Choroidal ischemia as cardinal angiographic sign in temporal arteritis

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Interests conflict

- None

Choroidal ischemia as cardinal angiographic sign in Temporal Arteritis

- Purpose: To describe chorioretinal manifestations of Giant Cell Arteritis.
- Methods: We present a case series 6 cases of temporal arteritis. Patient age ranged from 68 to 79 years. The patients complained of unilateral vision loss, headache, and other systemic manifestations. All patients underwent fluorescein angiography, ESR measurement and temporal artery biopsy.
- Results: All 6 patients had choroidal ischemia on fluorescein angiogram, 5 patients had PAMM lesions in one or both eyes, 5 patients had retinal exudates, 4 patients had anterior ischemic optic neuropathy at initial presentation, and one had central retinal arterial occlusion. The ESR was markedly elevated in 4/6 patients and CPR was elevated in all. Temporal artery biopsy was positive in all patients.
- Conclusion: Choroidal ischemia constitutes a cardinal angiographic sign in the diagnosis of temporal arteritis, besides retinal exudates, PAMM lesions, anterior ischemic optic neuropathy and central retinal artery occlusion.

Purpose

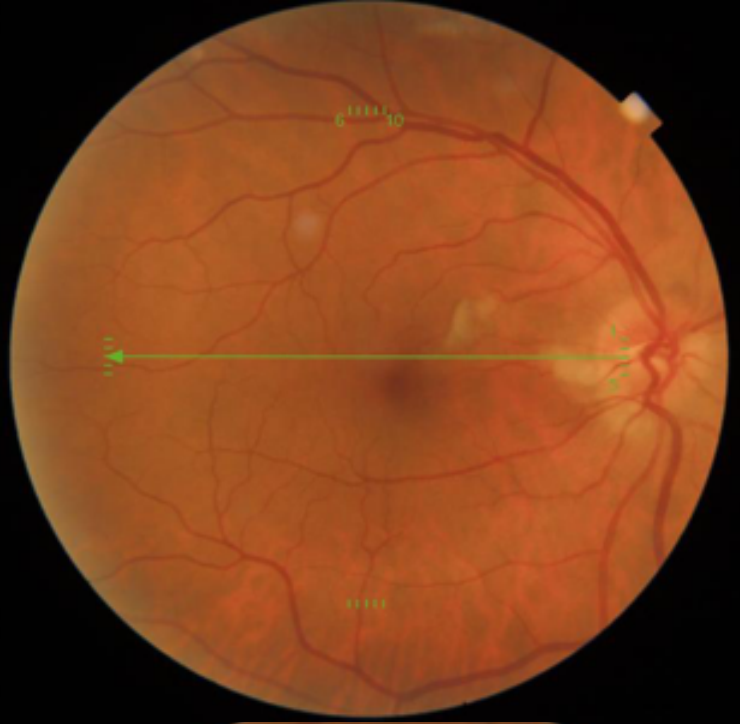
To describe chorioretinal manifestations of Giant cell arteritis.

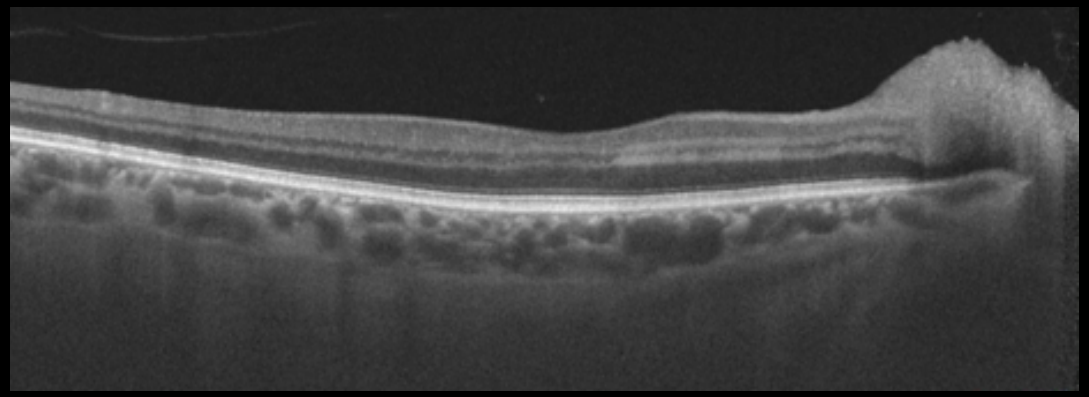
Methods

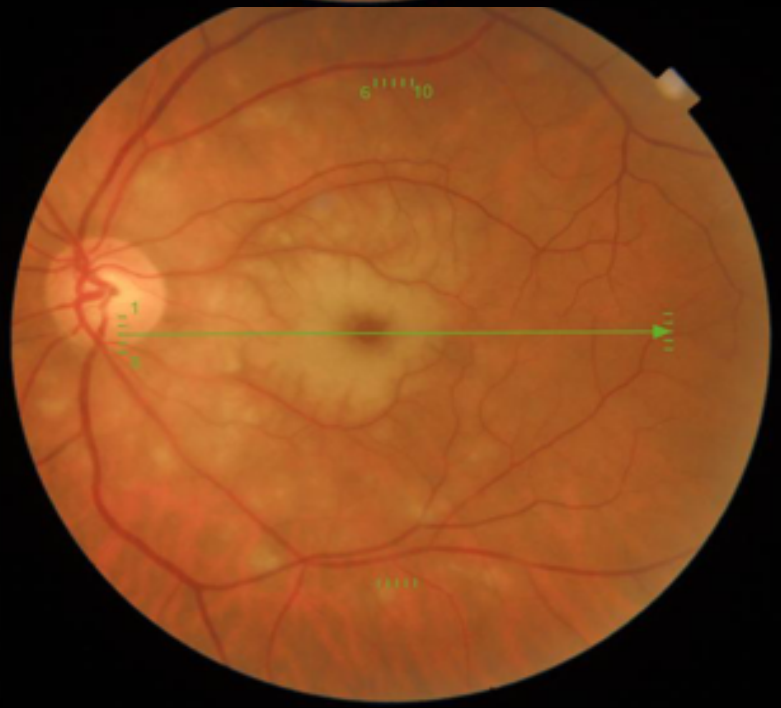
- We present a case series 6 cases of temporal arteritis. Patient age ranged from 68 to 79 years. The patients complained of unilateral vision loss, headache, and other systemic manifestations.
- All patients underwent fluorescein angiography, ESR measurement and temporal artery biopsy.

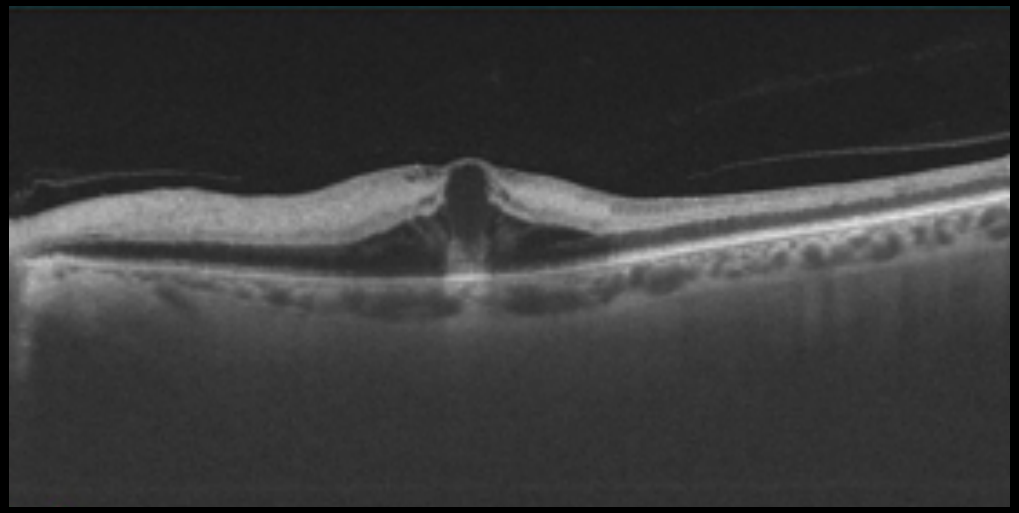
Case 1, 70 y/o, F

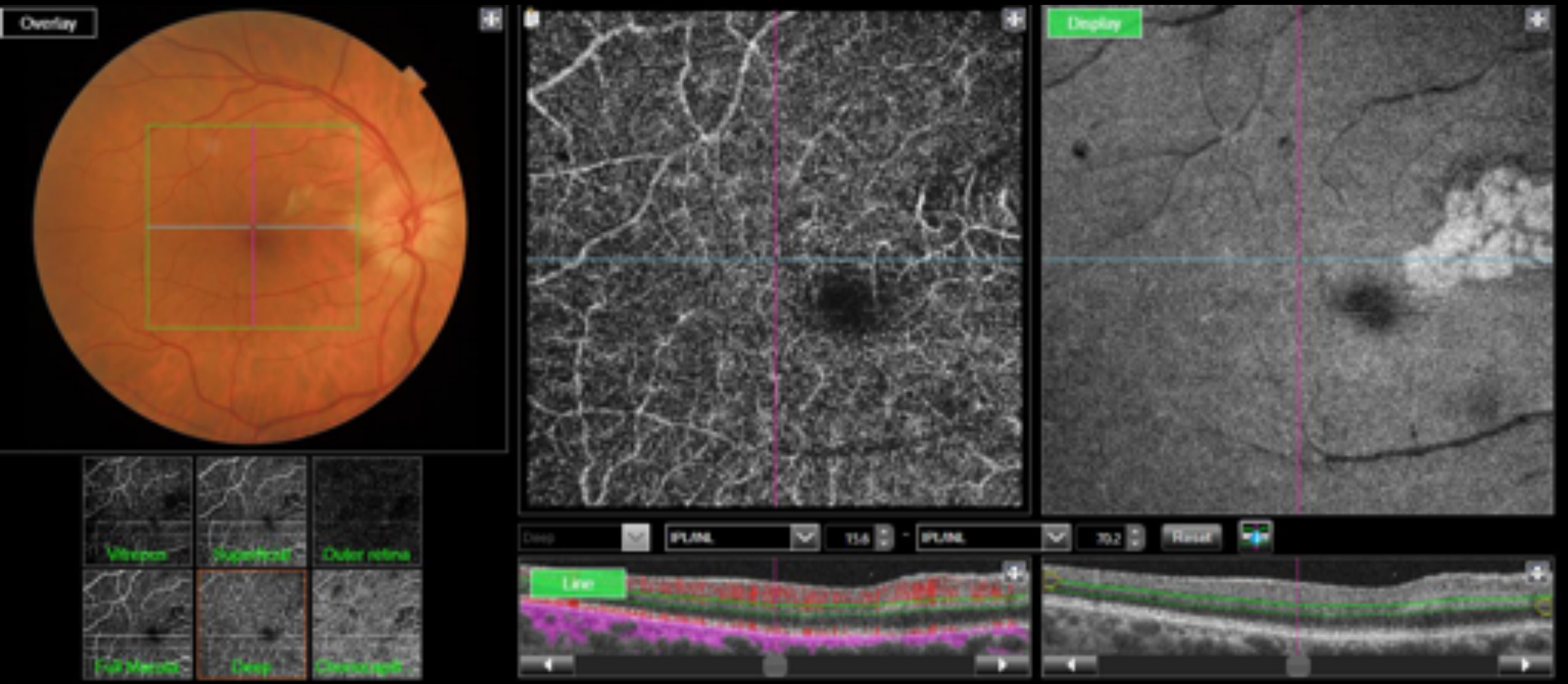
- She presented with visual loss Left Eye 5 days ago. She came for a second opinion, she was told she had an arterial occlusion in the retina and there was nothing to do….. Her visual acuity was RE : 20/20; LE CF. There was afferent pupillary defect in LE. The bio microscopy was unremarkable. On her retinal examination there was some bluring of the optic disc and retinal exsudates on her RE, and arterial occlusion on her LE with a cherry red spot.







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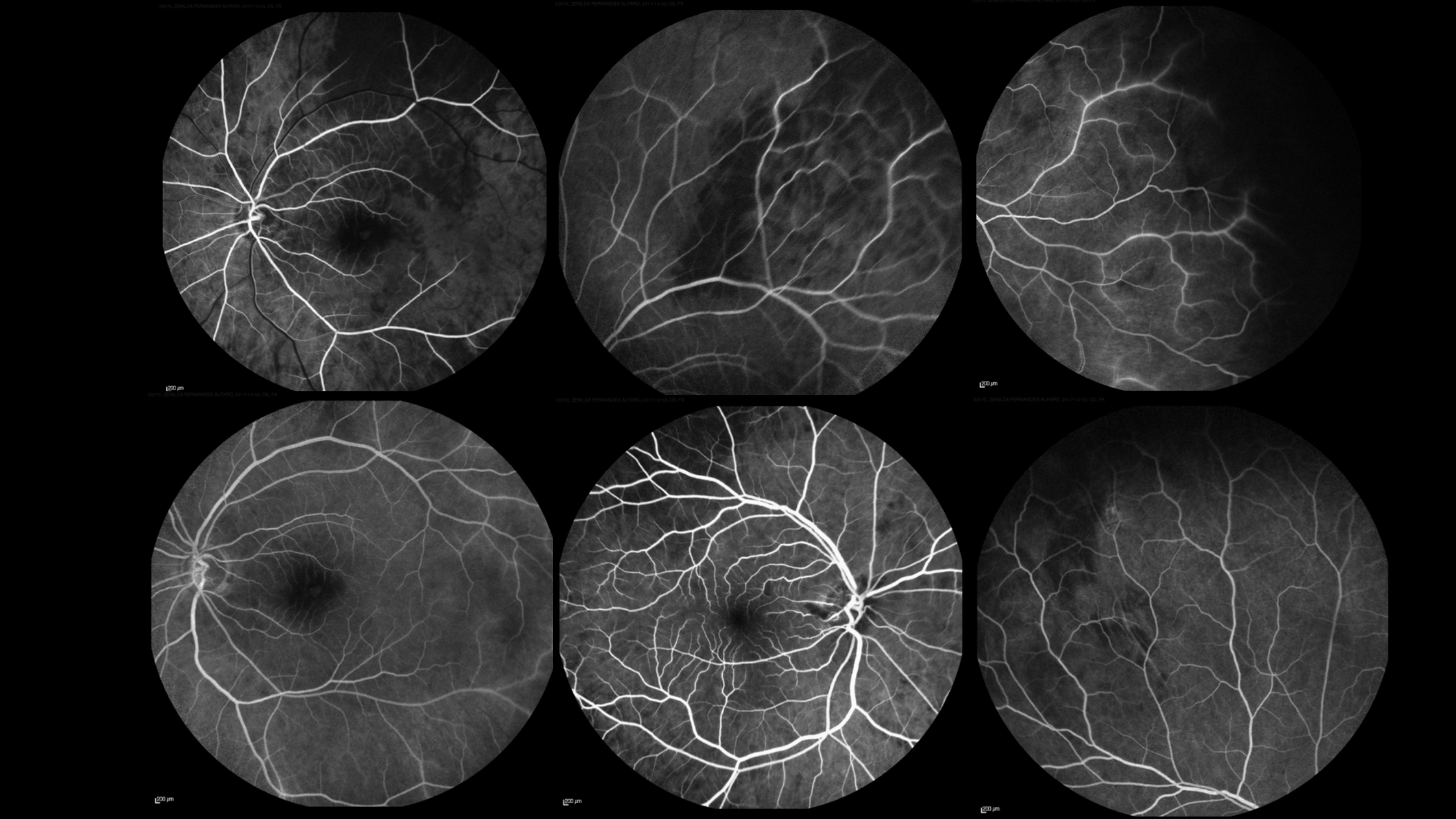
Display
Vitreous
Superficial
Outer retina
Full thickness
Deep
Choriocapill
Deep
IPL/INL
15.6
IPL/INL
30.2
Reset
Line

Systemic signs

- She has trigeminal Pain that was being treated by a neurologist. Also presented with a neck pain and was loosing strength in her left arm. A surgery for her neck was proposed.



Systemic Signs

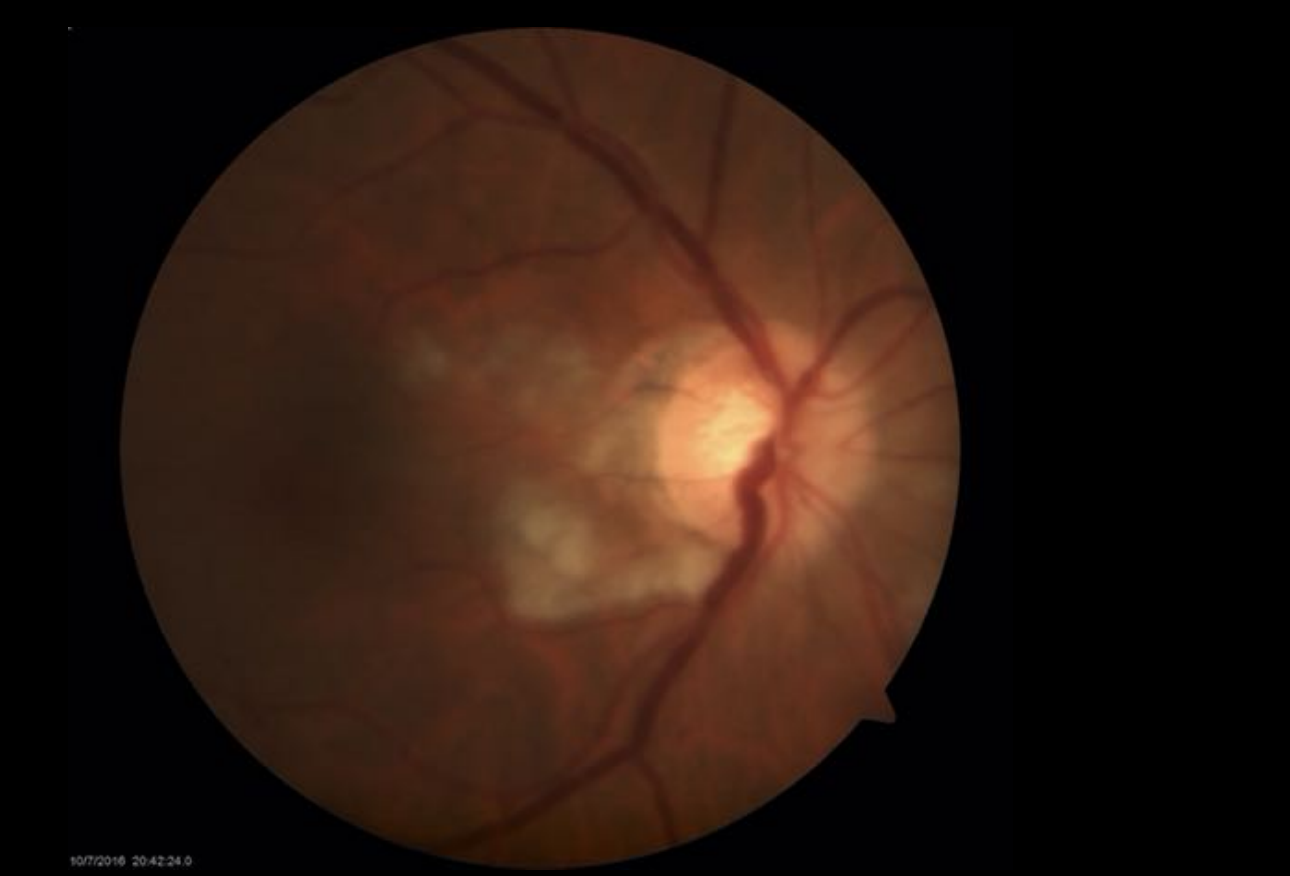
- Losing weigh, 10 pounds(60 pounds).
- Loss of appetite.
- Jaw pain.
- Pain in the muscles of her shoulder.
- Hemoglobin: 11,1 g/dL.
- ESR: 99mm.
- Rheumatoid factor 11,8 IU/mL (<14).
- C-reactive protein test: 6,293 mg/dL (0,5)

Diagnosis: Polymialgia Rheumatica and Giant Cell Arteritis (Temporal Arteritis)

- Arterial occlusion LE, but….
- Right Eye occlusion.
- Posterior ciliary artery occlusion.
- Amalric’s sign.
- She was pulsed.
- Visual acuity improved: RE 20/20; LE 20/200.
- She gained weight.
- She has no longer any pain!!!!

