

Macular haemorrhage: A case series

Dr Chee Kang

INTRODUCTION

FOVEA + MACULAR = high acuity vision

Blood ≠ transparent. Obscuration effect

Mechanical effect on retina structure & function.

However most haemorrhage resolves with time.

During resorption of haemorrhage, ferritin (Iron) is released, = toxic damage to photoreceptors & RPE.

Blood attracts inflammatory cells (macrophages & fibroblasts) = scarring

INTRODUCTION

Dual blood supply: retinal vasculature → inner retina. Choriocapillaries → RPE & outer retina

Macular haemorrhage can derive from pathology from either blood supply.

Haemorrhage from retinal vasculature = inner retinal layers (Subhyaloid, sub ILM, intraretinal) eg. Valsava retinopathy

Haemorrhage from choroidal vasculature = outer retinal layers (Subretinal or SubRPE haemorrhage) eg. Neovascular ARMD

Coagulation factors eg thrombocytopenia

OCT: excellent modality in determining location of haemorrhage.

Management of macular haemorrhage involves:

- 1) Treatment of underlying pathology
- 2) Displace or remove haemorrhage to prevent further toxic damage.

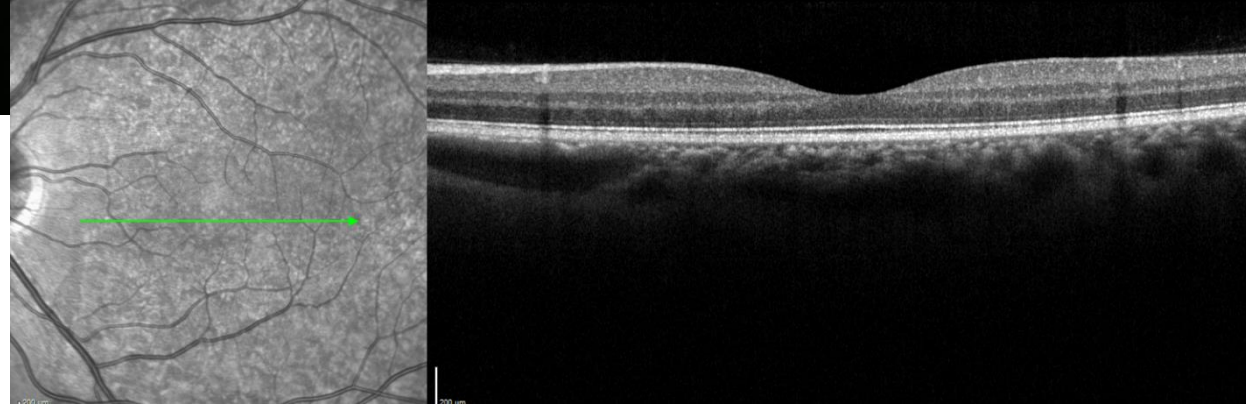
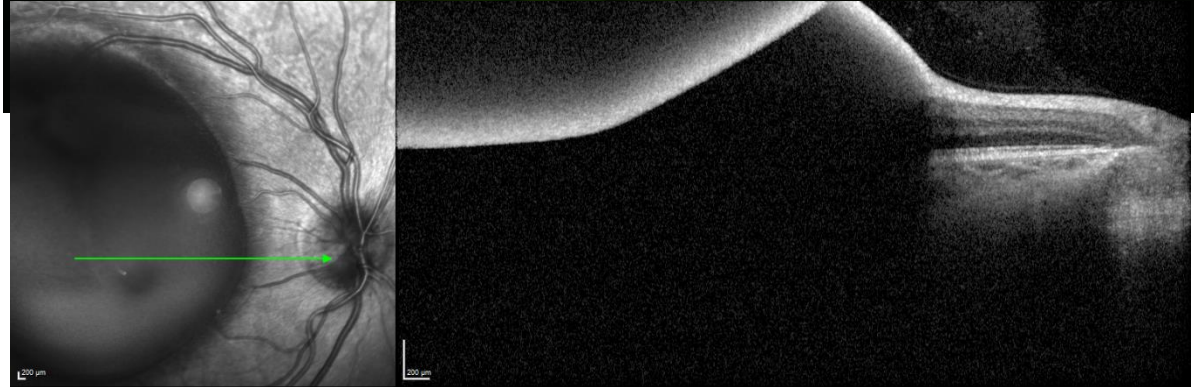
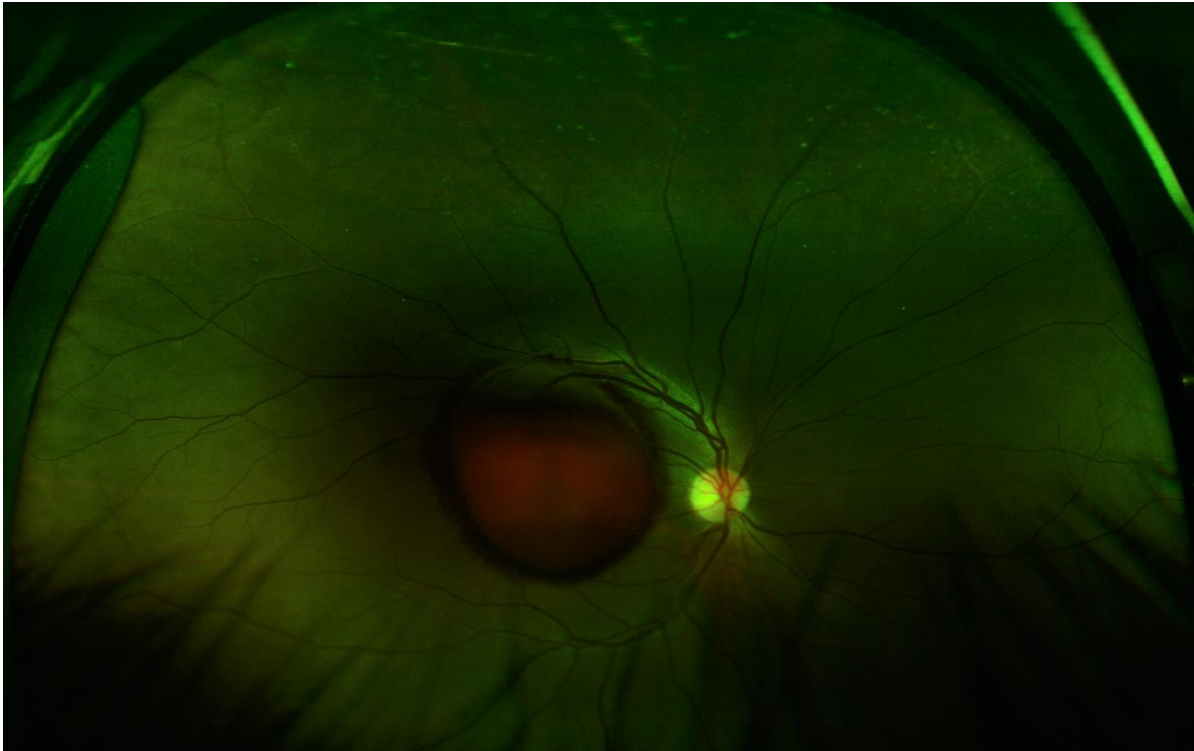


