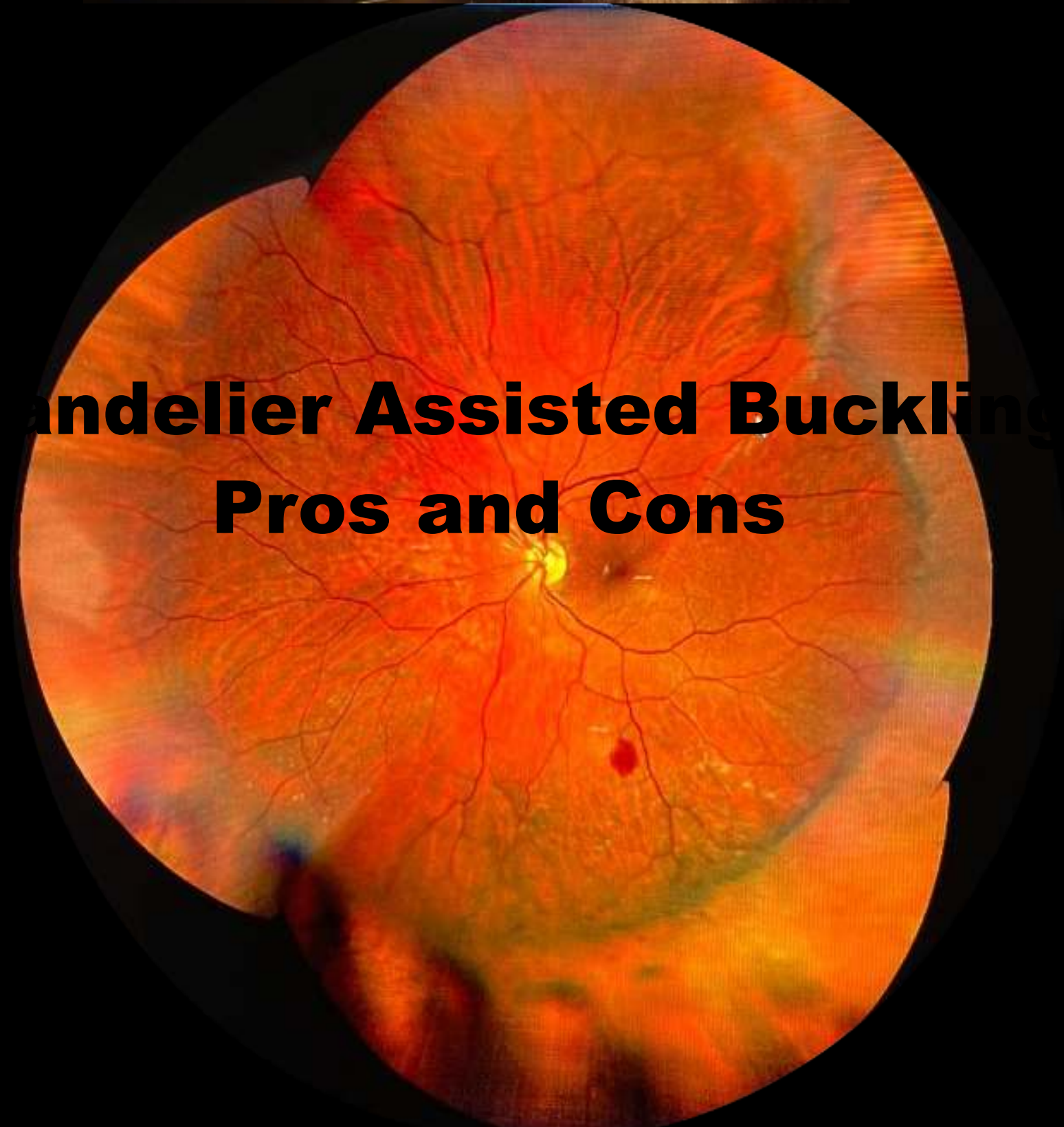
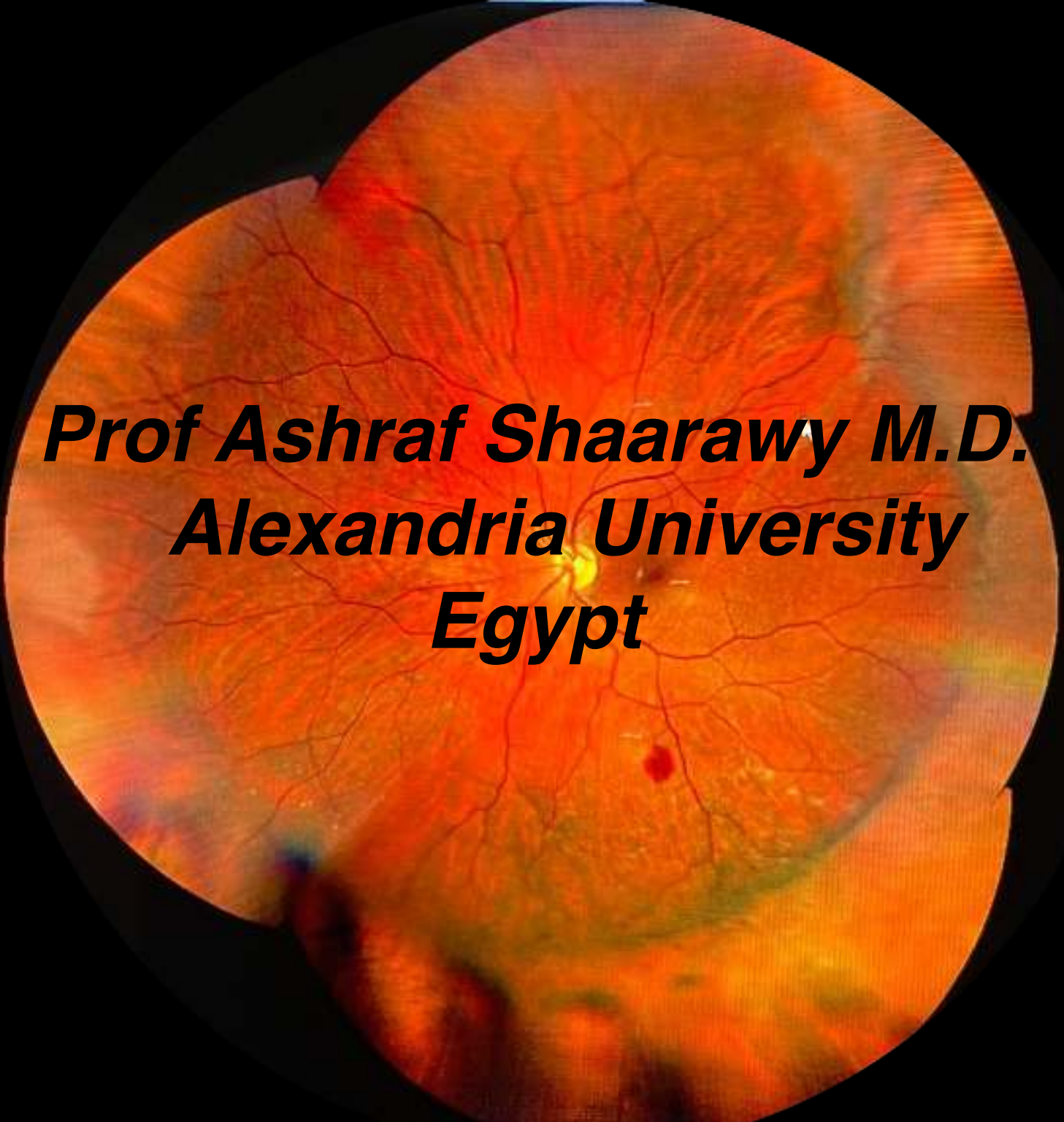




Handelier Assisted Buckling Pros and Cons

A large, circular fundus photograph of a retina is centered on the slide. It shows a complex network of red and orange retinal vessels radiating from a central point, with some darker, possibly hemorrhagic, areas visible.

***Prof Ashraf Shaarawy M.D.
Alexandria University
Egypt***

History

James Ware, M.D., F.R.S. (1756–1815) an English eye surgeon, and Fellow of the Royal Society.

In 1805 he first described retinal detachment , also attempted the first surgery for retinal detachment and suggested the drainage of subretinal fluid by puncturing the sclera with a knife.



James Ware

Cont.

Von Graefe (22 May 1828 – 20 July 1870) German ophthalmologist considered one of the more important figures in 19th century ophthalmology. His achievements were method of treating glaucoma and a new surgical method for cataract.

In 1863 he modified the method of surgery by also puncturing the retina and creating a second hole for the drainage of the subretinal fluid into the vitreous cavity.



Von Graefe (22 May 1828 – 20 July 1870)

Scleral buckling surgery

- Referred to as **CONVENTIONAL OR EXTERNAL RD SURGERY**, in which surgical material (EXPLANT) is sutured onto the sclera to create an inward indentation. The term “buckle” refers to **deformation of a structure under stress**.
- Its purpose is to close retinal breaks by apposing the RPE to sensory retina and to reduce dynamic vitreoretinal traction.

Cont...

*Jules Gonin (10 August 1870 – May 1935) a Professor of ophthalmology who pioneered the procedure of **ignipuncture** (cauterised the retina through the sclera with a very hot pointed instrument), the first successful surgery for the treatment of retinal detachments.*

He was the one who first described that retinal detachments was caused by presence of retinal break and sealing of this breaks to be the prime factor responsible for successful reattachment of the retina after surgery.

He conceptualized the idea of mechanical or scar-induced sealing of the hole in the retina.



Jules Gonin (10 August 1870 – May 1935)

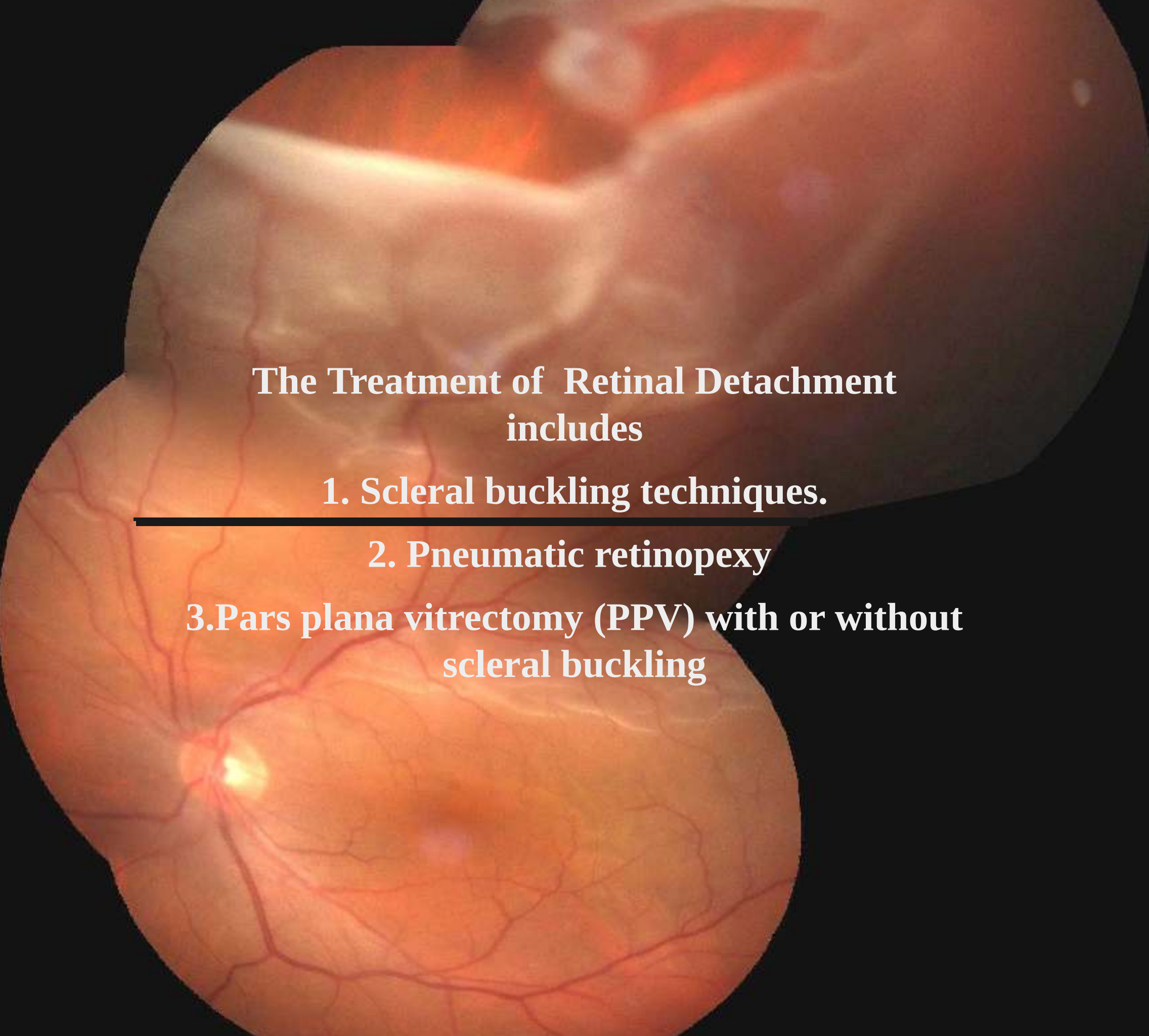
Cont...

Charles Louis Schepens (March 13, 1912 – March 28, 2006) an Belgian (later American) ophthalmologist, regarded by many in the profession as "The Father Of Modern Retinal Surgery".

Schepens invented the BINOCULAR INDIRECT OPHTHALMOSCOPE (BIO), he also pioneered surgical technique of scleral buckling , which raised the success of retinal reattachment surgery from 40% to 90%.



Charles Louis Schepens (March 13, 1912 – March 28, 2006)



**The Treatment of Retinal Detachment
includes**

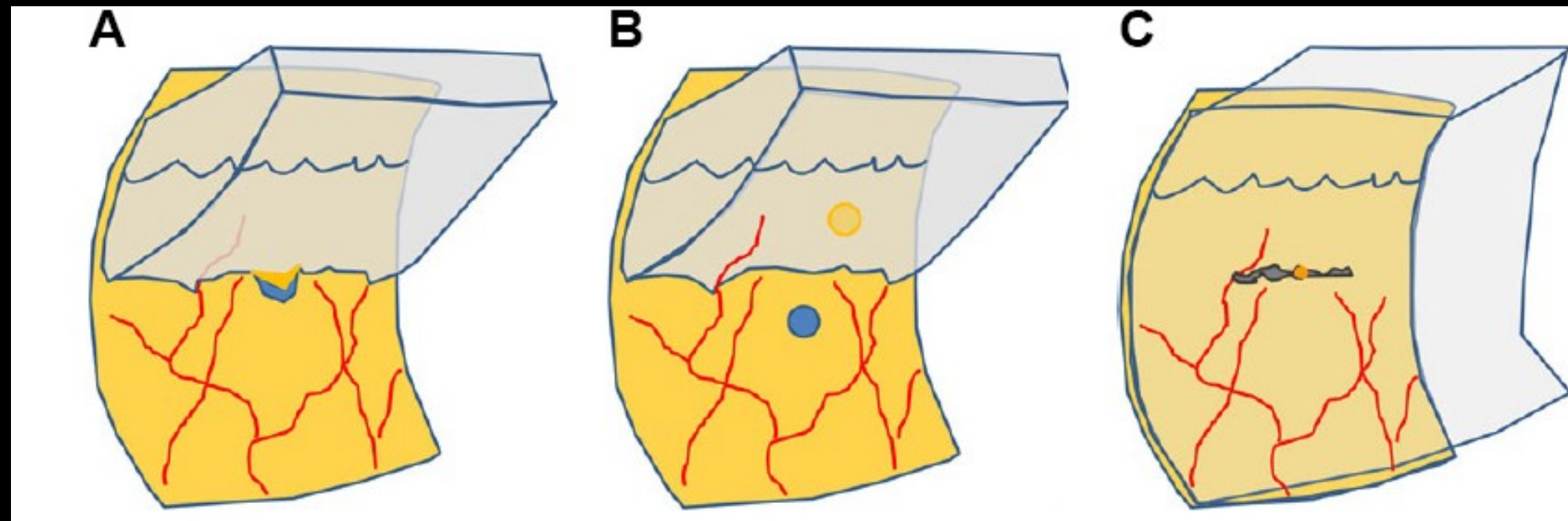
1. Scleral buckling techniques.

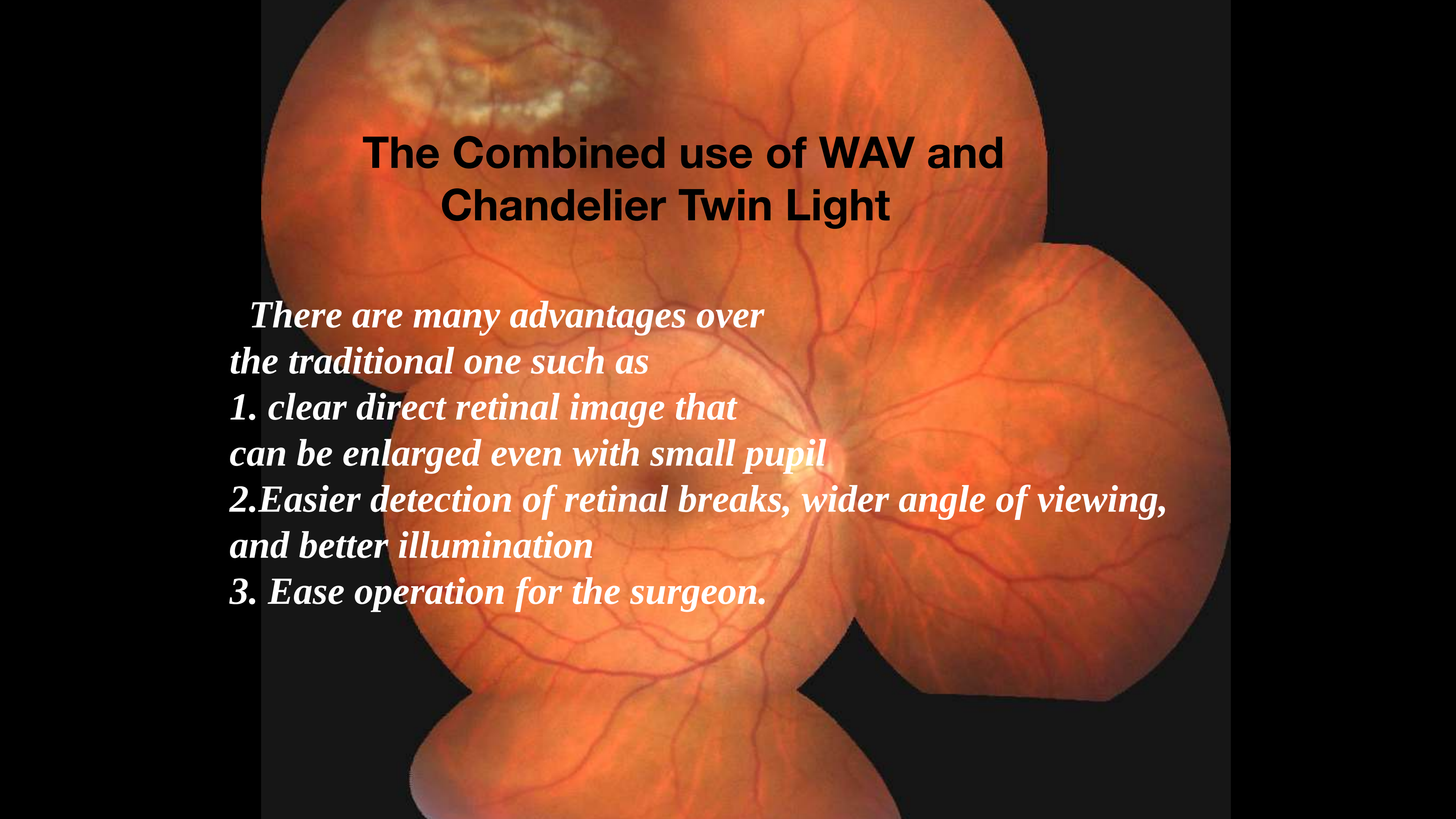
2. Pneumatic retinopexy

**3. Pars plana vitrectomy (PPV) with or without
scleral buckling**

Retinal Detachment in Pseudophakic eyes

1. Are usually more extensive, macular involvement and proliferative vitreoretinopathy (PVR) are also much more common than RDs in Phakic eyes.
2. The tears responsible for pseudophakic RD are often small and anteriorly placed at the insertion of the vitreous base.
3. Many studies have shown that pars plana vitrectomy (PPV) is superior to scleral buckling surgery in eyes with pseudophakia.
4. Media Opacity and Peripheral capsular opacifications are more common with more incidence of missed breaks.