Case 2, 82 y/o, F

- An 82-years-old caucasian woman referrred sudden bilateral visual. On emergency examination her visual acuity was counting finger in the right eye (OD) and 20/80 in the left eye (OS). She noticed that vision became dark in both eyes (OU) but a few hours later she noticed gradual improvement OU although significant loss persisted in OD. She denied headache but did refer excruciating pain and jaw claudication that was attributed to a possible root canal problem for which she visited her dentist several over the last three months when she also had general malaise and significant weight loss (11 pounds). She had a history of cataract surgery in OU 5 years previously when she was prescribed latanoprost eye drops with a diagnosis of chronic open angle glaucoma, but had previous good visual acuity and only mild visual field defects.
- Slit lamp examination revealed previous cataract surgery in good conditions. Intraocular pressure was 12 mmHg OD and 14 mmHg OS. Extraocular motility was full and the pupils were reactive with a ++ relative afferent defect in OD.
- FUNDUS EXAMINATION SHOWED .....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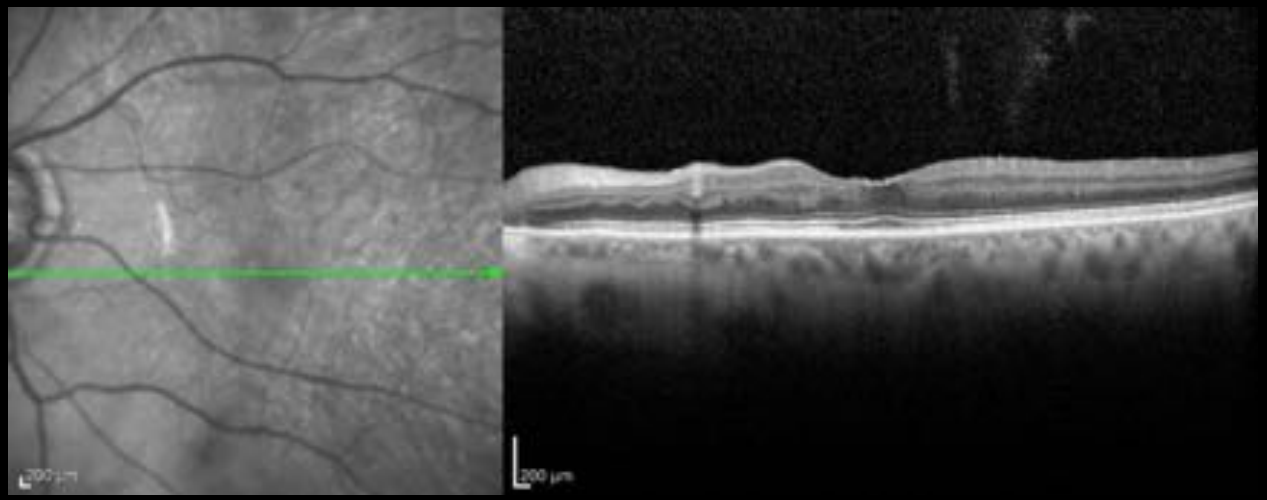
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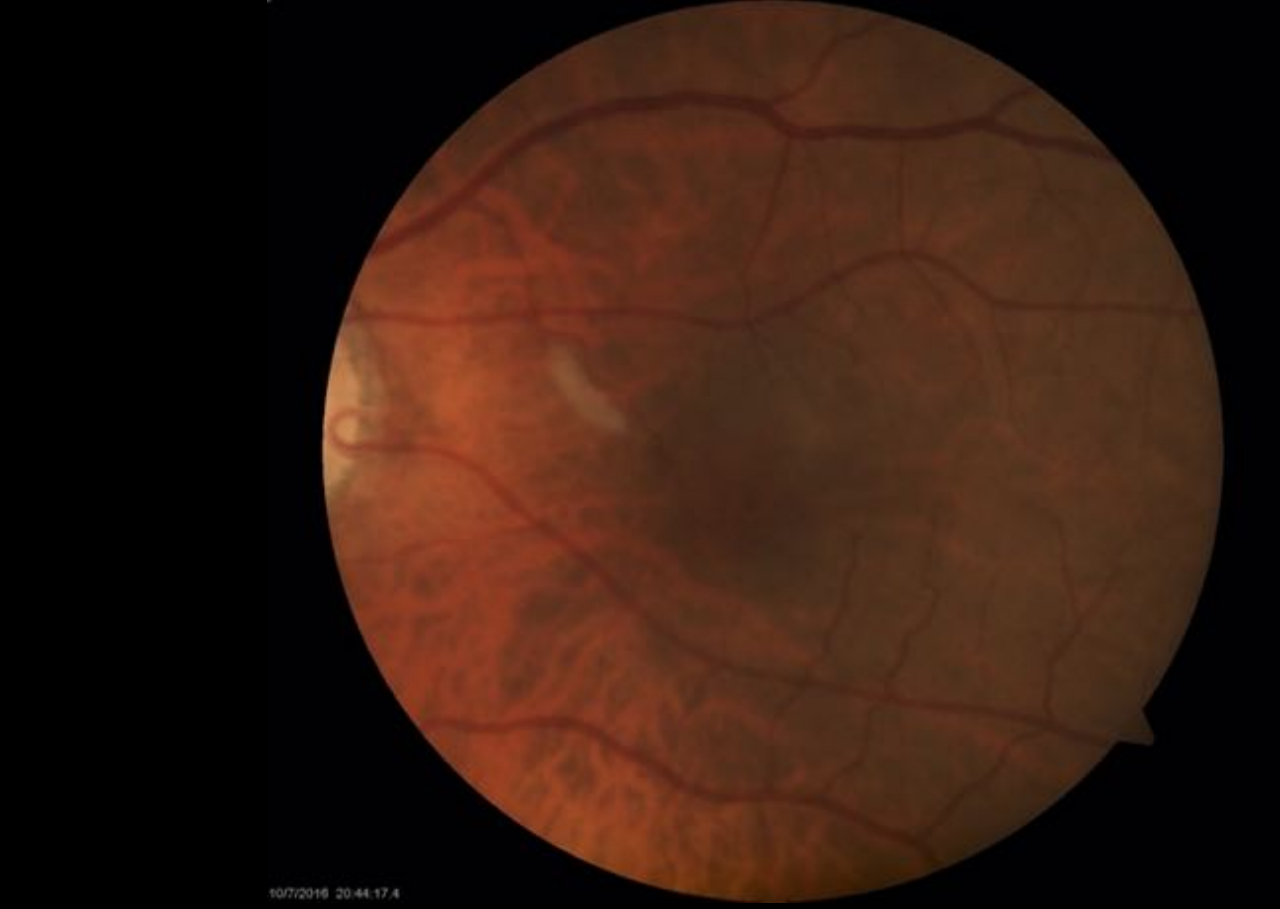
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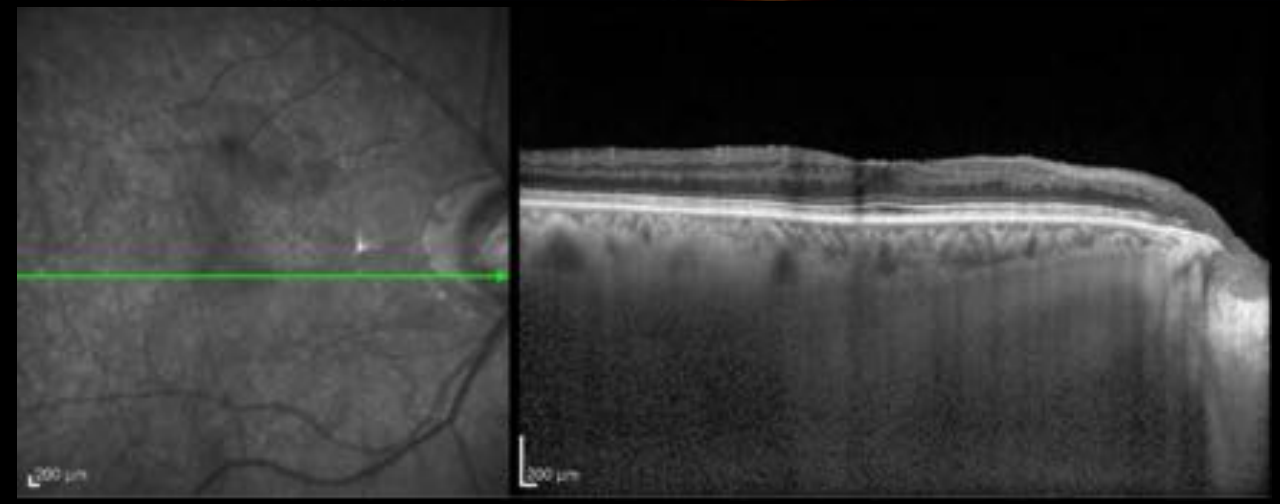
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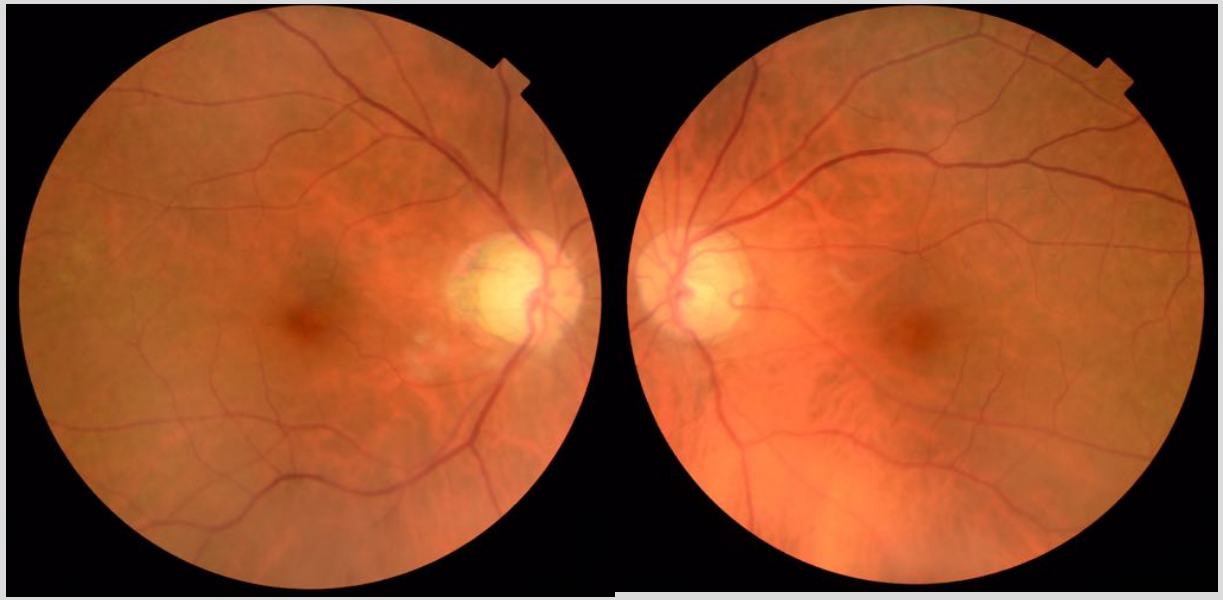
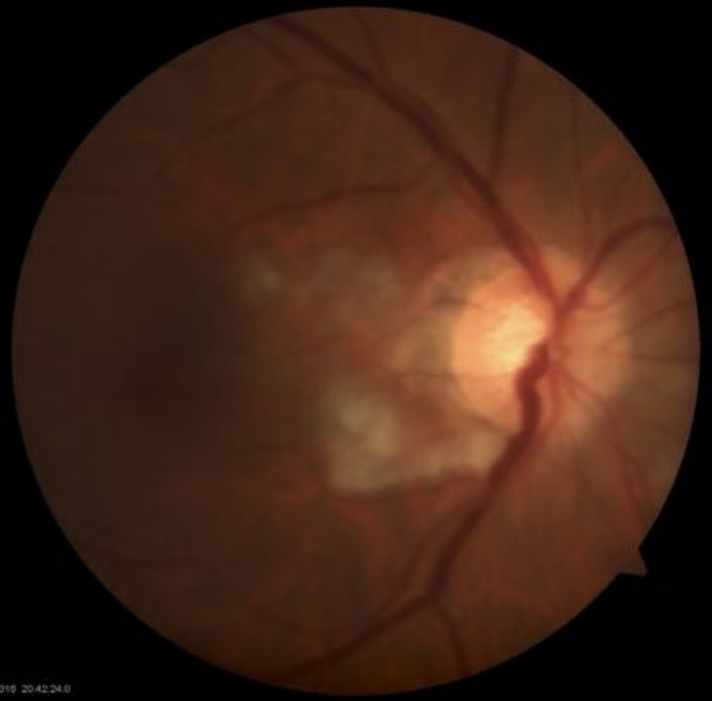
Case 2

- Two weeks later she was referred for a second opinion. Visual acuity was then 20/70 in OD and 20/25 in OS. Erytrocyte sedmentation rate was 74 mm and C reactive protein 2.47 mg/dL. A magnetic resonance imaging of the brain and orbits was unremarkable
- Fundus examination showed significant improvement when compared to 2 weeks previous

