

Retina Start – Clinical Case



Natasha Cruz
Fellow de Retina e Vítreo

Medical History

- ❖ ID: Male, 50 years old, black, born in Bahia and living in São Paulo, merchant;
- ❖ QD: Low vision in both eyes for 2 months;
- ❖ HPMA: Low visual acuity in both eyes, worse in the right eye, painless and progressive. Denies systemic symptoms.

Medical History

❖ PMH: unremarkable;

❖ POH: unremarkable;

❖ PFH: unremarkable;

Ophthalmologic Exam

	Right Eye (OD)	Left Eye (OS)
Best-corrected visual acuity (BCVA)	Count fingers at 1 meter	20/63
ExtraOcular Motions (EOM)	Full	Full
Pupil Reflexes	D4+/C4+	D4+/C4+
Anterior Biomicroscopy (ABM)	Clear conjunctiva, clear cornea, trophic iris, deep AC, clear lens, absence of anterior chamber and vitreous cells in both eyes	
Intraocular pressure (IOP) (9am)	17mmHg	15mmHg
Fundoscopy	Photos	Photos





Diagnostic Hypothesis

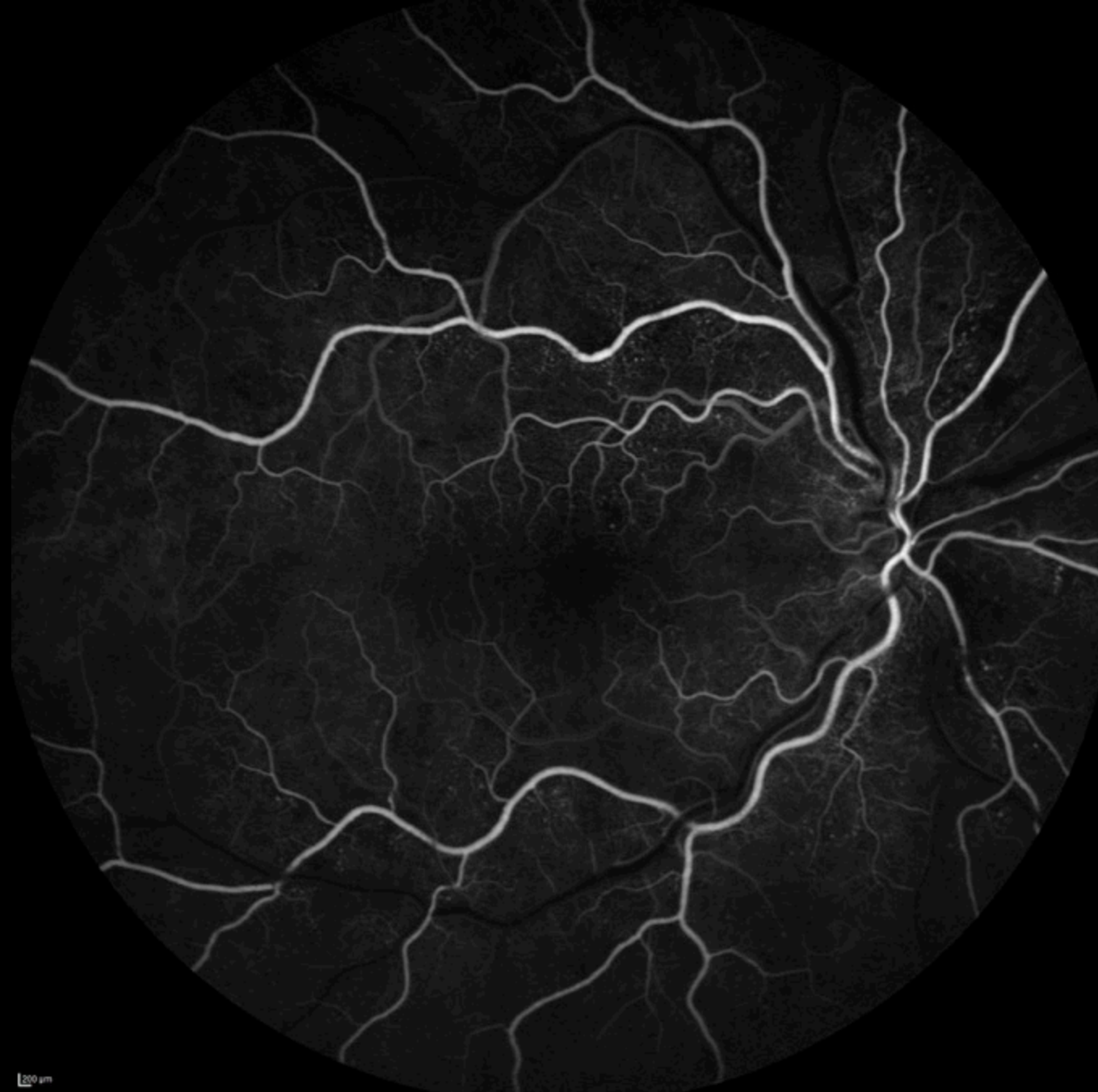
❖ Central Retinal Vein Occlusion OU (?)
+
Serous Retinal Detachment OU

❖ Etiology:

- Hematologic?
- Infectious?
- Oncologic?
- Rheumatologic?

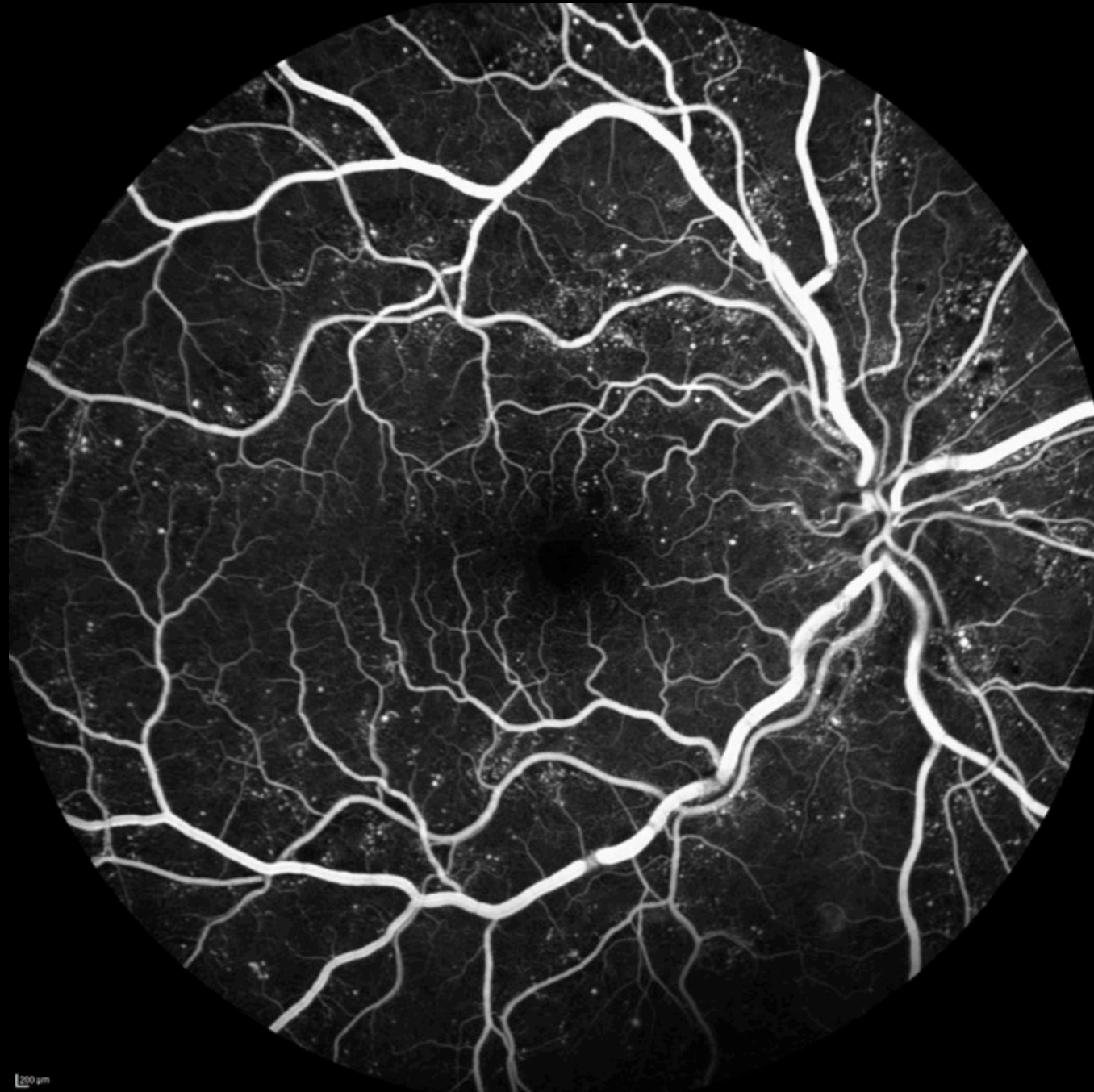
Management

- ❖ Fluorescein Angiography (FA)
- ❖ Optical Coherence Tomography (OCT)
- ❖ Laboratory tests / serologies and hematologic tests
- ❖ Referred to Hematology



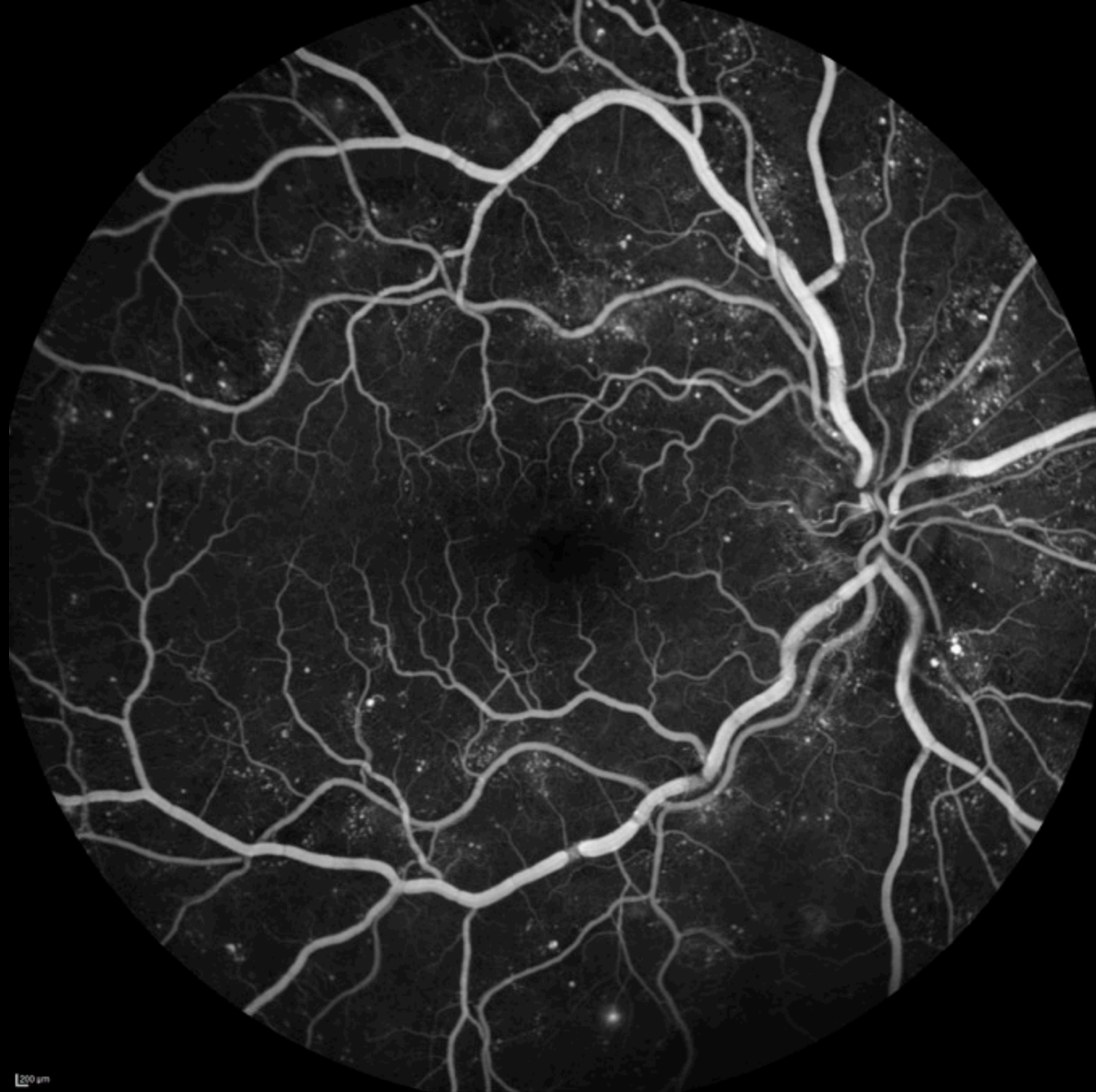
200 μ m

03/05/2019, OD
FA 0.19.09 55° ART(12) [HR]