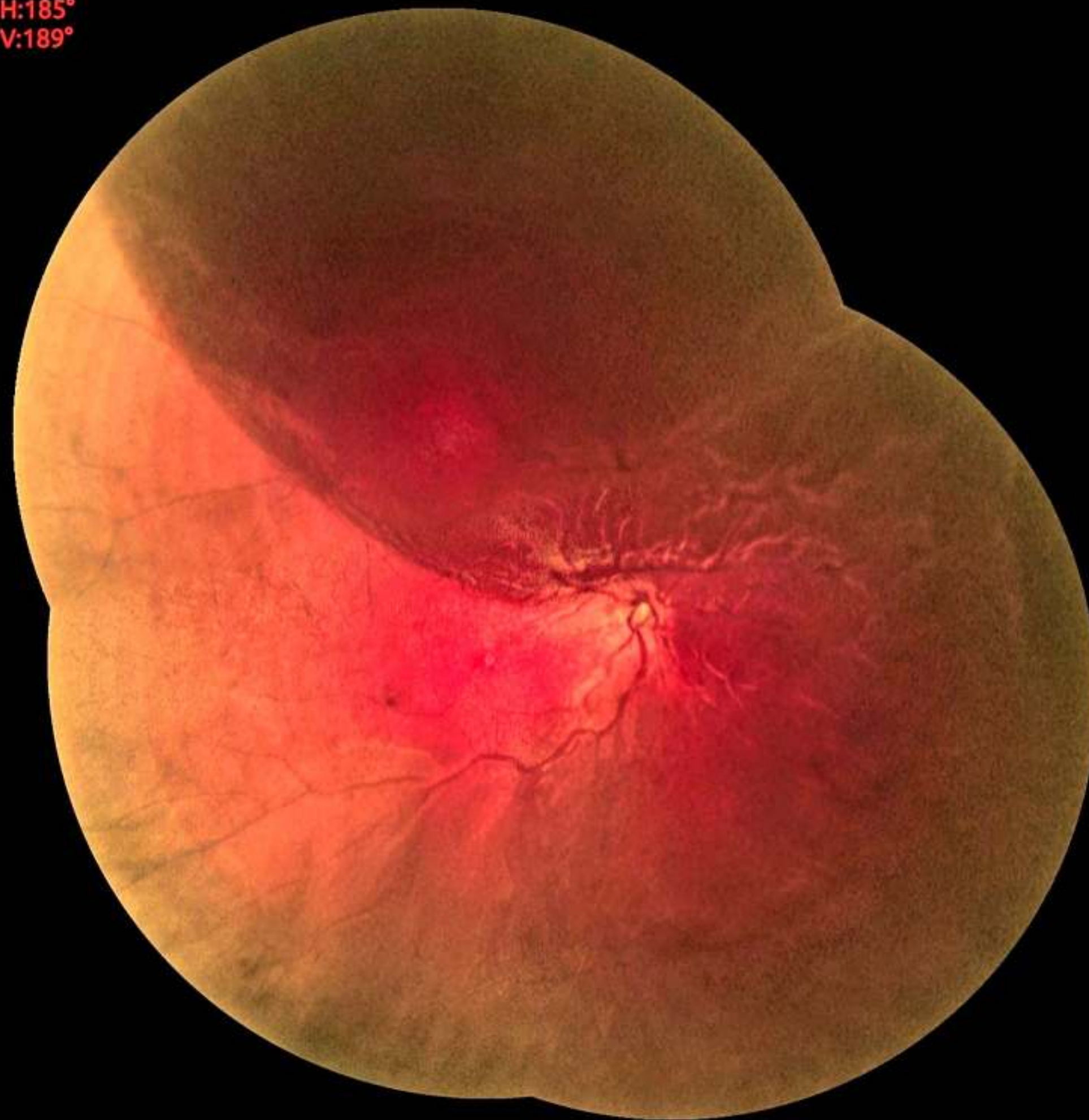


The Combined use of WAV and Chandelier Twin Light

There are many advantages over the traditional one such as

- 1. clear direct retinal image that can be enlarged even with small pupil*
- 2. Easier detection of retinal breaks, wider angle of viewing, and better illumination*
- 3. Ease operation for the surgeon.*

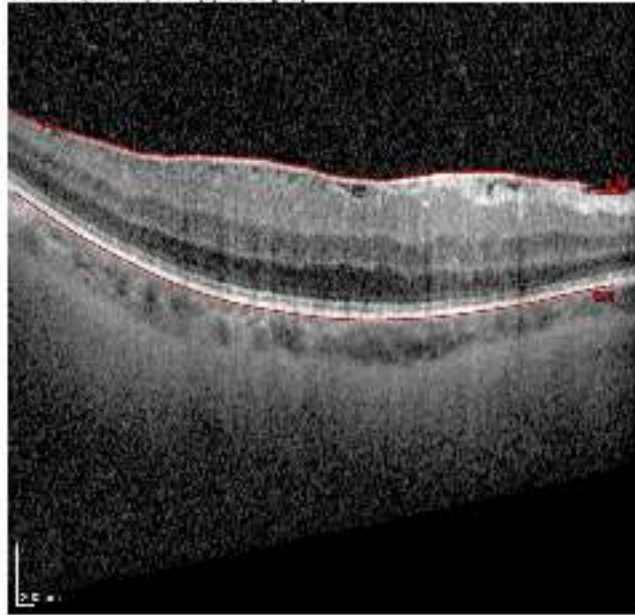
H:185°
V:189°



OD

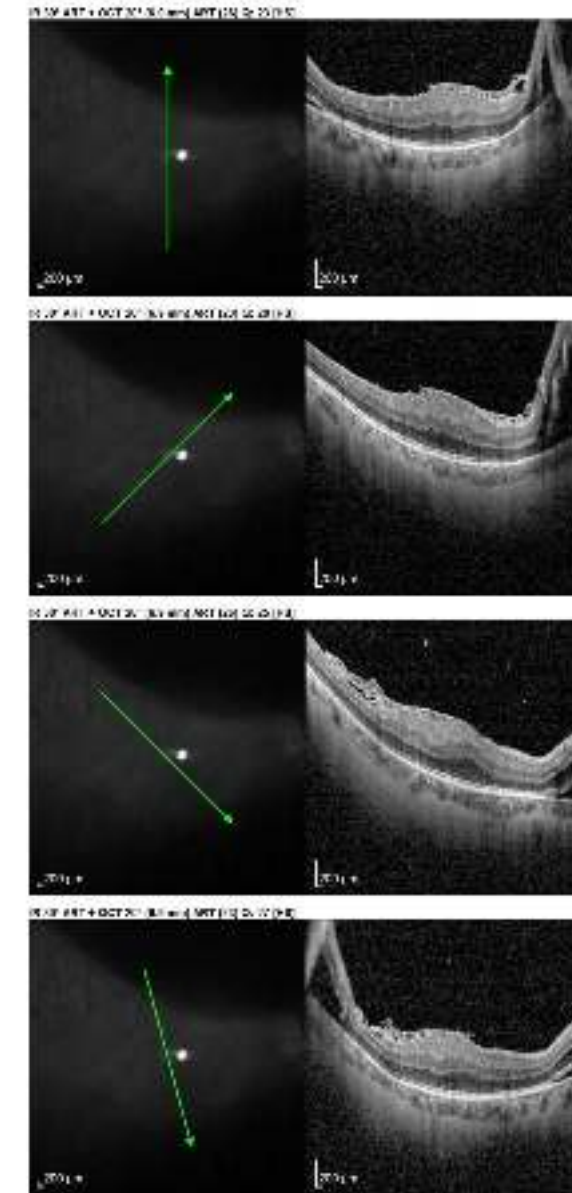


Center:	455 μm
Centre Min:	402 μm
Centre Max:	404 μm



SACRAMENTO

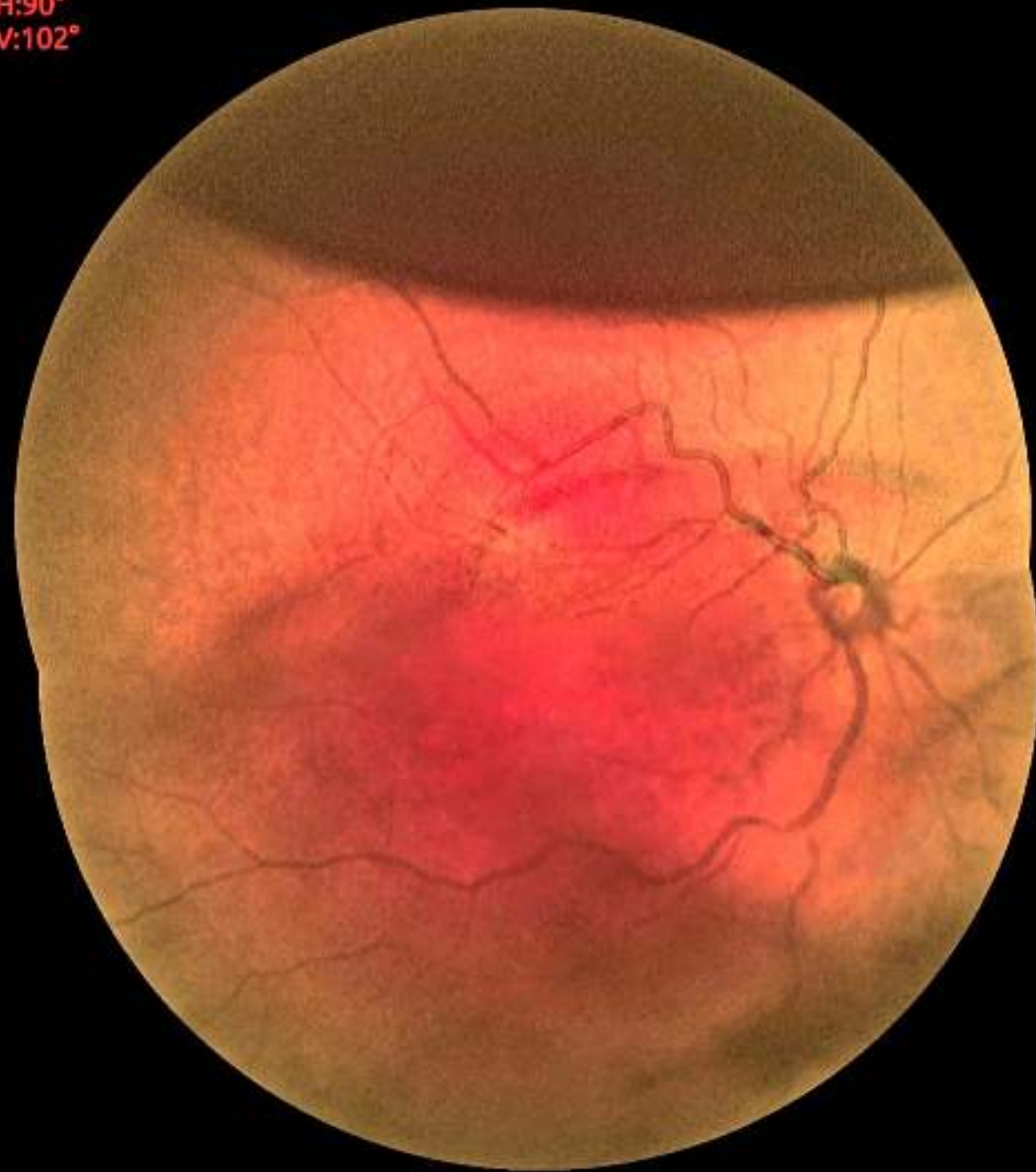
OD



Satz 10.1



H:90°
V:102°



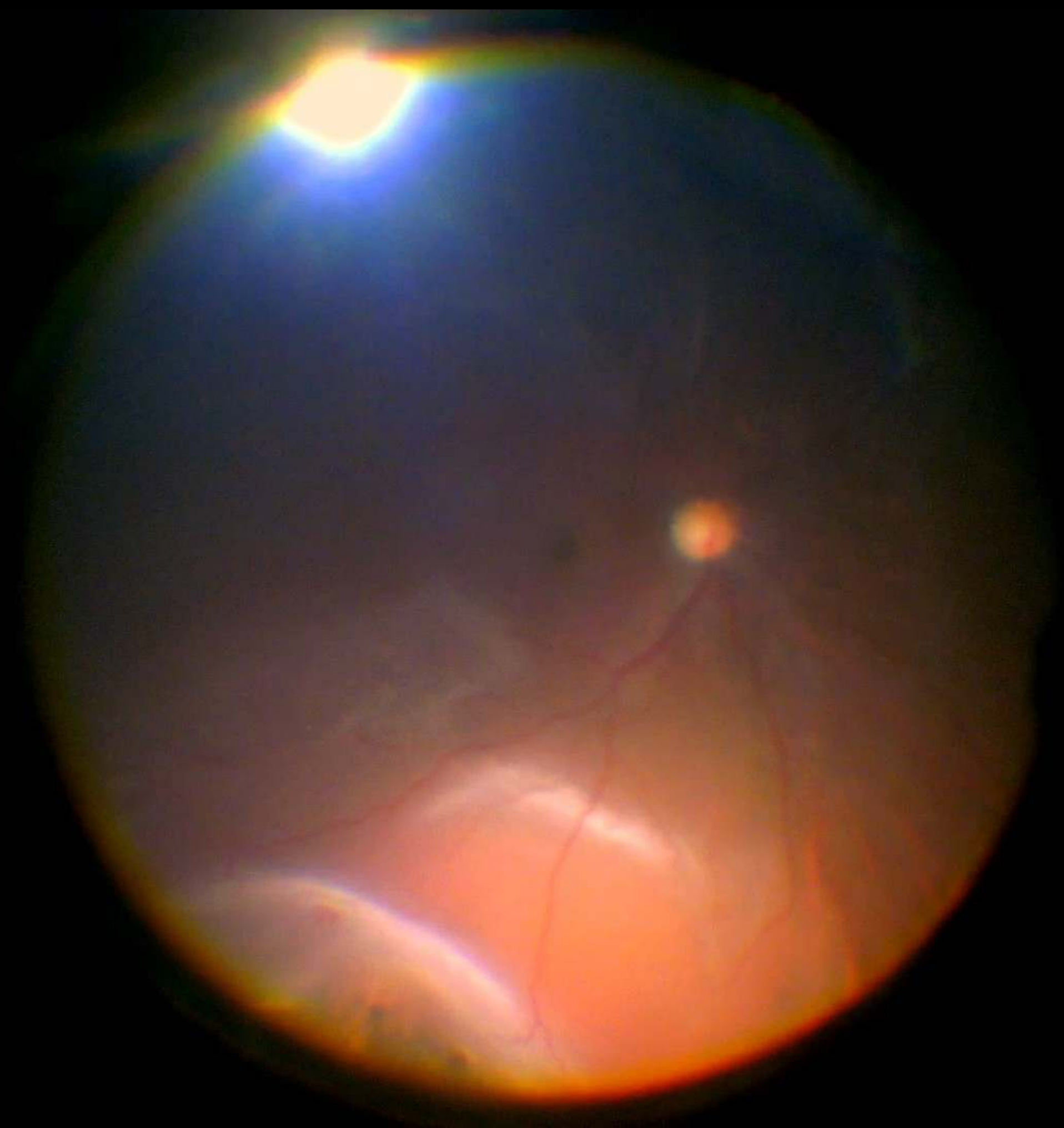
29017 Soaad Abdullah Mohamed Age:58
202509-17 16:19:02
OD Ang/250 MCOLOR