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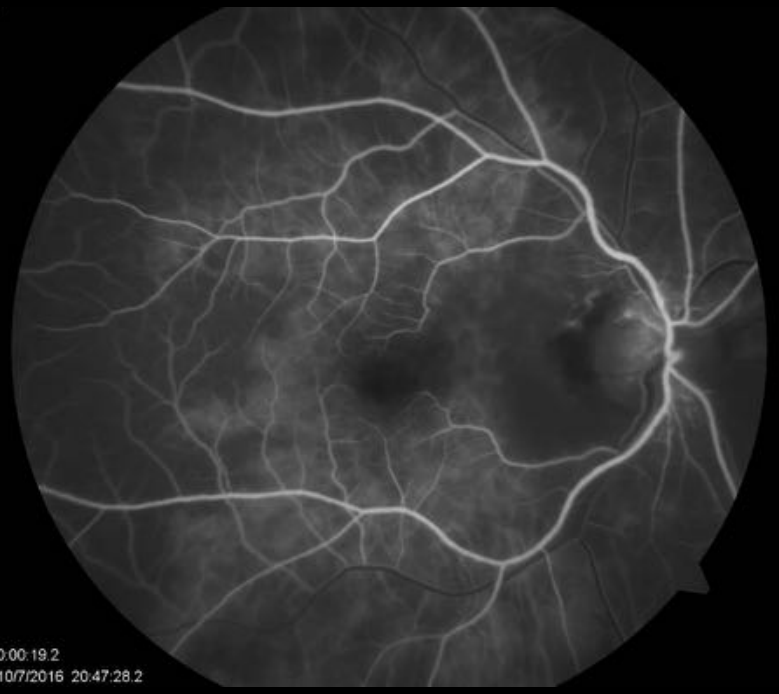
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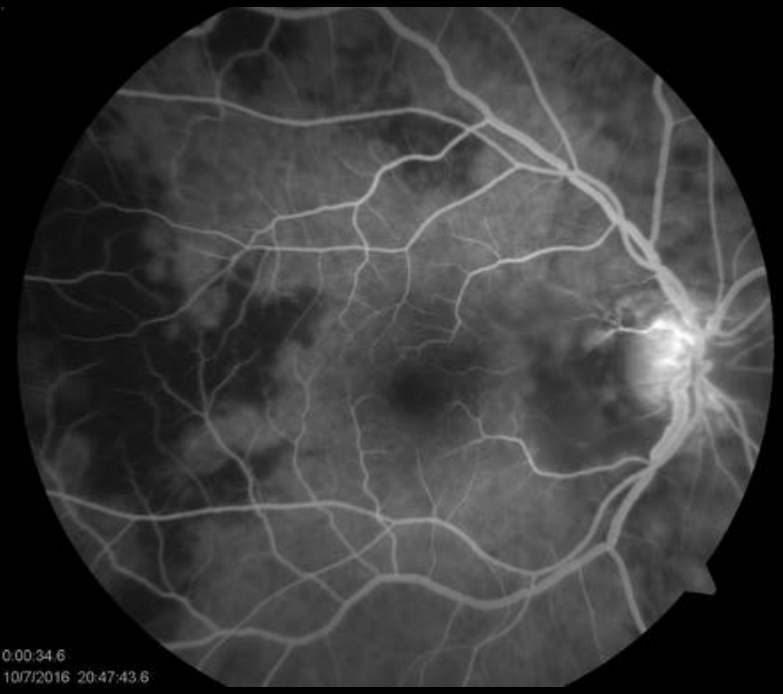
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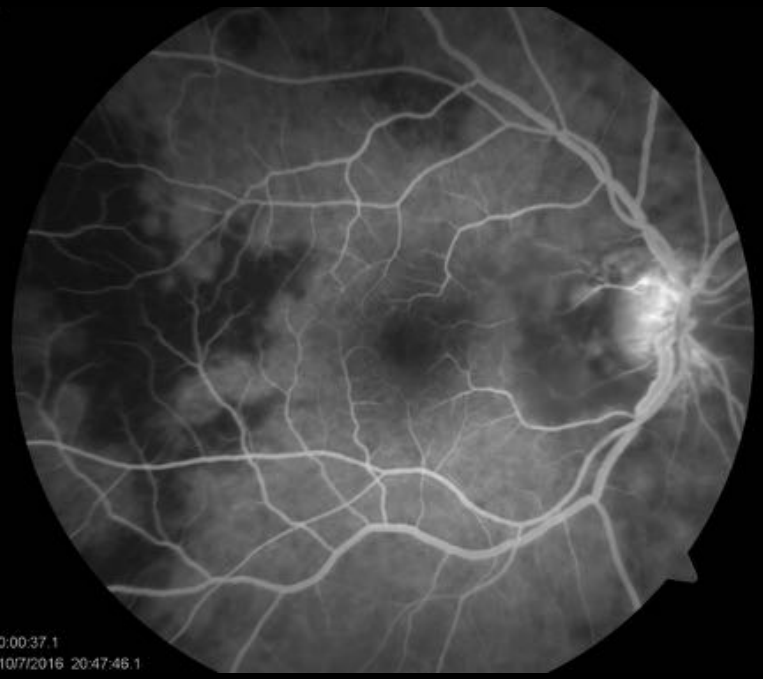
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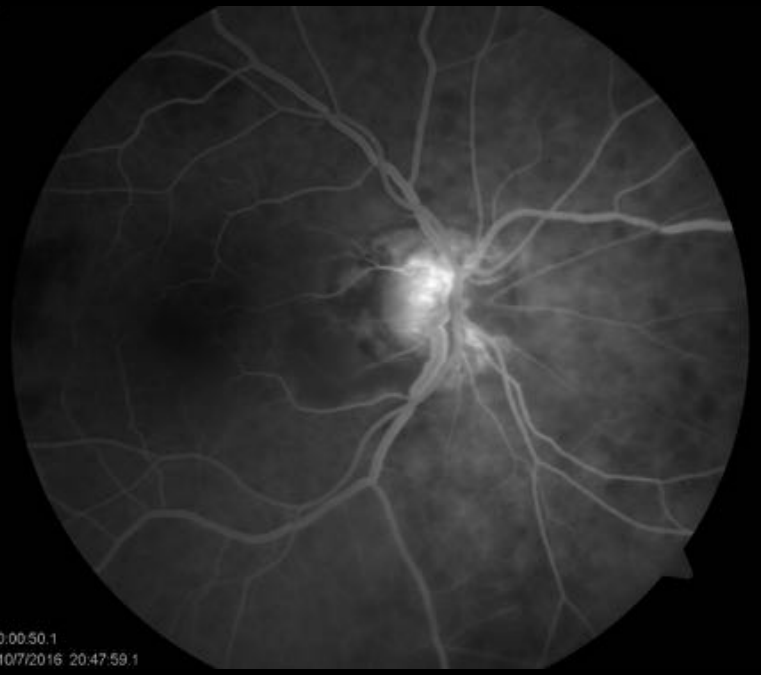
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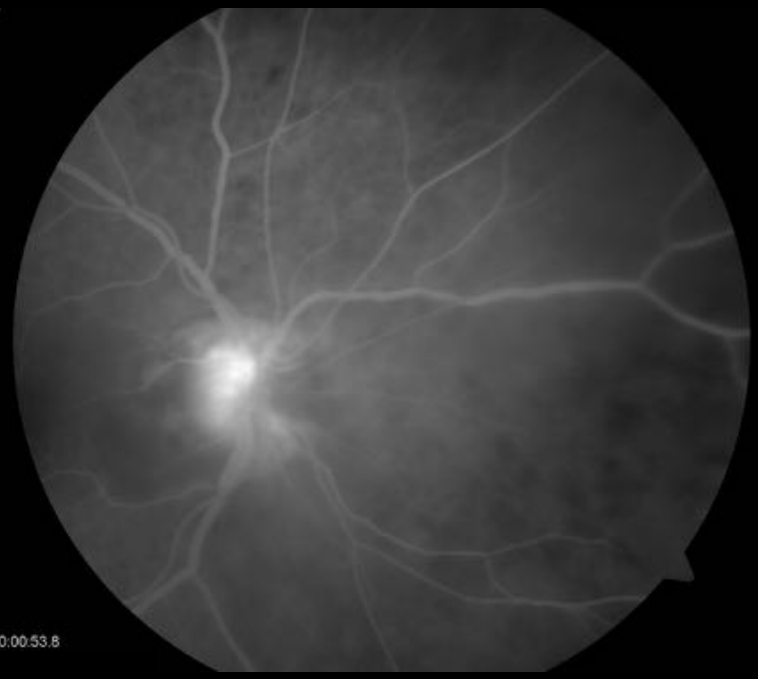
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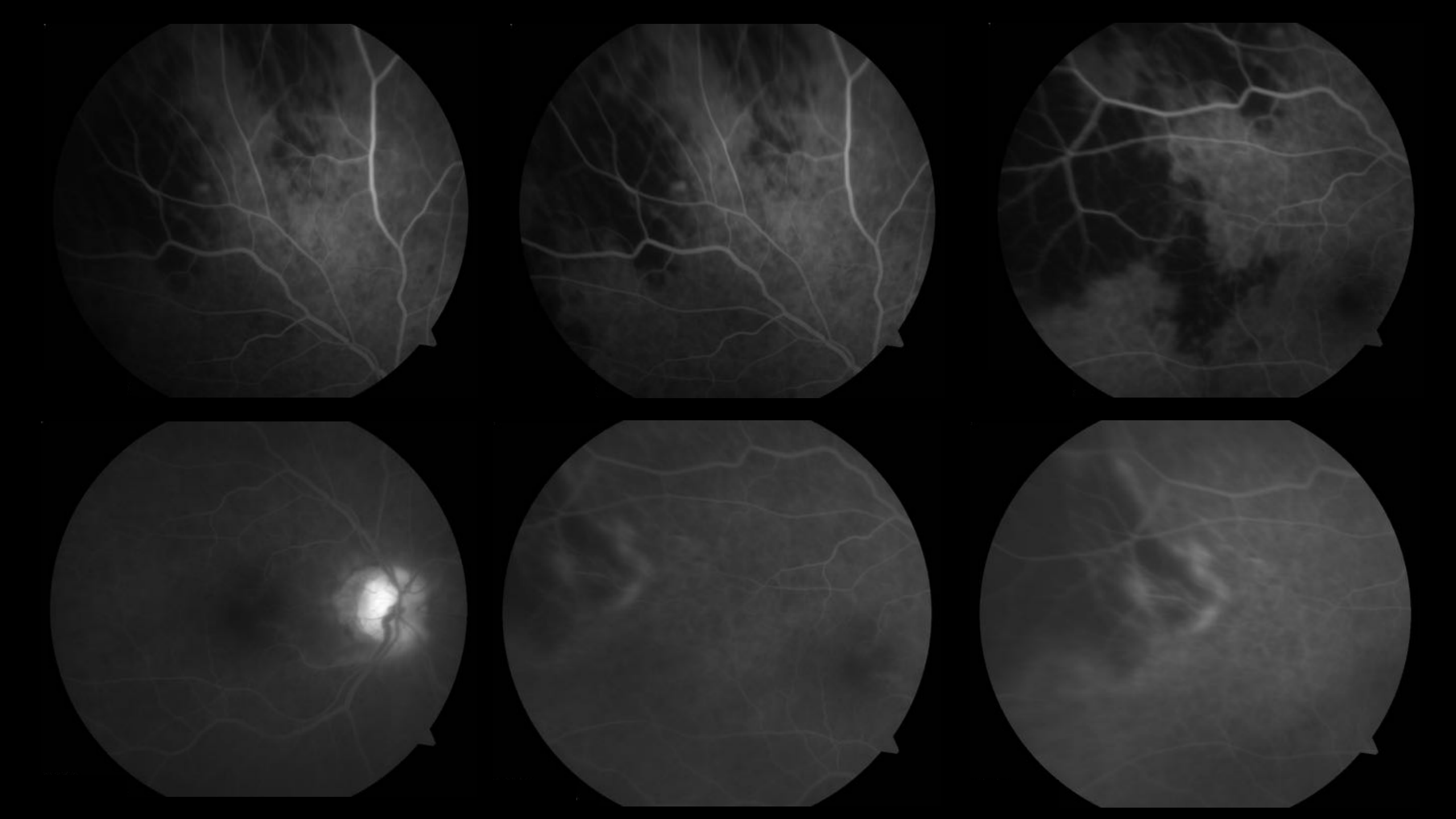

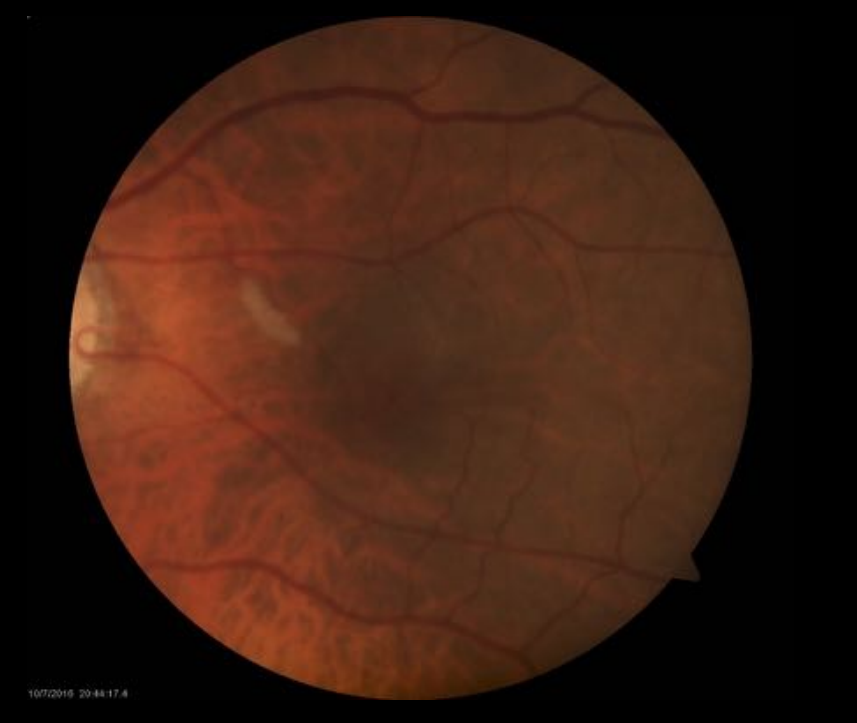
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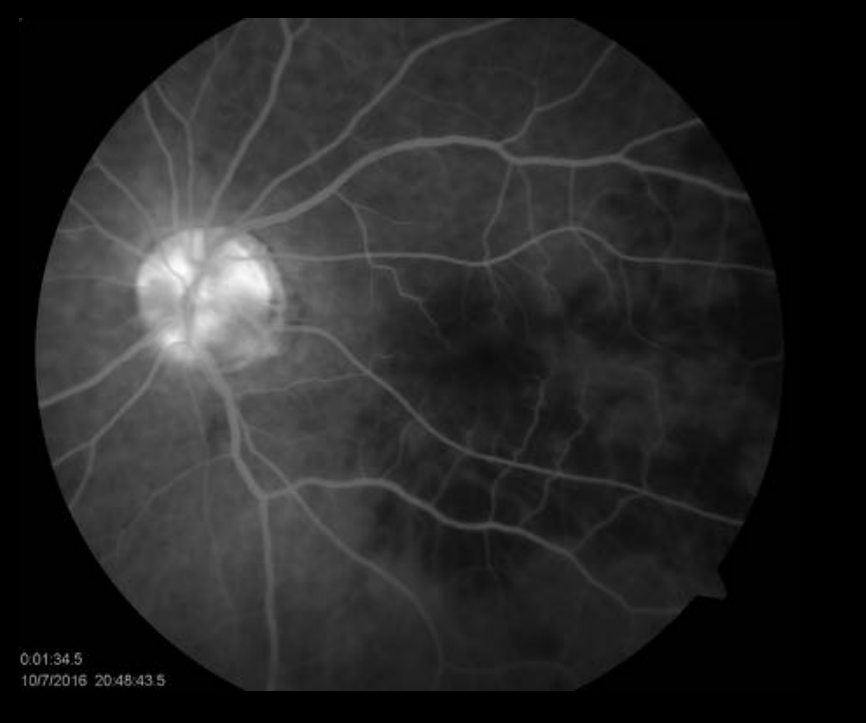
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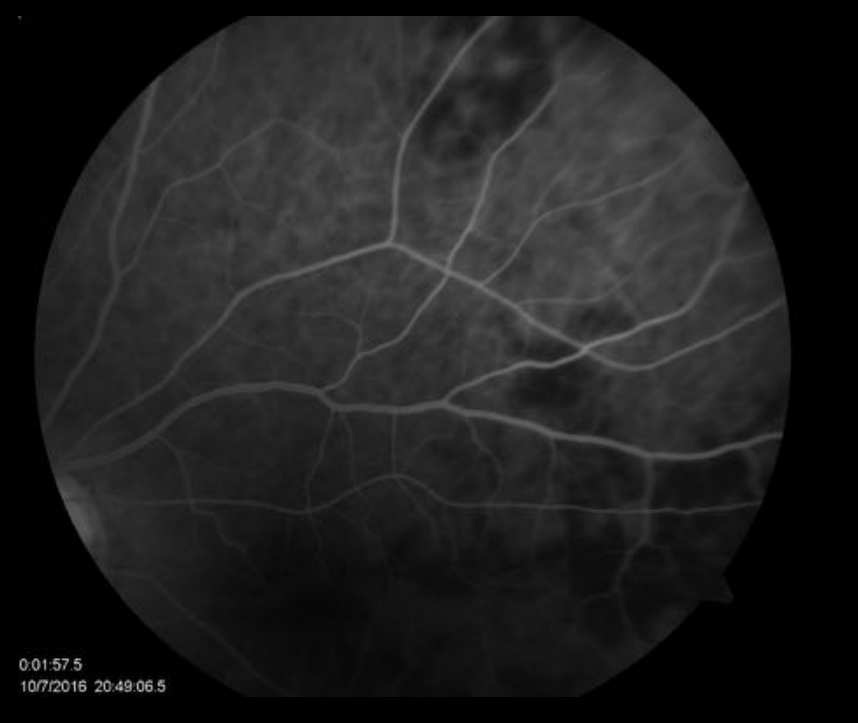
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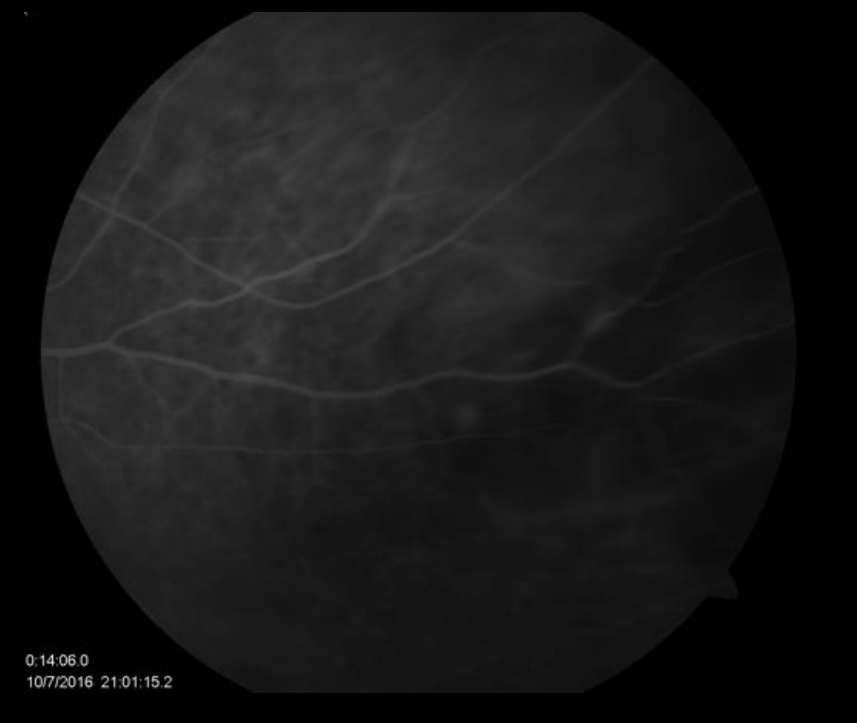
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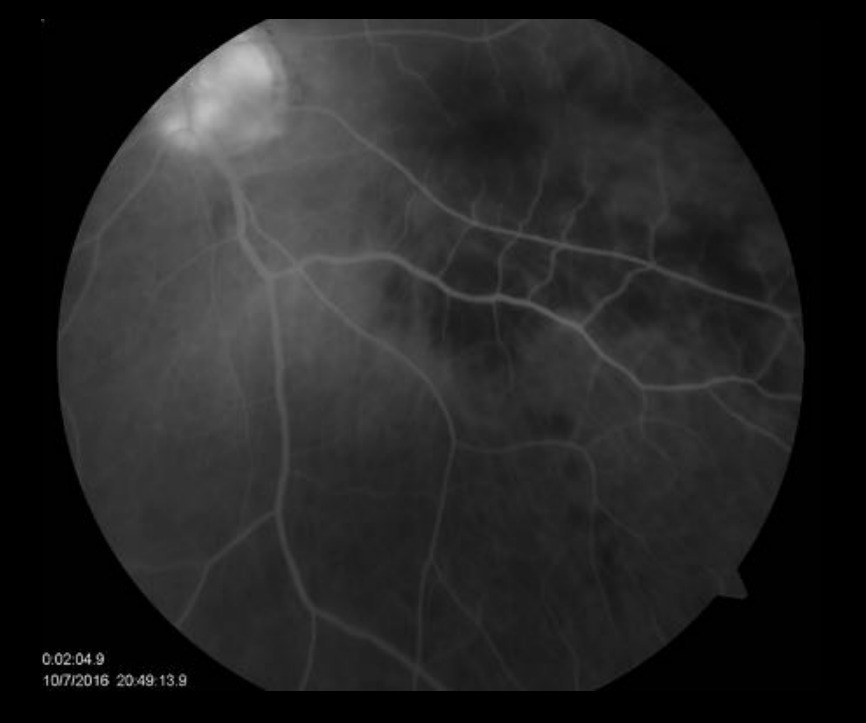
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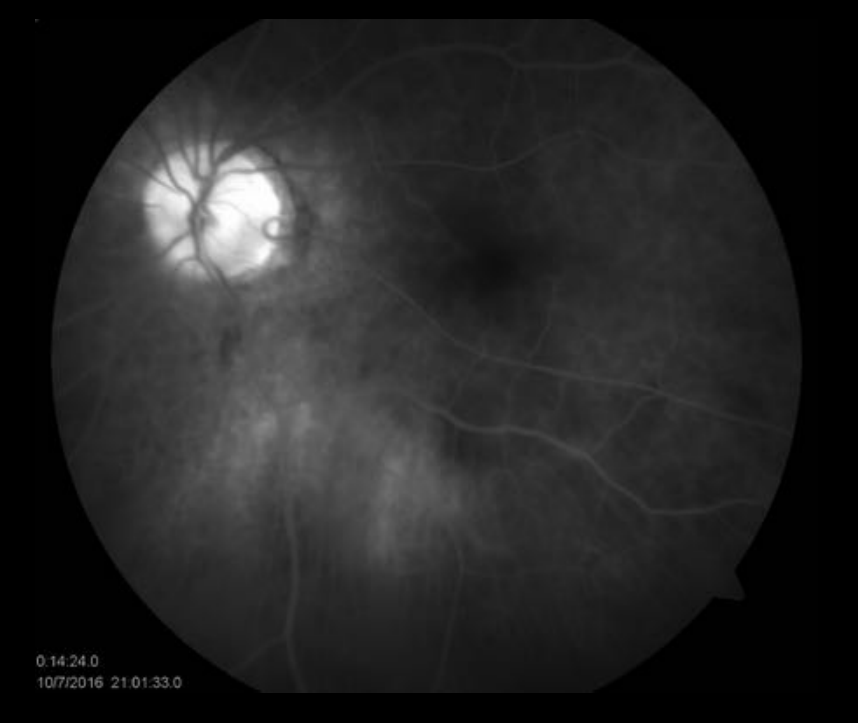
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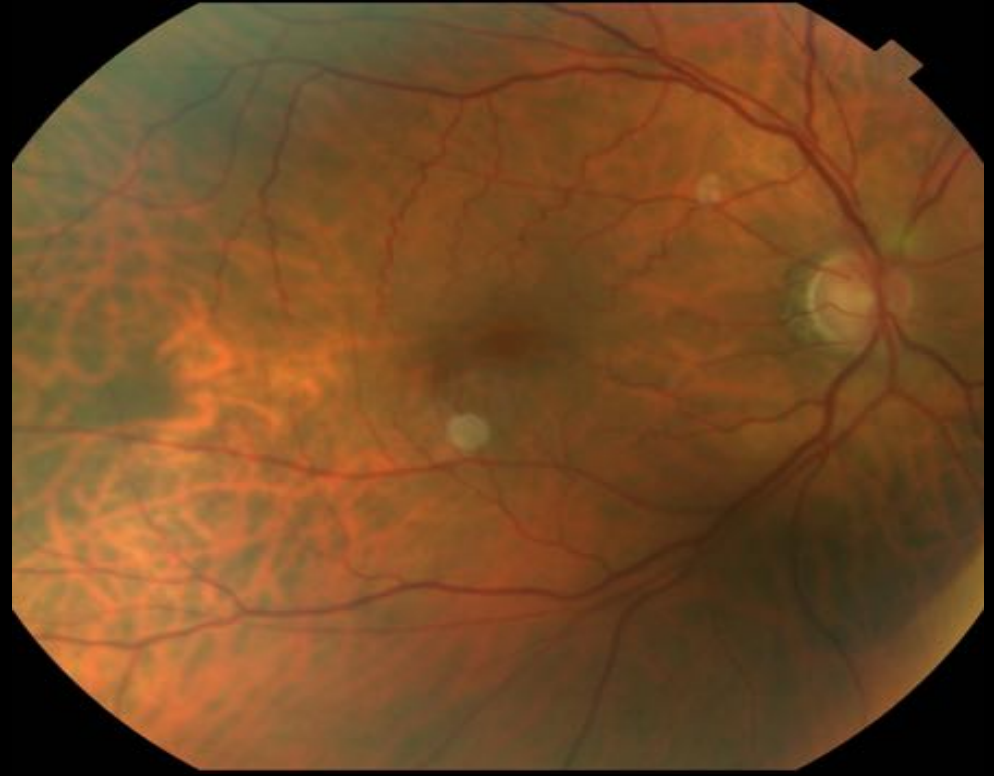
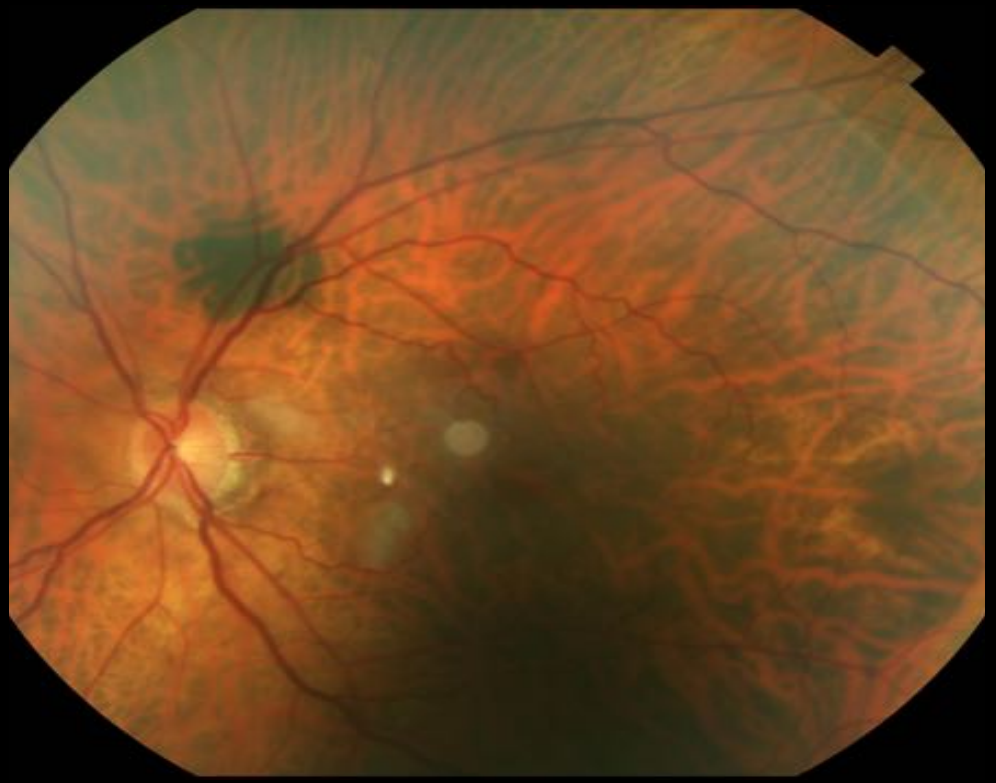
Case 2