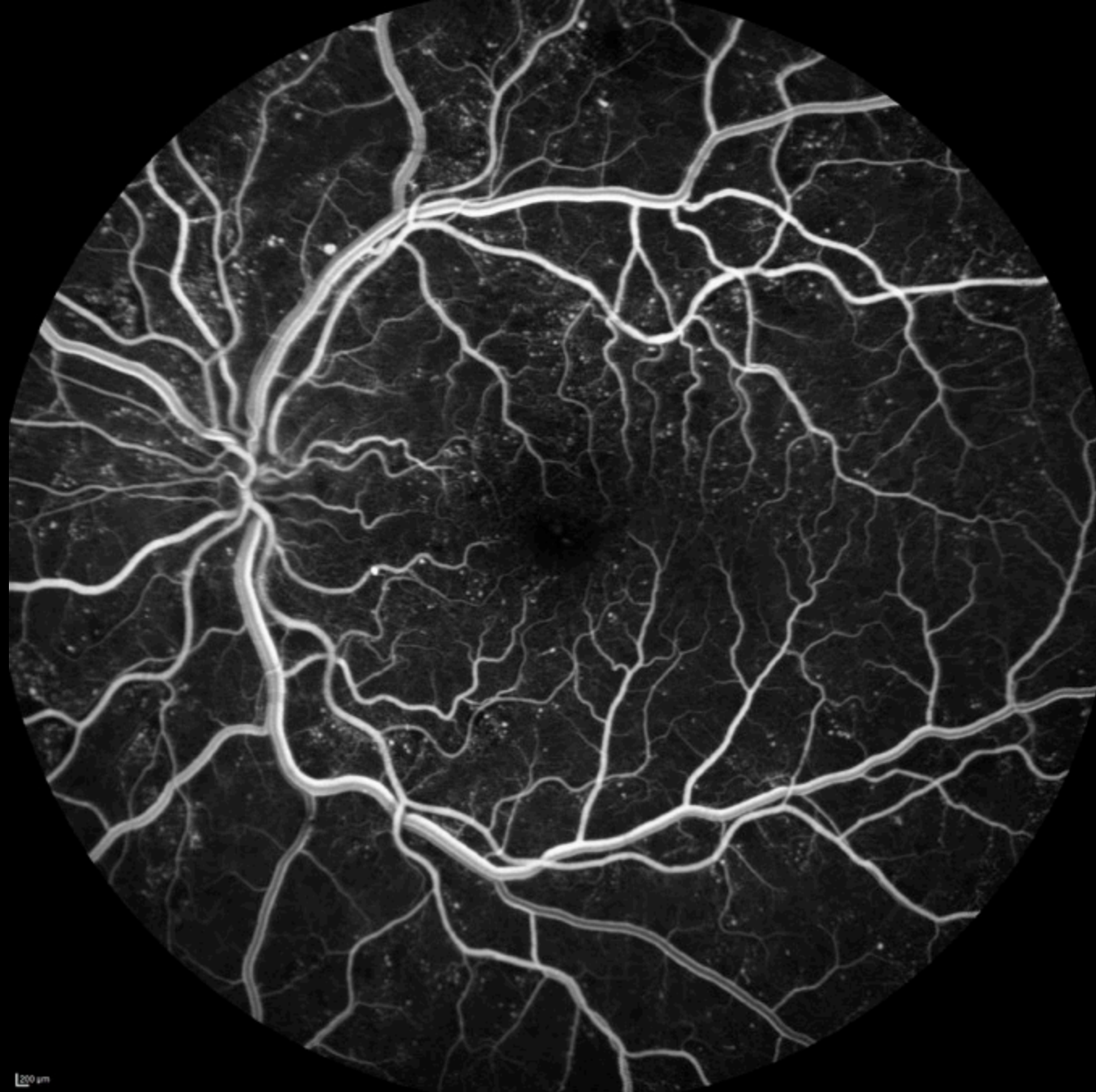
200 μ m

03/05/2019, OD
FA 0.44.09.55° ART(9) [HR]



200 μ m

03/05/2019, OD
FA 4:58.82 55° ART(30) [HR]



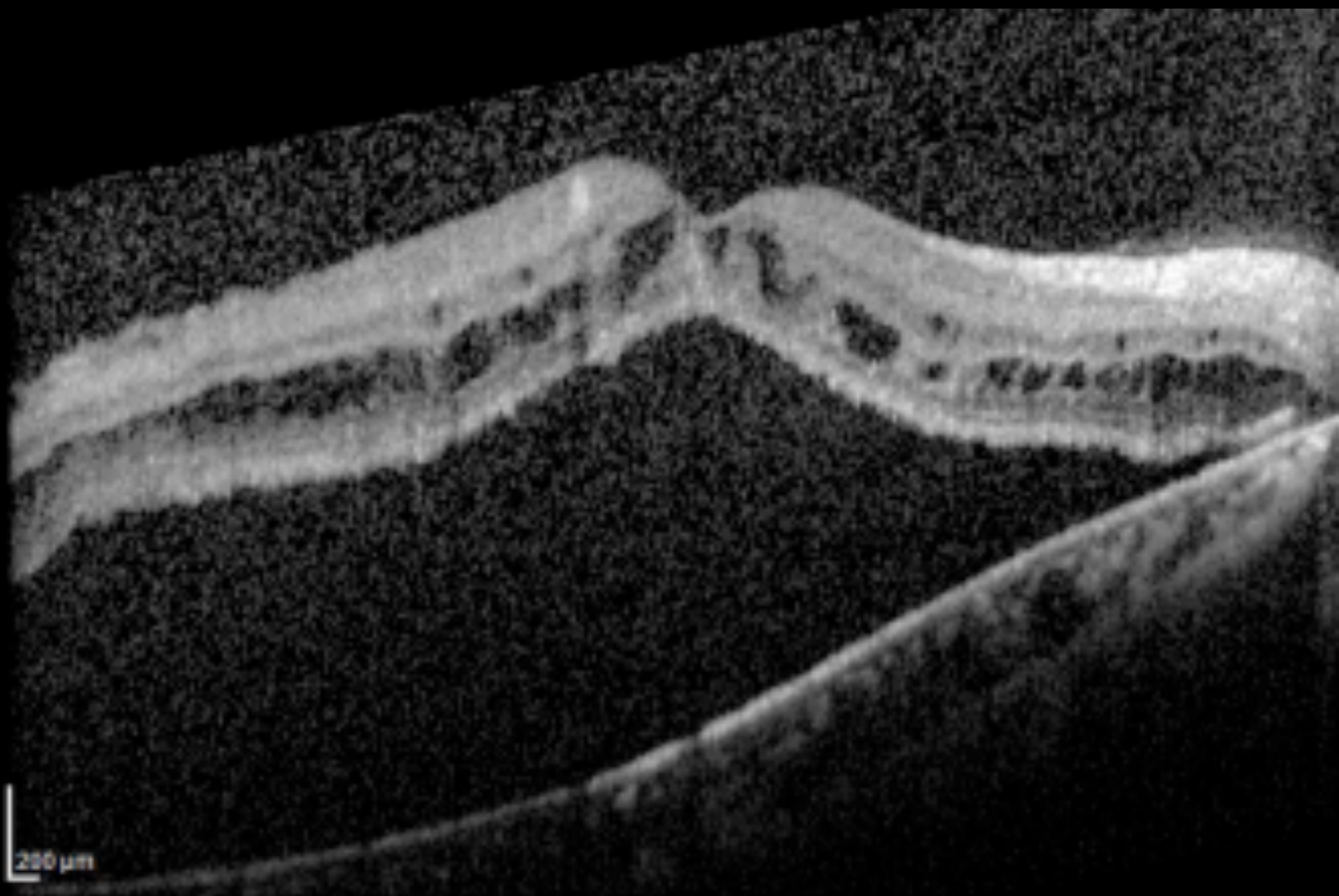
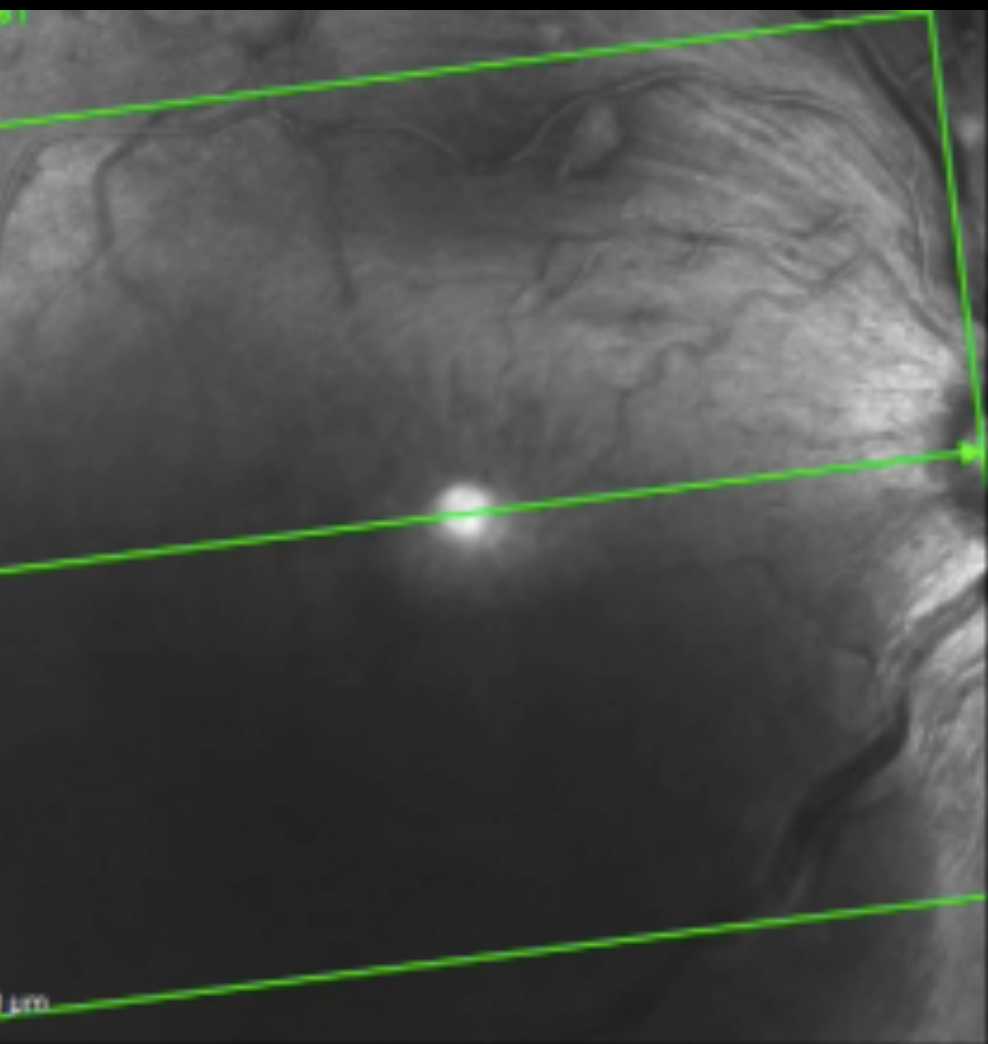
200 μ m