Case 1: Mr MD. 32 yo man.

Sudden curtain over right vision, after 18month old son jumped on back

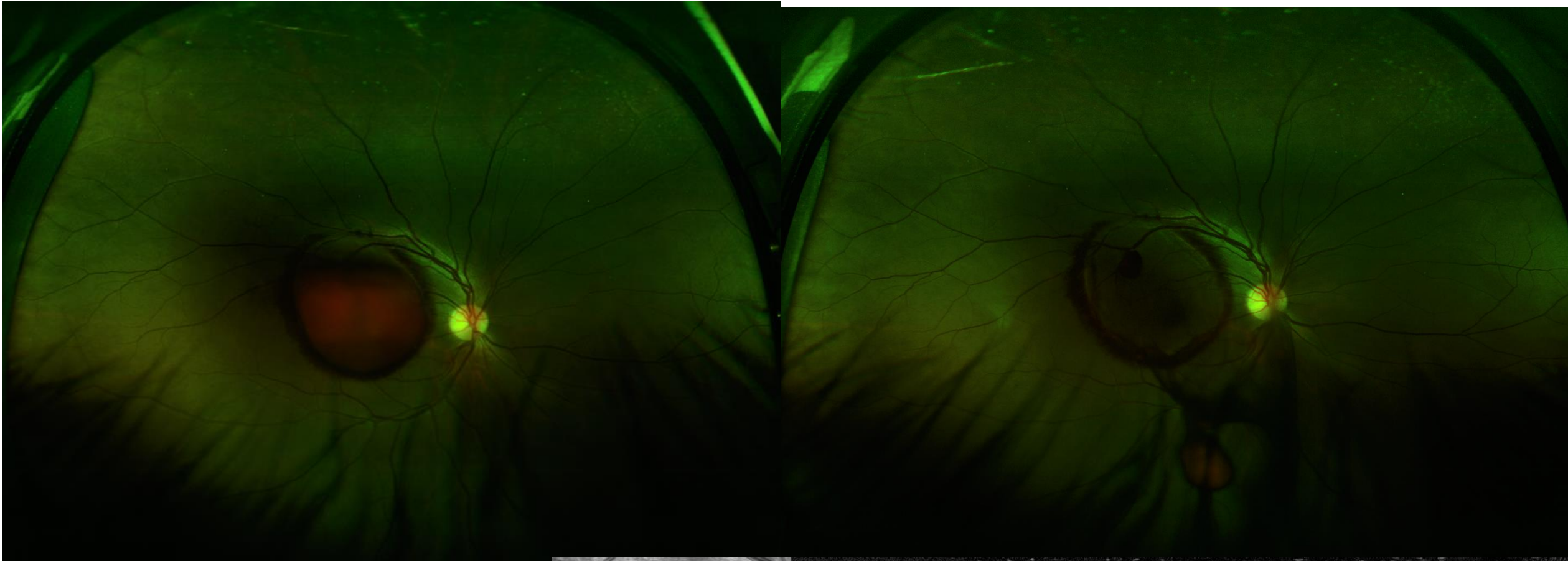
VAR: CF

VAL: 6/6

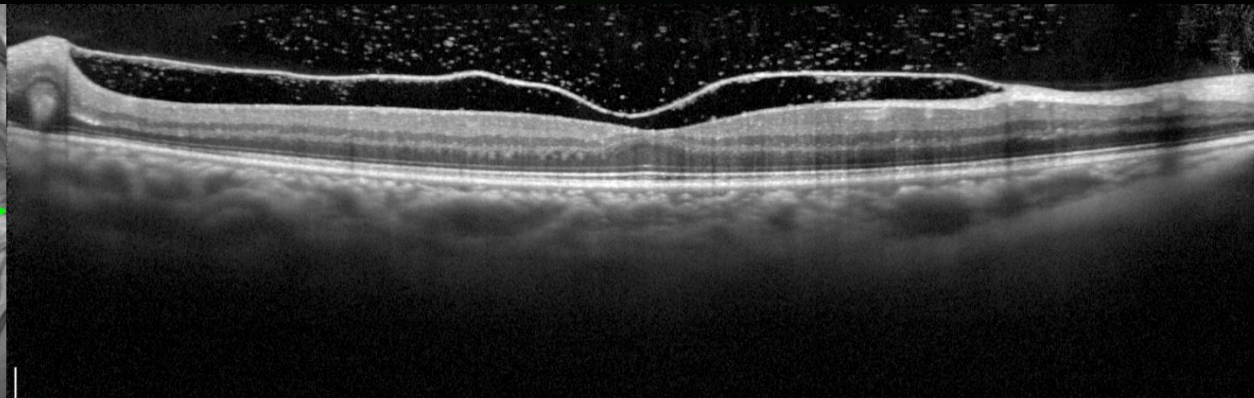
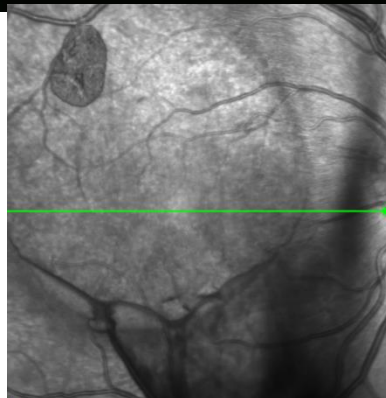


Patient keen for YAG laser hyaloidectomy

VAR: 6/9 PH post laser



Dx: traumatic vitreous avulsion of retinal vein with large subhyaloid haemorrhage.