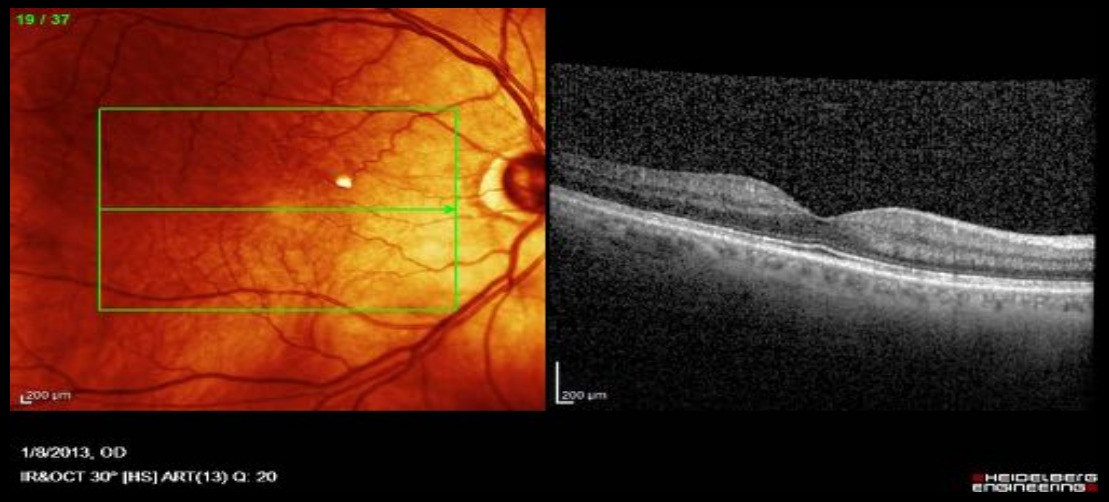
- She was immediately started on 60 mg of prednisone/day with marked improvment of her general status and jaw pain. A bilateral temporal artery biopsy was positive in both sides.
- Corticosteroid treatment was mainteined with adequate control of the sedimentation rate and C-reactive protein. Visual acuity improved to 20/60 OD and remained 20/25 in OS. Visual fields remained unchanged.

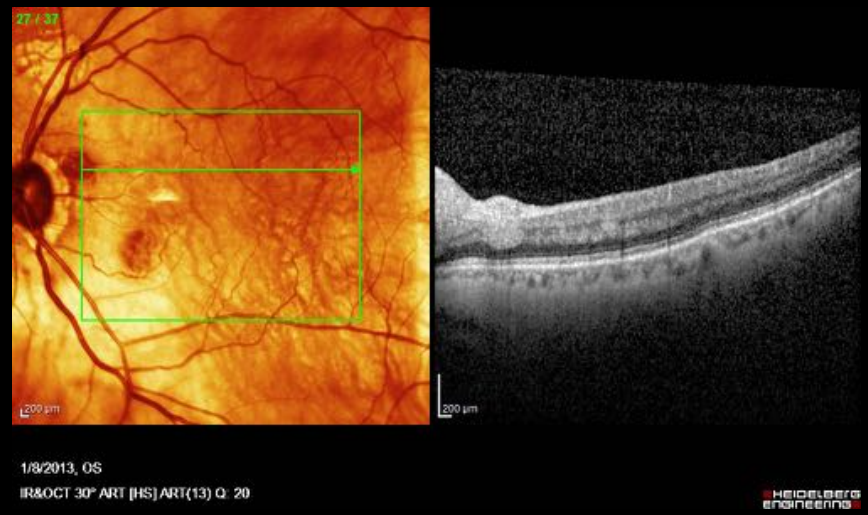
Case 3: 75 y/o, M

- He presented initially with a small visual loss in the left eye, with minor headache, at this time the FA showed choroidal ischemia and he was treated with prednisone 60 mg, with improvement of symptoms , after discontinuation later on he presented visual loss in the right eye and temporal artery biopsy was preformed , positive for GCA.









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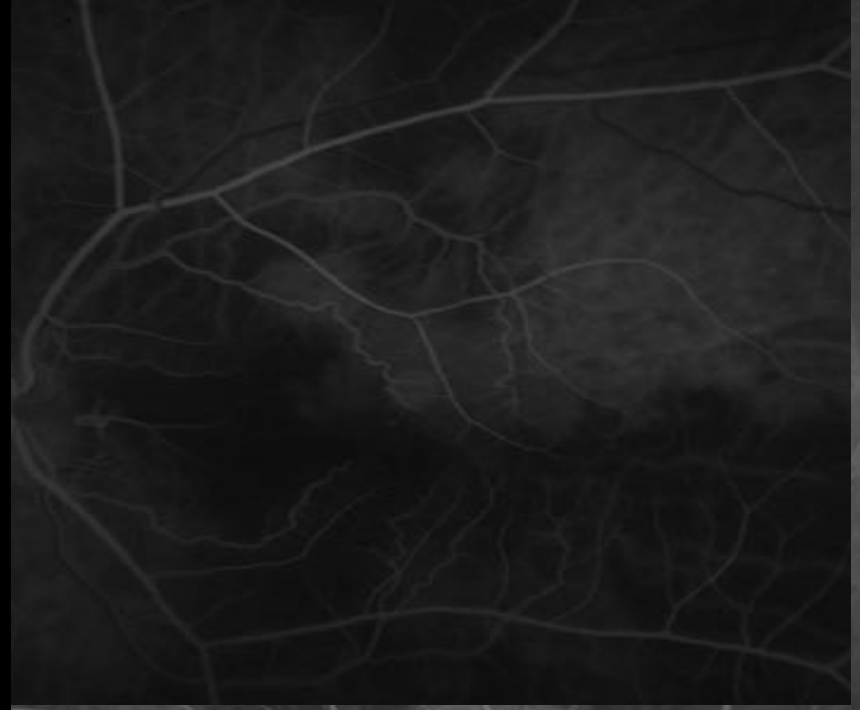
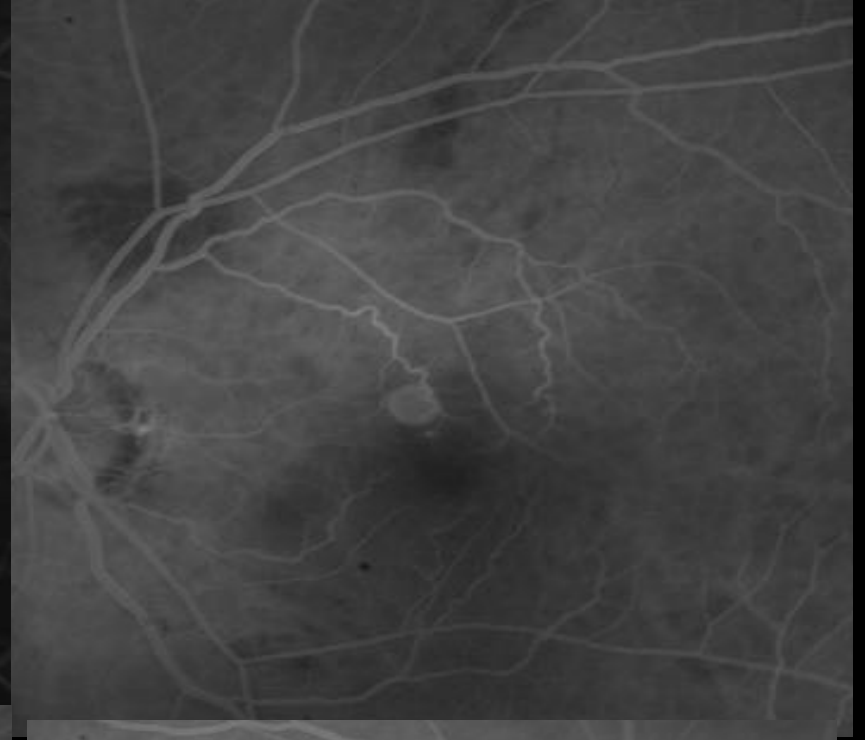
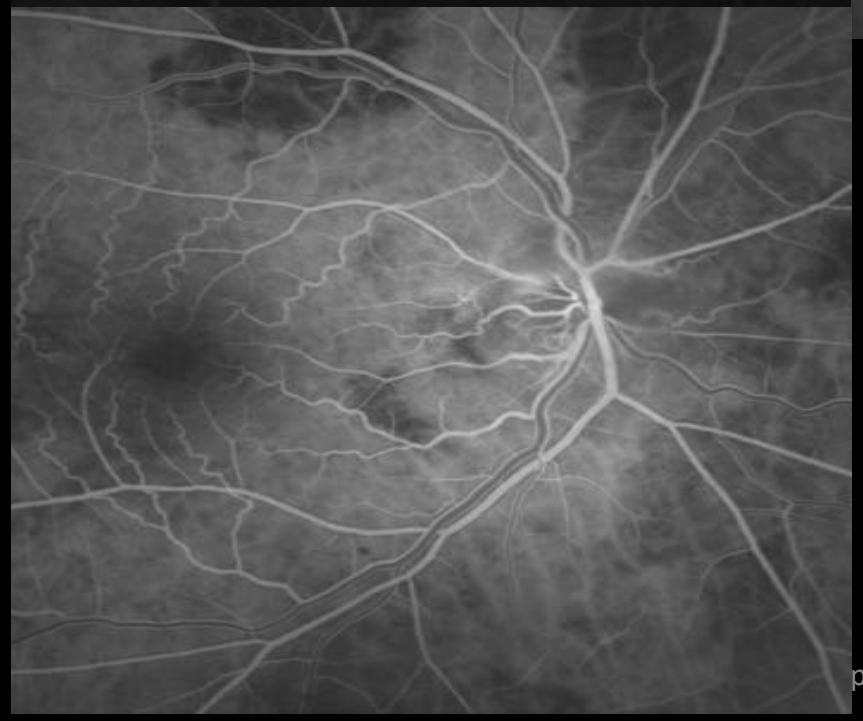
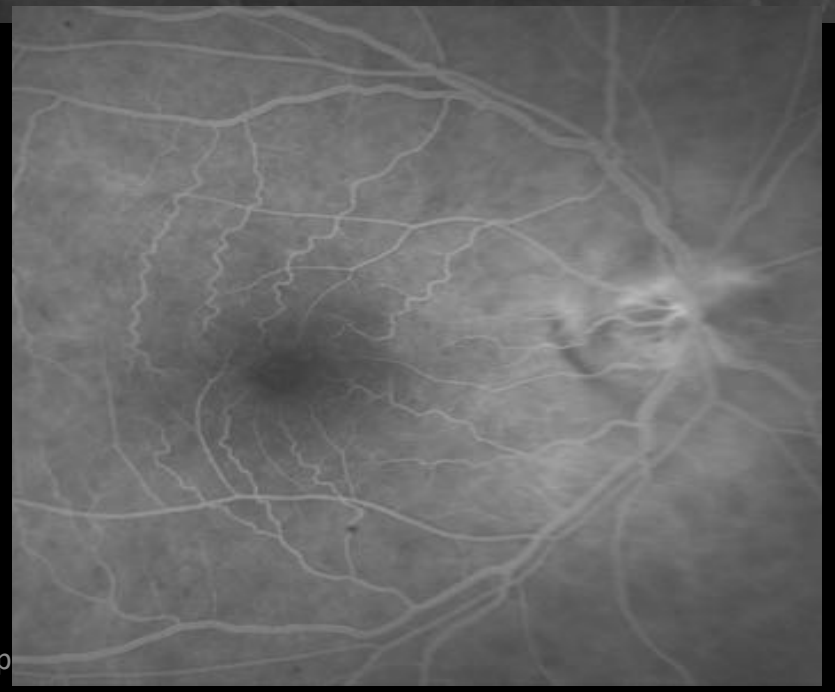
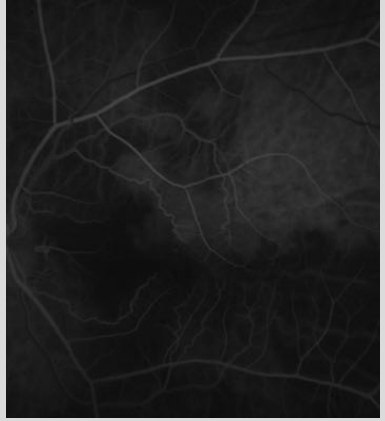
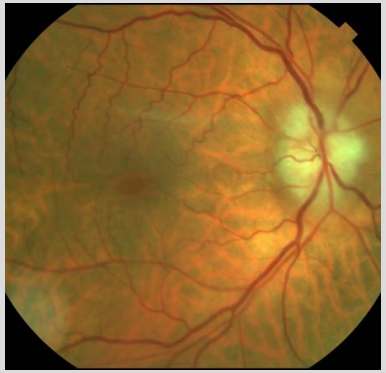