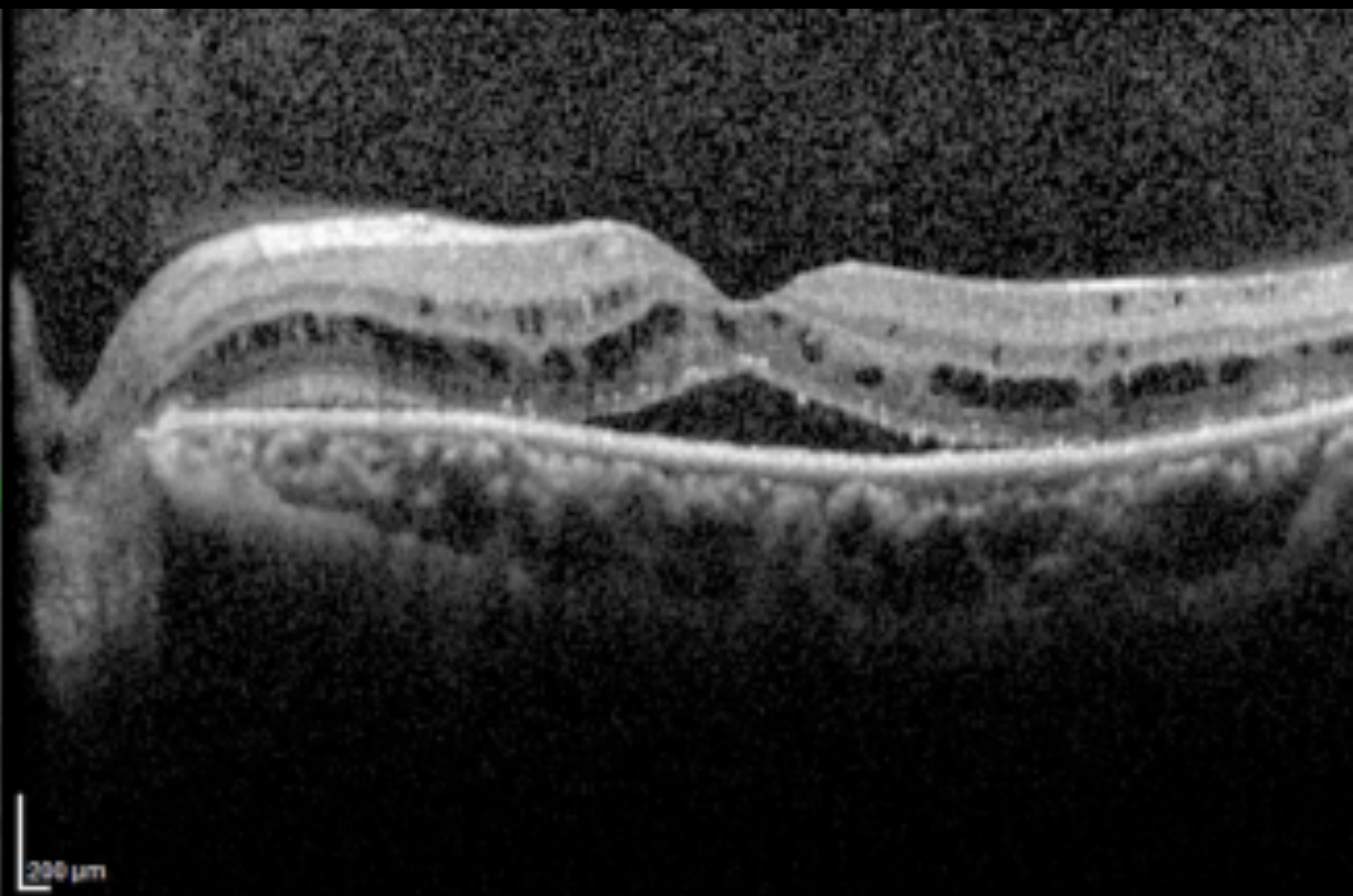
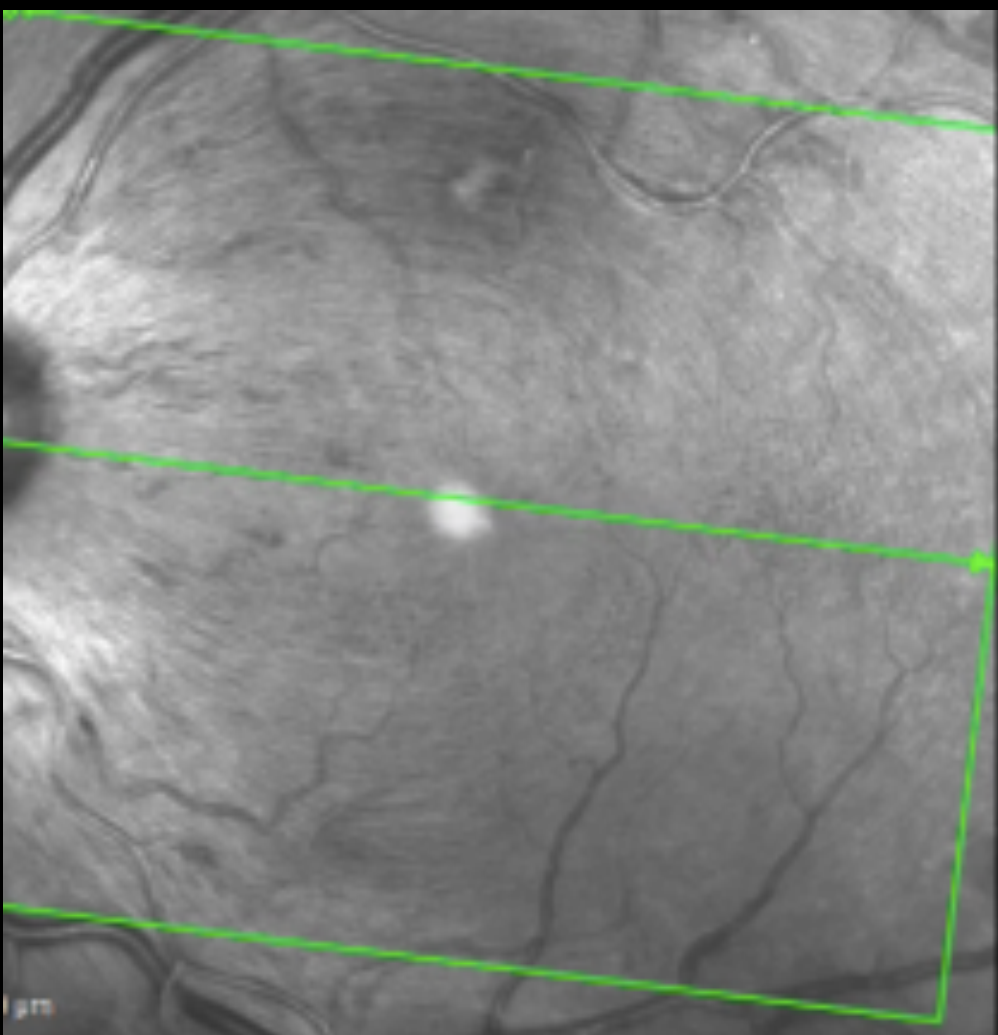
03/05/2019, OS
FA 0.30.95.55° ART(6) [HR]



200 μ m

03/05/2019, OS
FA 8.24.60.55° ART(26) [HR]





Laboratory tests

- ❖ Hemoglobin: **6,5 g/dL** (13,0 -18,0)
- ❖ White blood cells: 3.620 / μ l (3.500 – 11.000)
- ❖ Platelets: 120.000/ μ l (140.000 – 450.000)
- ❖ Renal and hepatic function: normal
- ❖ PCR / HSV: normal
- ❖ Coagulogram: **APPT 1,32** (0,8 – 1,2); **INR 1,41** (0,8 – 1,2)
- ❖ ANA, anti-DNA, RF, ENA: negative
- ❖ Toxoplasmosis IgG + IgM –
- ❖ Syphilis and HIV: NR

Chest X-ray

- ❖ Cardiomegaly
- ❖ Born in Bahia: negative Chagas serology
- ❖ Increased serum viscosity: 6,4 CP (1,4 – 1,8)
- ❖ Dilated cardiomyopathy



Discussed with Hematology

❖ Complementary exams:

Laboratory:

Protein electrophoresis;

Image:

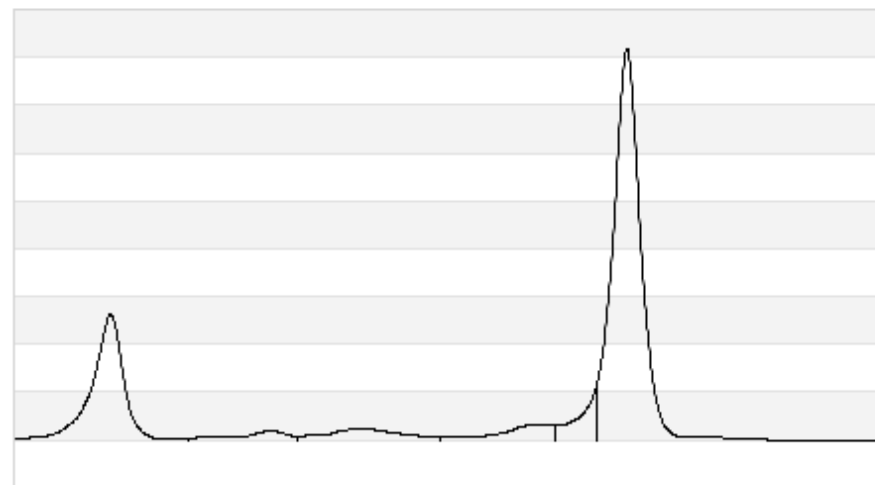
CT of chest, abdomen and pelvis;

ELETROFORESE DE PROTEÍNAS, SANGUE

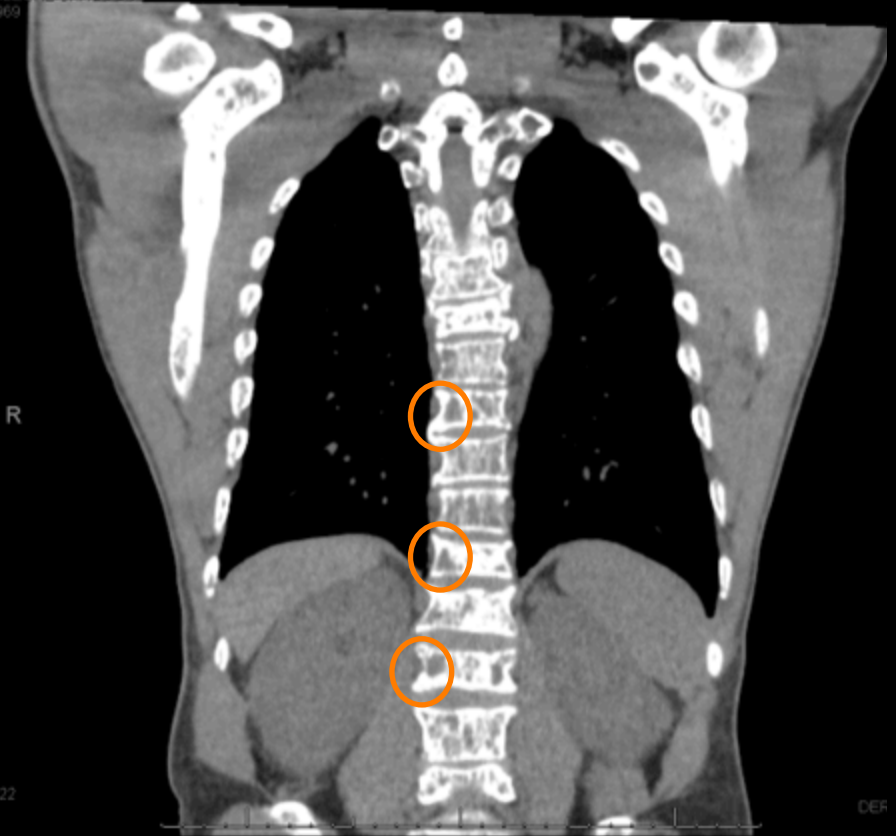
Proteína :	100,0%	12,1 g/dL	6,0 a 8,0 g/dL
Albumina:	22,2%	2,7 g/dL	3,2 a 5,0 g/dL
Alfa-1 :	2,4%	0,3 g/dL	0,1 a 0,3 g/dL
Alfa-2 :	4,7%	0,6 g/dL	0,6 a 1,0 g/dL
Beta-1 :	4,5%	0,5 g/dL	0,4 a 0,7 g/dL
Beta-2 :	5,1%	0,6 g/dL	0,3 a 0,4 g/dL
Gama :	61,2%	7,4 g/dL	0,8 a 1,6 g/dL
Quantificação pico gama:	57,8%	7,0 g/dL	
A/G :		0,30	