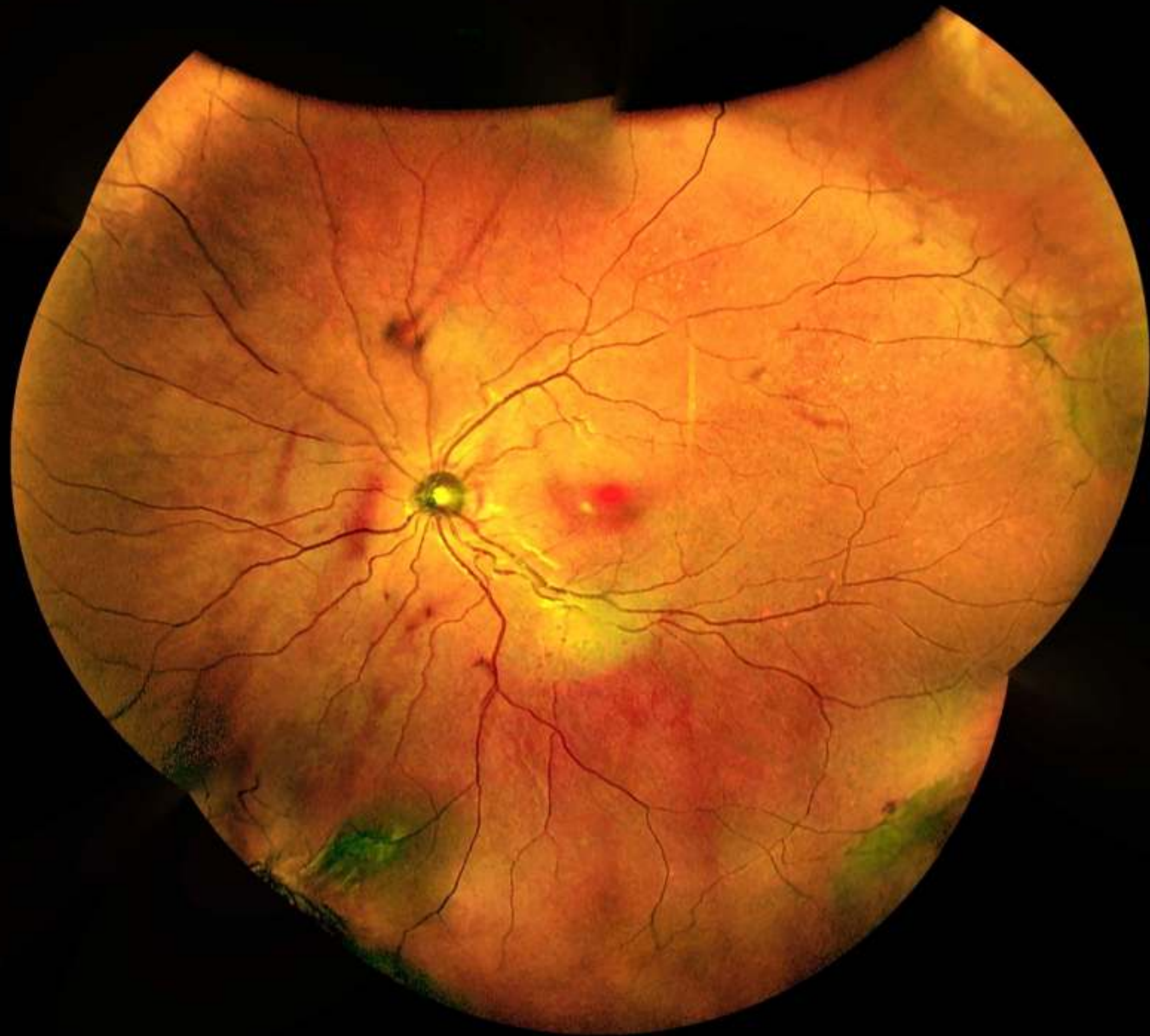
MICRO CLEAR 微清医疗

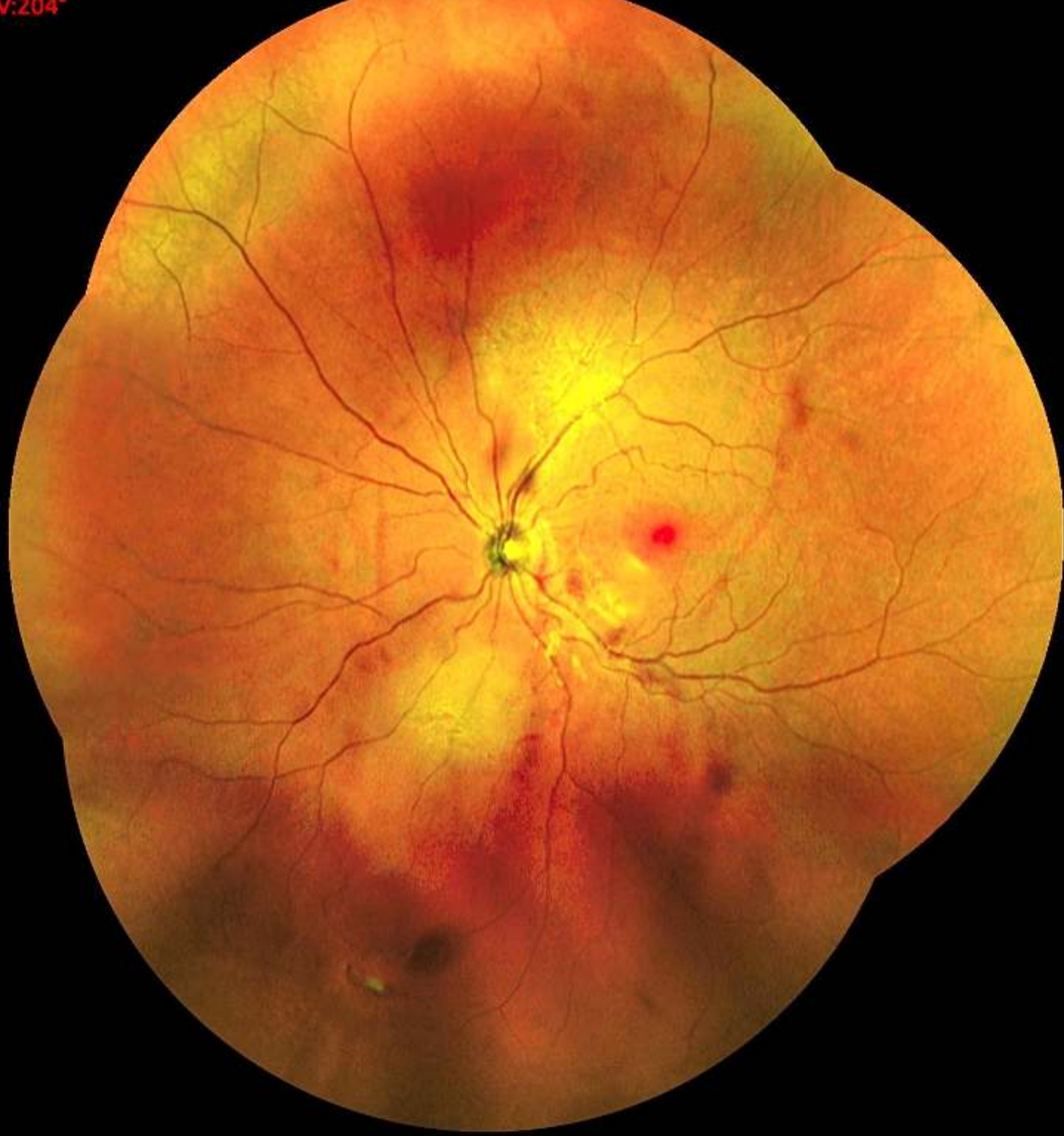
H:263°
V:220°

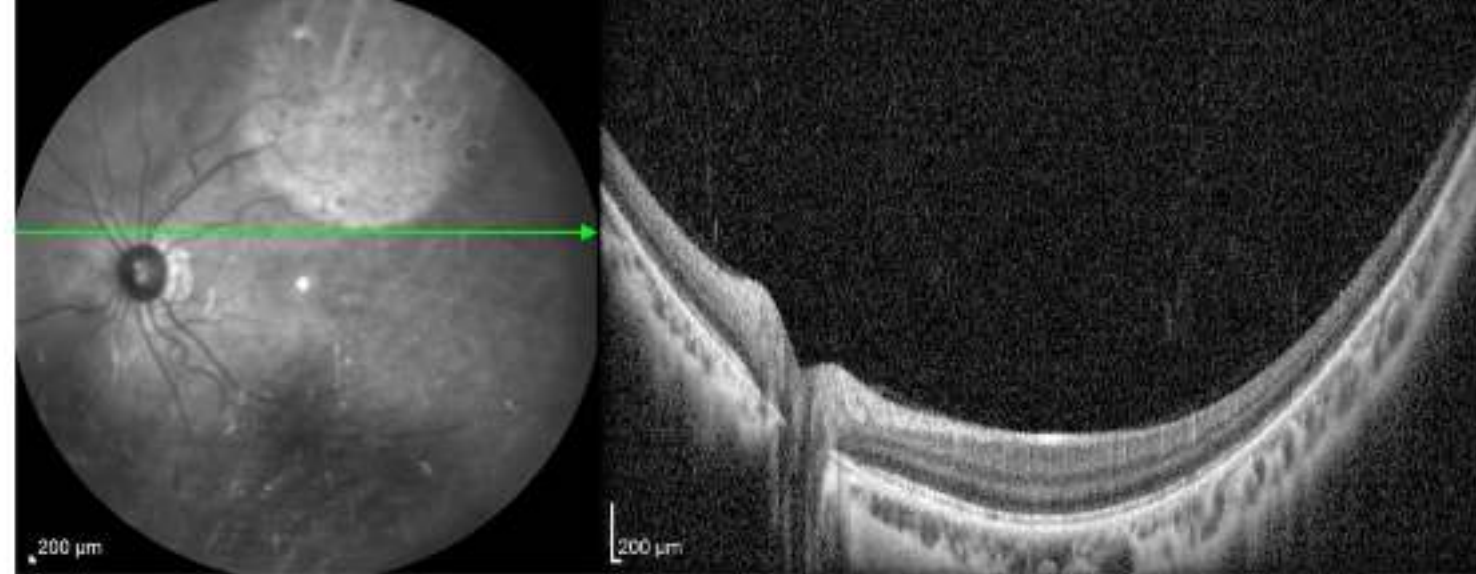




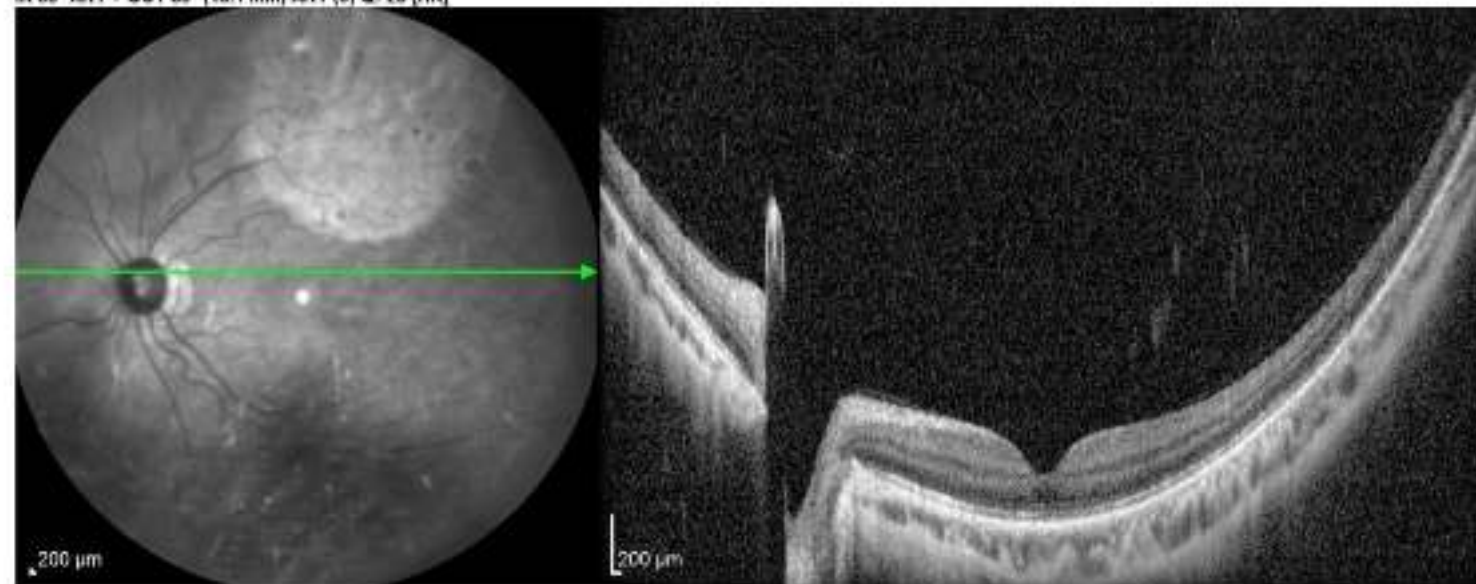




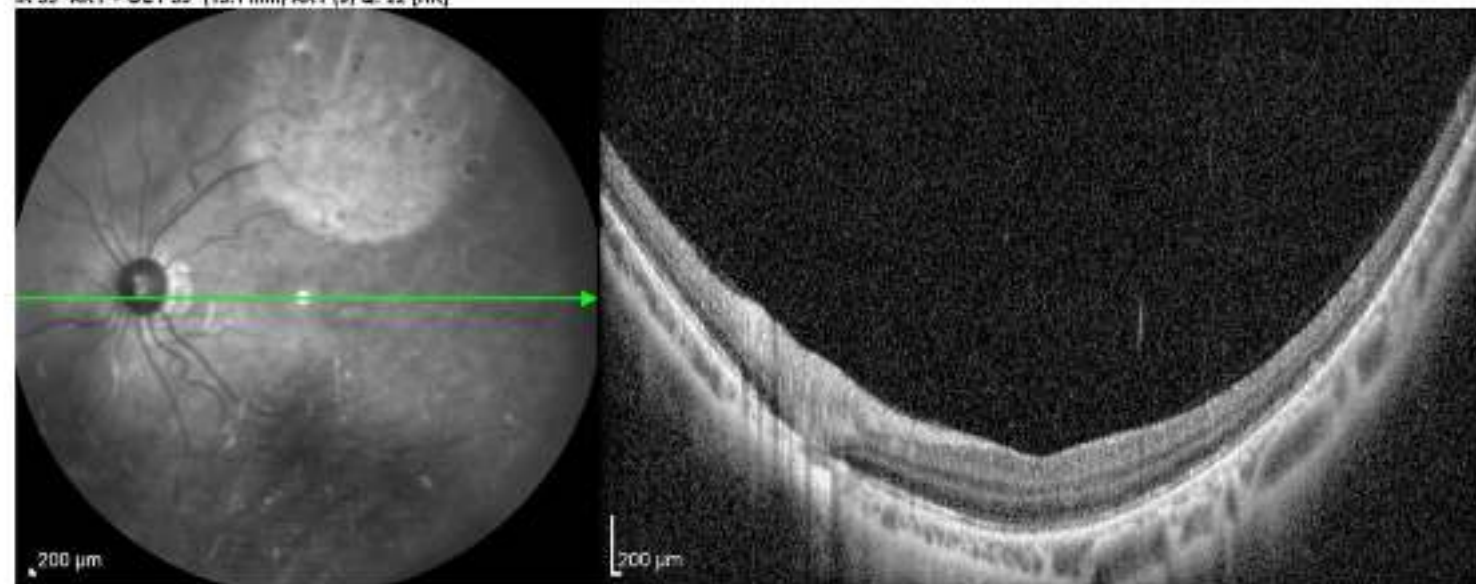


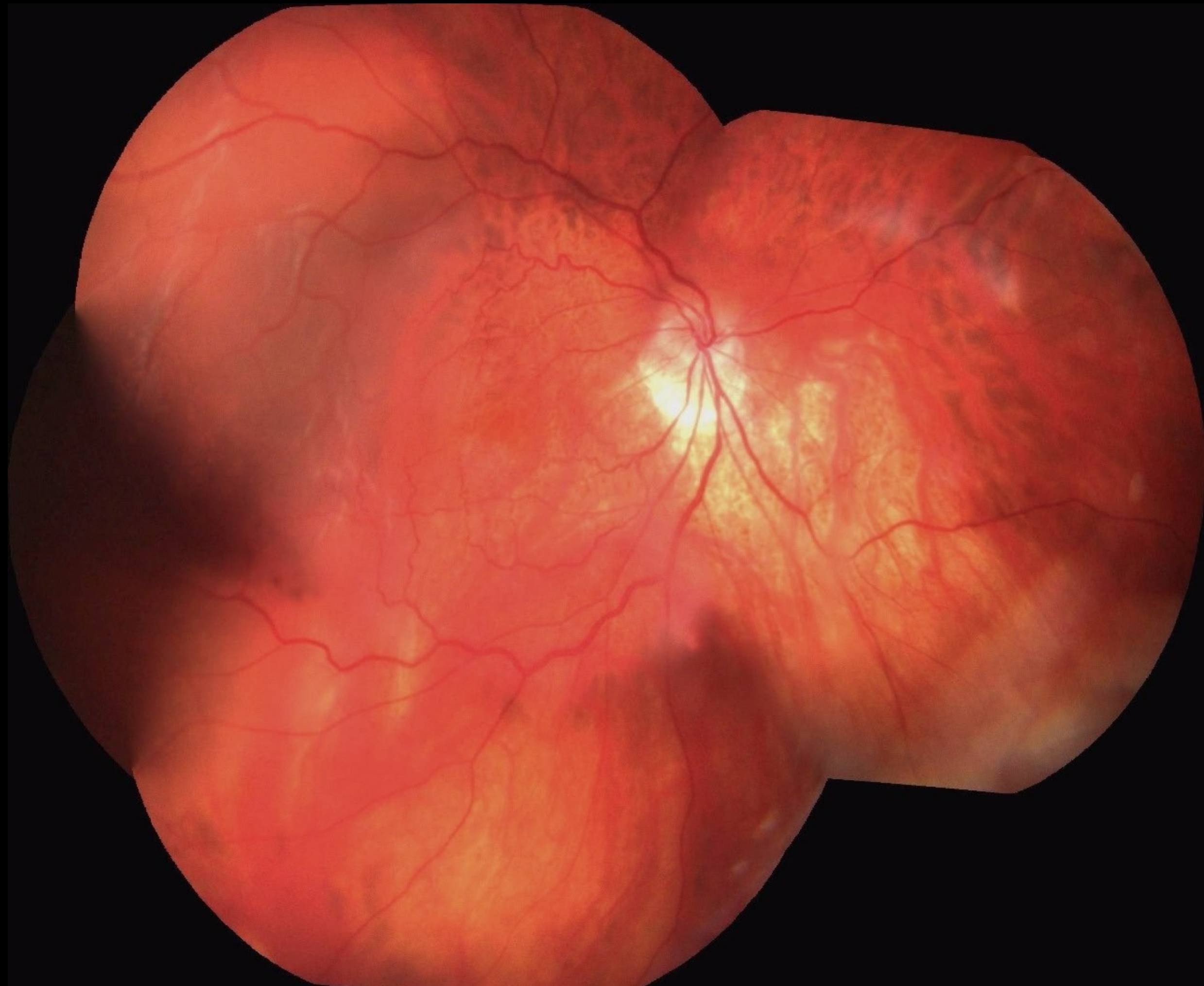


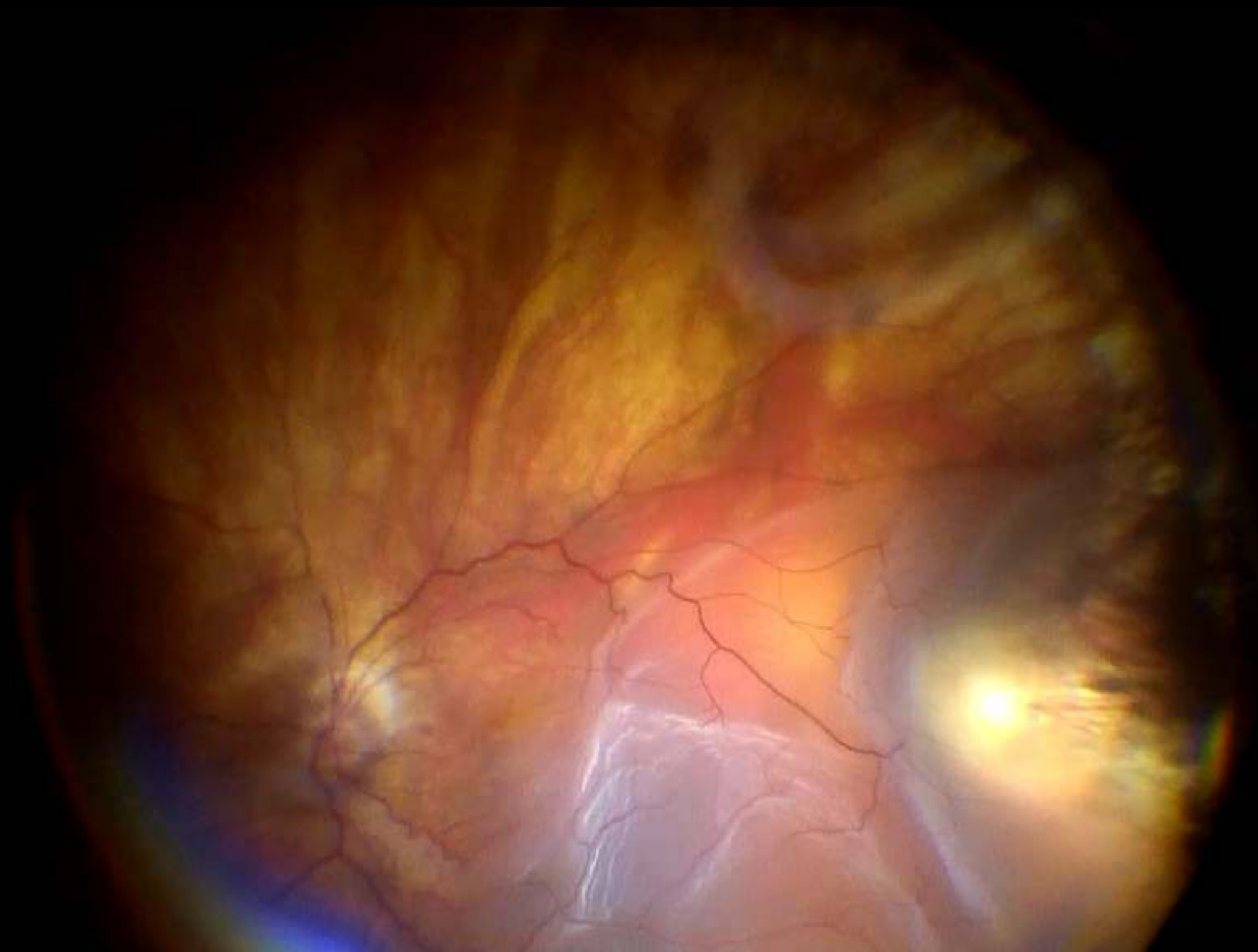
IR 55° ART + OCT 55° (15.1 mm) ART (9) Q: 23 [HR]

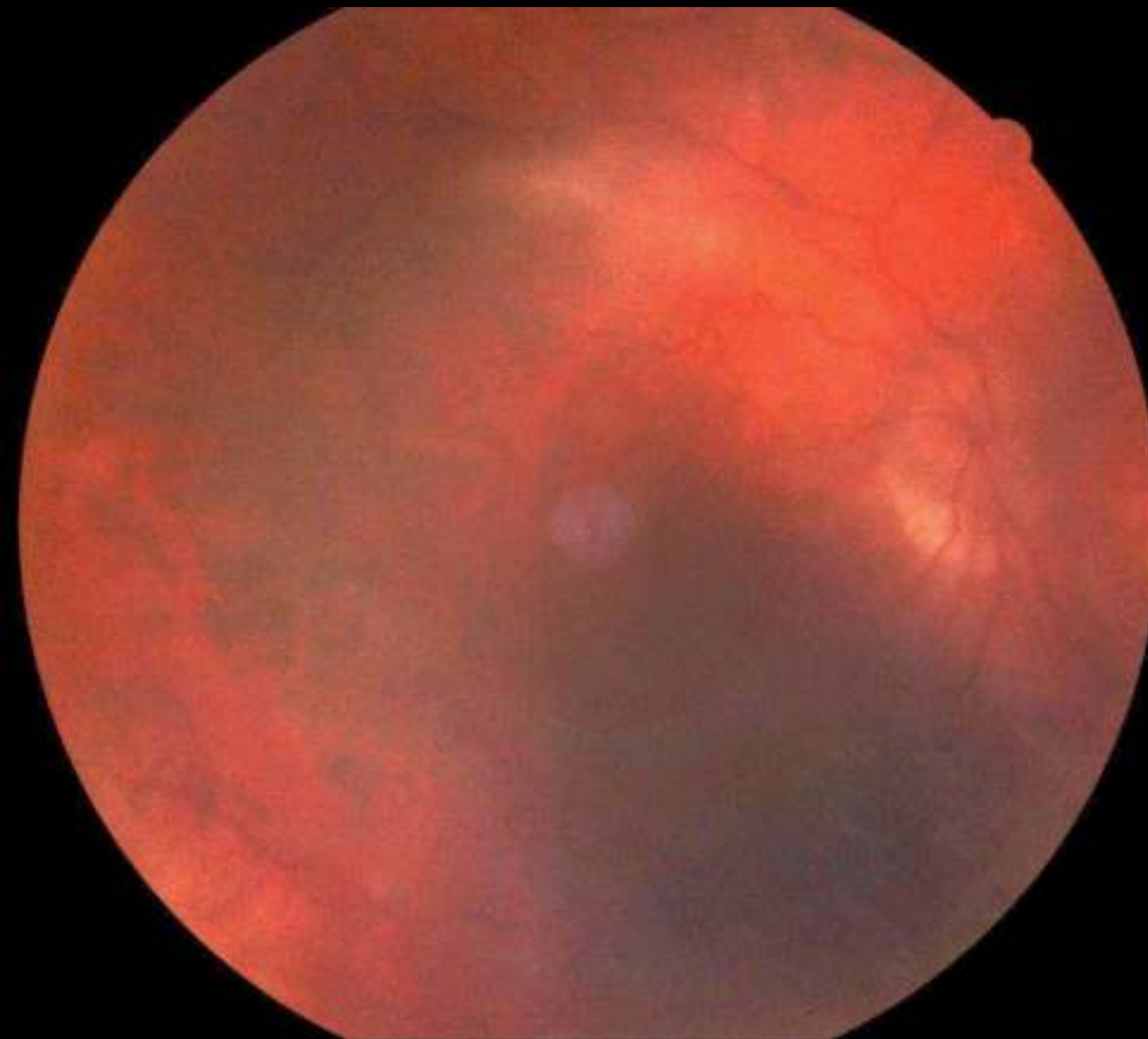


IR 55° ART + OCT 55° (15.1 mm) ART (9) Q: 22 [HR]

