Case 1:

Mr RT. 37man. Sudden onset of right central scotoma

Hiking in Nepal: arrived in Everest base camp (4900m above sea level). Altitude sickness

Pohx: nil, PMhx nil, Meds: nil

VAR: 6/60

VAL 6/6

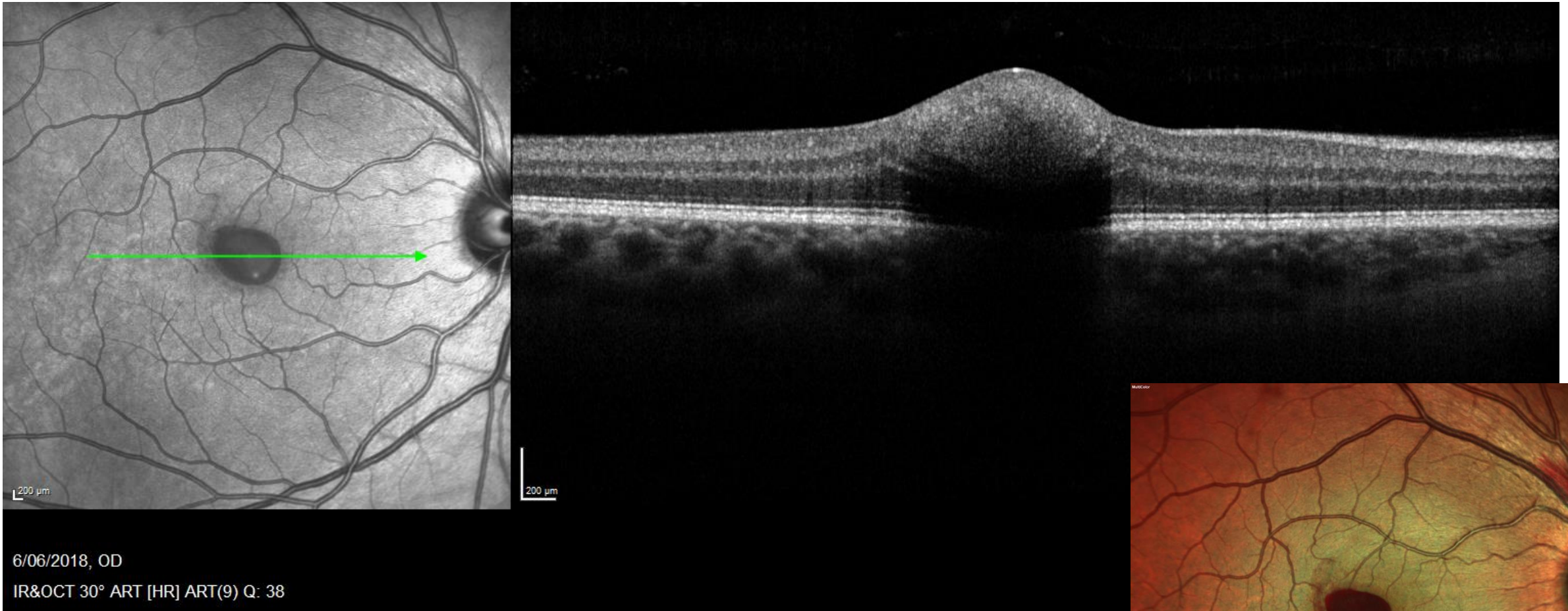


SOUTH STREET EYE CLINIC



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Diagnosis: High altitude retinopathy with foveal subILM haemorrhage