Observação:

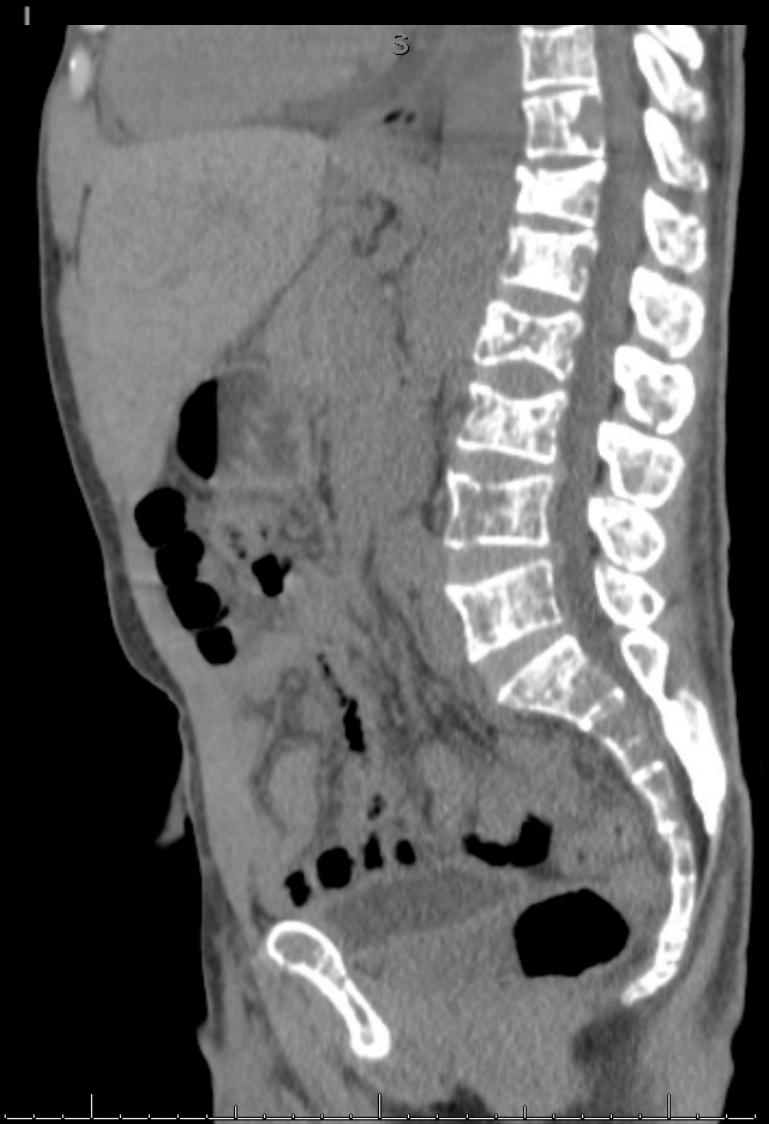
**Presença de componente monoclonal na região de gamaglobulina,
com concentração de 7,0 g/dL,**



Nome: SOUSA, CARLETTI, SANDRINI
Data Nas: 28/03/1969
Sexo: M

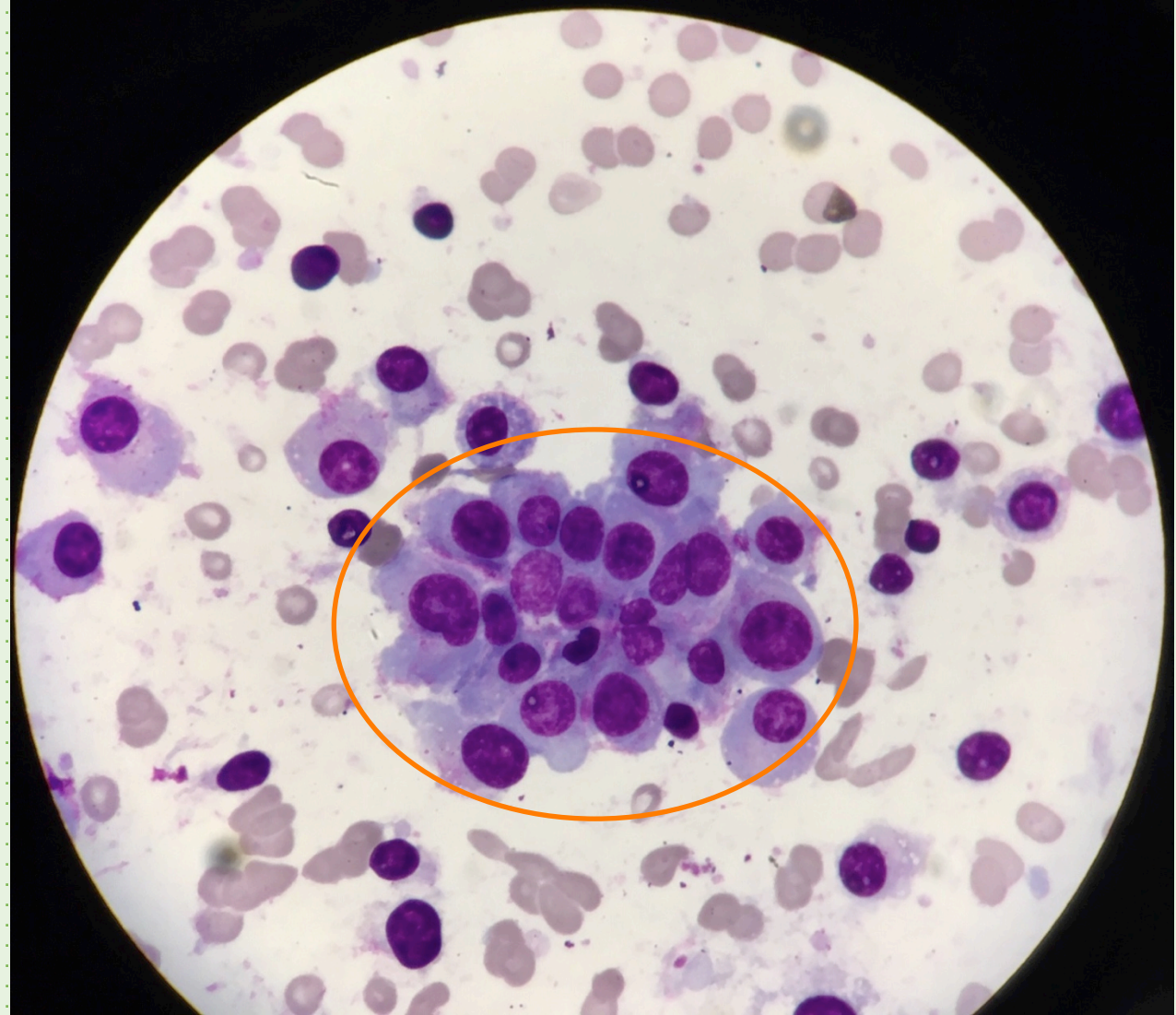


KVP: 120
mA: 308
Slice Location: 68.8722
Series #: 30326
Window: 400/40



Myelogram

❖ 55% infiltration with the plasma cells



Diagnosis

- ❖ Multiple Myeloma IgM/Kappa (ISS II, DS IIB)
- ❖ Hiperviscosity syndrome

Treatment

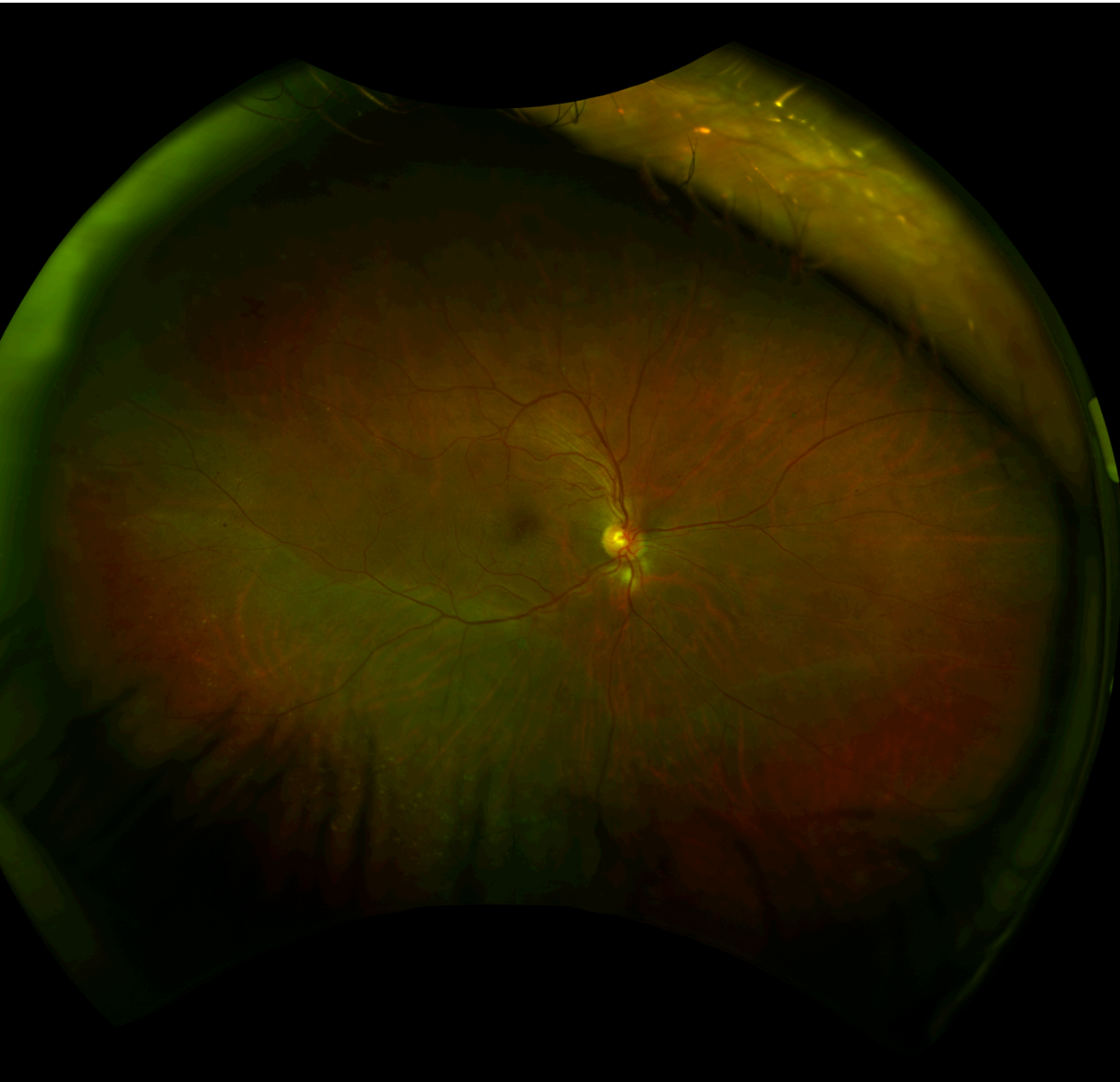
- ❖ 1 session of plasmapheresis
- ❖ Zoledronate
- ❖ VCD protocol: Bortezomib + Cyclophosphamide + Dexametasone

