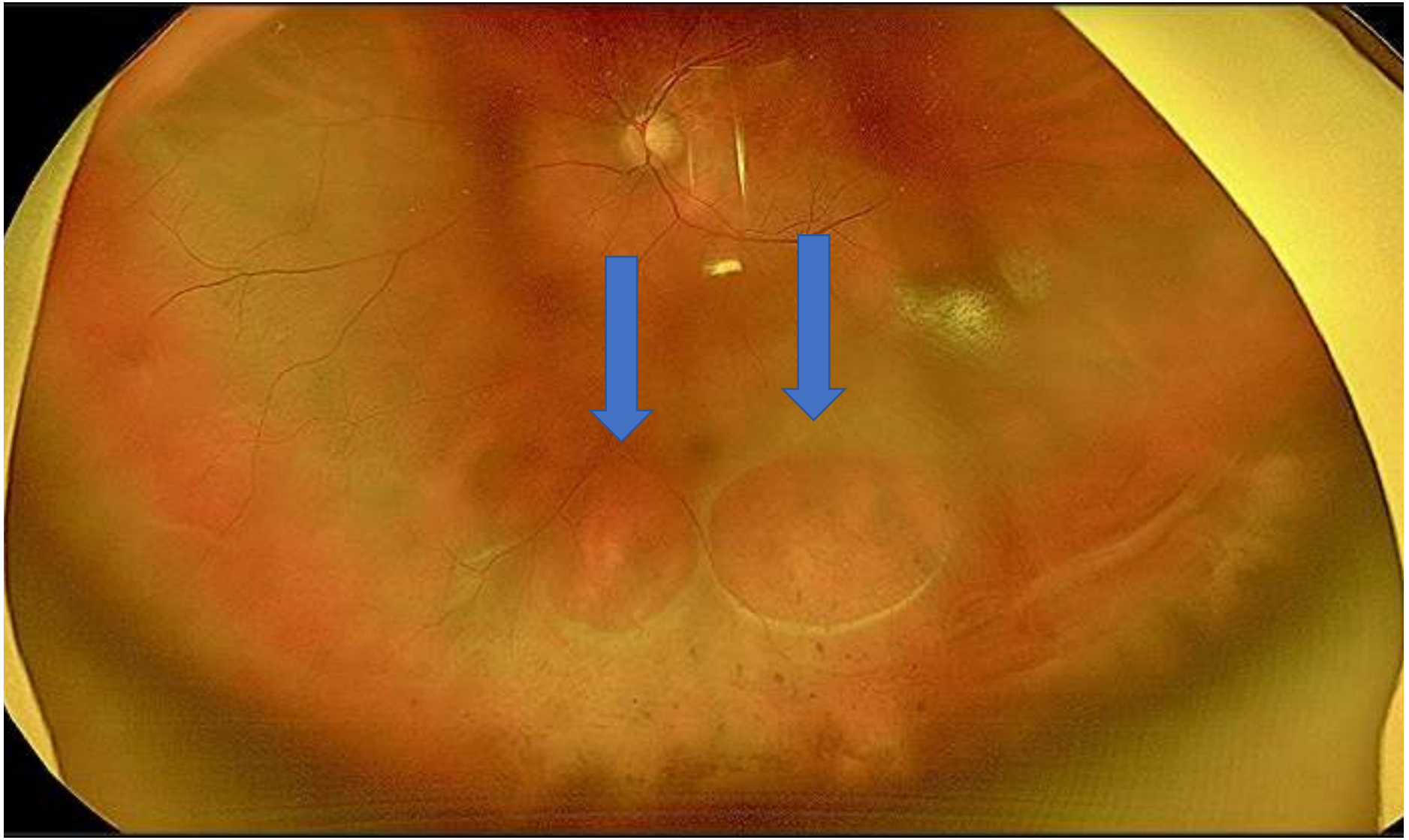


Buckle for management of chronic RD with PVR

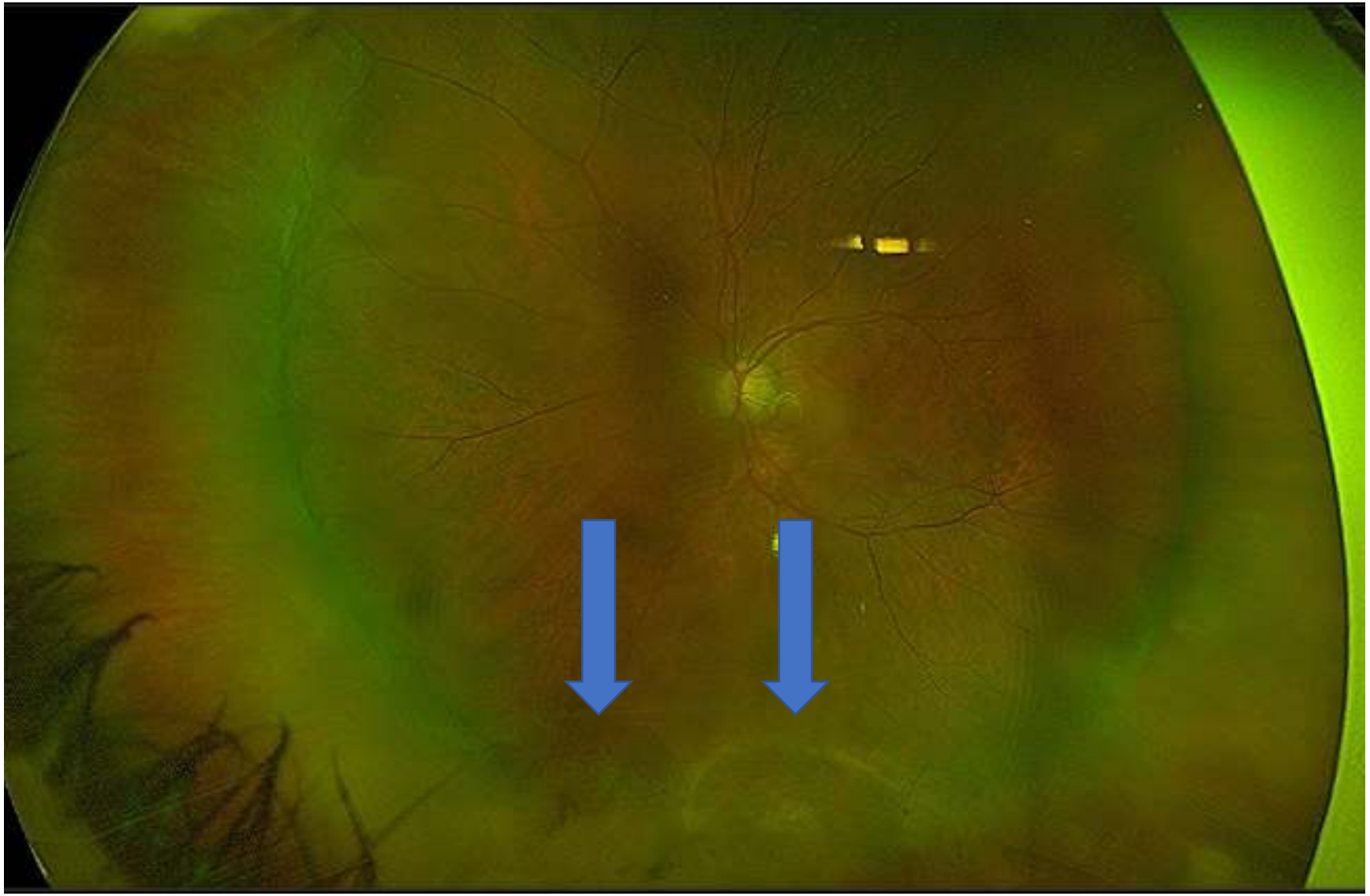
Encircling buckle is a good option in PVR retinal detachment that is not severe enough to require a retinectomy.

The aim is to relax the peripheral retina by decreasing the circumference of the globe.