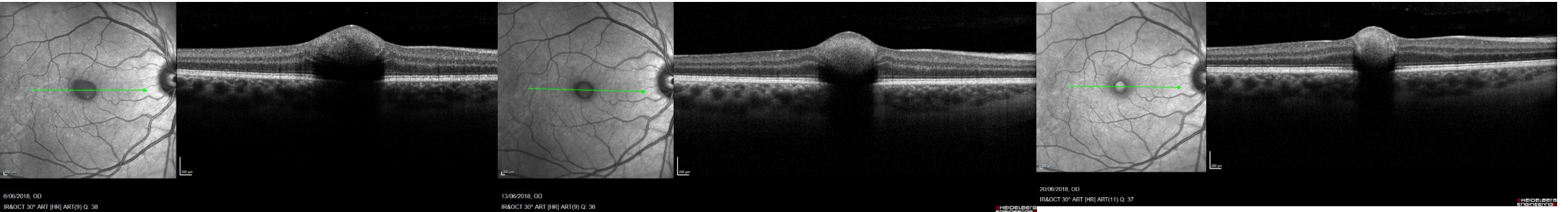




Wk1: VAR 6/60+

Wk2: VAR 6/18-

Wk3: VAR 6/21 -



Conservative treatment:

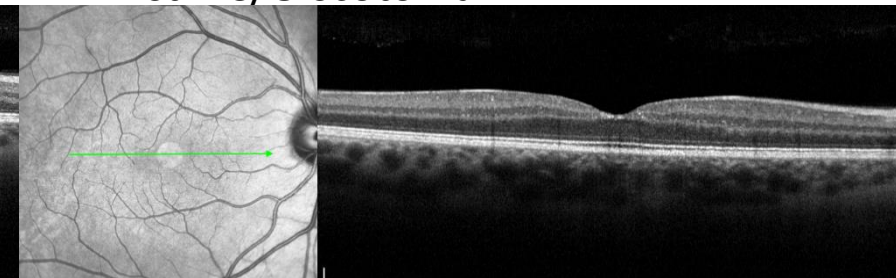
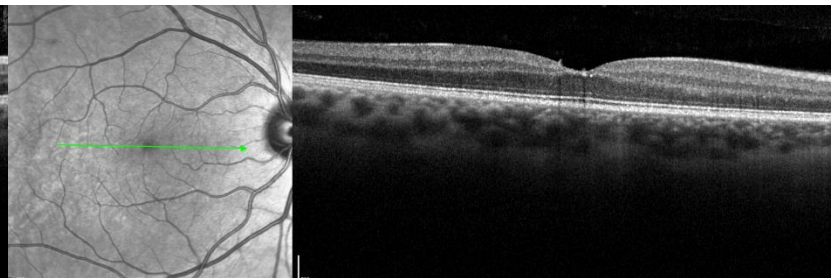
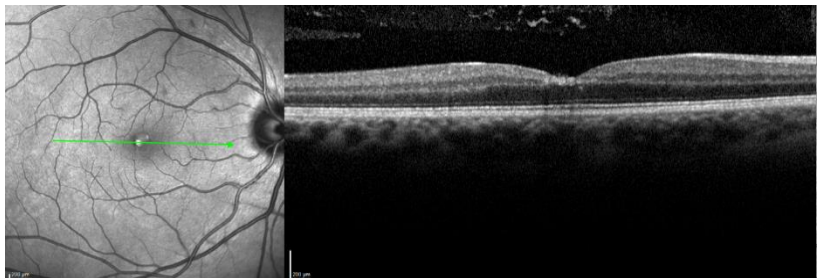