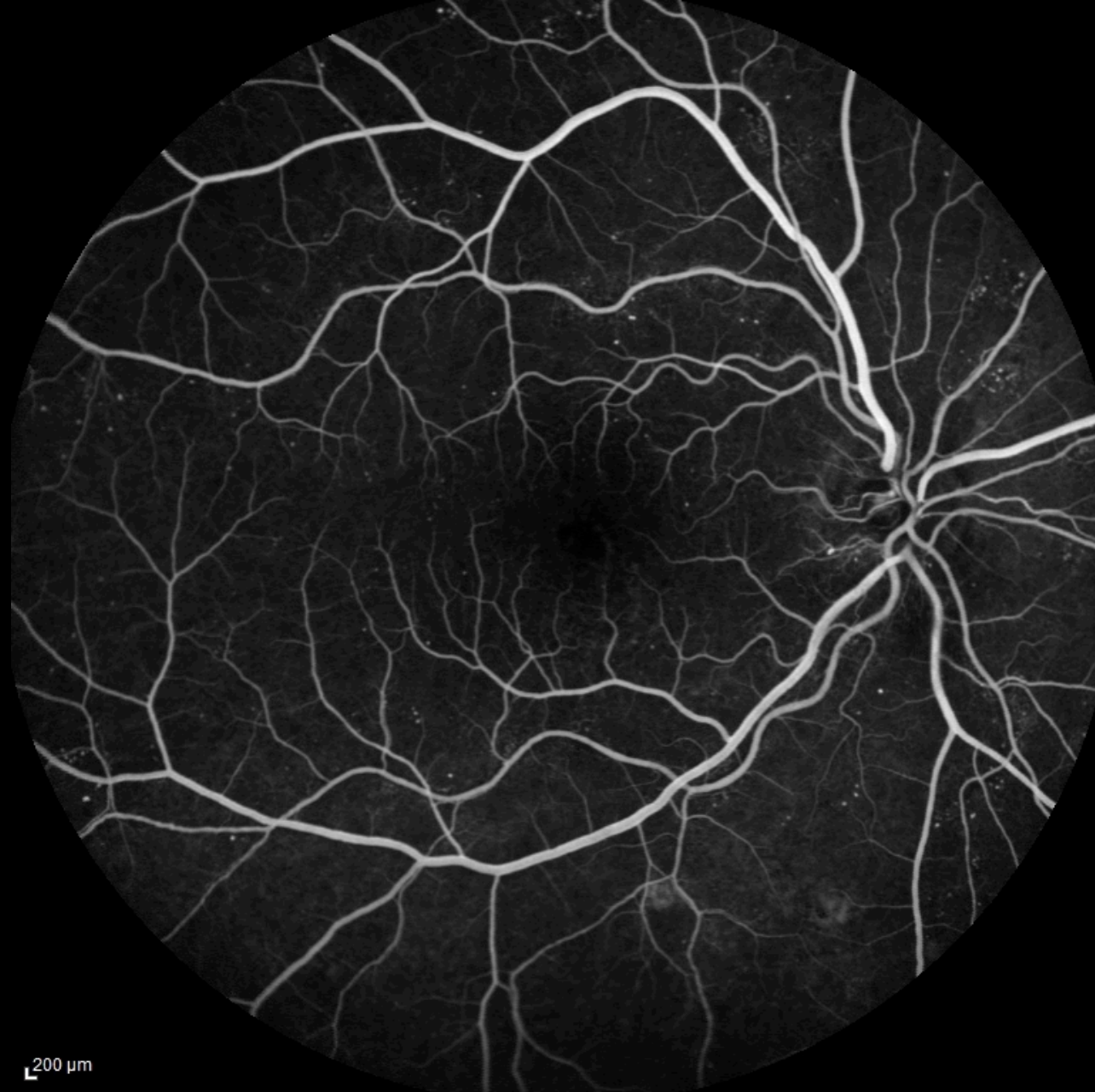
Follow-up of 6 months

❖ VA: 20/32 OD; 20/63 OE

- HD: **Immunogammopathy maculopathy associated with IgM multiple myeloma OU**



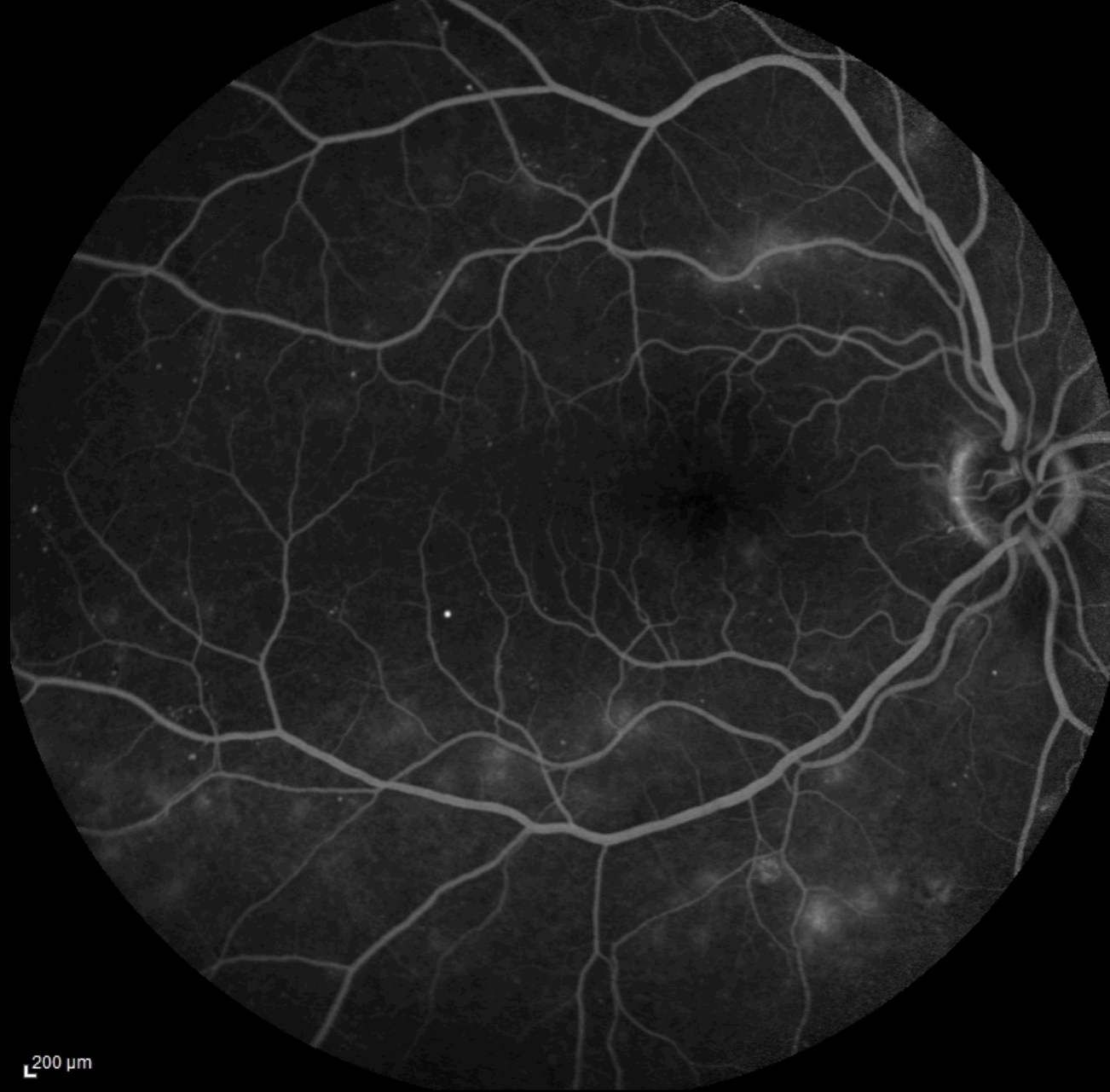




200 μ m

22/01/2020, OD

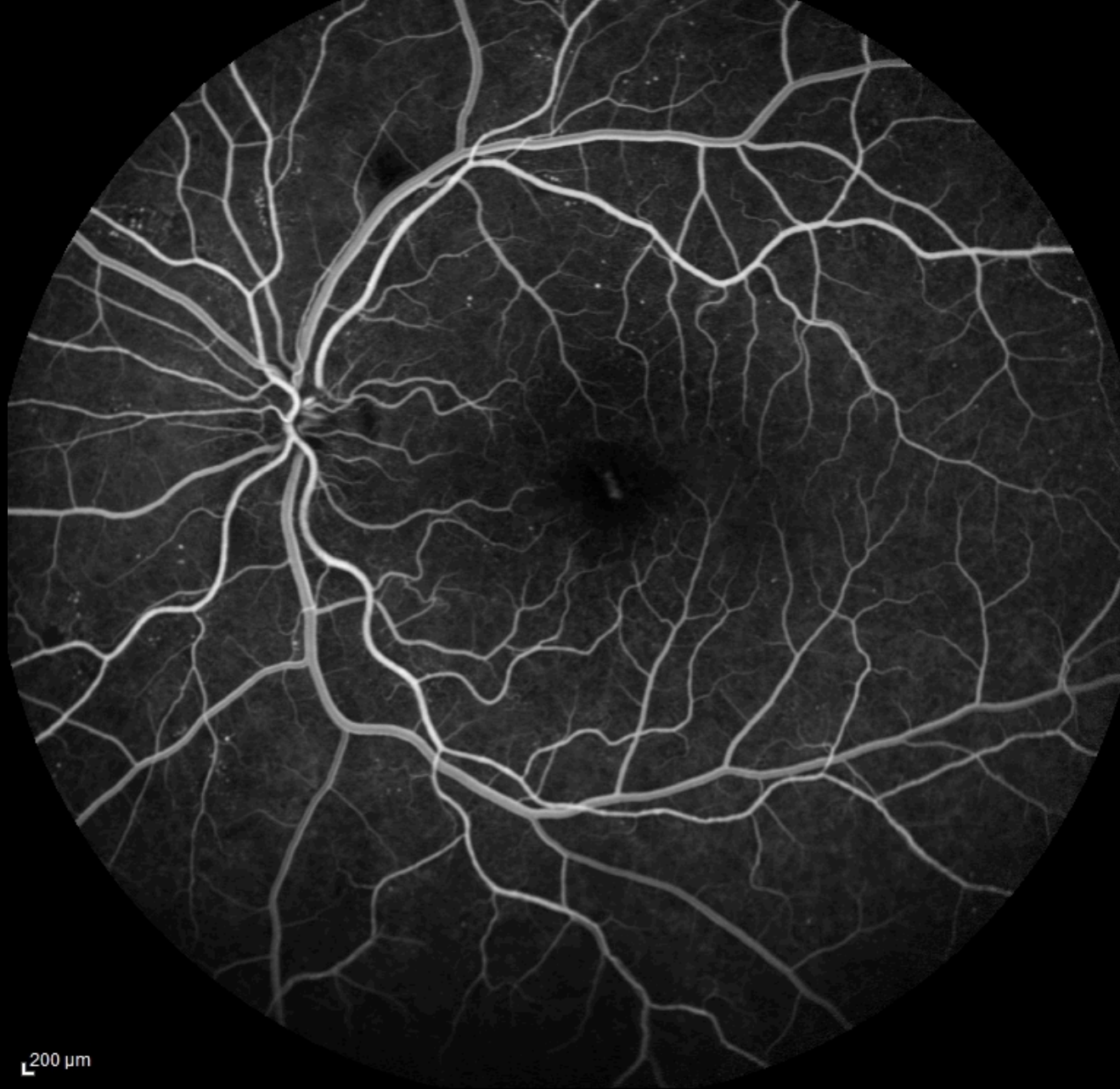
FA 0:52.48 55° ART(10)



200 μ m

22/01/2020, OD

FA 10:59.13 55° ART(11)