1/7/13
"Smudge" OS

1/9/13
ESR = 4; CRP = 1.0
Platelet = 171k
Prednisone d/c



1/28/14
c/o "gray" vision OD

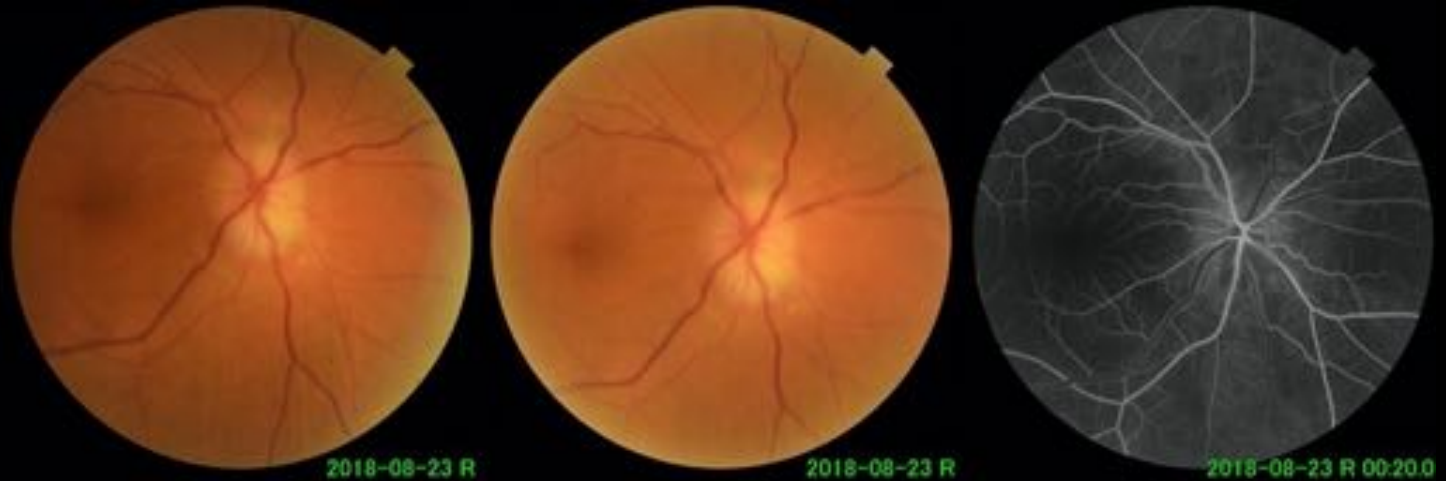
1/8/13
1. ESR/CRP
2. Prednisone 60 mg
qd by concierge MD

1/22/13
20/20 OD; 20/25 OS

1/29/13
ESR = 60; CRP = 10.4

Case 4, 68Y/O, F

- FB, female, 68 years old presented to the clinic on 23-8-2018 with 20 days of frontal headache and was seen in Emergency Room and they did MR brain that was negative. She has jaw claudication. BCVA 20/70 OD 20/25 OS R+0.75+1.25 axis 164 OD +0.75 +0.5 axis 176. She had moderate disc edema. I advised temporal artery biopsy but patient declined. CBC: Hematocrit 37 Hemoglbin 12.7 ESR 110 CRP 7,5 (nl<6), IVFA revealed sector choroidal ischemia nasal to disc and OCT documented disc edema. OCTA failed to reveal macular hypo perfusion. I immediately put her on 100 mg Prednisone and her vision dramatically improved to 20/30 within 48 hours and ESR dropped to 54 and CRP to 10. 11 days later BCVA was 20/25 with resolution of disc edema. Patient agreed to TA biopsy which was positive.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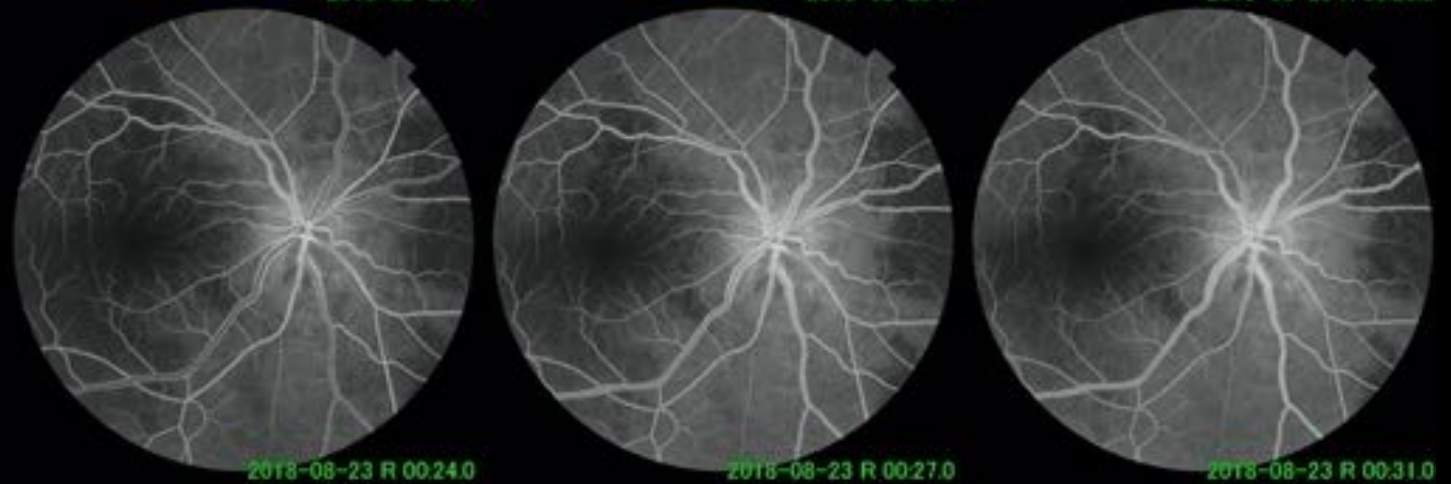
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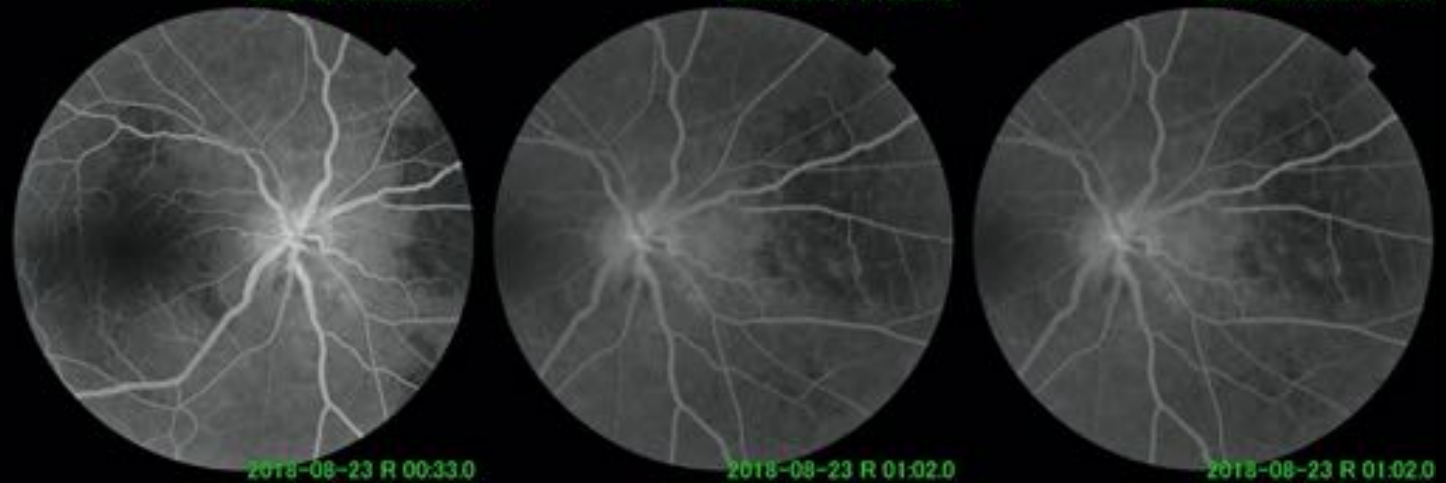
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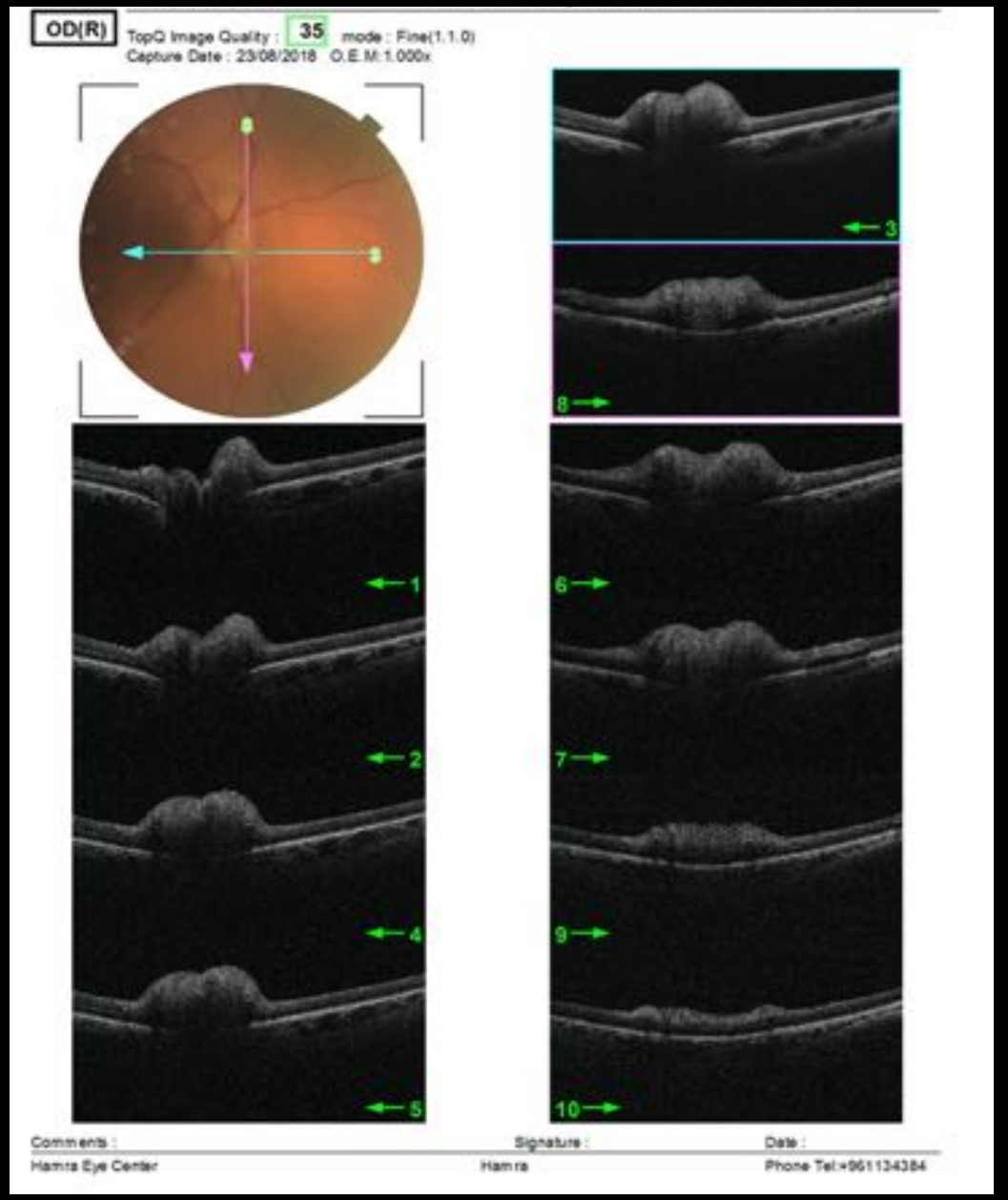
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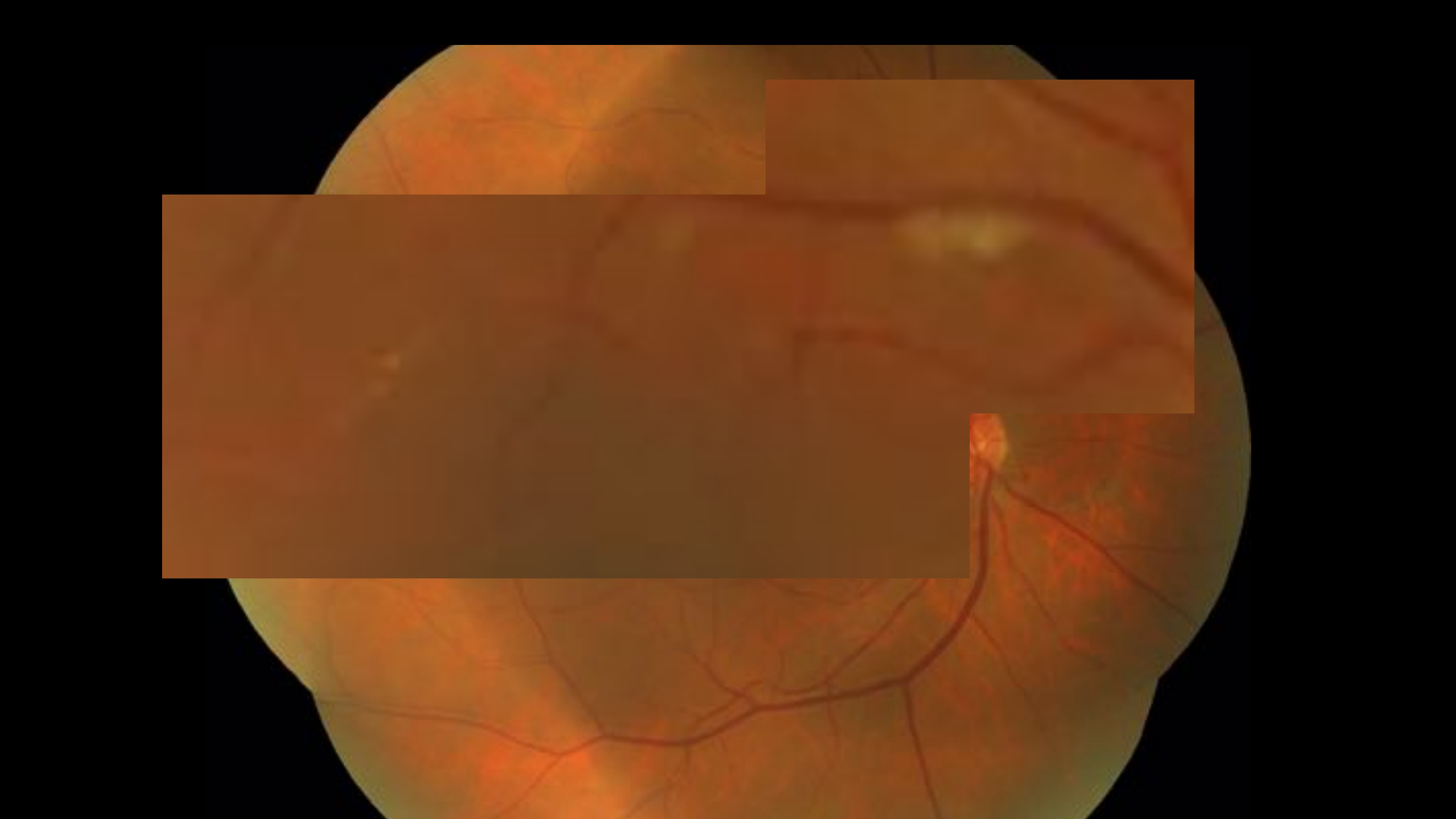
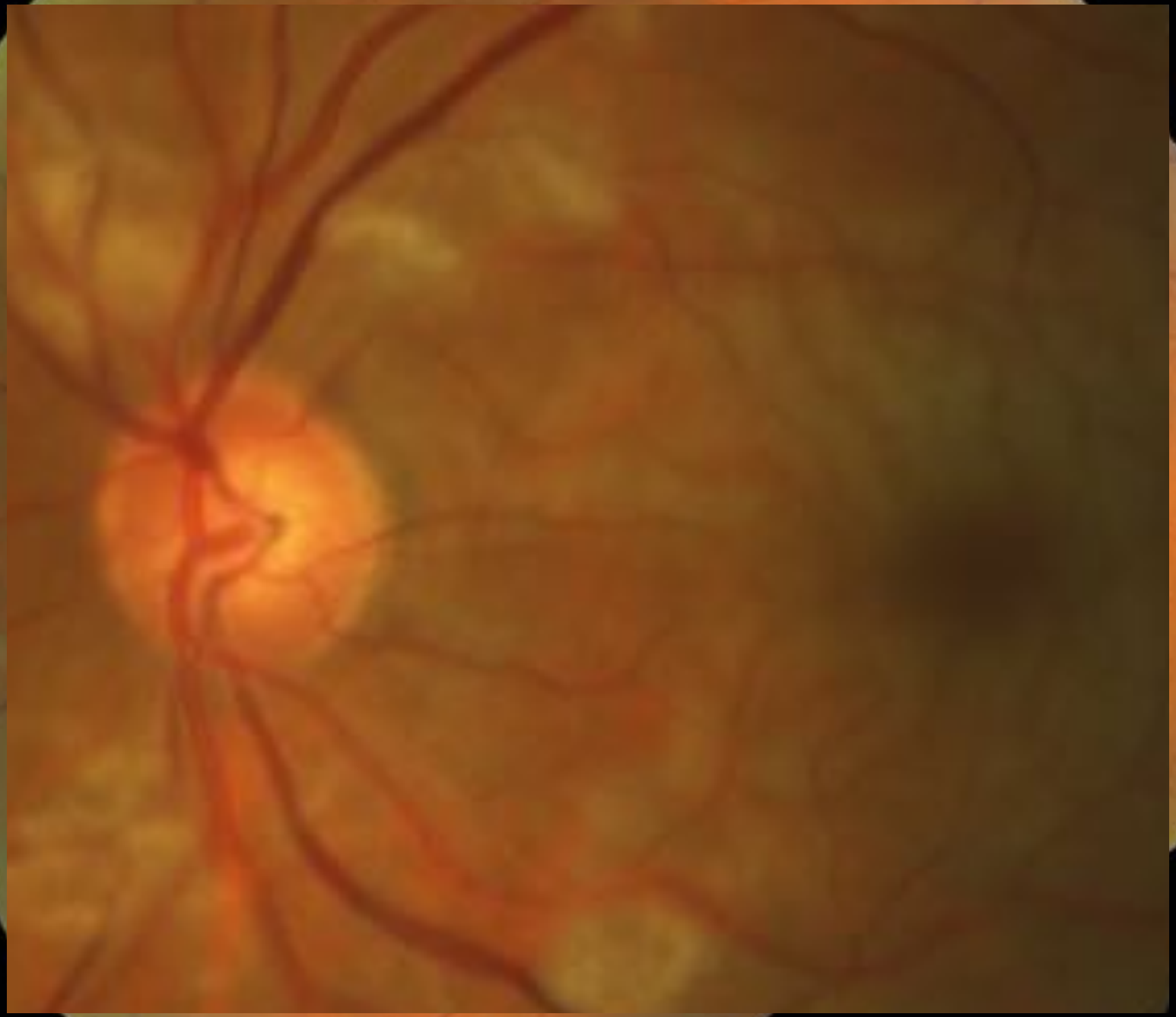
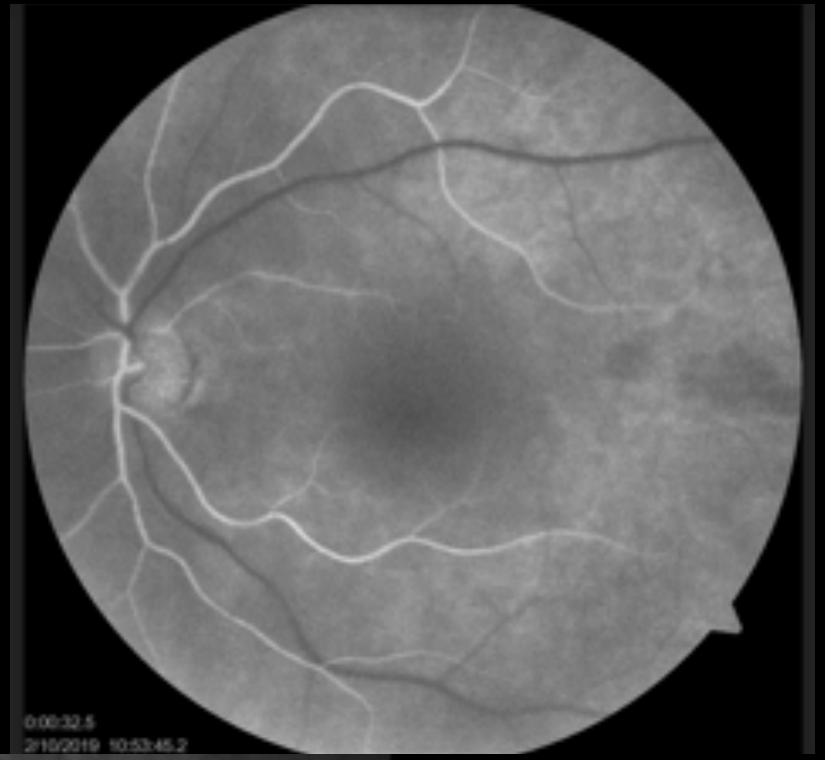
Hamra Eye Center
Hamra
Phone Tel:+961134384