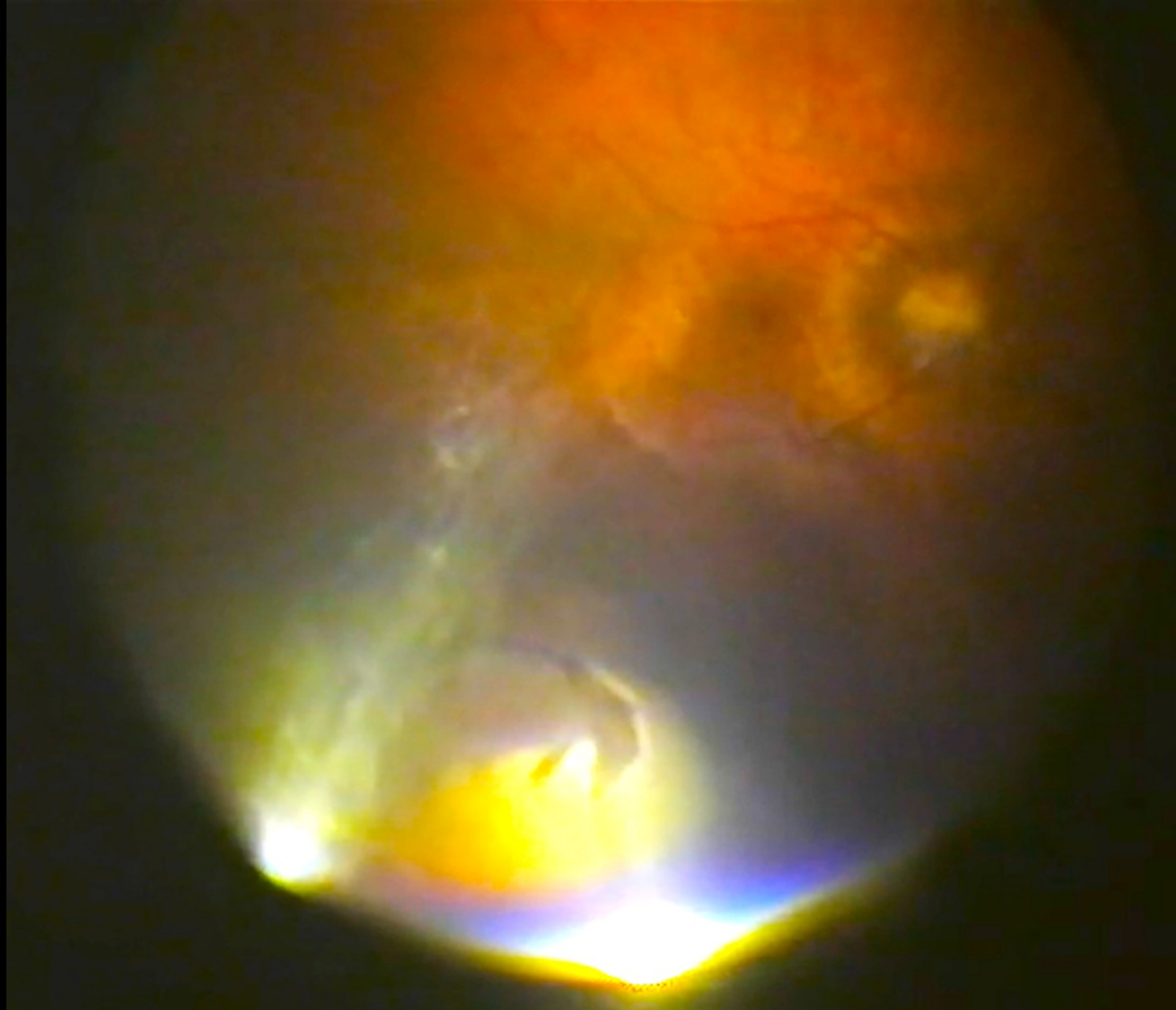






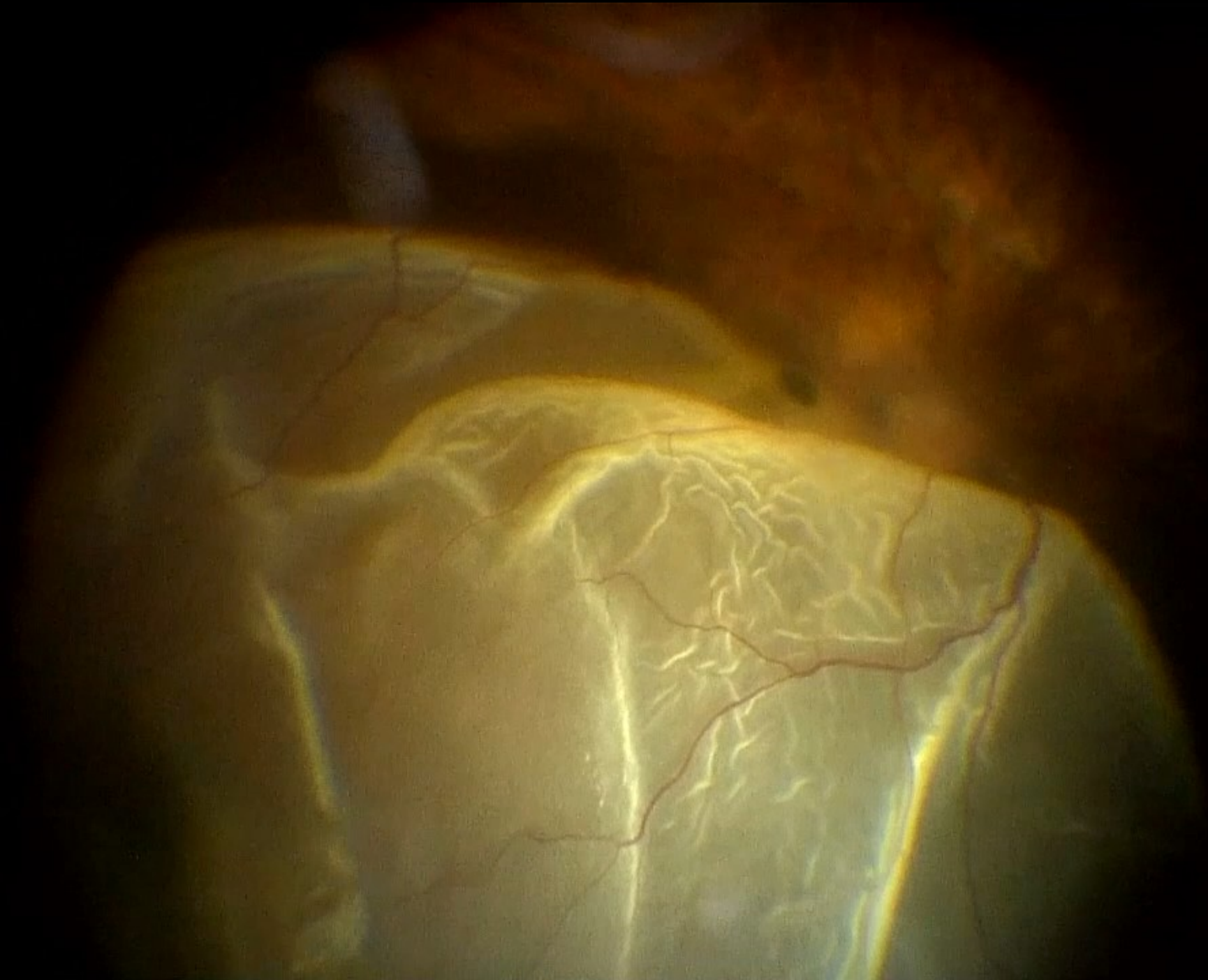




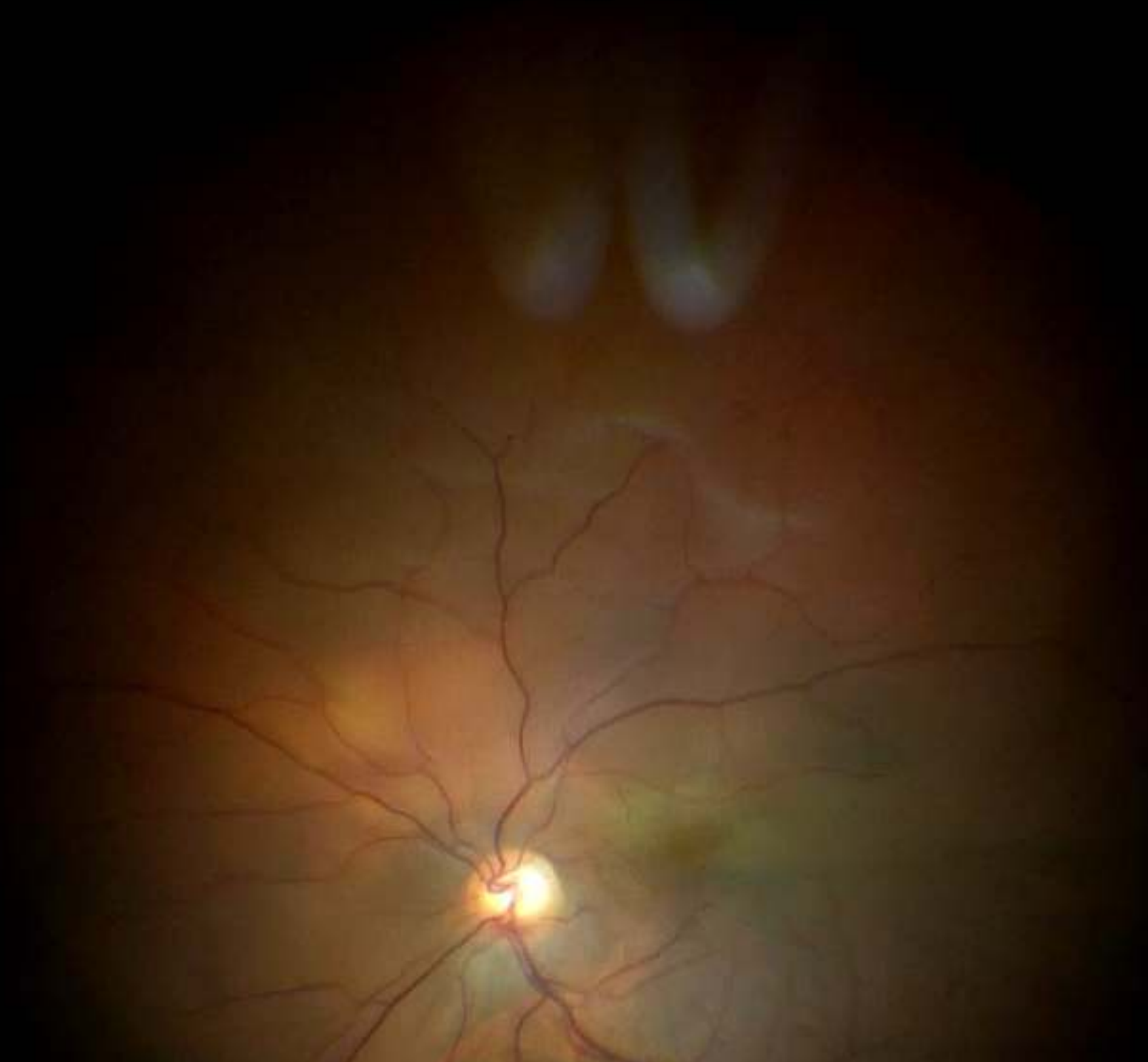




Superotemporal RD

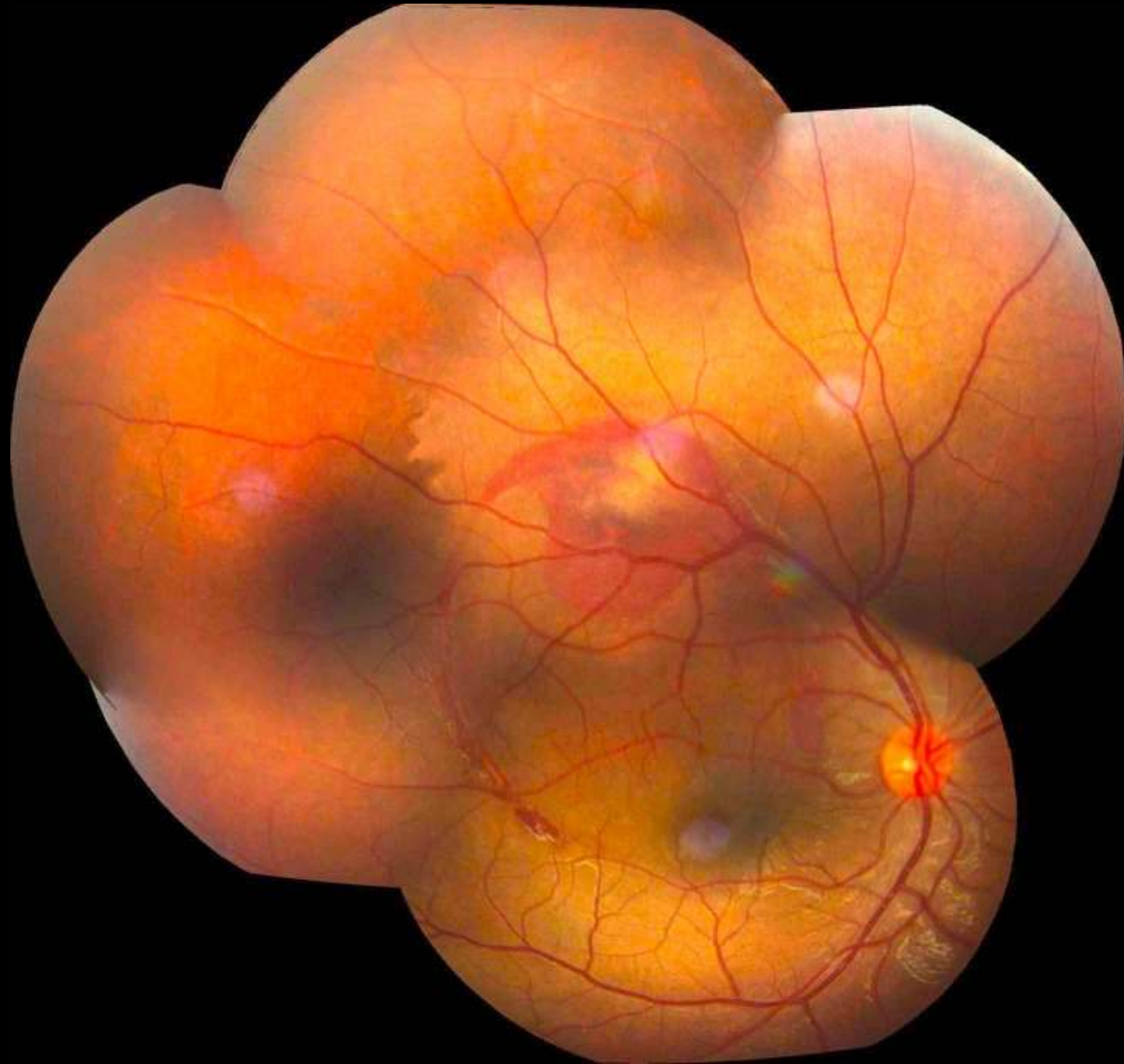


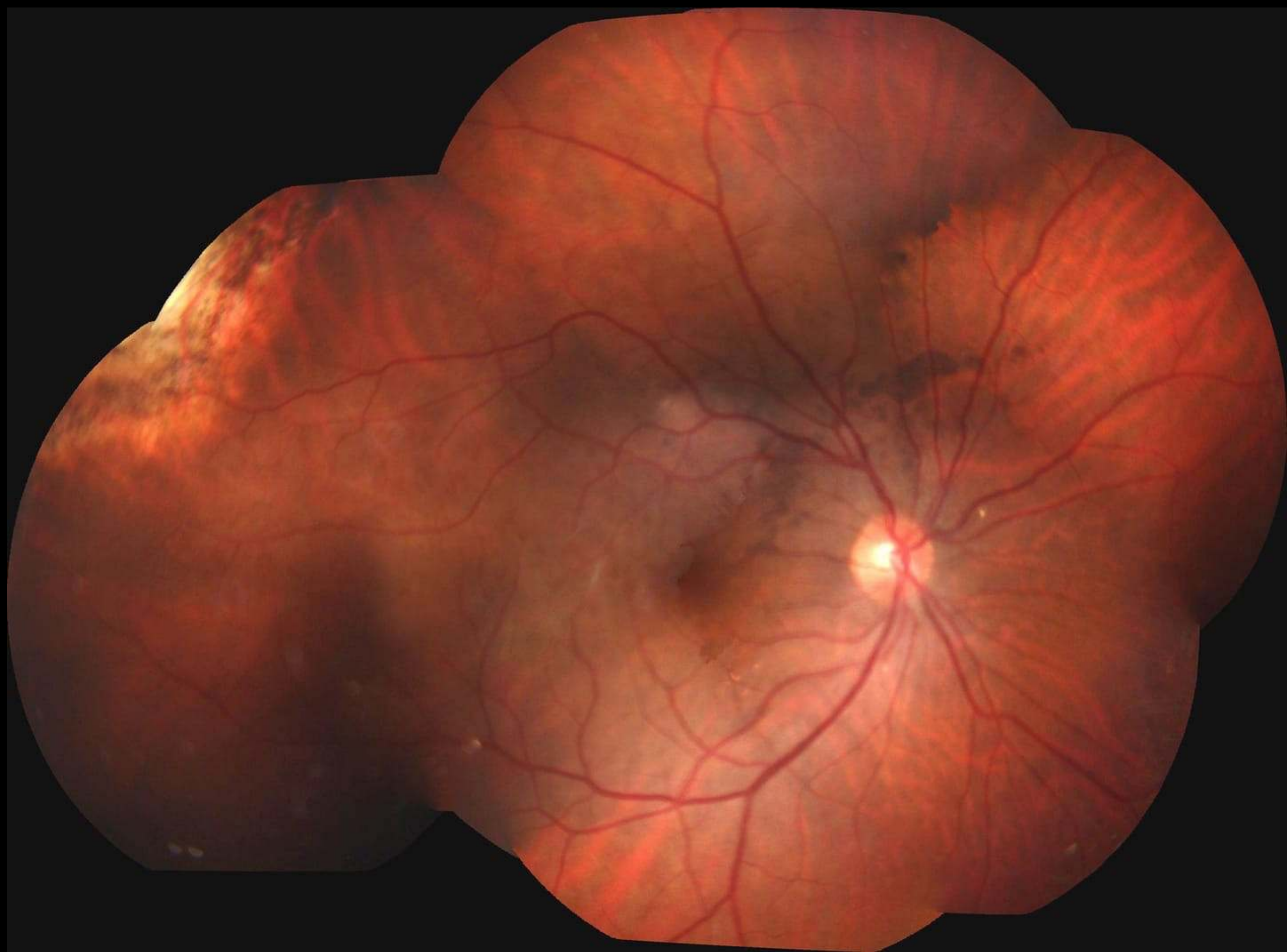
Inferior Bullous Retinal Detachment