8 wks VAR: 6/9



8 months VAR 6/7.5-

15 months VAR 6/6-
still C/O scotoma



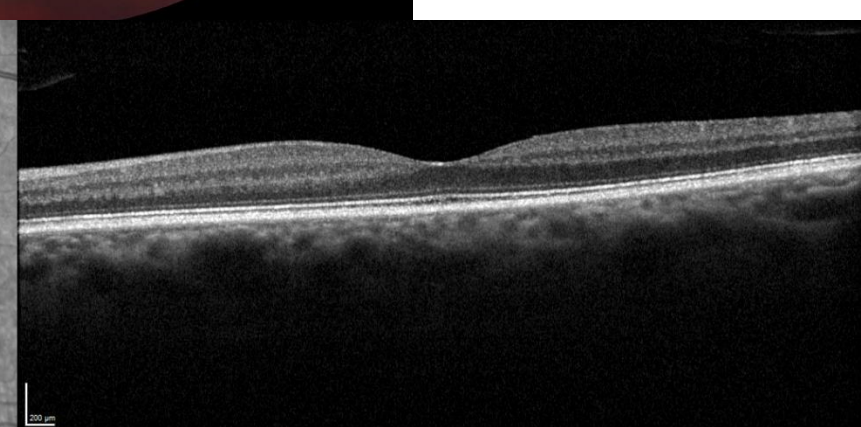
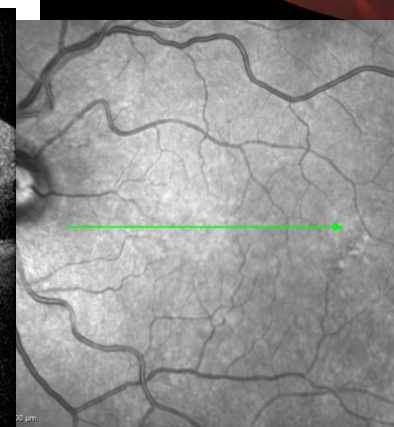
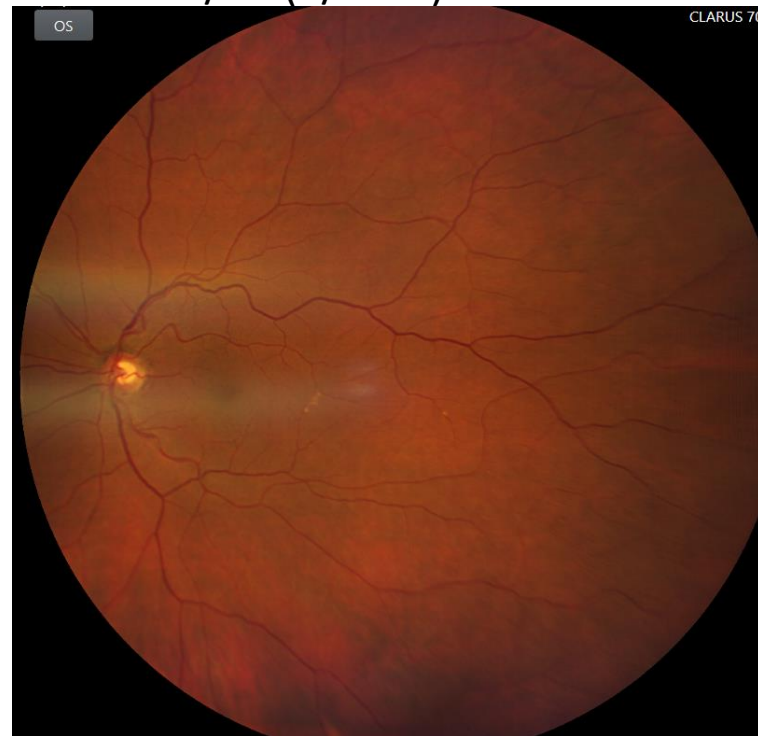
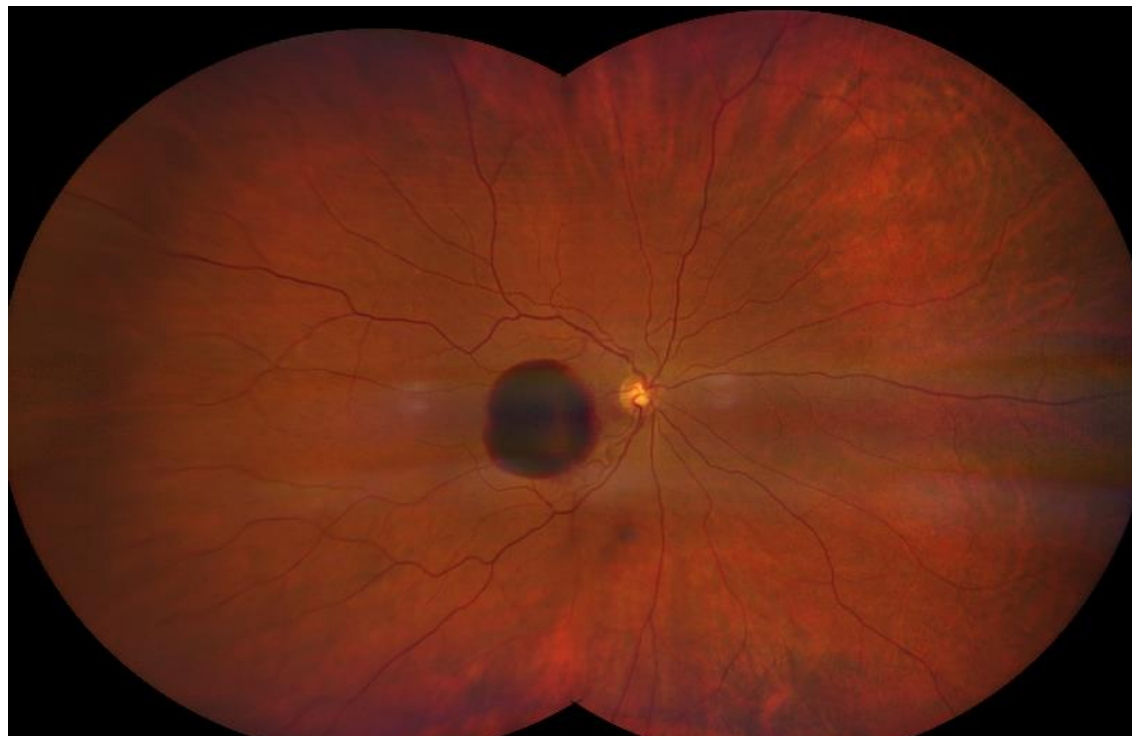
Case: Mrs MC. 72 yo woman. 3 day hx of visual loss.