One eyed young patient with lower chronic RD and 2 retinal cysts



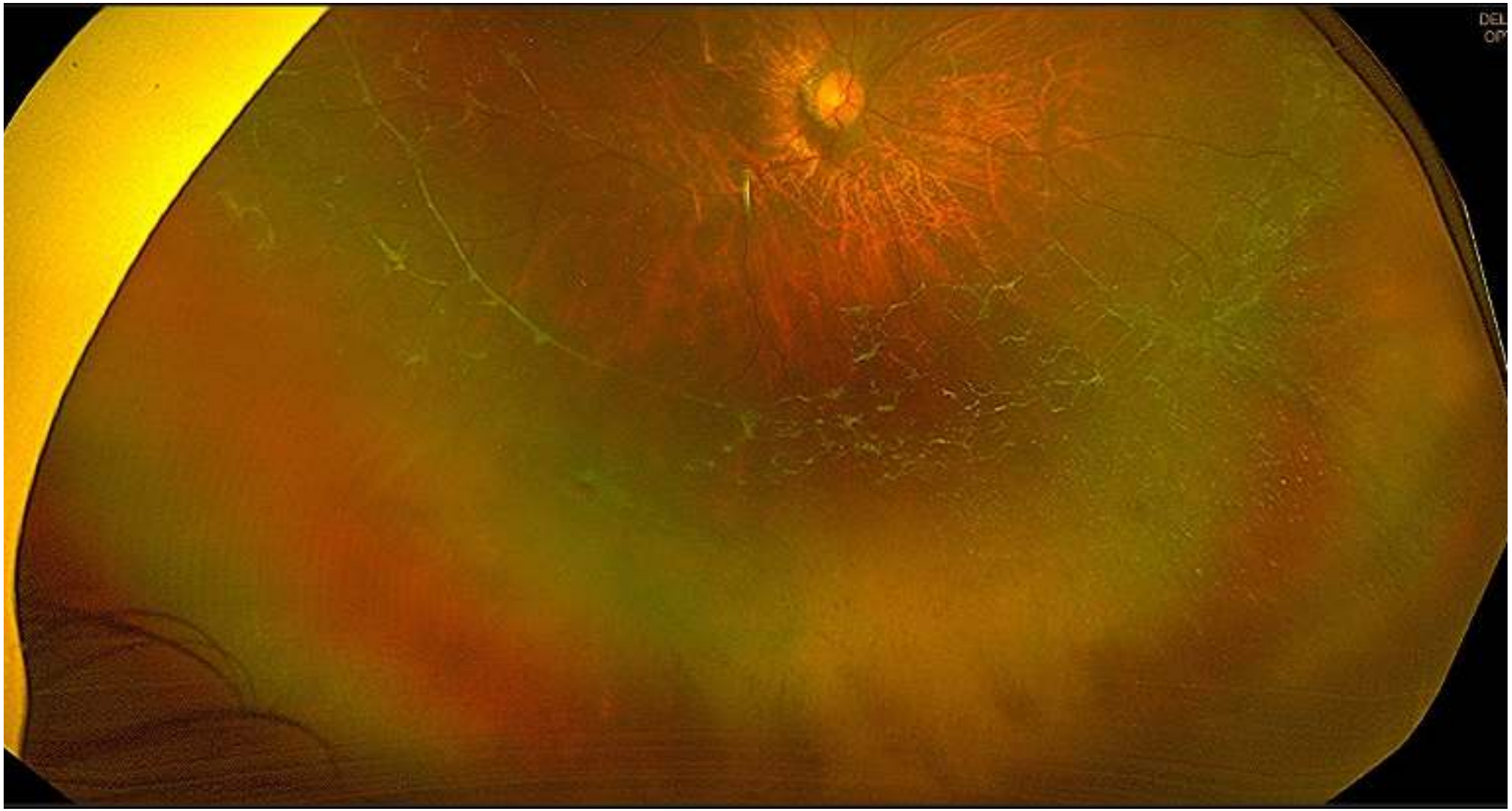
Postoperative



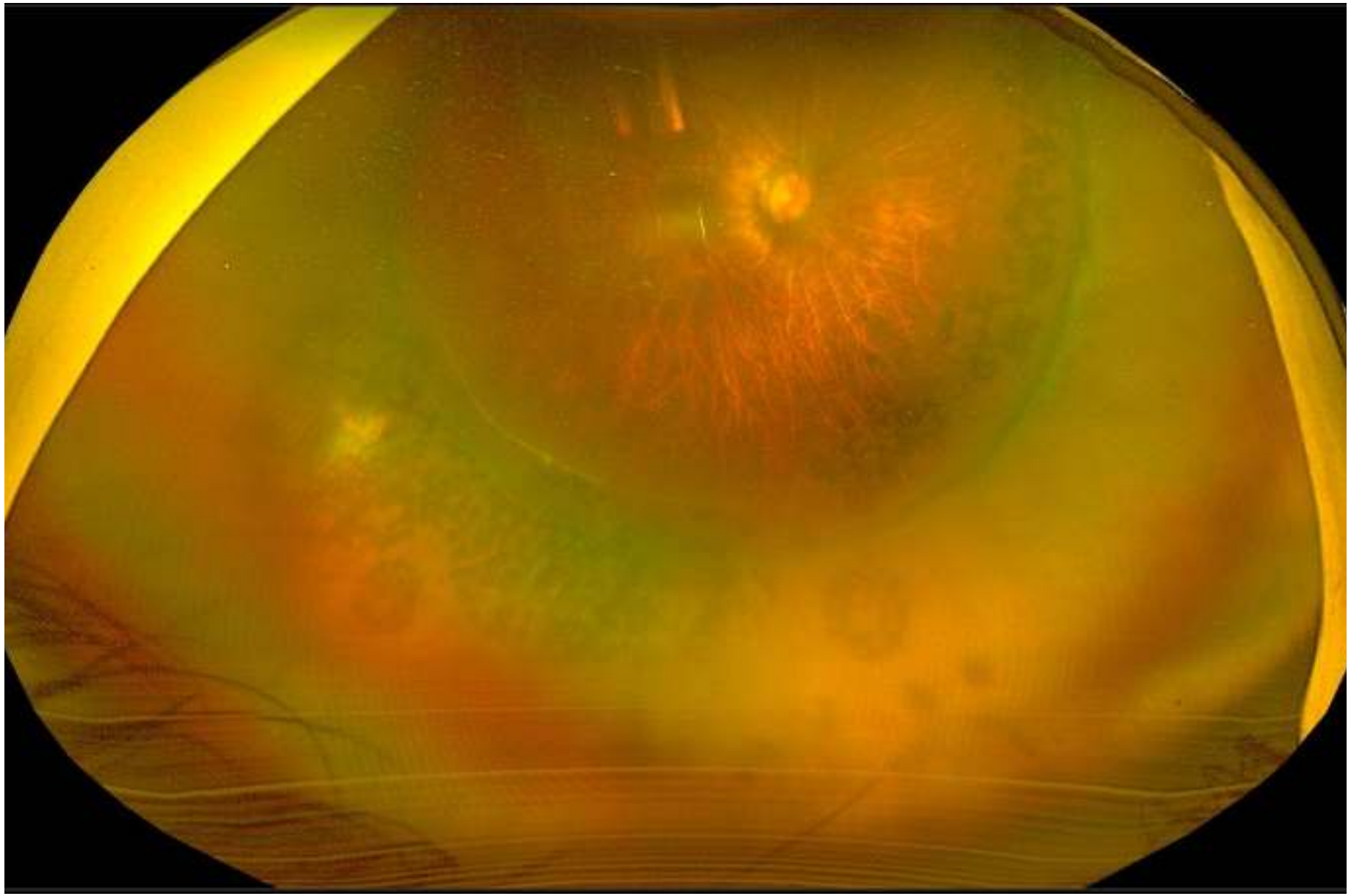
17 years old patient with chronic lower RD with PVR, short retina, and subretinal bands

Postoperative

Young myopic patient with chronic lower RD with extensive subretinal bands



Postoperative



Chronic retinal detachment with demarcation line and subretinal bands

Postoperative

Take home message

Scleral buckle should be the first choice in

- Pediatric RD.
- Young phakic patients.
- High myopia.
- Retinal dialysis.
- Inferior RD.
- Chronic RD.

- Encircling buckle is a good option in PVR retinal detachment that is not severe enough to mandate a retinectomy. The aim is to relax the peripheral retina by decreasing the circumference of the globe.

Thanks