Complications

1. Submacular Haemorrhage

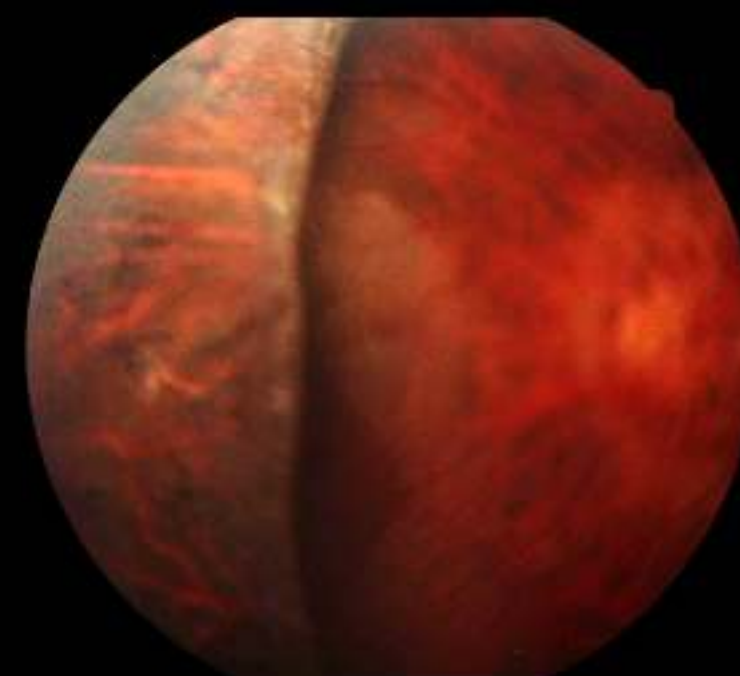
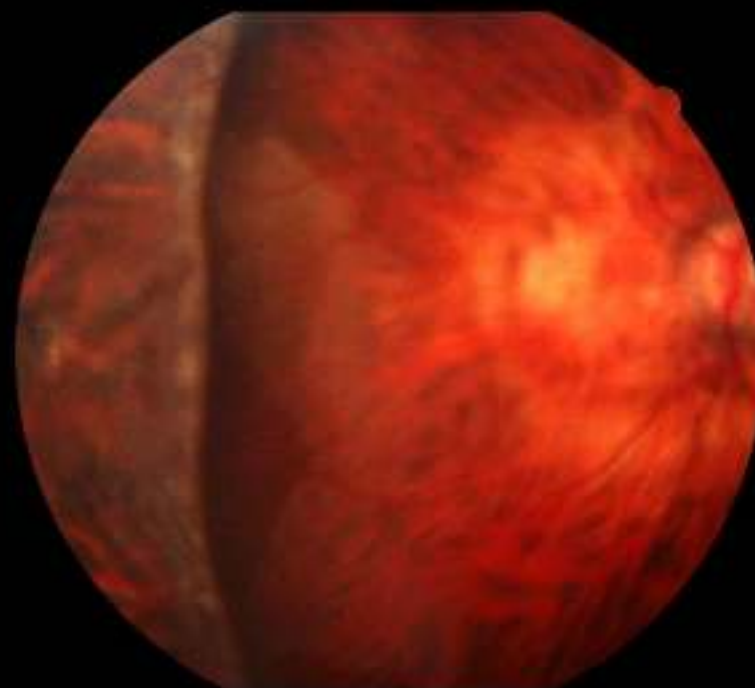
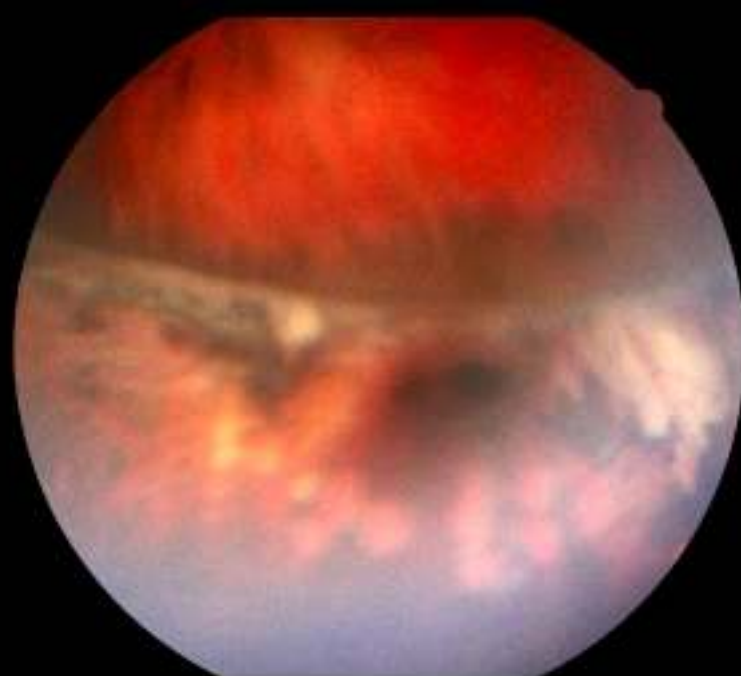
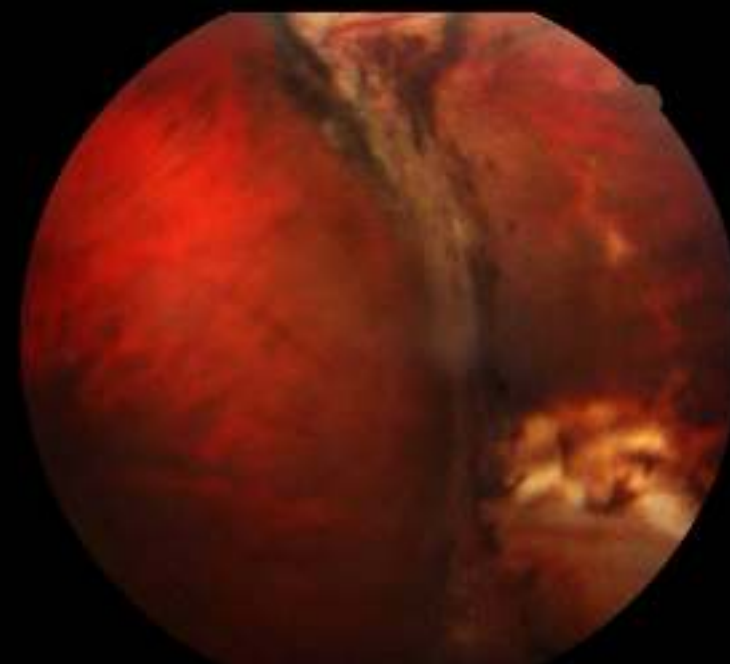
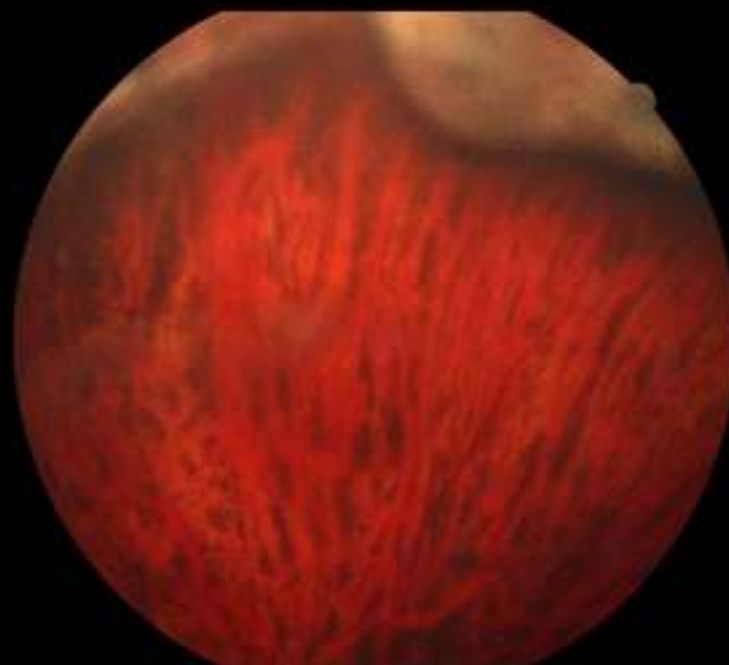
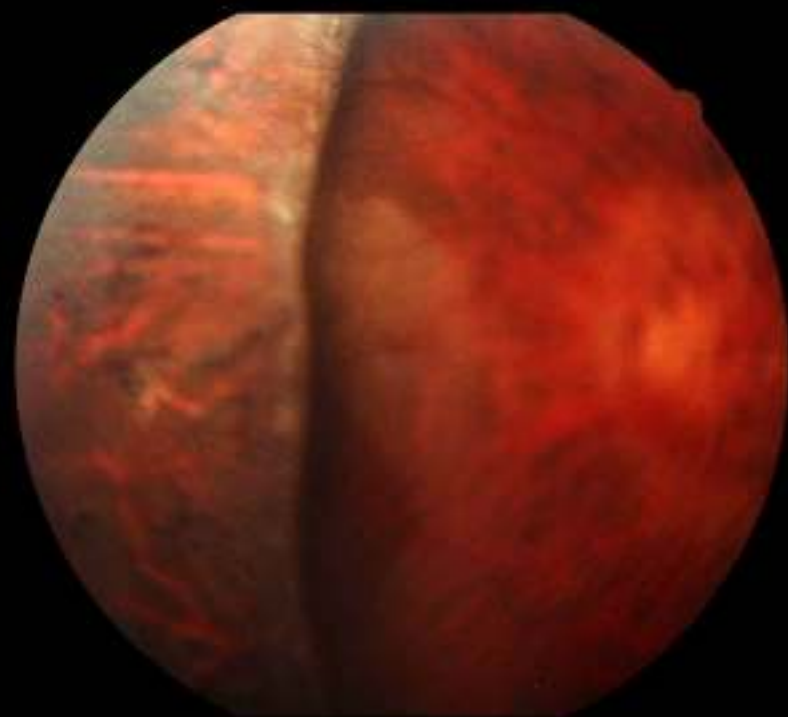