PMHx: Dx with HTNx. Nil Meds. Pohx: nil

O/E: Early LO. PVD RE. No PVD LE.

VAR: CF

VAL: 6/15 (6/9 PH)



Case:

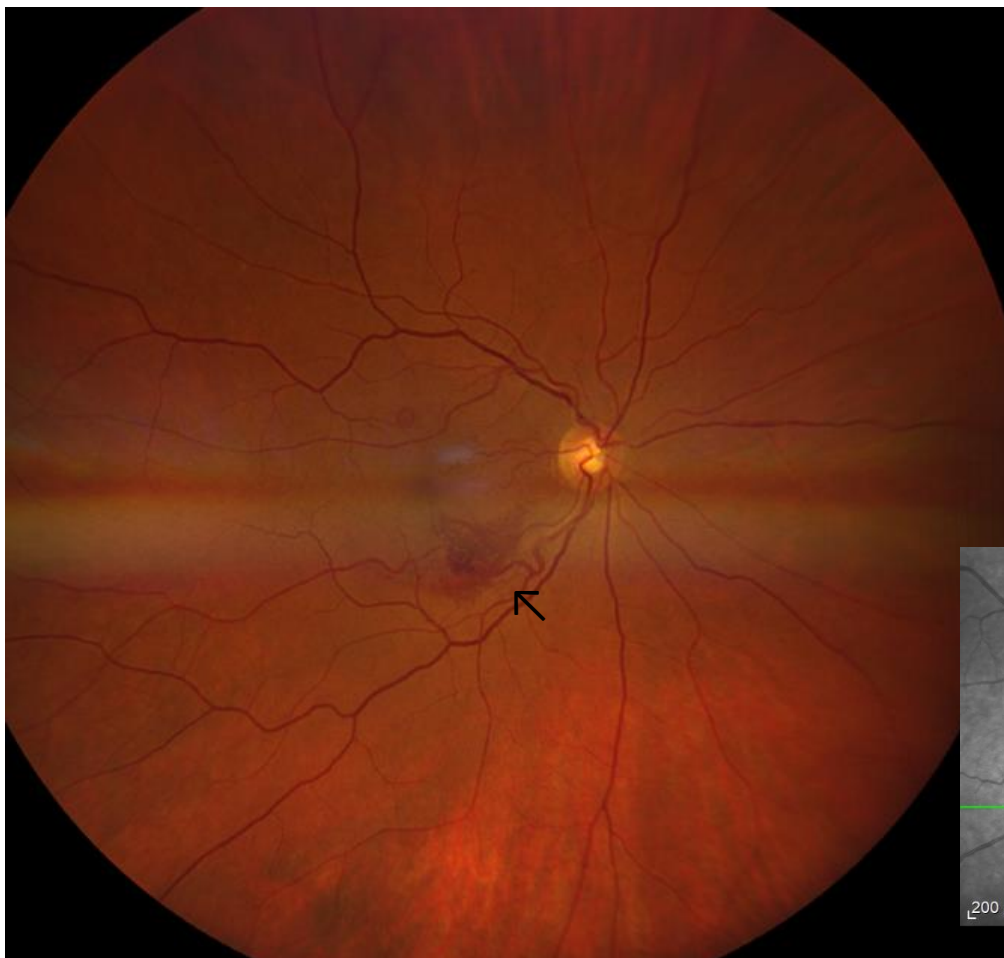
Attempted YAG laser membranectomy: unsuccessful

Surgery: Right vitrectomy, ILM peel and evacuation of pre-retinal thrombus.

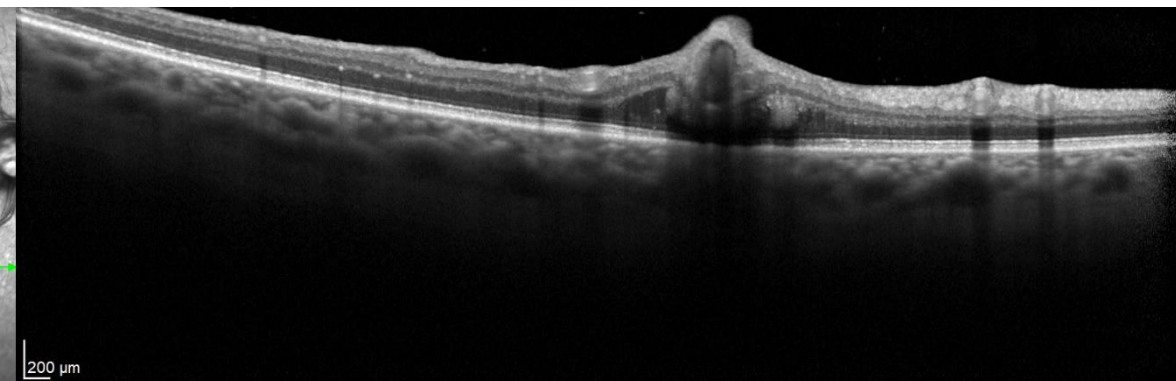
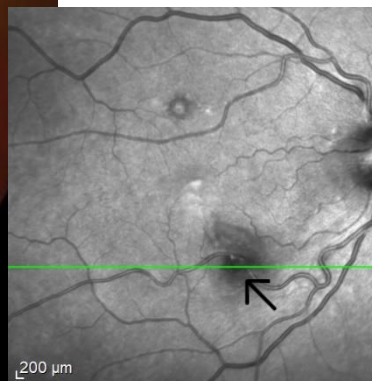
2 wks post op: VAR 6/12