CASO 5, 72 y/o, F

- A 72-years old, female, caucasian patient presented with the complaint of one month-duration headache and sudden visual loss in the left eye (OS) 3 days ago.
- Past medical history revealed well-controled high blood pressure, discoid lupus erithematosus (treated only with topical steroids) and depression.
- On examination best-corrected visual acuity (BCVA) was 20/20 in the right eye (OD) and 20/800 in OS (with excentric fixation). Pupils were equal in size and reacted to light and near but there was a ++ relative aferent pupillary defect in OS. External examination, motility, slit lamp examination were unrevealing. Intraocular pressure was 14 mmHg in OD and 12 mmHg in OS.
- Fundus examination showed normal looking optic discs in both eyes. O RESTO DOS ACHADOS RETINIANOS VC CONSEGUE DESCREVER MELHOR DO QUE EU. VIDE FOTOS SEGUINTES



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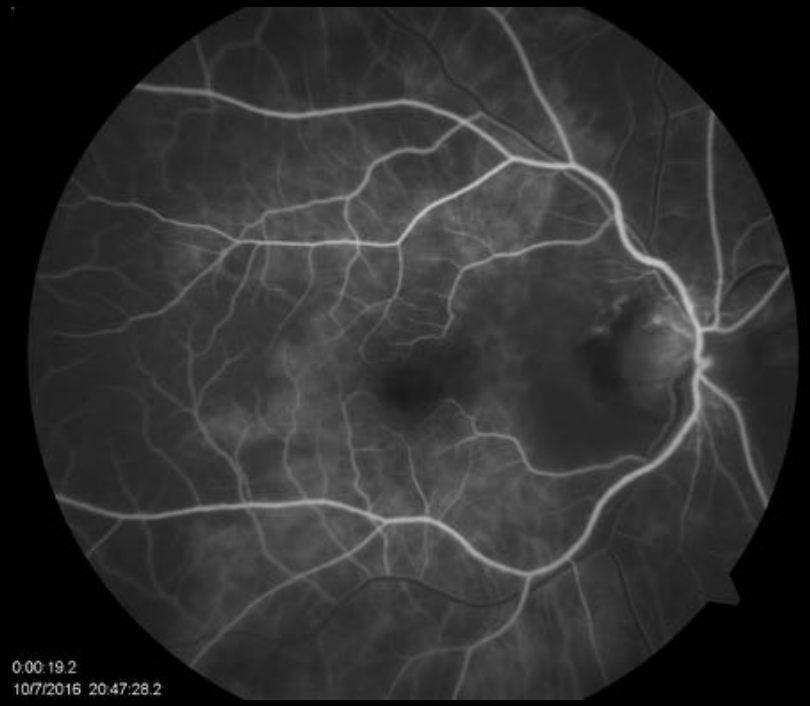
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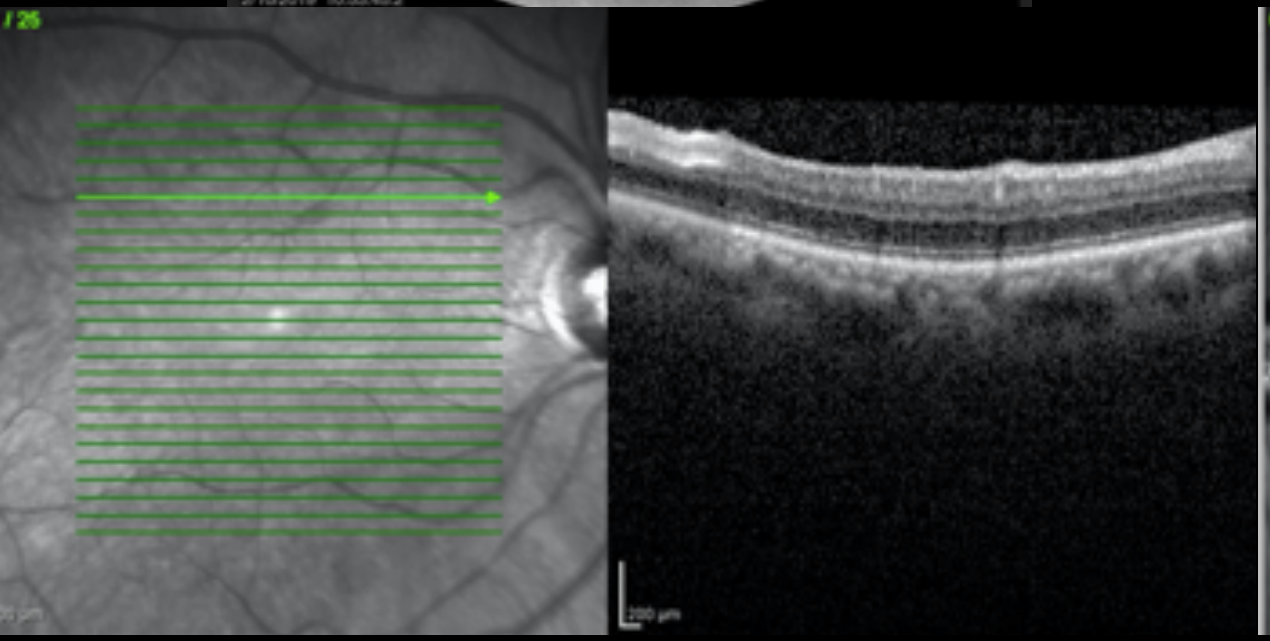
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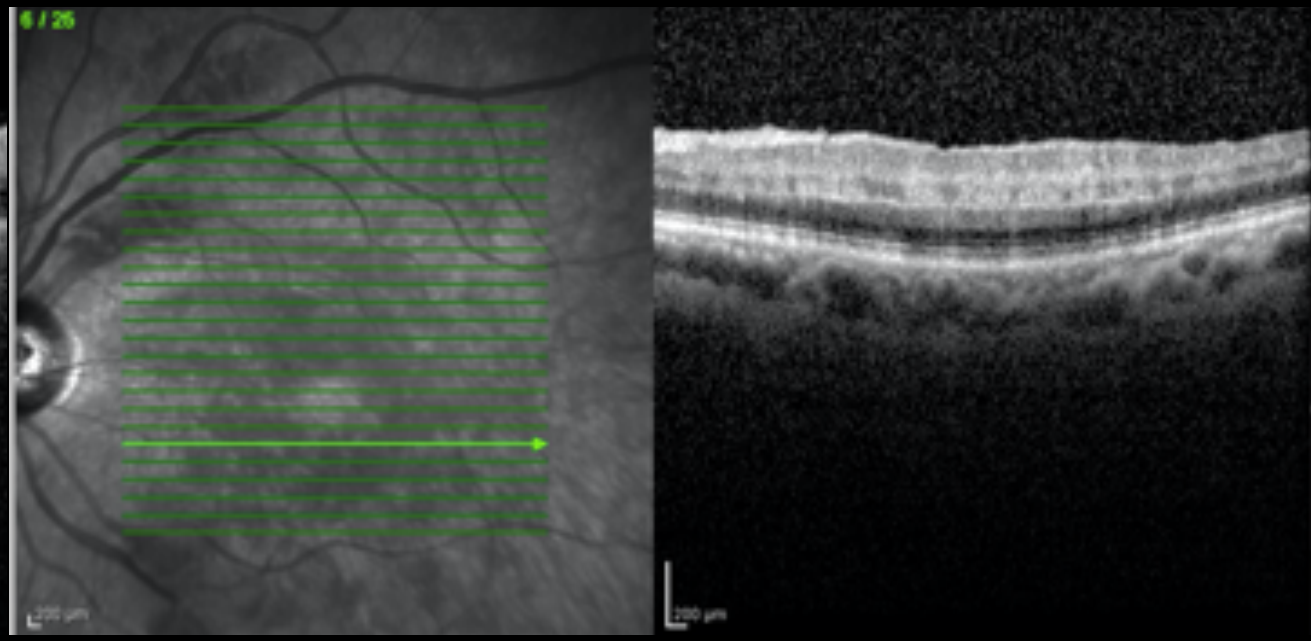
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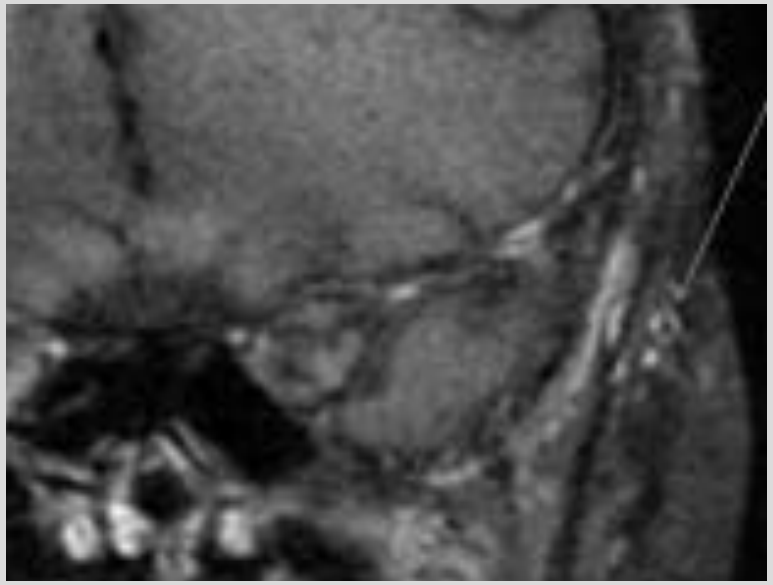
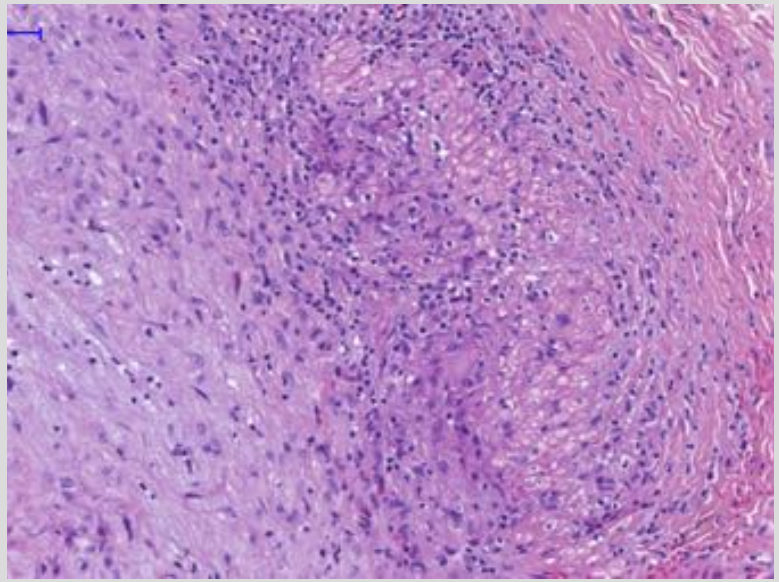
CASO 5

- Extensive laboratory investigation was normal except for an elevated C-reactive protein (2.0 mg/dL). Erythrocyte sedimentation rate was normal (4 mm)
- Magnetic resonance scanning and angiography were unrevealing except for increased signal intensity around the left temporal artery
- A temporal artery biopsy revealed linfocytic and histiocytic artery infiltration and multinucleate giant cell with intimal necrosis compatible with temporal arteritis





CASO 5

- The patient was submitted to intravenous pulse therapy with 1 gram of methylprednisone for 5 days followed by oral prednisone that was slowly tapered after the introduction of adjunctive methotrexate treatmentmporal arteritis. Fundoscopic signs improved and visual acuity in the left eye improved to 20/200