200 μ m

22/01/2020, OS

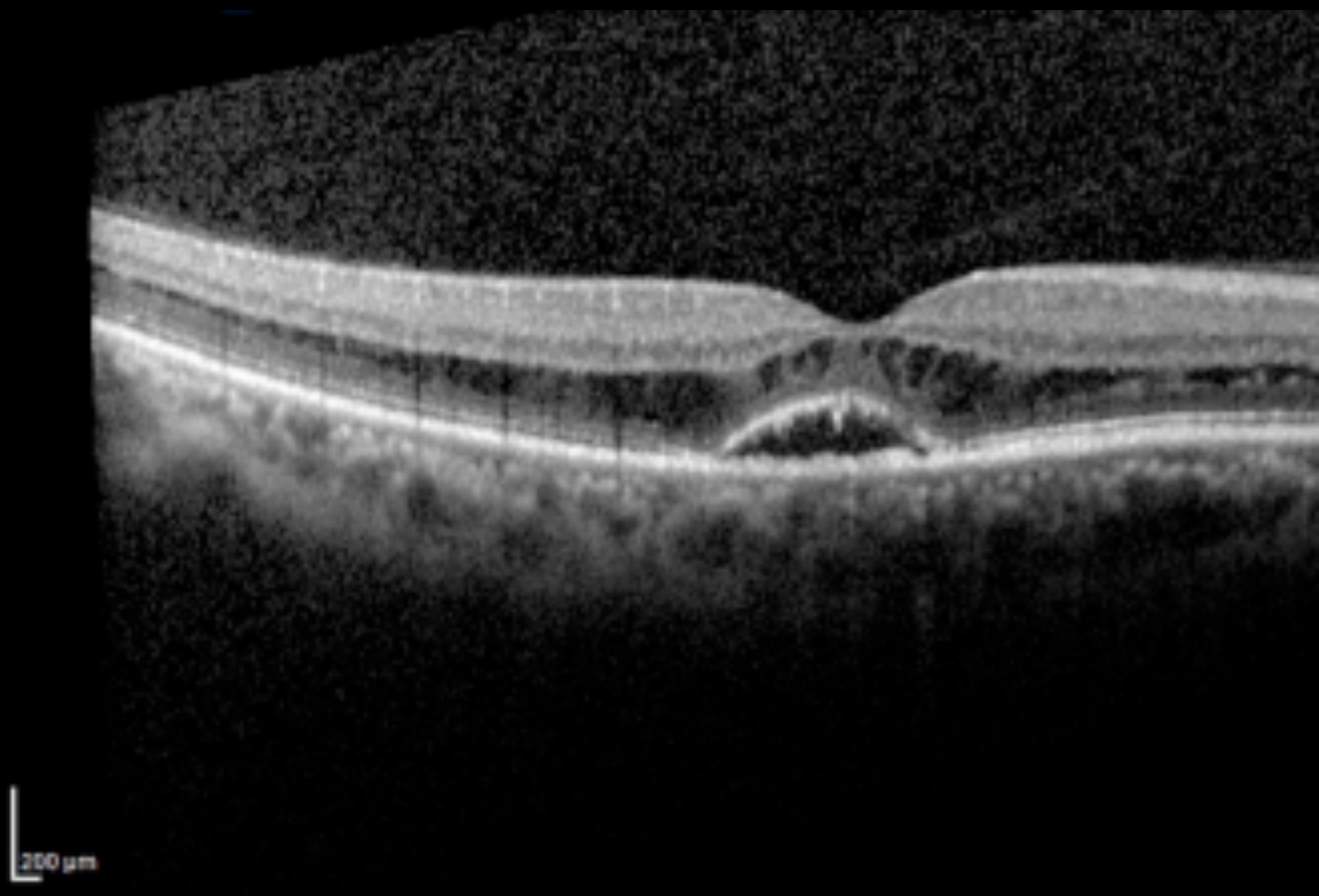
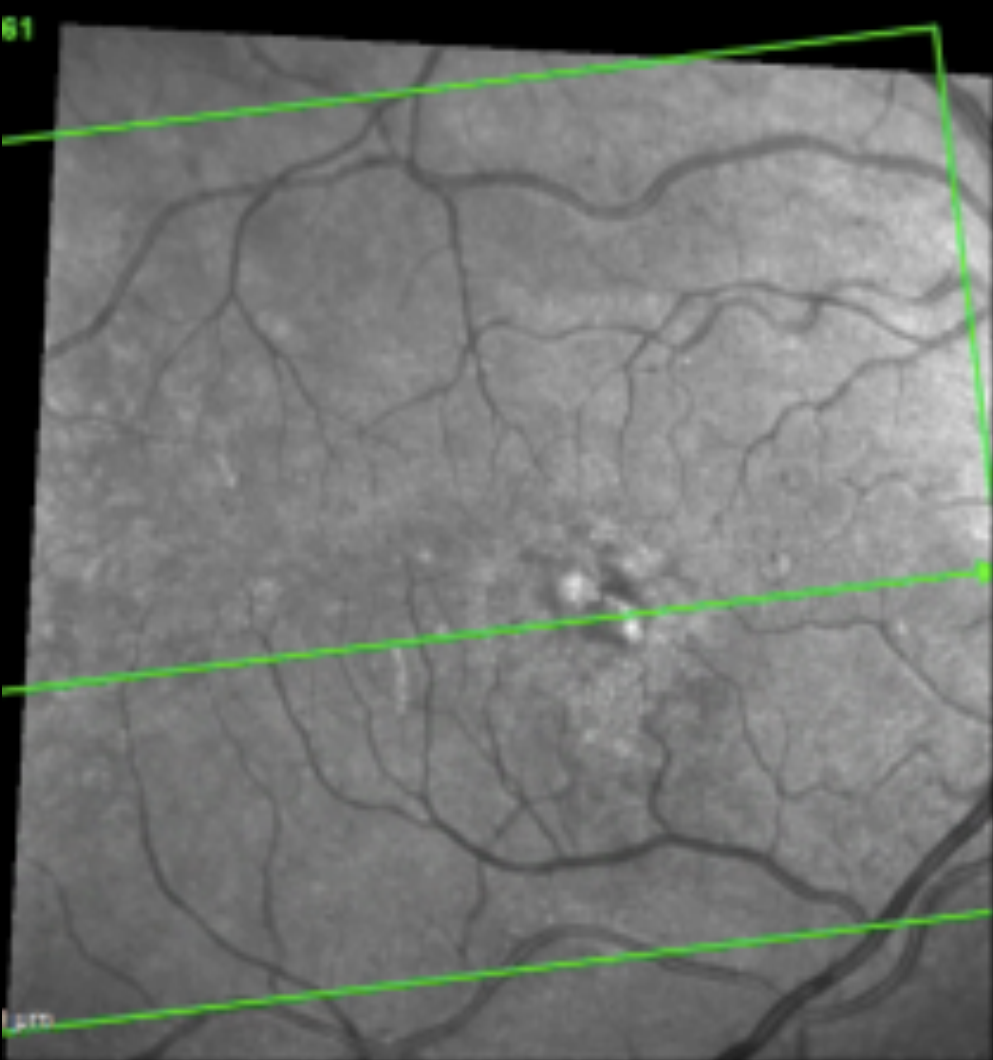
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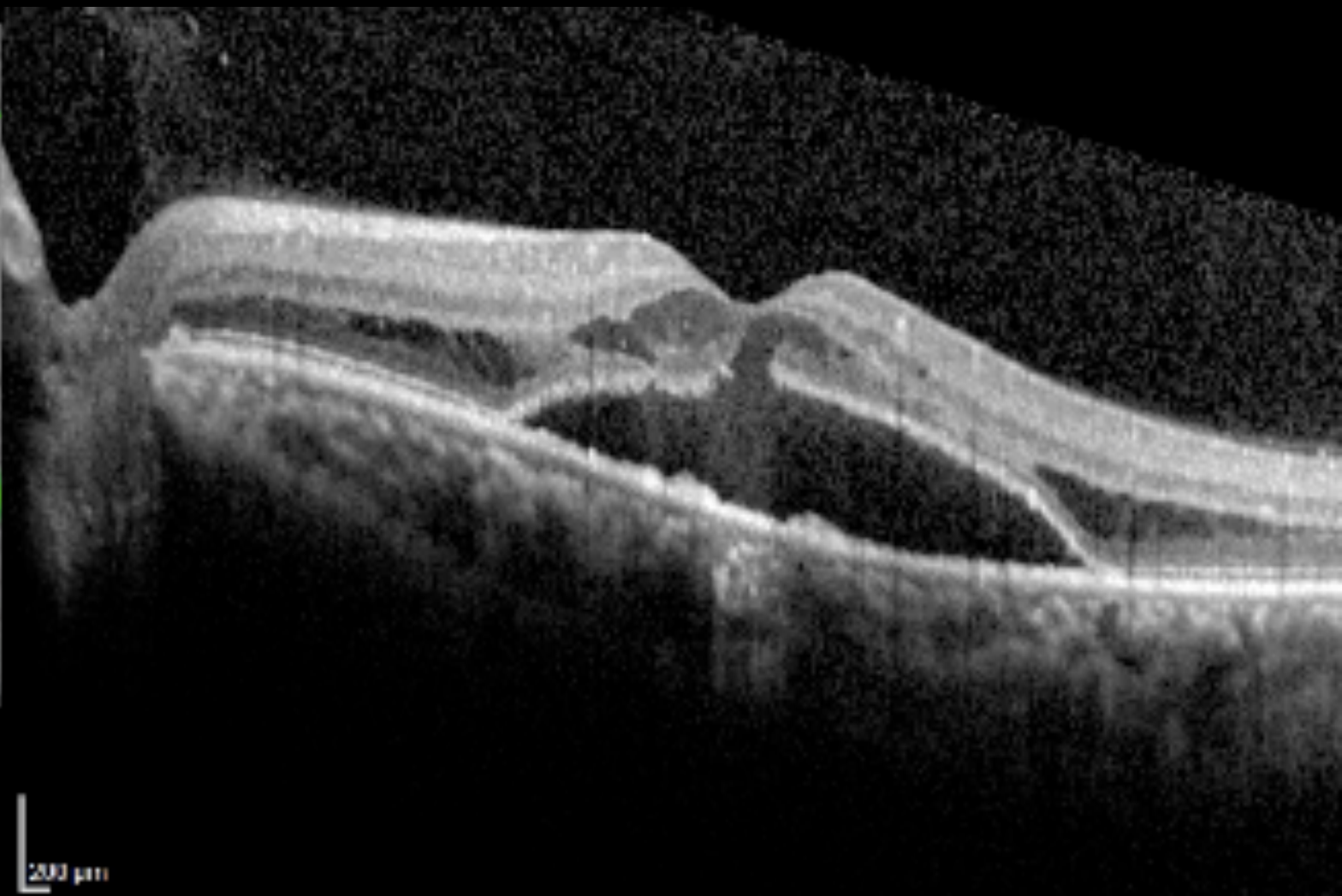
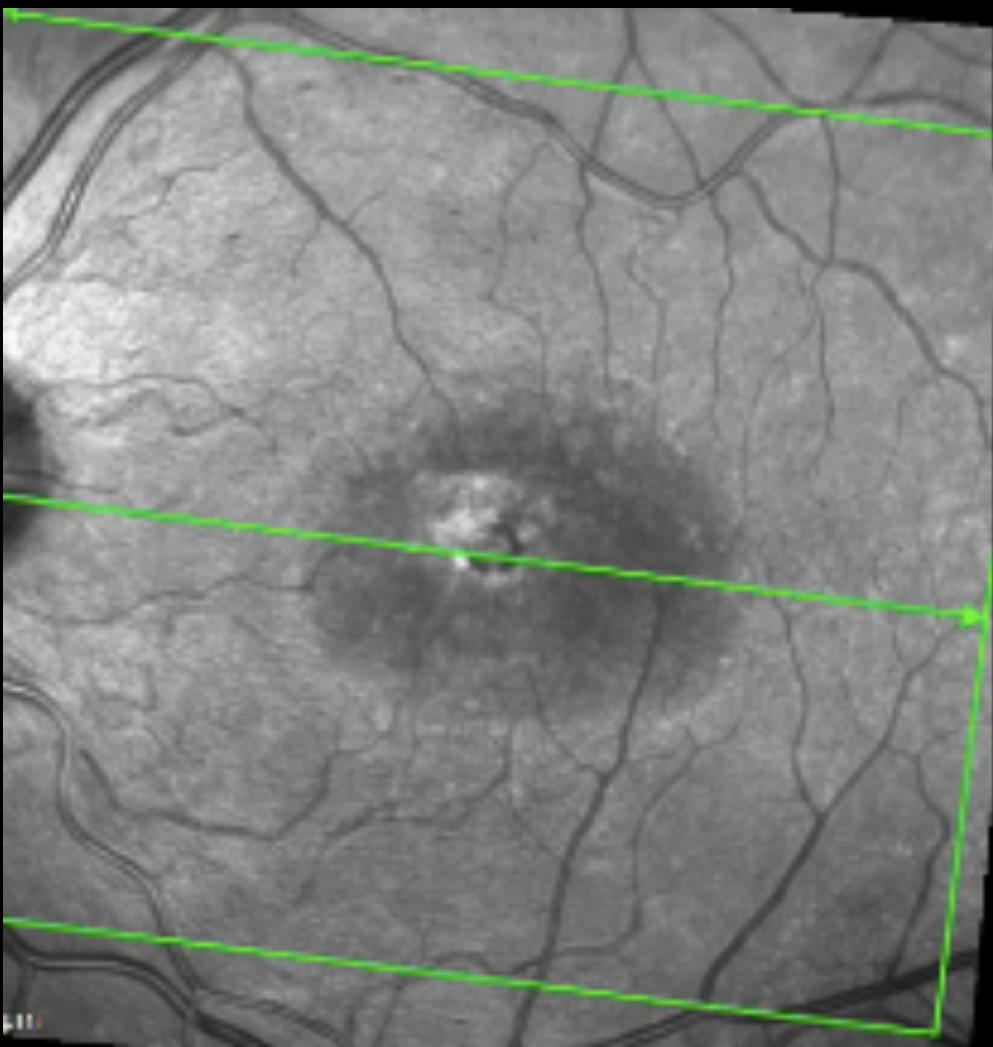