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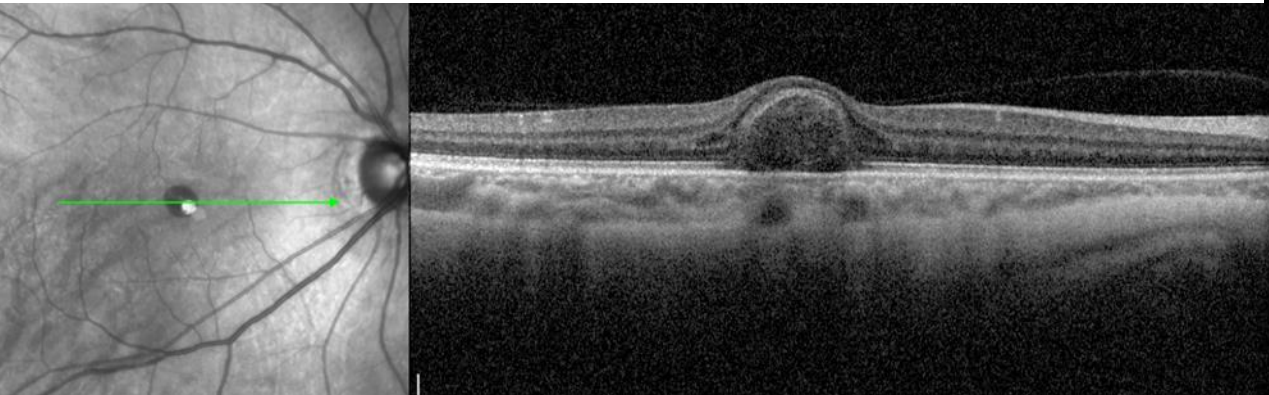
Diagnosis: sub-ILM haemorrhage due to retinal macroaneurysm