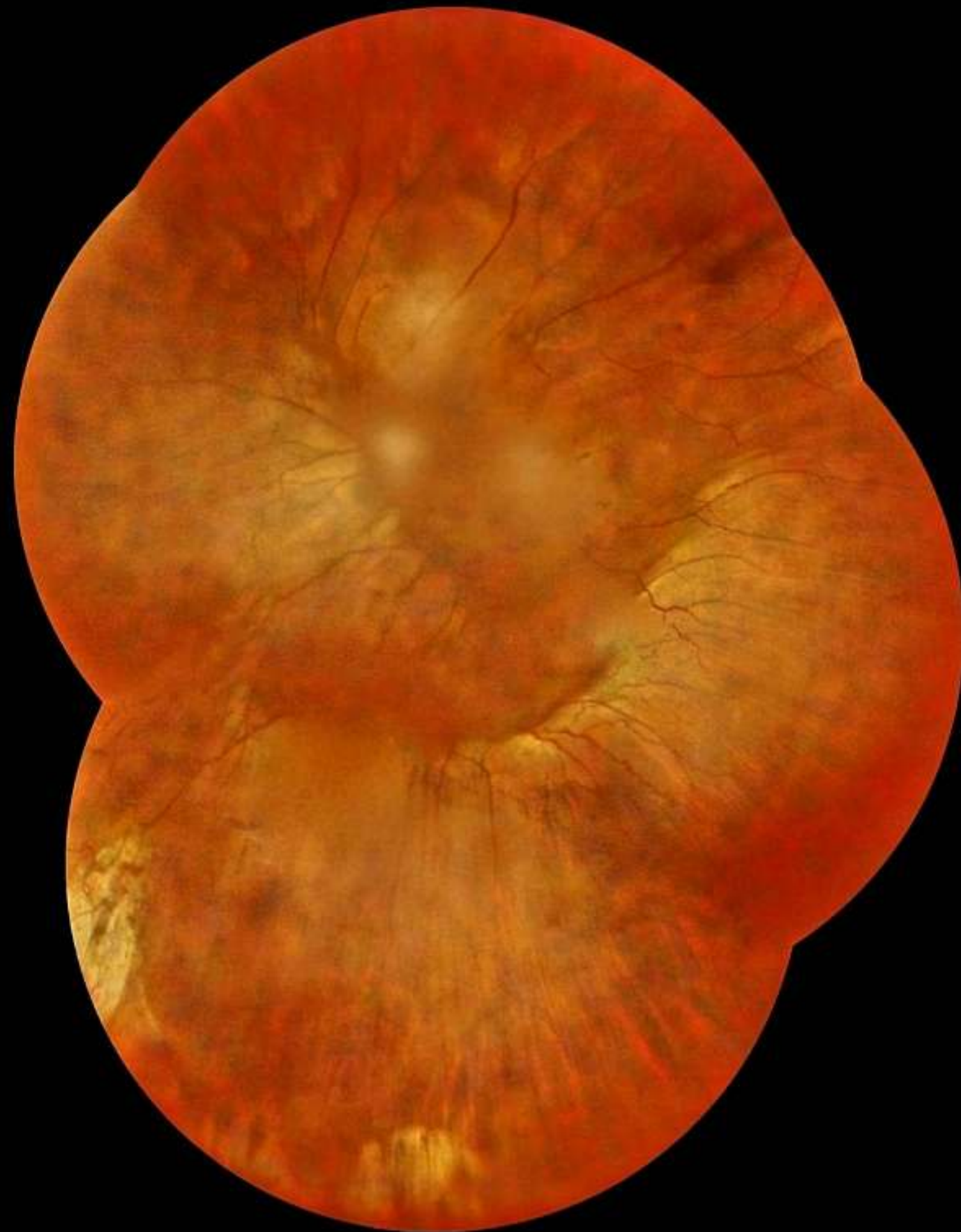


2. Suture and buckle intrusion into the vitreous cavity



3. Myopic Shift





Thickness Map Single Exam Report SPECTRALIS® Tracking Laser Tomography

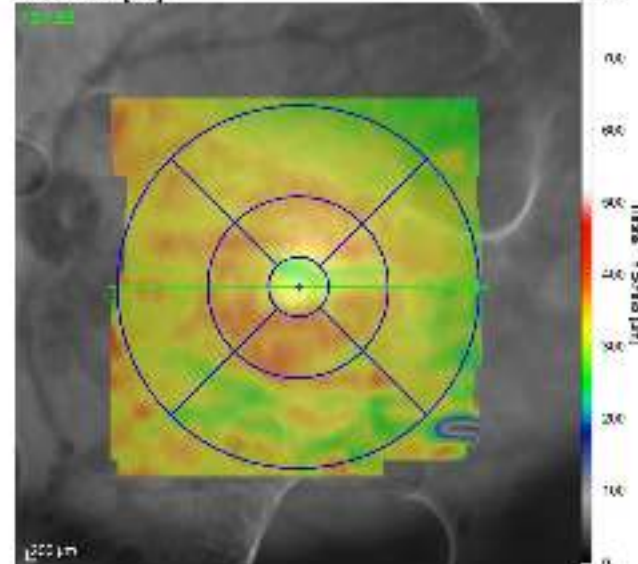
HEIDELBERG
ENGINEERING

Patient: shetawy mohamed , moustafa
Patient ID: 54939
Diagnosis: ---

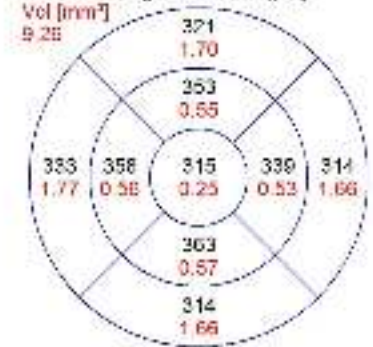
DOB: Jan/1/1955
Exam.: Sep/16/2025
Comment: ---

Sex: M OS

IR 30° ART [HS]

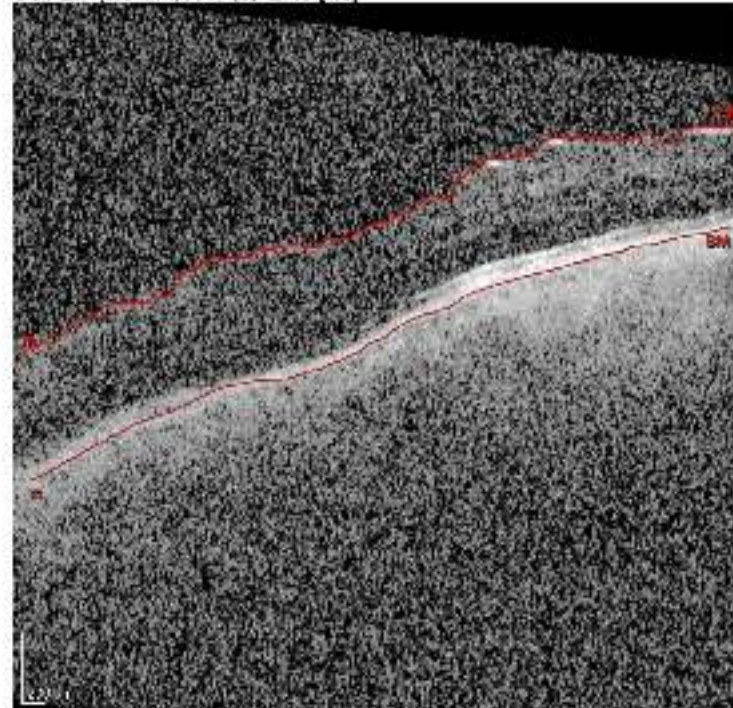


Average Thickness [µm]



Center: 315 µm
Central Min: 257 µm
Central Max: 379 µm
Circle Diameters: 1, 3, 5 mm ETDHS

OCT 20° (6.3 mm) ART (8) Q: 15 [HS]



Notes:

Date: 9/16/2025

Signature:

Software Version: 6.6.5

www.heidelberg-engineering.com

Thickness Map Single Exam Report

Overview Report SPECTRALIS® Tracking Laser Tomography

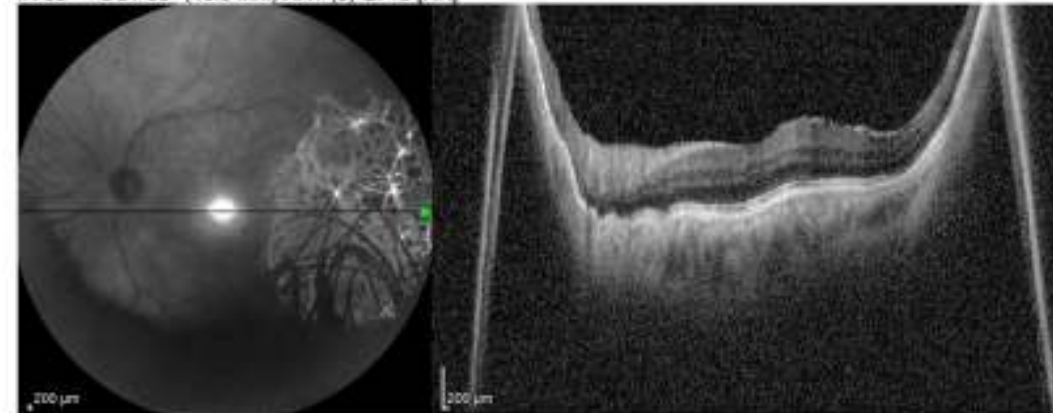
HEIDELBERG
ENGINEERING

Patient: shetawy mohamed , moustafa
Patient ID: 54939
Diagnosis: ---

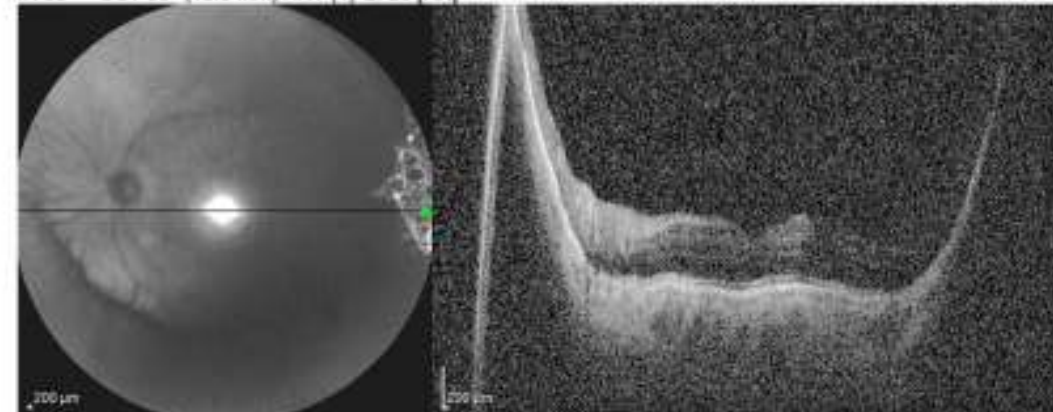
DOB: Jan/1/1955
Exam.: Sep/16/2025
Comment: ---

Sex: M OS

IR 55° + OCT 55° (16.0 mm) ART (8) Q: 19 [HR]



IR 55° + OCT 55° (16.0 mm) ART (4) Q: 20 [HR]



Notes:

Date: 9/16/2025

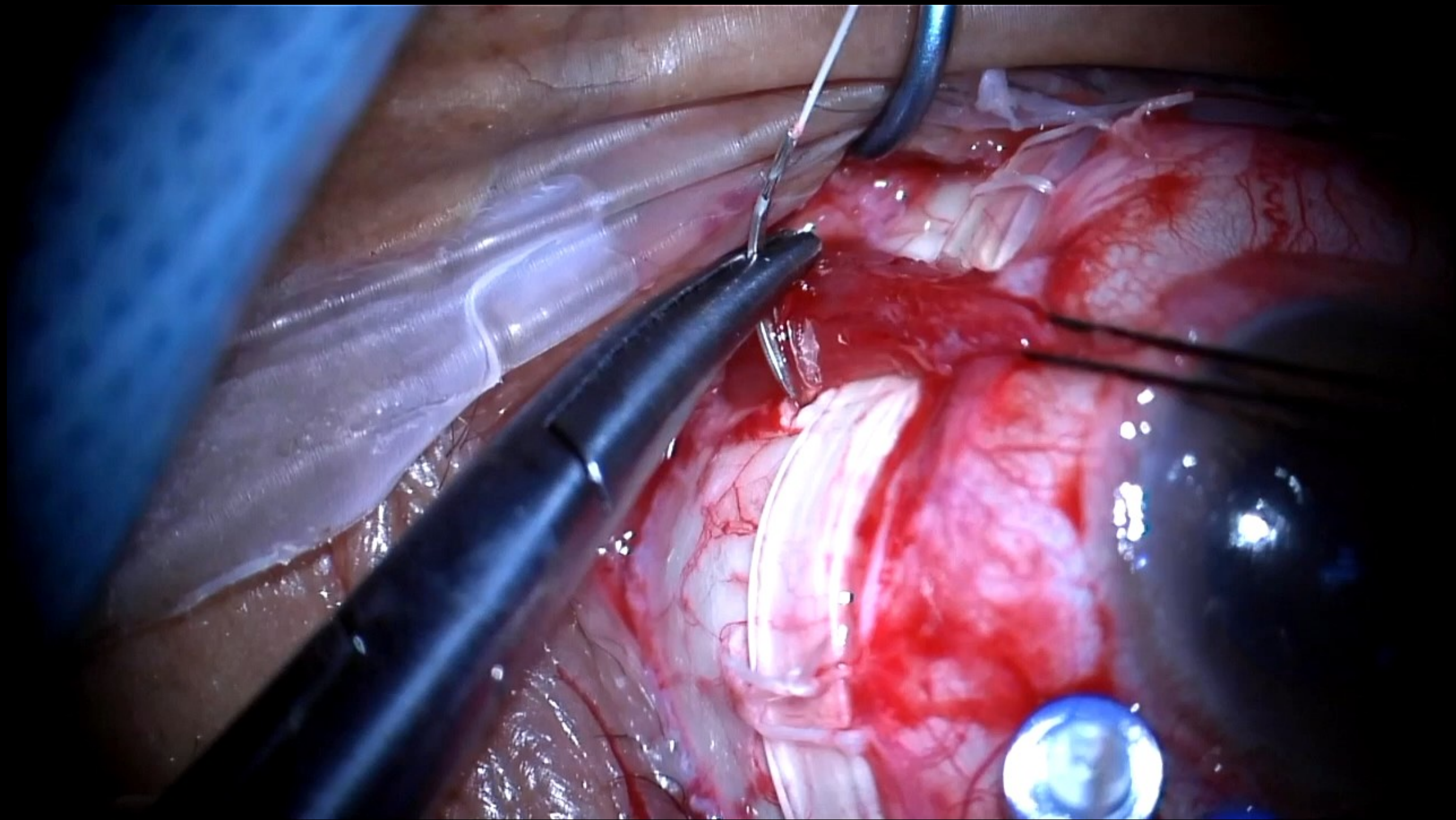
Signature:

Software Version: 6.9.5

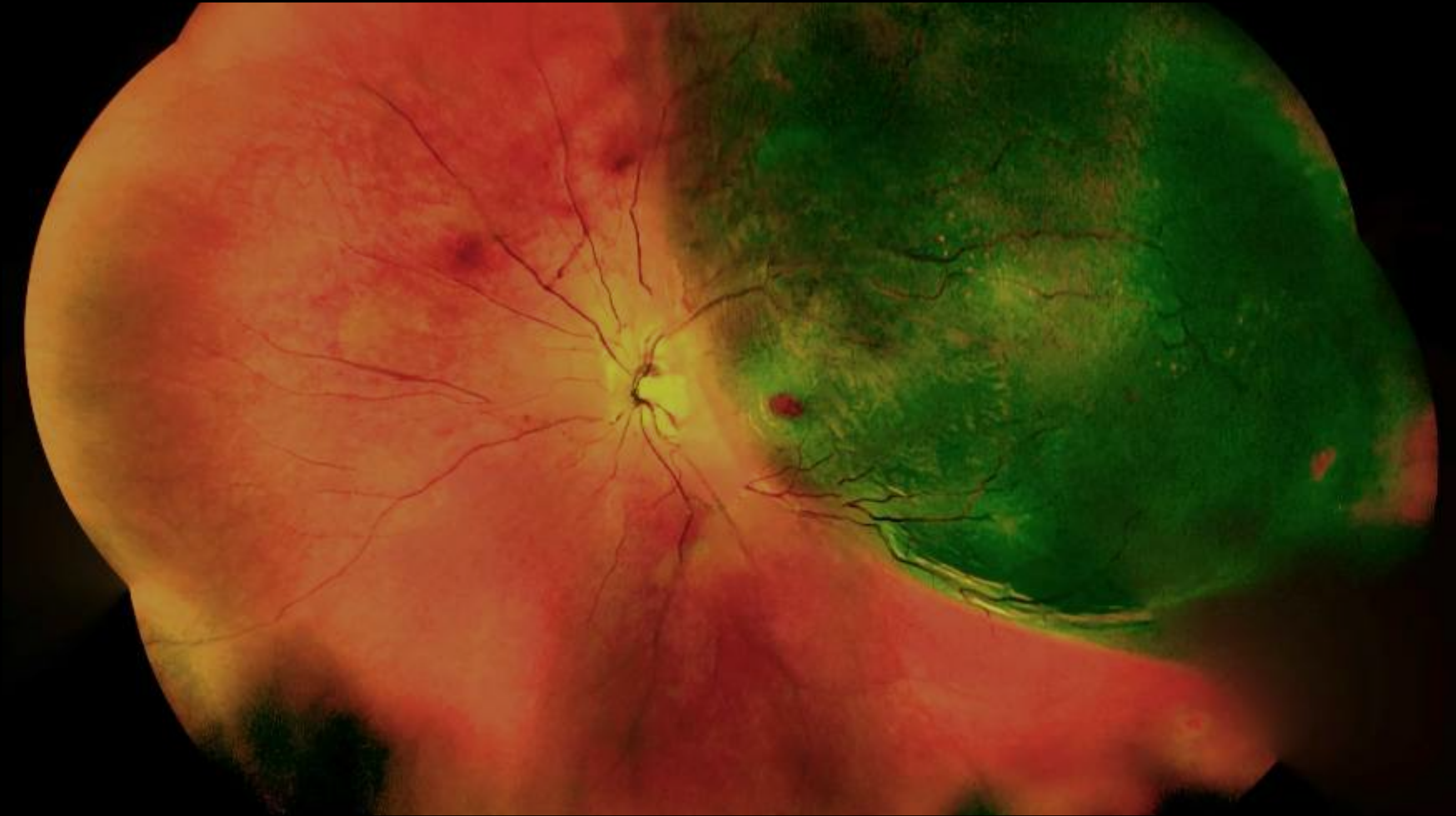
www.heidelberg-engineering.com

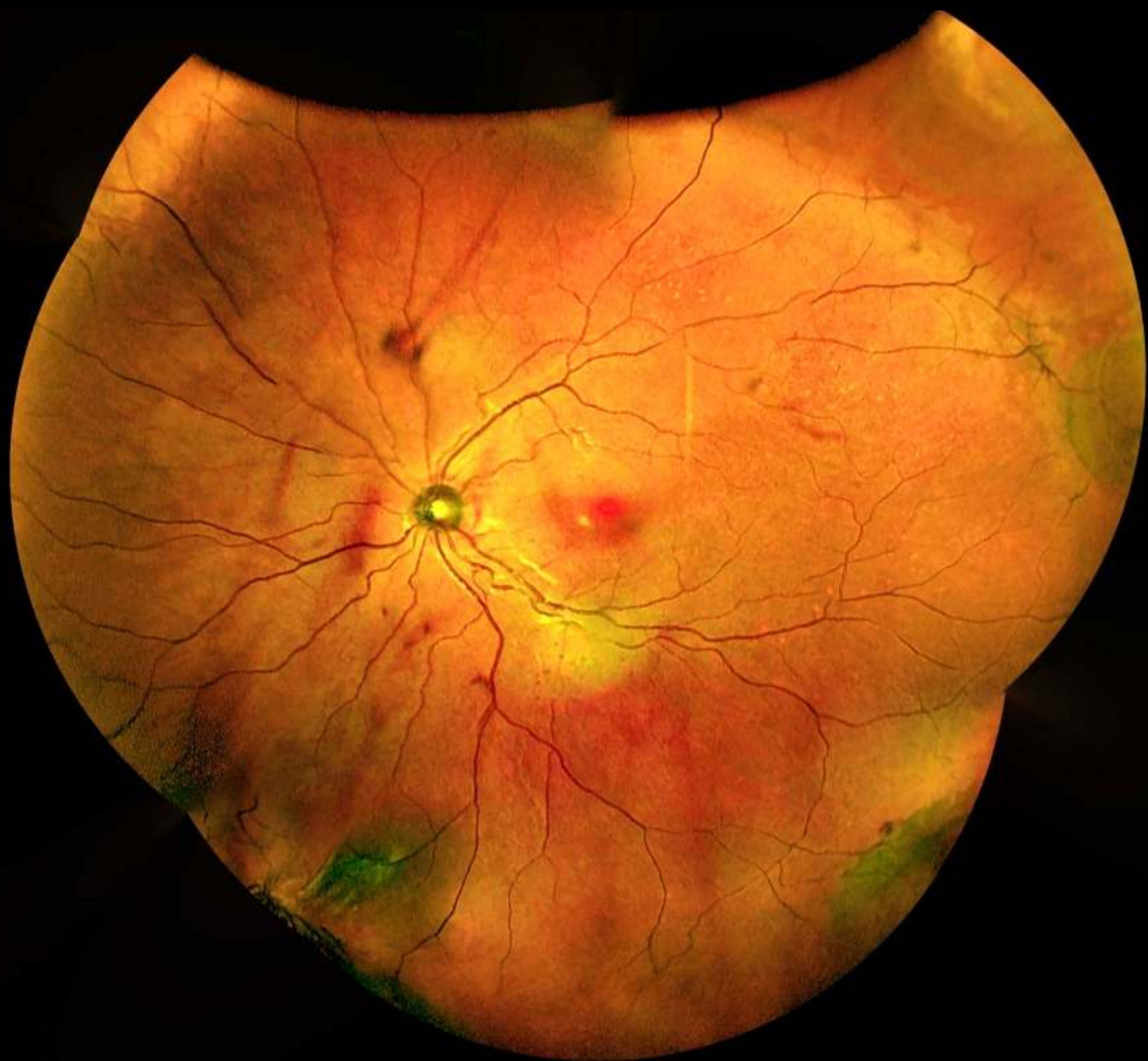
Overview Report, Page 1

4.Retinal Incarceration

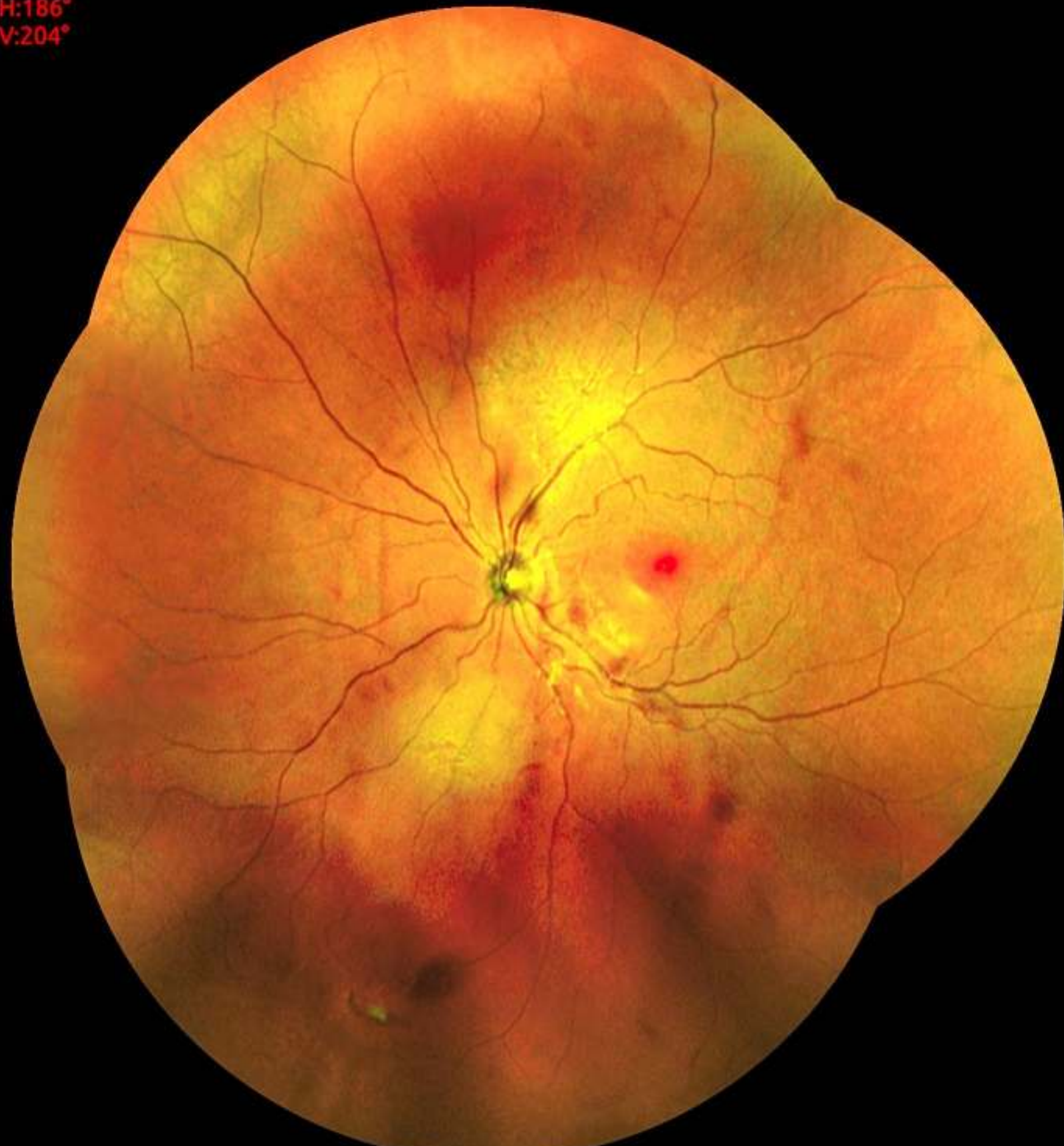


5. Choroidal Haemorrhage

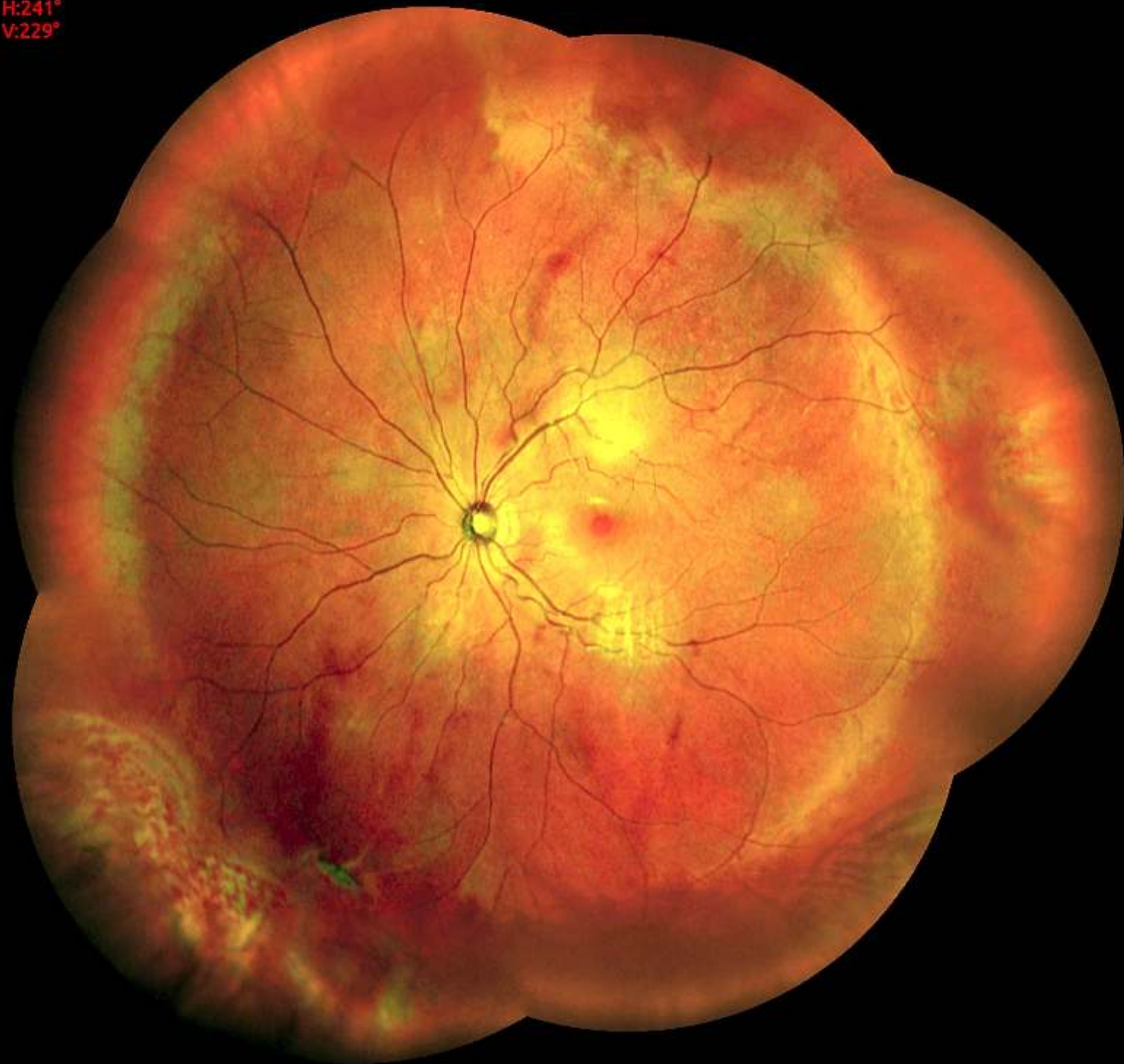




H:188°
V:204°

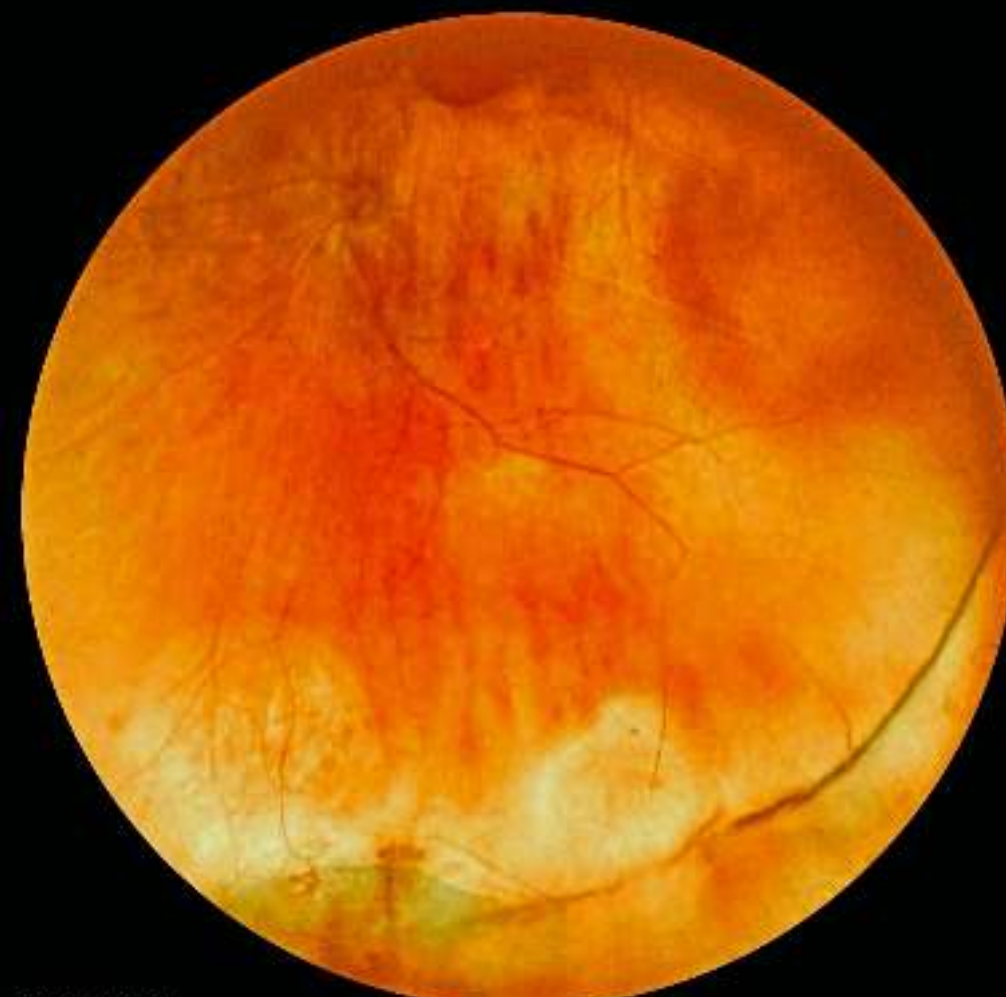


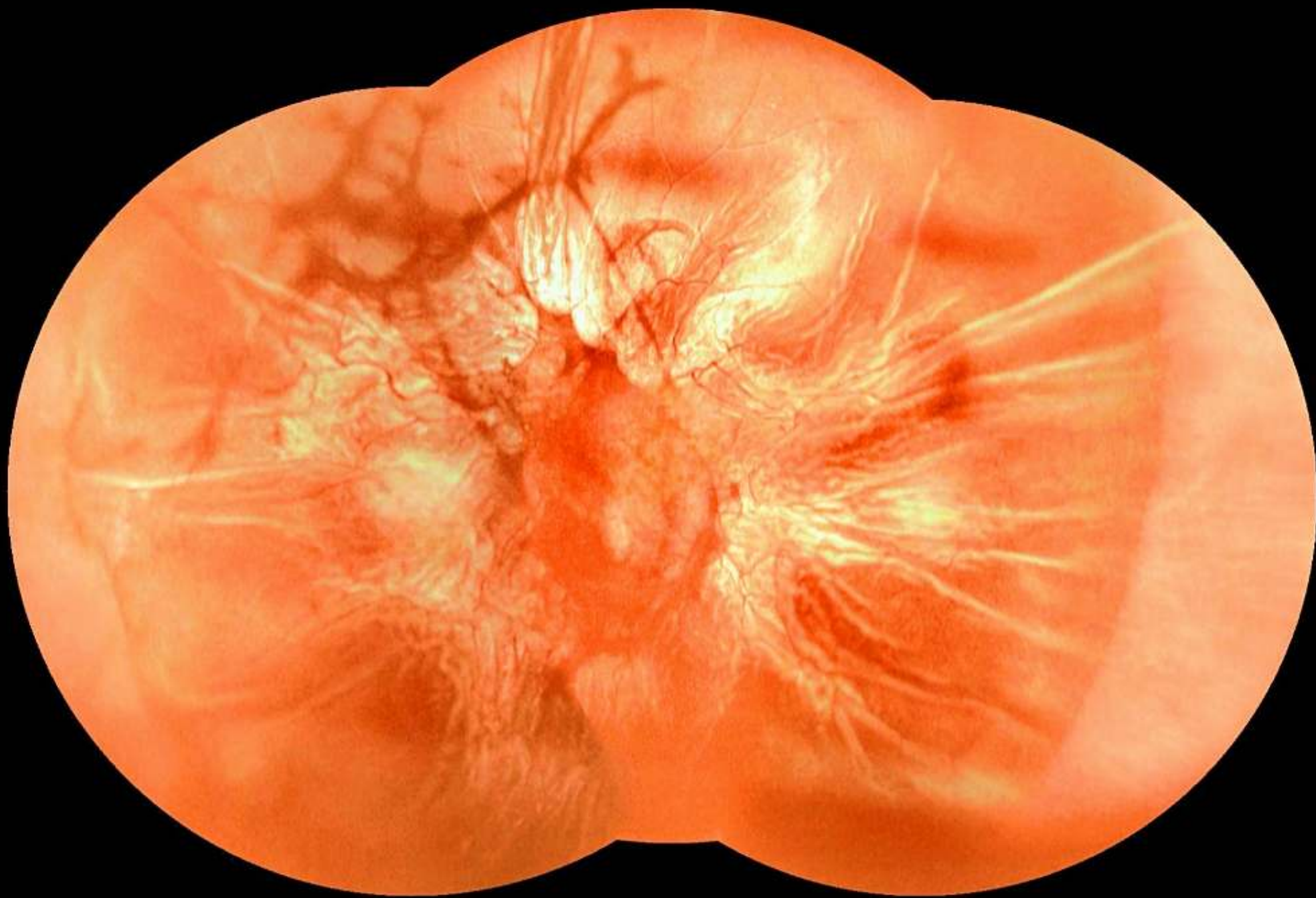
H:241°
V:229°

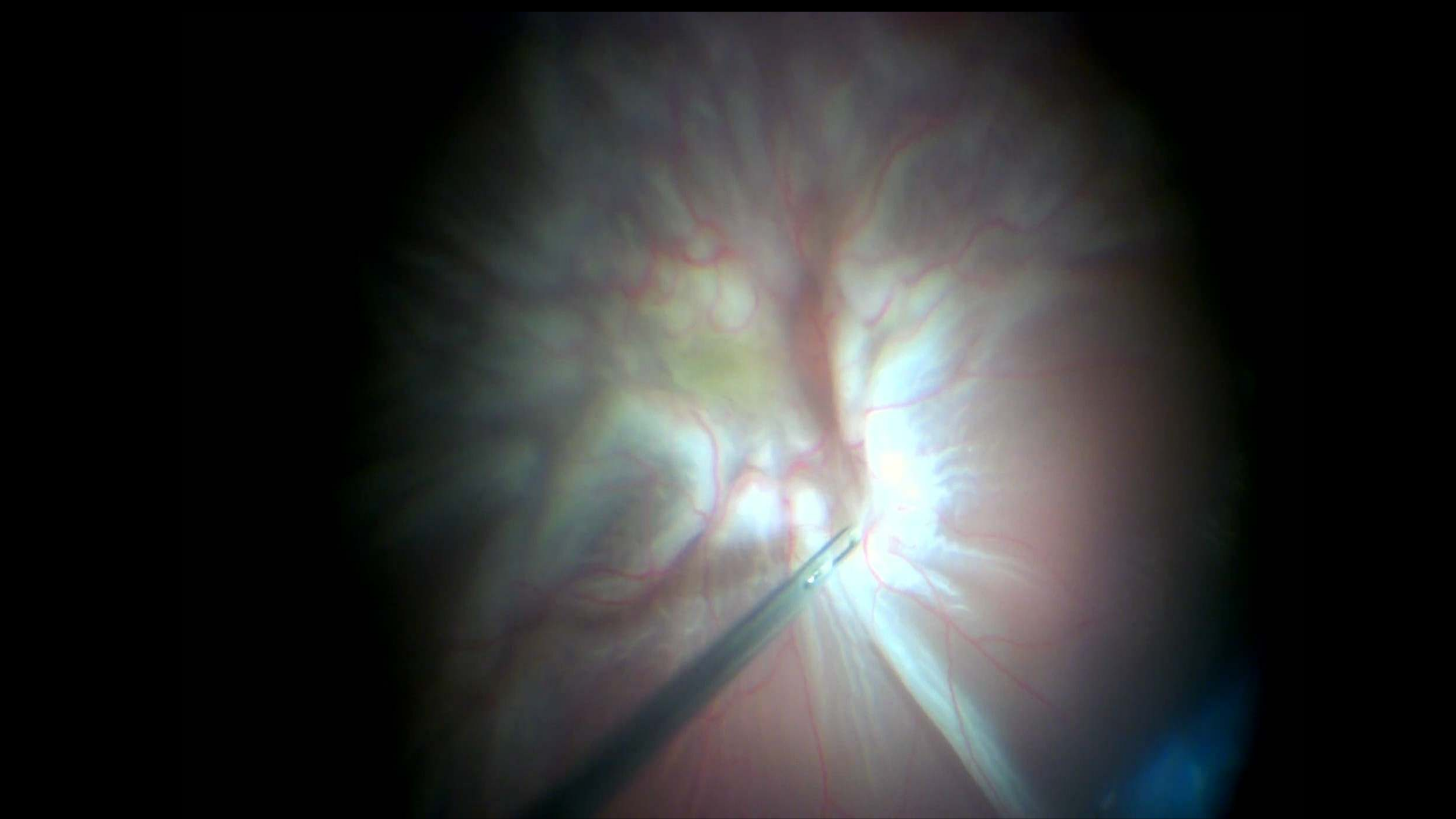


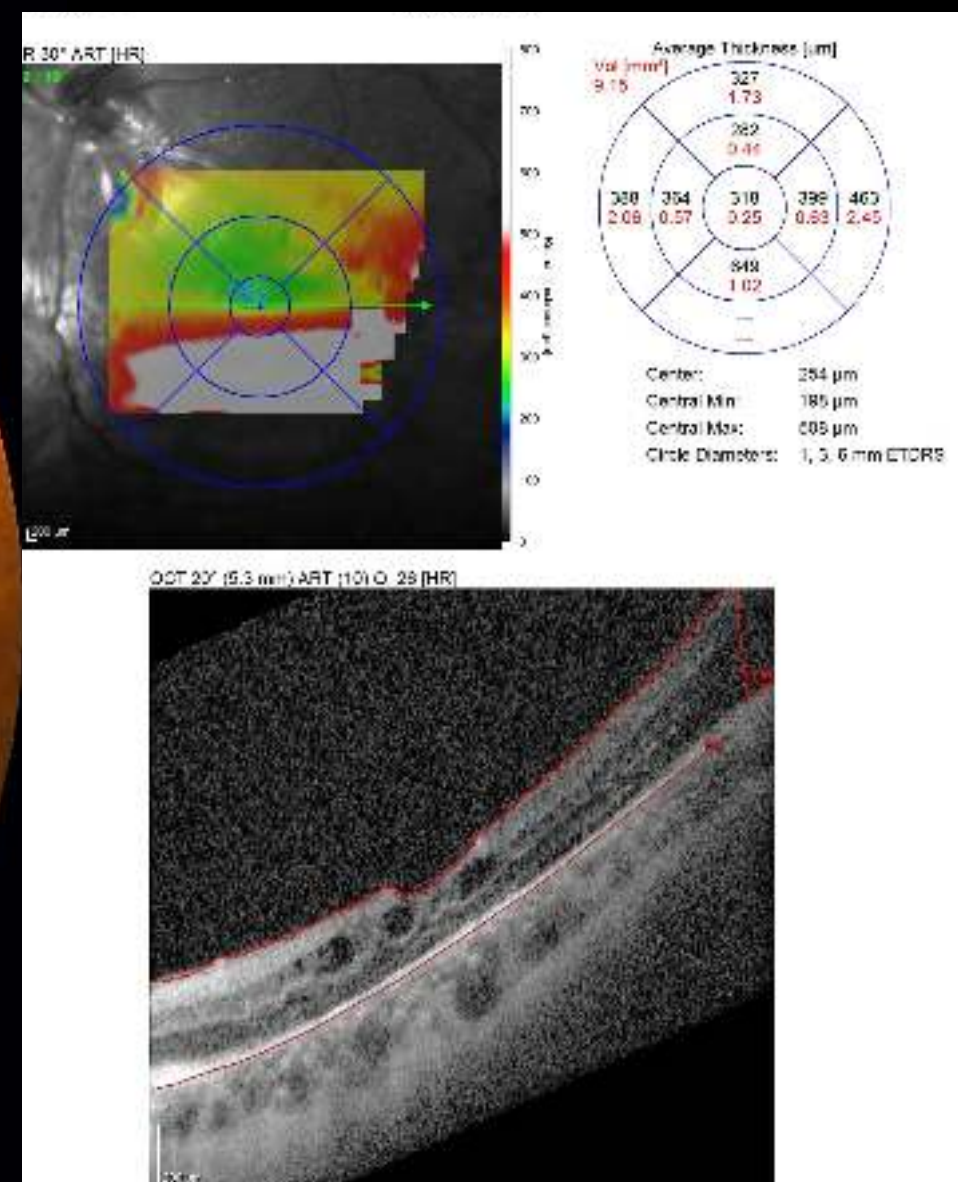
6.PVR



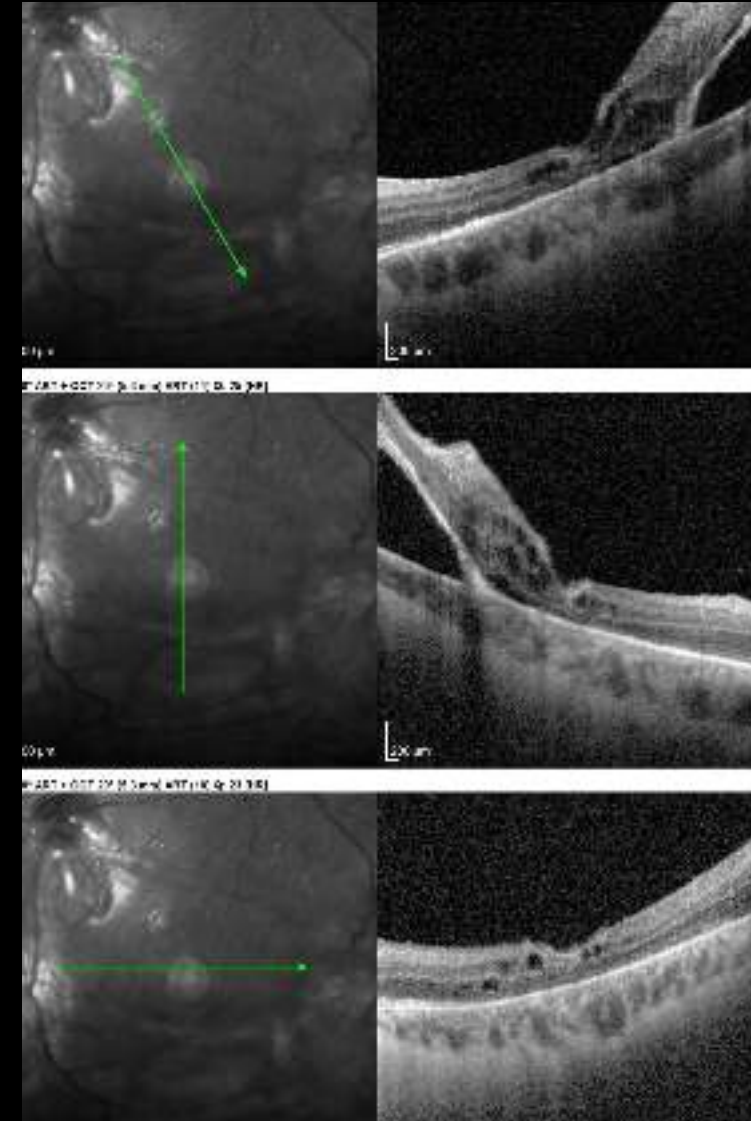


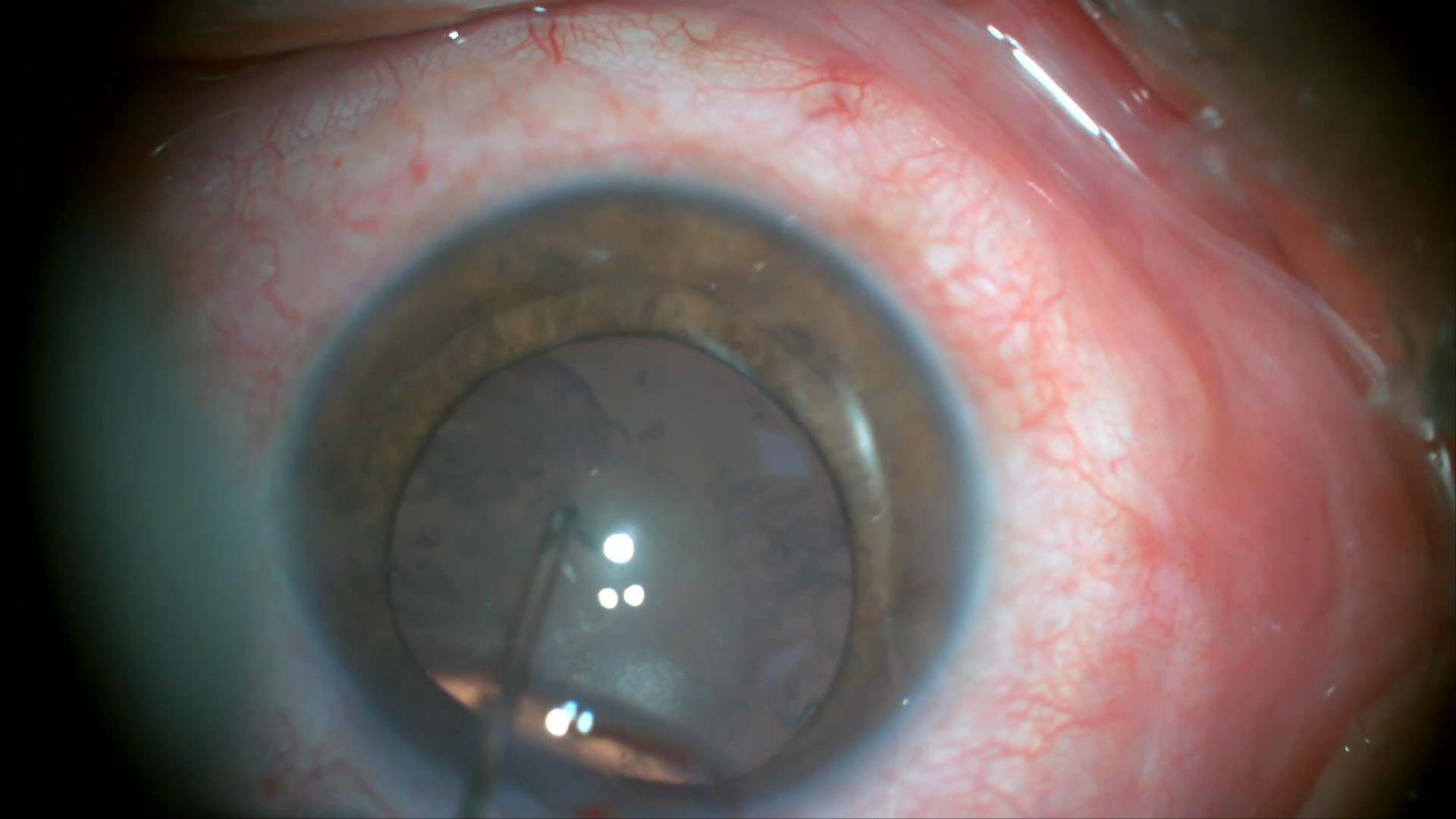




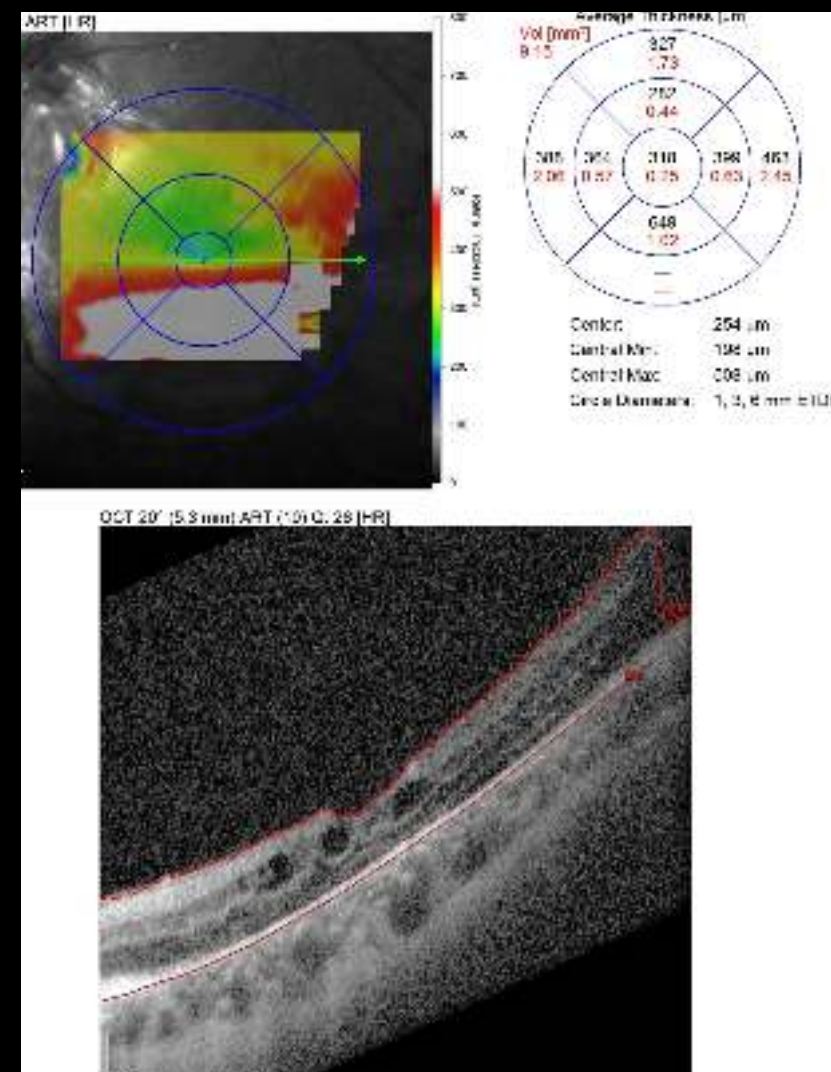


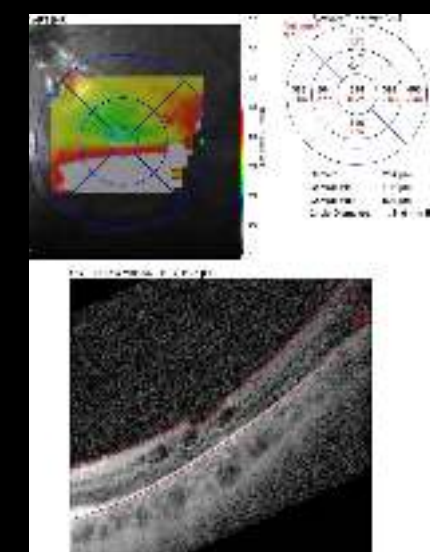