CASO 5

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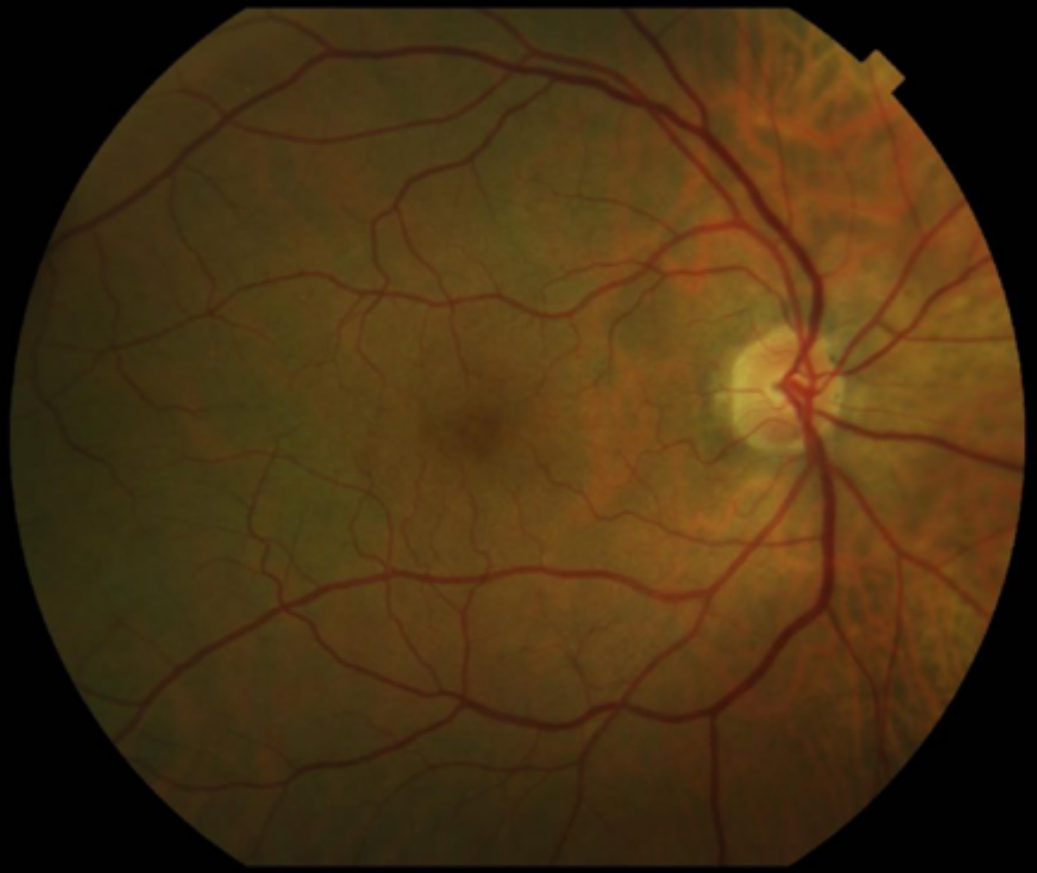
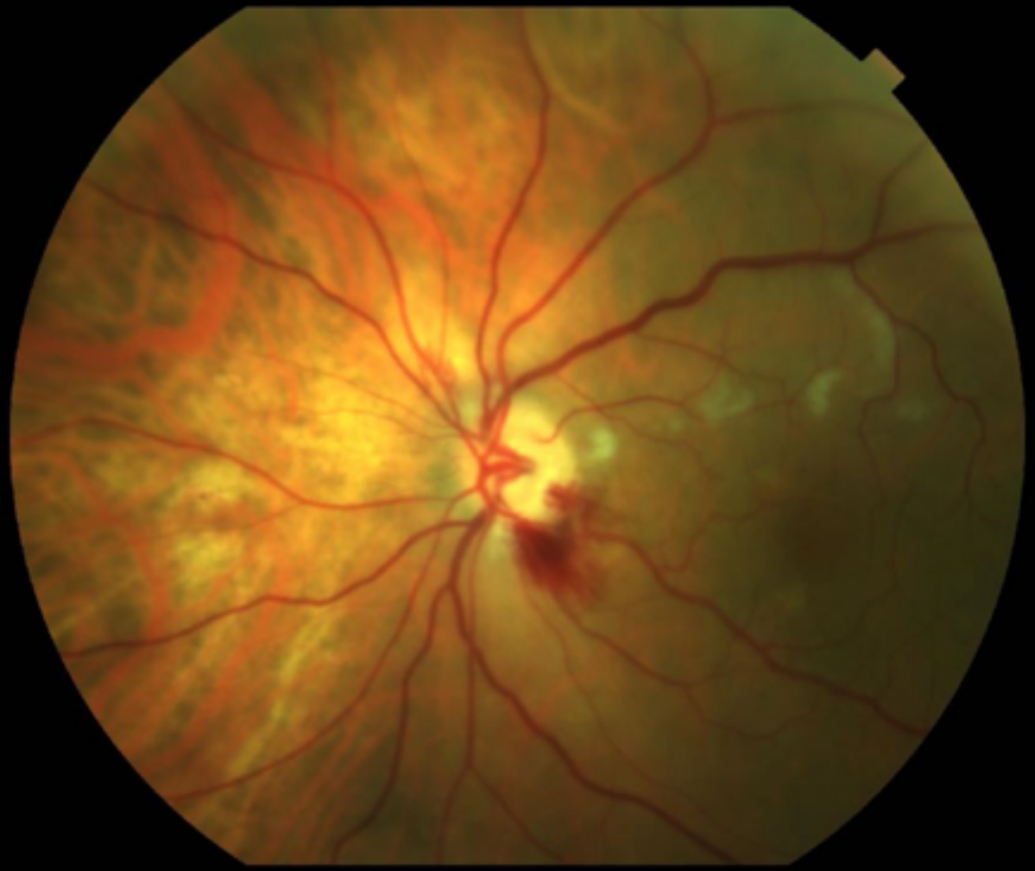
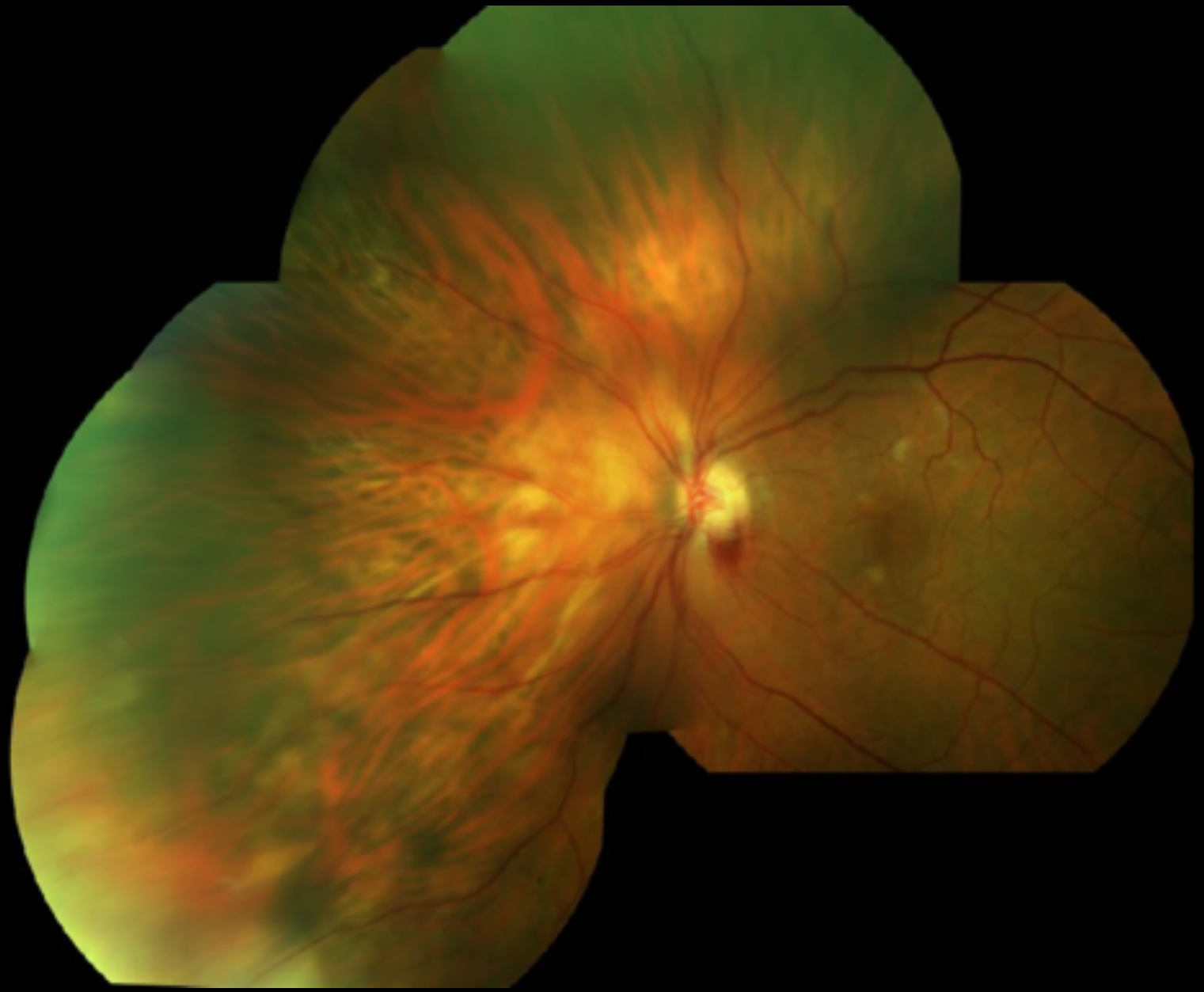
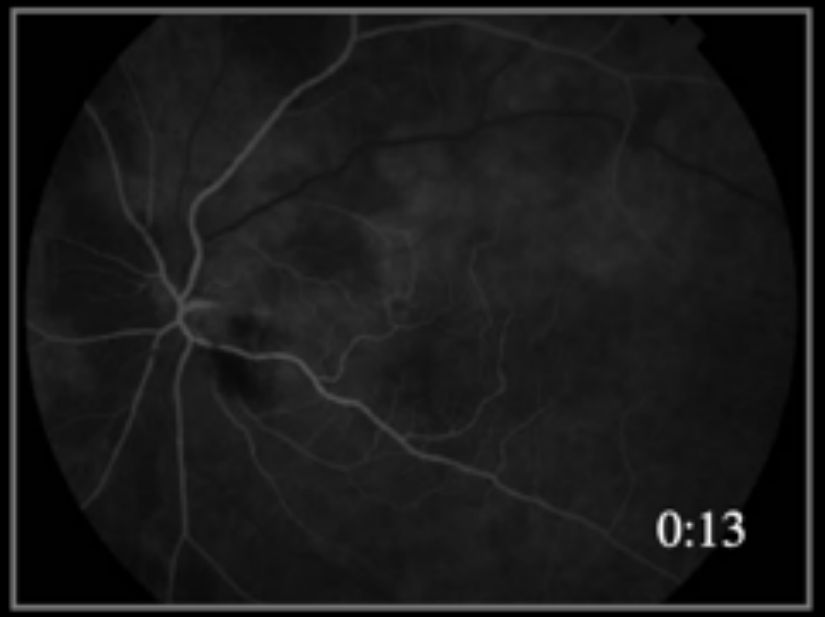
Case 6: 79 y/o, F

- She came refering orsening of left visual acuity.
- APD.
- Biomicroscopy : unremarkeble .
- IOP normal.