200 μ m

22/01/2020, OS

FA 10:40.50 55° ART(19)



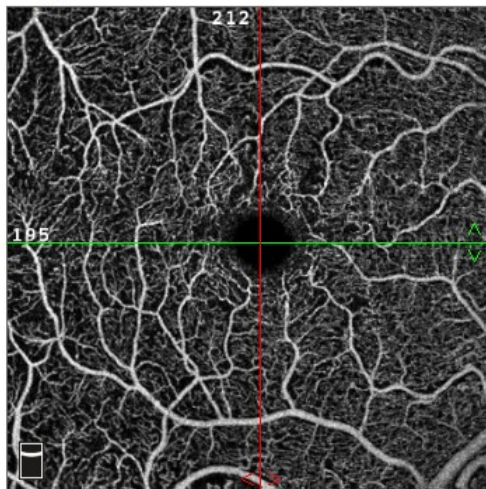


Angio Retina QuickVue

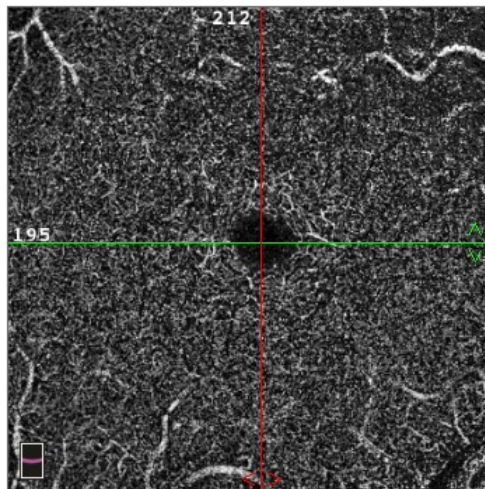
Scan Quality 8/10

6.0 x 6.0 Scan Size (mm)

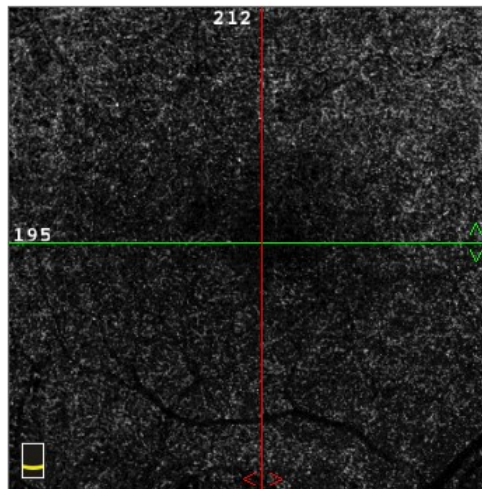
Right / OD



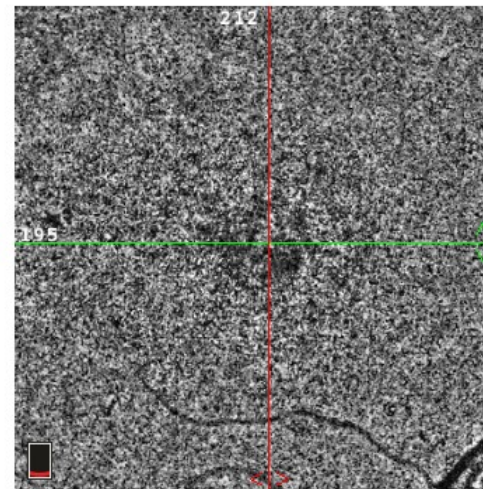
Superficial (ILM - IPL)



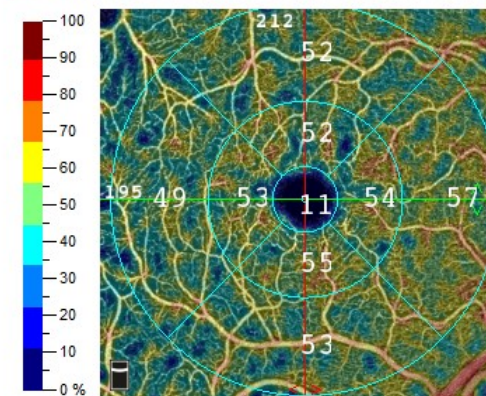
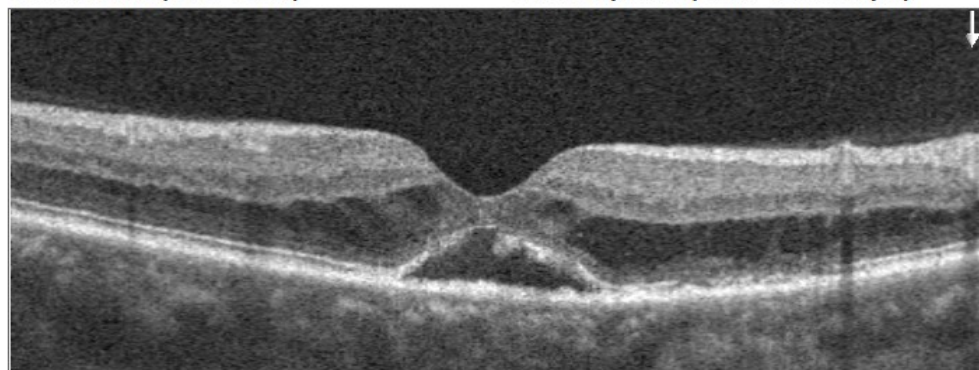
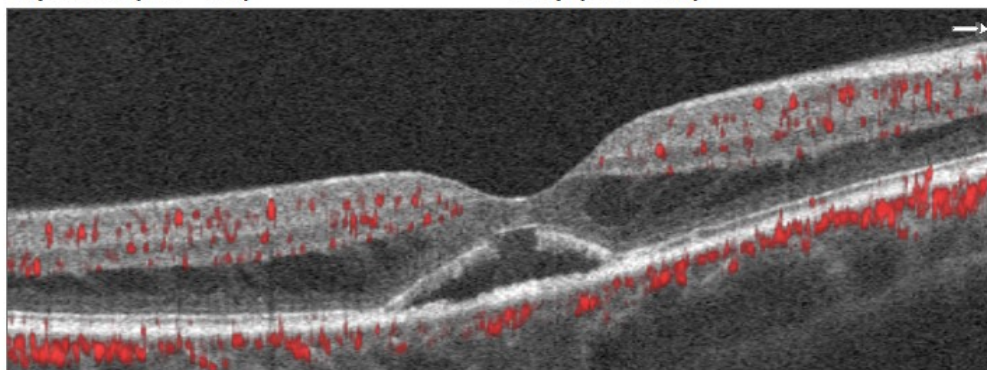
Deep (IPL - OPL)



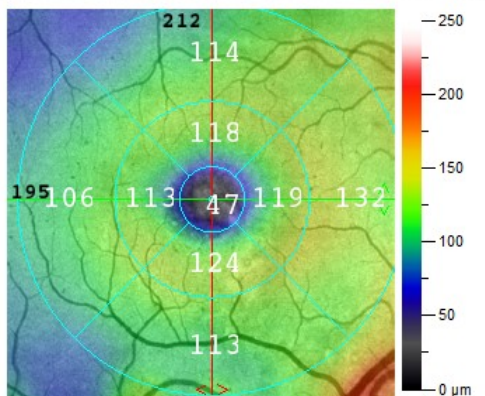
Outer Retina (OPL - BRM)



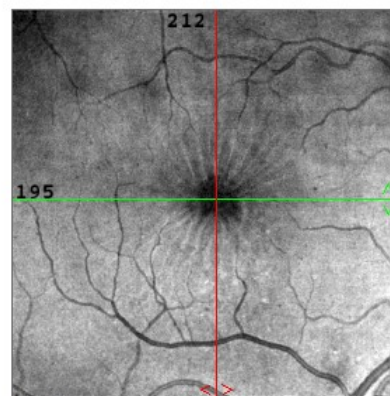
Choriocapillaris (BRM - BRM+30µm)



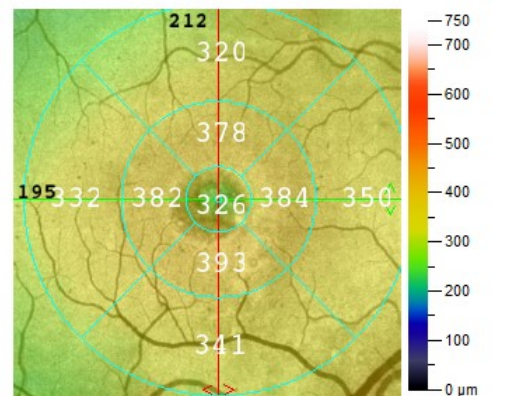
Vessel Density (Superficial)



Inner Thickness (ILM - IPL)



SLO



Full Thickness (ILM - RPE)

- Exit
- Print
- OverVue

Show Lines

Show Bnd

Angio Overlay

Auto Zoom



Thickness

Full

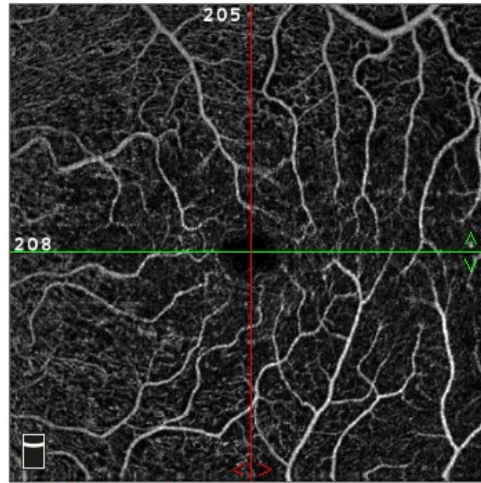
Overlay

Angio Retina QuickVue

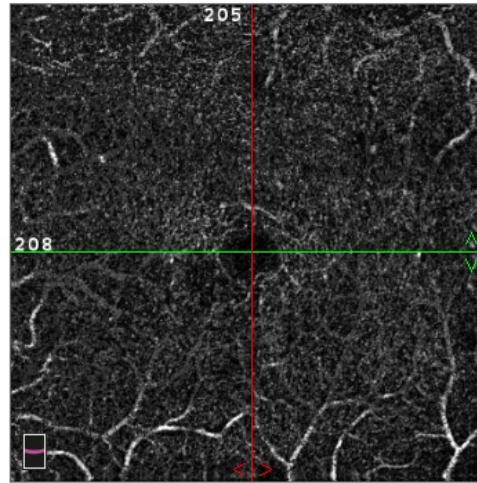
Scan Quality 5/10

6.0 x 6.0 Scan Size (mm)