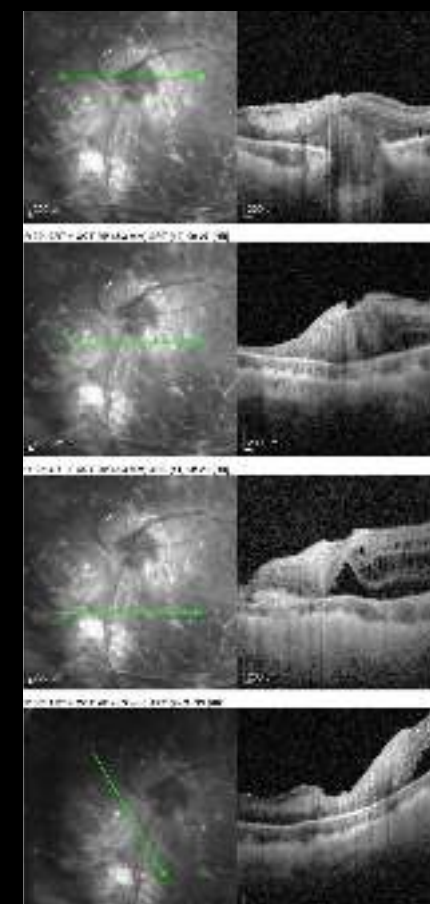
H:170°
V:166°





249°
255°







Conclusion

Chandelier Assisted buckling is a superior technique:

- ***1. Clear direct retinal image that can be enlarged and sharply focused even with small pupil,***
- ***2. Easier detection of small retinal breaks in pseudophakic RD with media opacity***
- ***3. Wider angle of viewing.***
- ***4. Better illumination***
- ***5. Ease operation for the surgeon saving his neck and back muscles***
- ***6. Perfect teaching tool.***
- **7. Scleral buckling is especially helpful in RD with inferior retinal breaks in which vitrectomy with any tamponade cannot support it**
-



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