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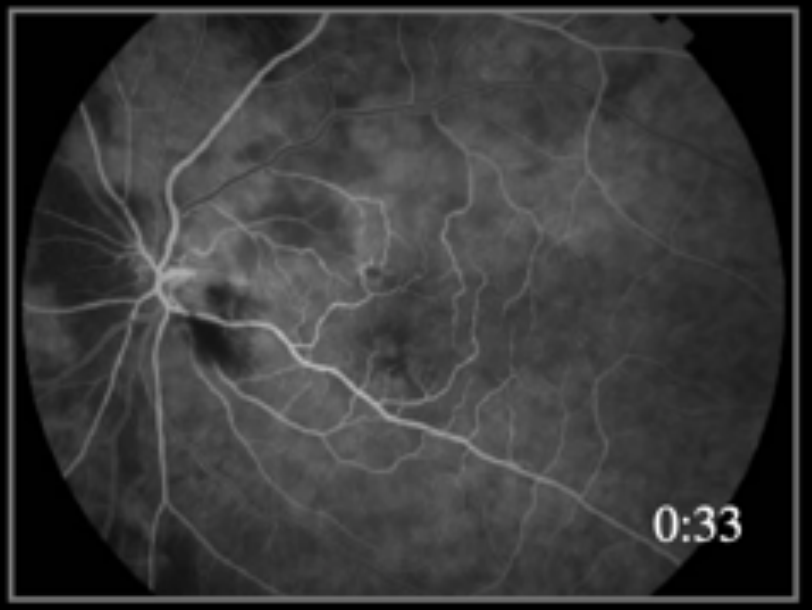
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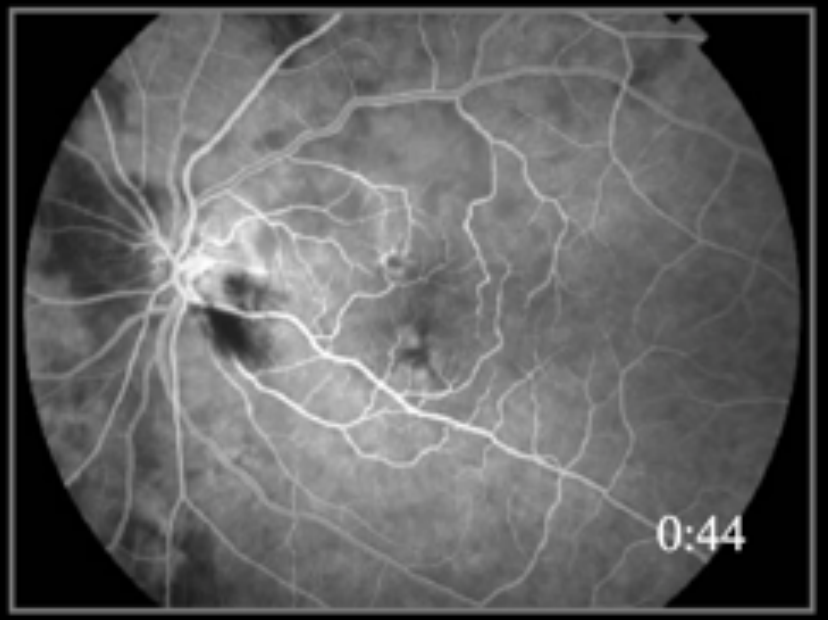
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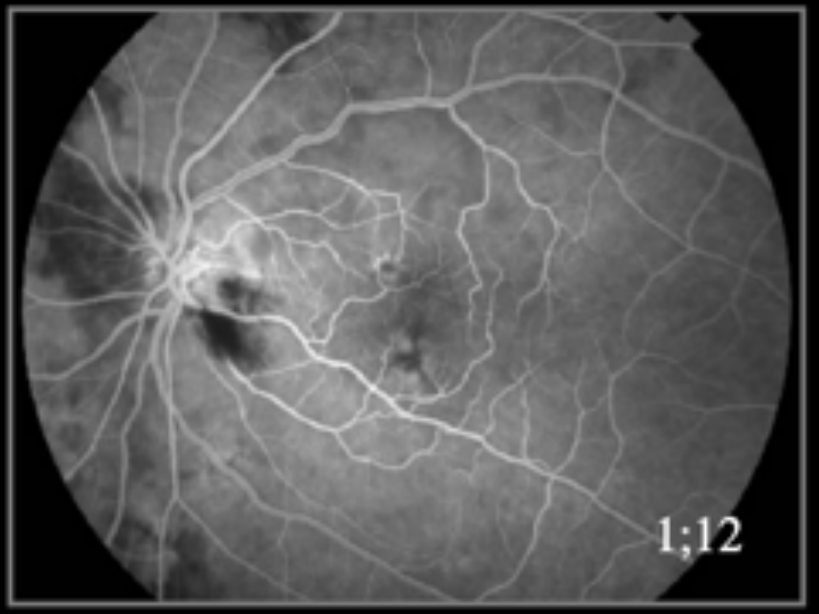
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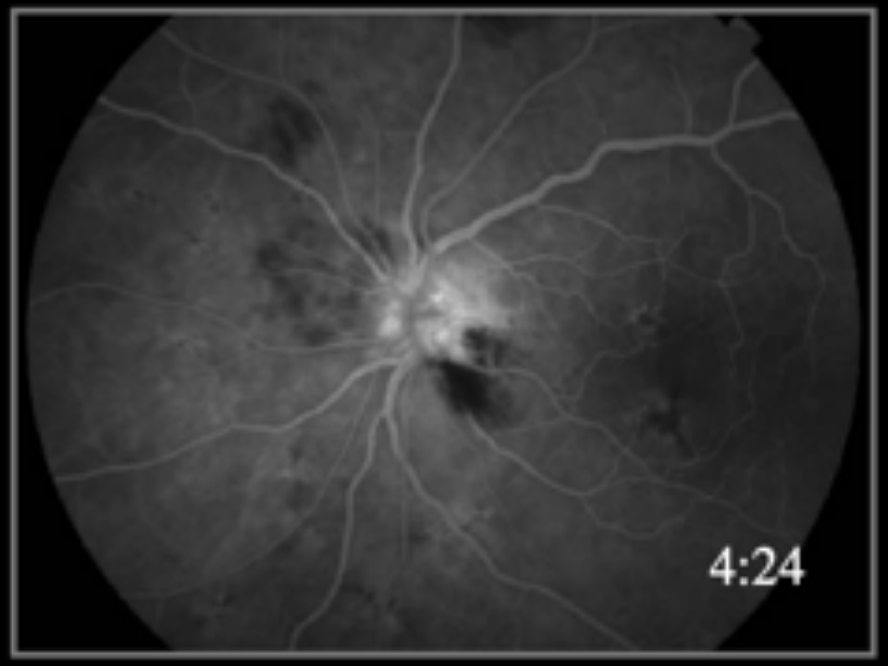
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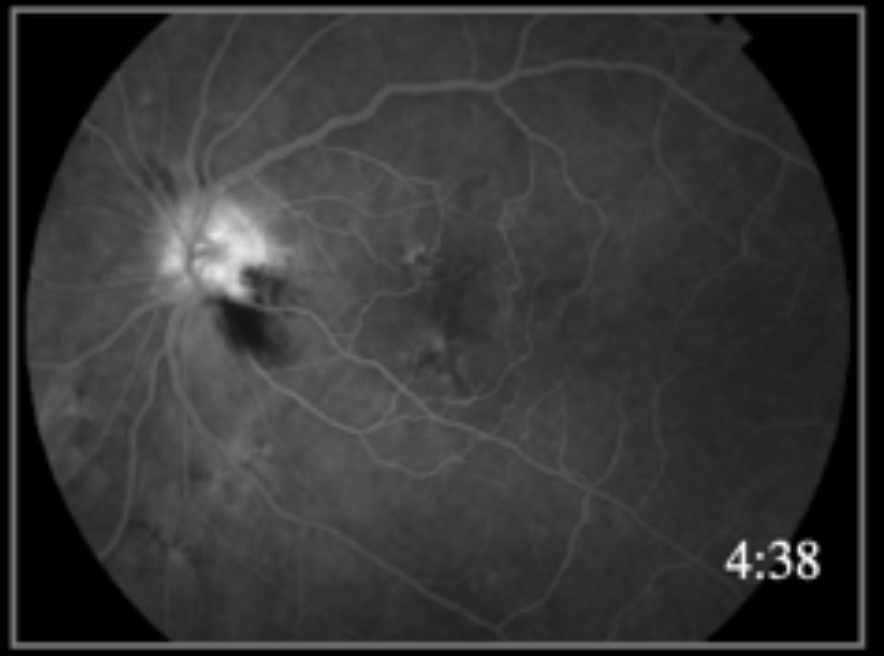
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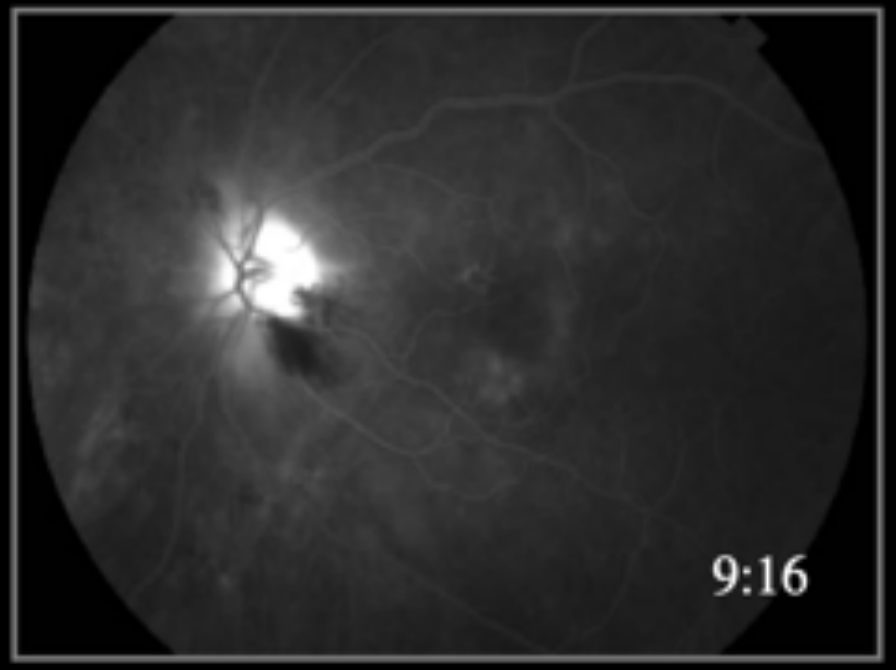
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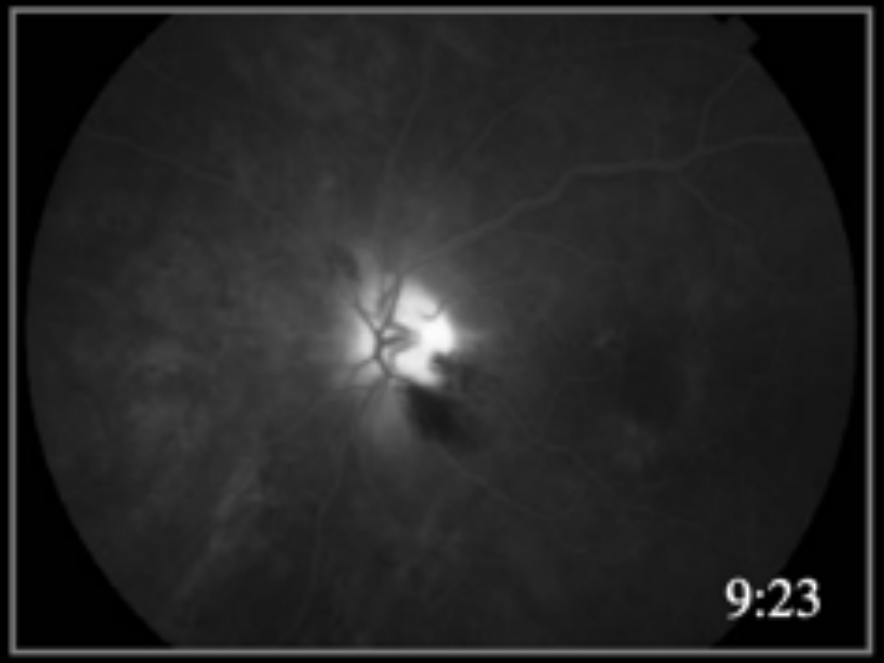
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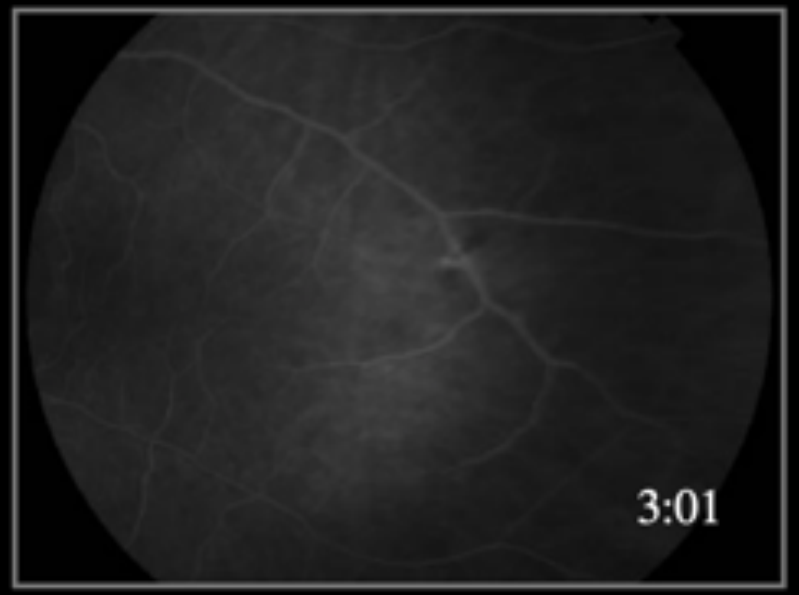
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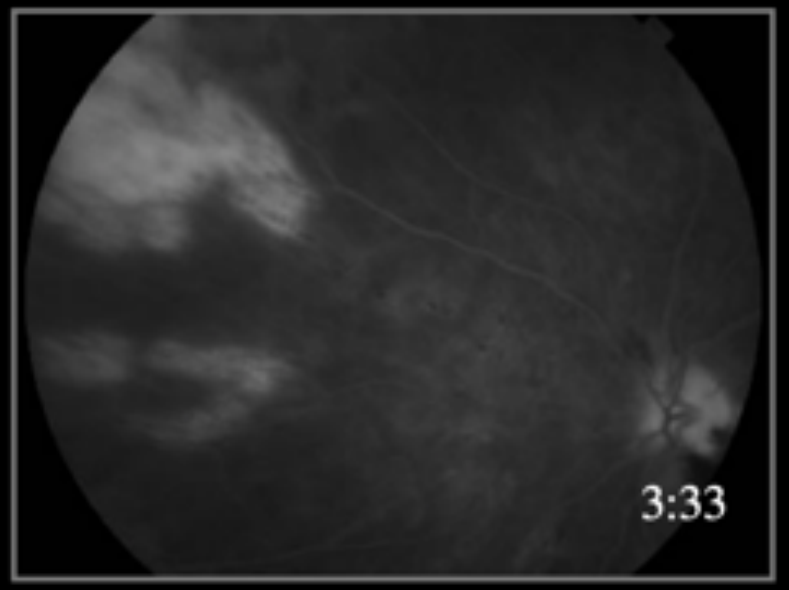
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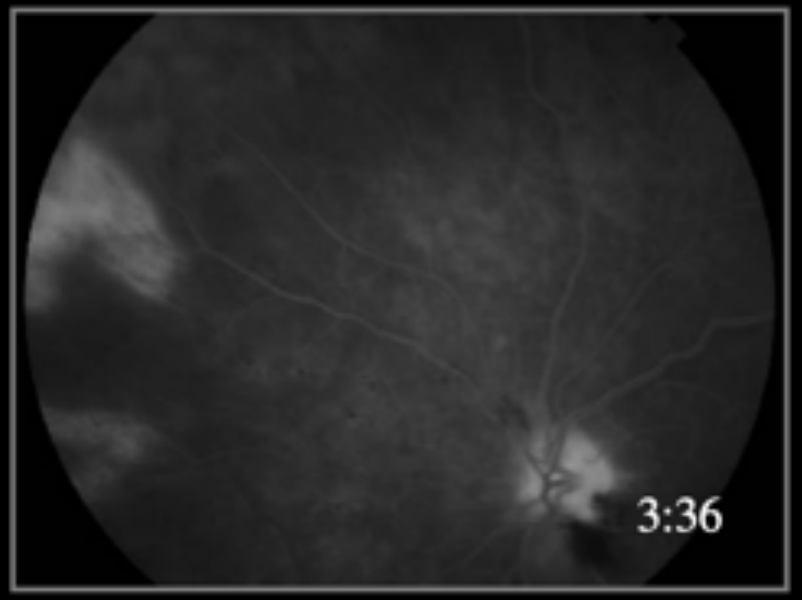
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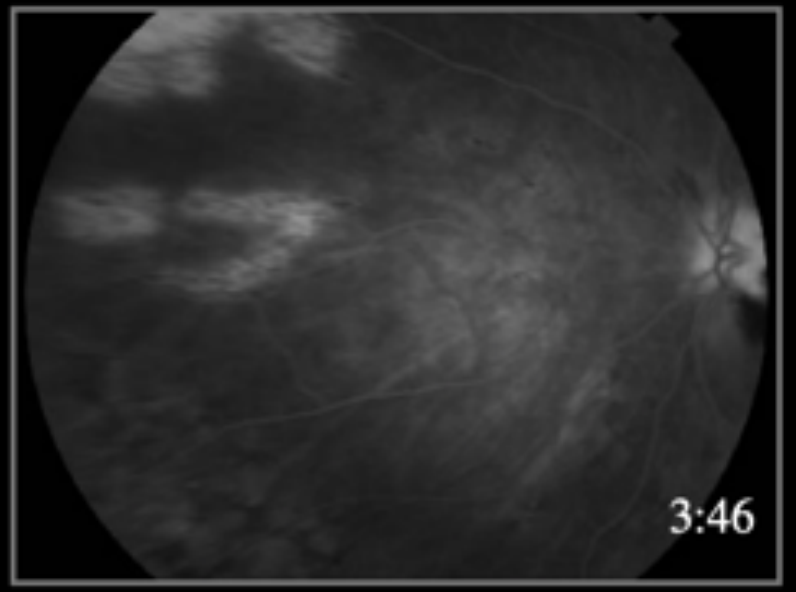
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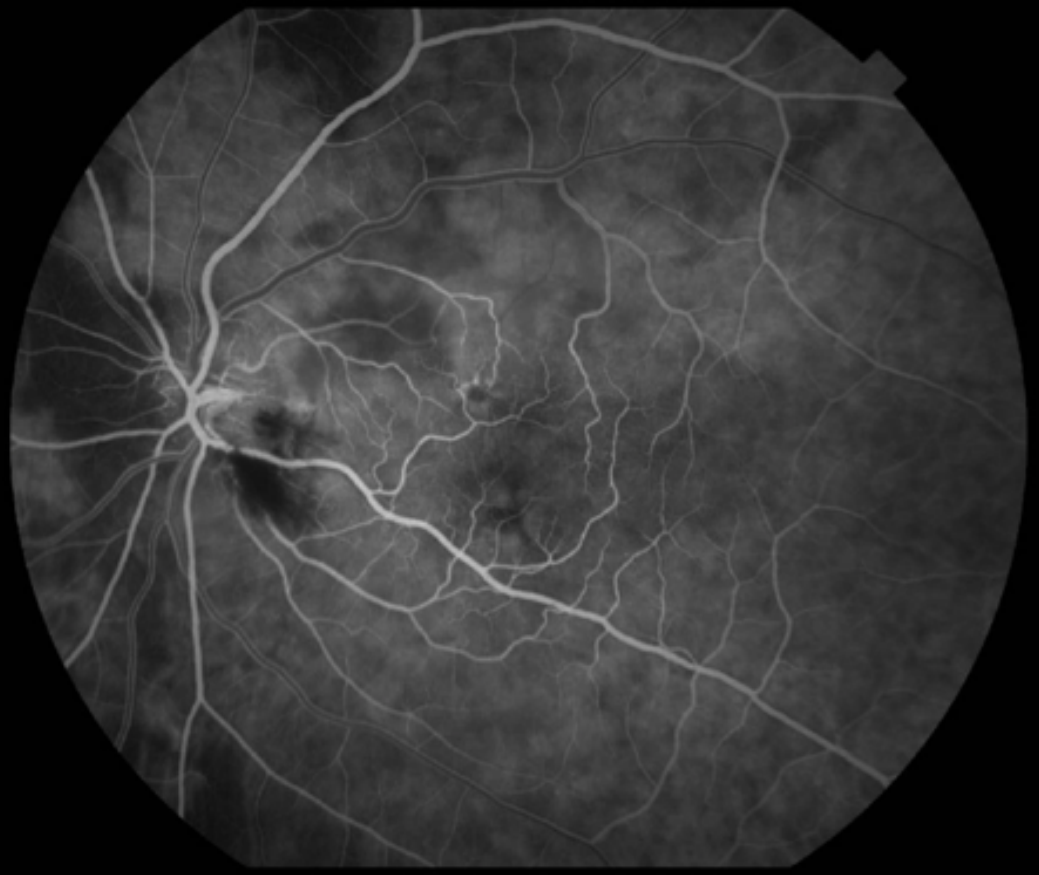

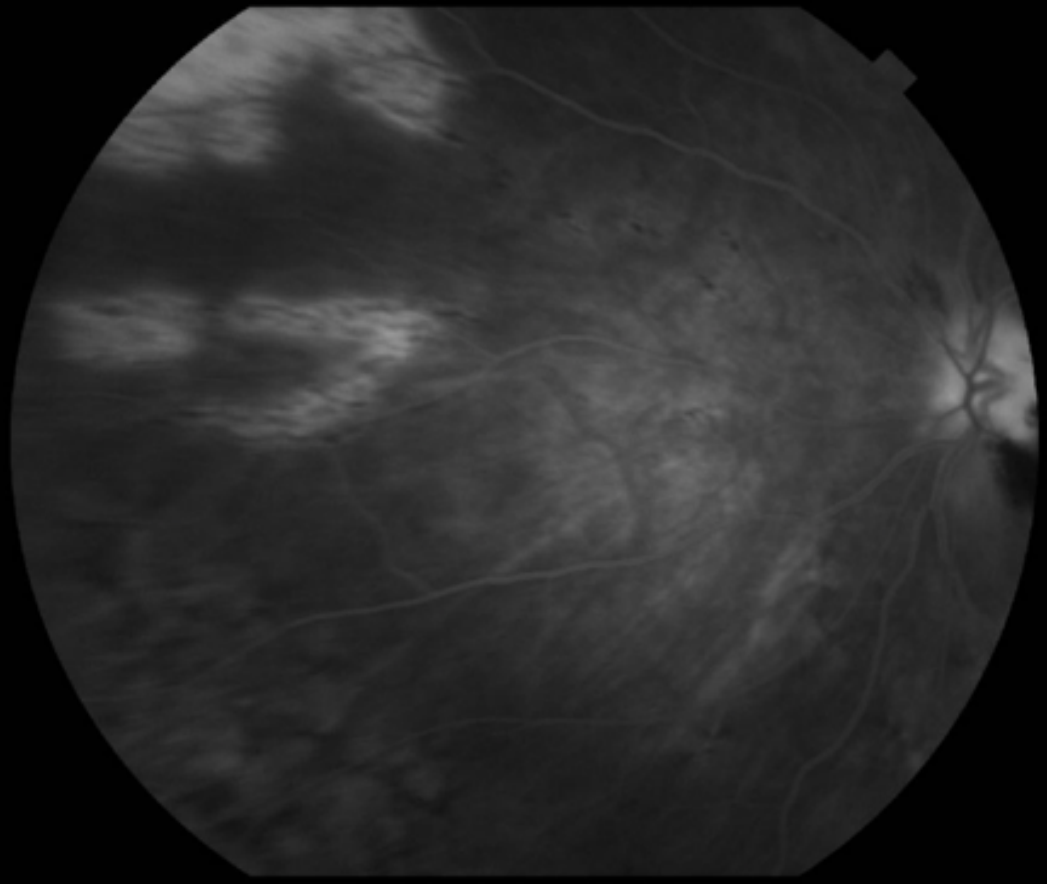

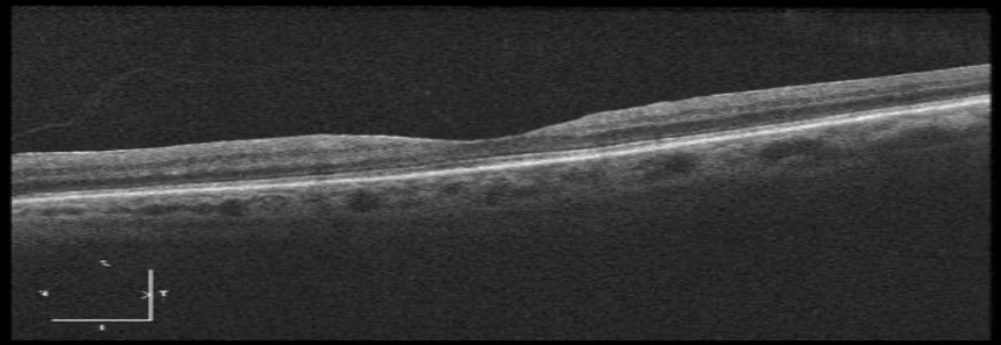

Results

- All 6 patients had choroidal ischemia on fluorescein angiogram, 5 patients had PAMM lesions in one or both eyes, 5 patients had retinal exudates, 4 patients had ischemic optic neuropathy at initial presentation, and one had central retinal arterial occlusion. The ESR was markedly elevated-in 4 of 6 patients and CPR was elevated in allpatients. Temporal artery biopsy was positive in all patients.

	Sex	Age	Eye Complains	Systemic Signs	Initial VA RE	Initial VA LE	Final VA RE	Final VA LE	VHS/ CPR	Choroidal Infarction	Arterial Occlusion	PAMM	Retinal Exudates	Optic neuritis
Case 1	Female	70	Visual loss LE	Yes	20/20	CF	20/20	20/200	99/6,29	BE	RE	RE	BE	RE
Case2	Female	78	Visula loss RE	Yes	CF	20/80	20/60	20/25	74/2,47	BE	negative	BE	BE	BE
Case 3	male	75	Visual Loss RE	Yes	20/50	20/30	20/25	20/20	60/10,4	BE	negative	BE	LE	RE later
Case 4	Female	68	Visual Loss RE	Yes	20/70	20/20	20/25	20/20	110/7,5	RE	negative	BE	Negative	RE
Case 5	Female	72	Visual Loss LE	Yes	20/20	20/800	20/20	20200	4/2,0	BE	negative	No	BE	No
Case 6	Female	79	Visual Loss LE	Yes	20/30	CF	20/30	20/500	92/15,4	LE	negative	LE	LE	LE

Conclusion

- Choroidal ischemia constitutes a cardinal angiographic sign in the diagnosis of temporal arteritis, besides retinal exudates, PAMM, anterior ischemic optic neuropathy and central retinal artery occlusion.