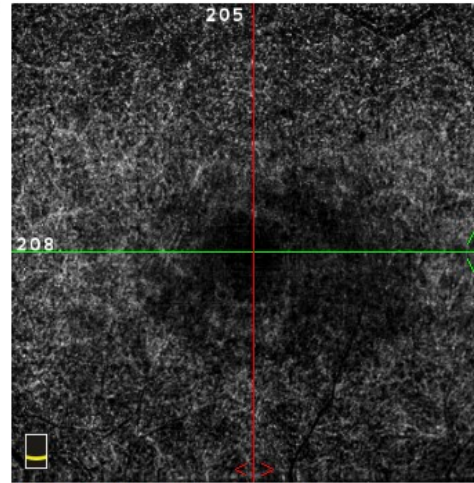
Left / OS



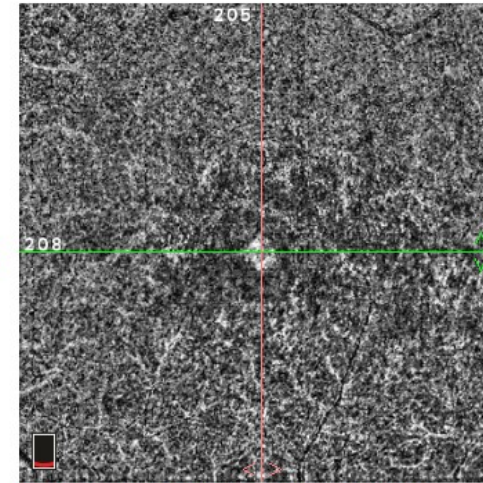
Superficial (ILM - IPL)



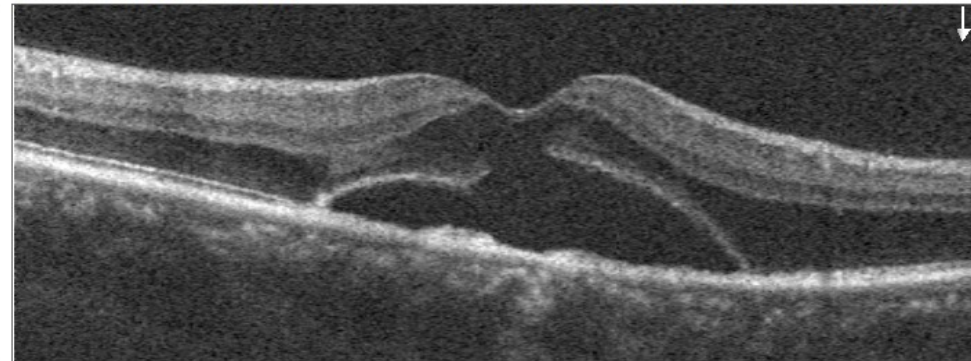
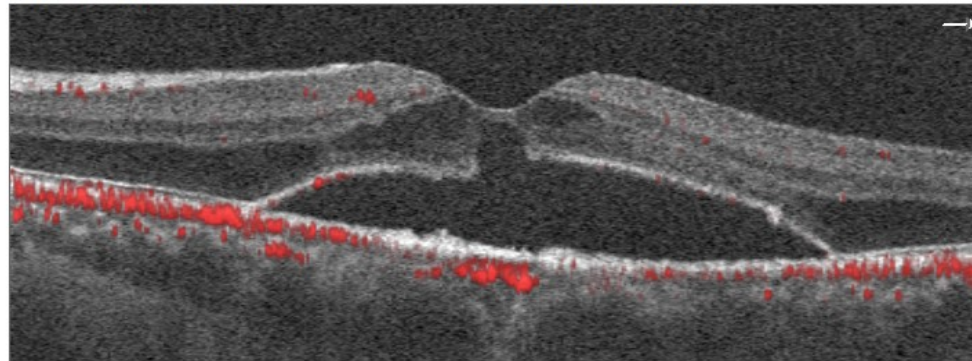
Deep (IPL - OPL)



Outer Retina (OPL - BRM)



Choriocapillaris (BRM - BRM+30µm)



Show Lines

Show Bnd

Angio Overlay

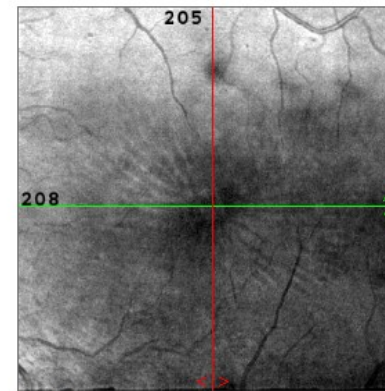
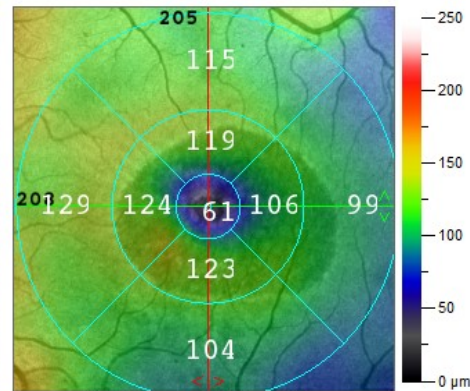
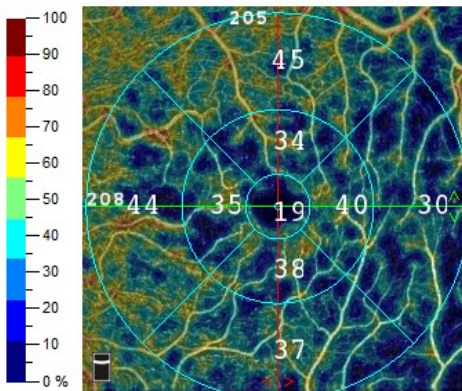
Auto Zoom



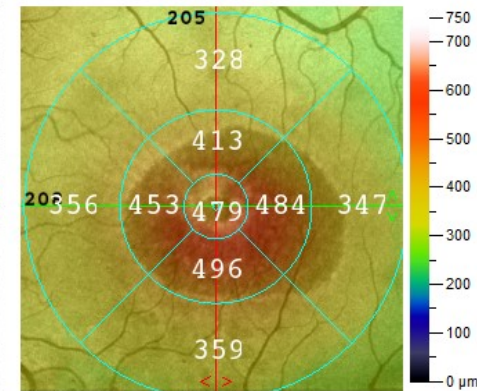
Thickness

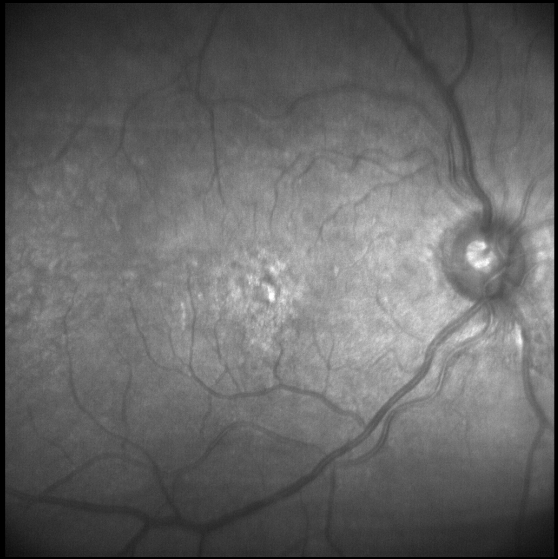
Full

Overlay

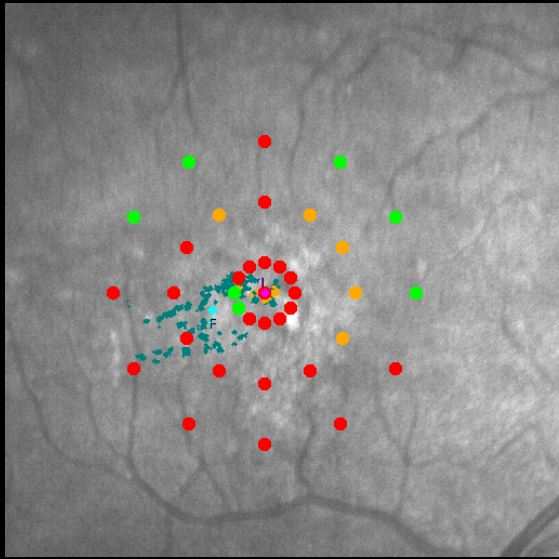


SLO

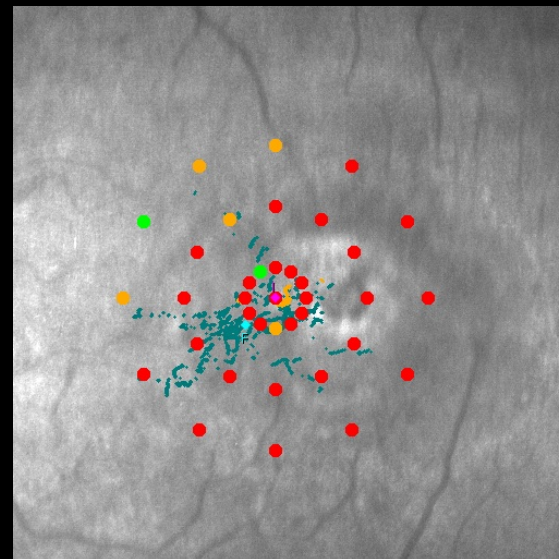




Generated by MAA s/n 0047



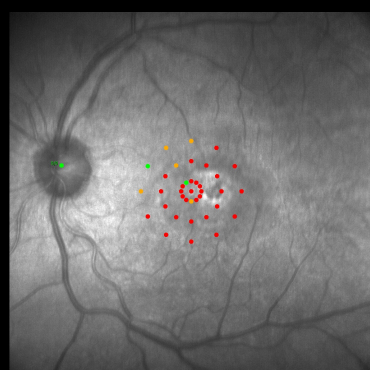
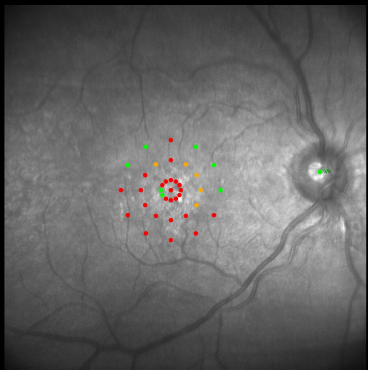
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Macular Integrity



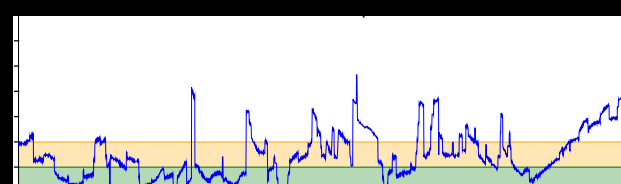
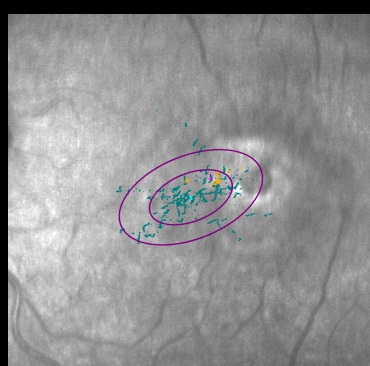
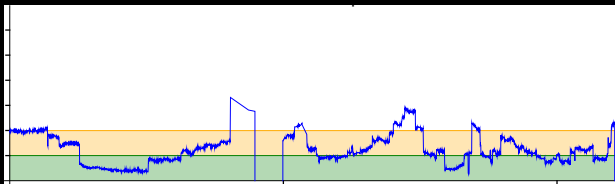
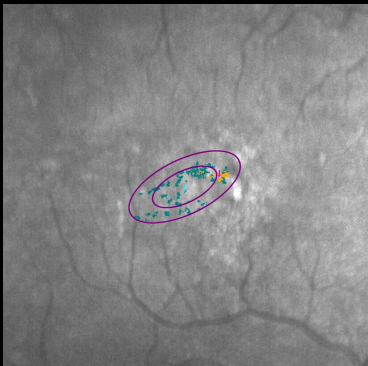
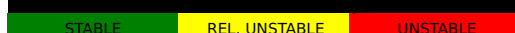
Macular Integrity



Fixation Stability



Fixation Stability



August/19



January/20



August/19

January/20



Management

- ❖ Observation ?
- ❖ Anti-VEGF ?
- ❖ Intravitreal Steroids?
- ❖ Micropulse ?

Thank you!!