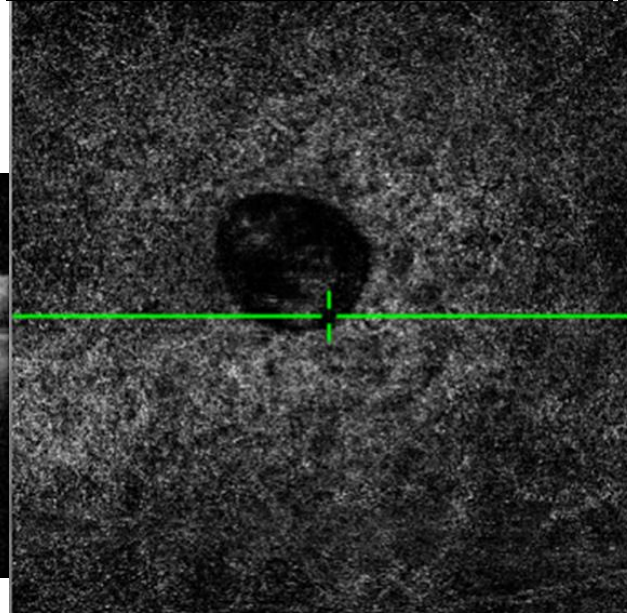
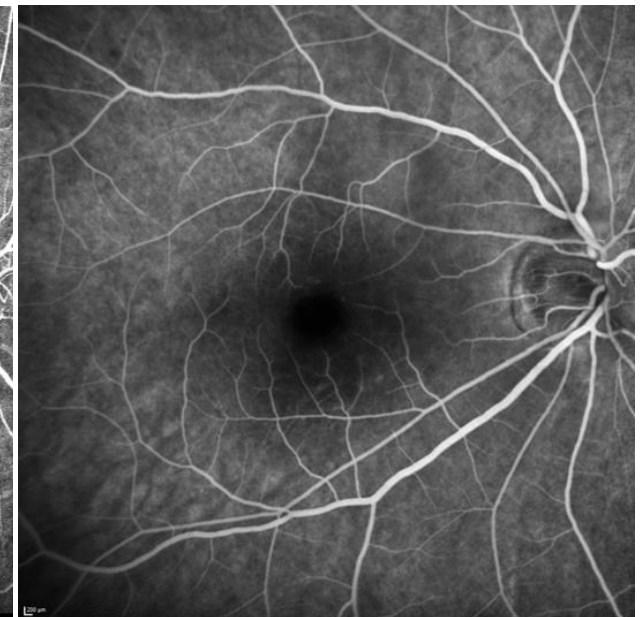
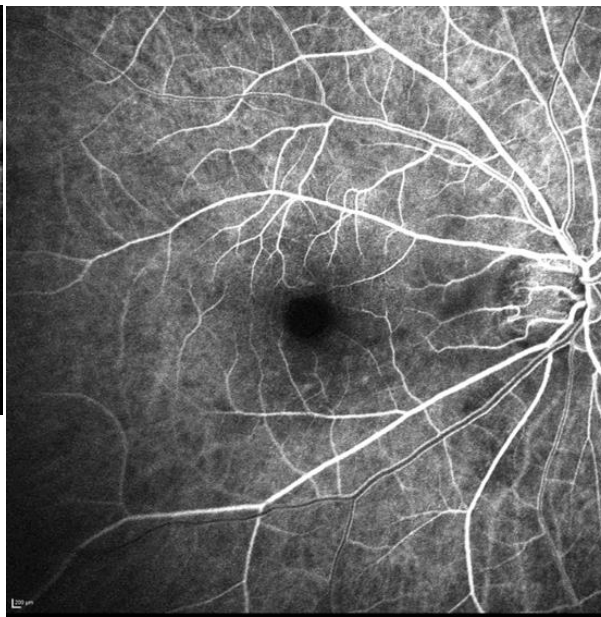
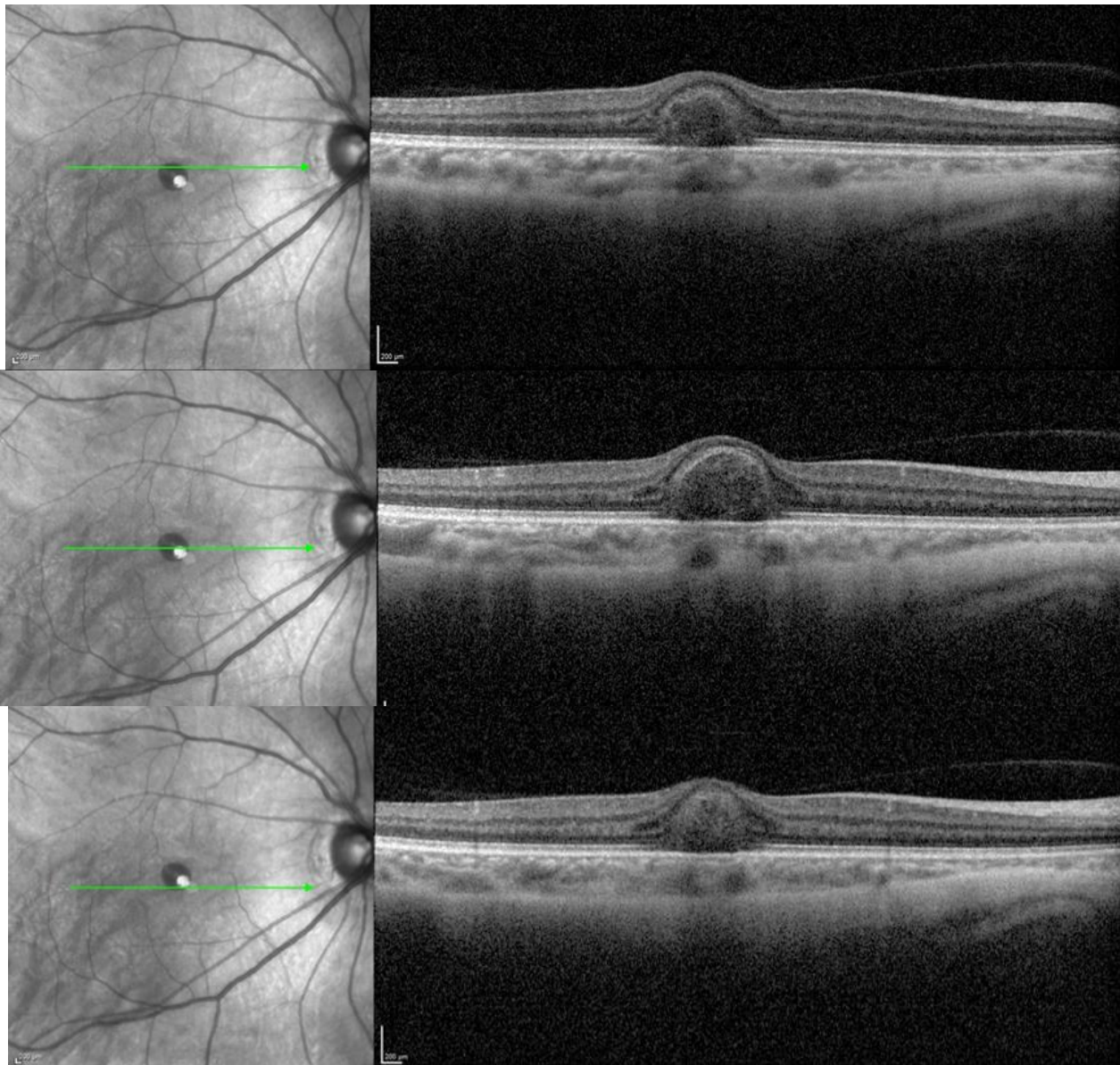


Case 4: 39 yo woman: 1 day history of RE scotoma.

High myope -11.0D

PMHx: nil. Meds: nil





Subfoveal haemorrhage:

- 1) ? Lacquer crack:
break in Bruch's
membrane
- 2) ? Myopic choroidal
neovascular
membrane

Management : Conservative vs intravitreal antiVEGF.



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Presentation: VAR: 6/15

Case 4: Likely myopic CNVM with subfoveal haemorrhage.

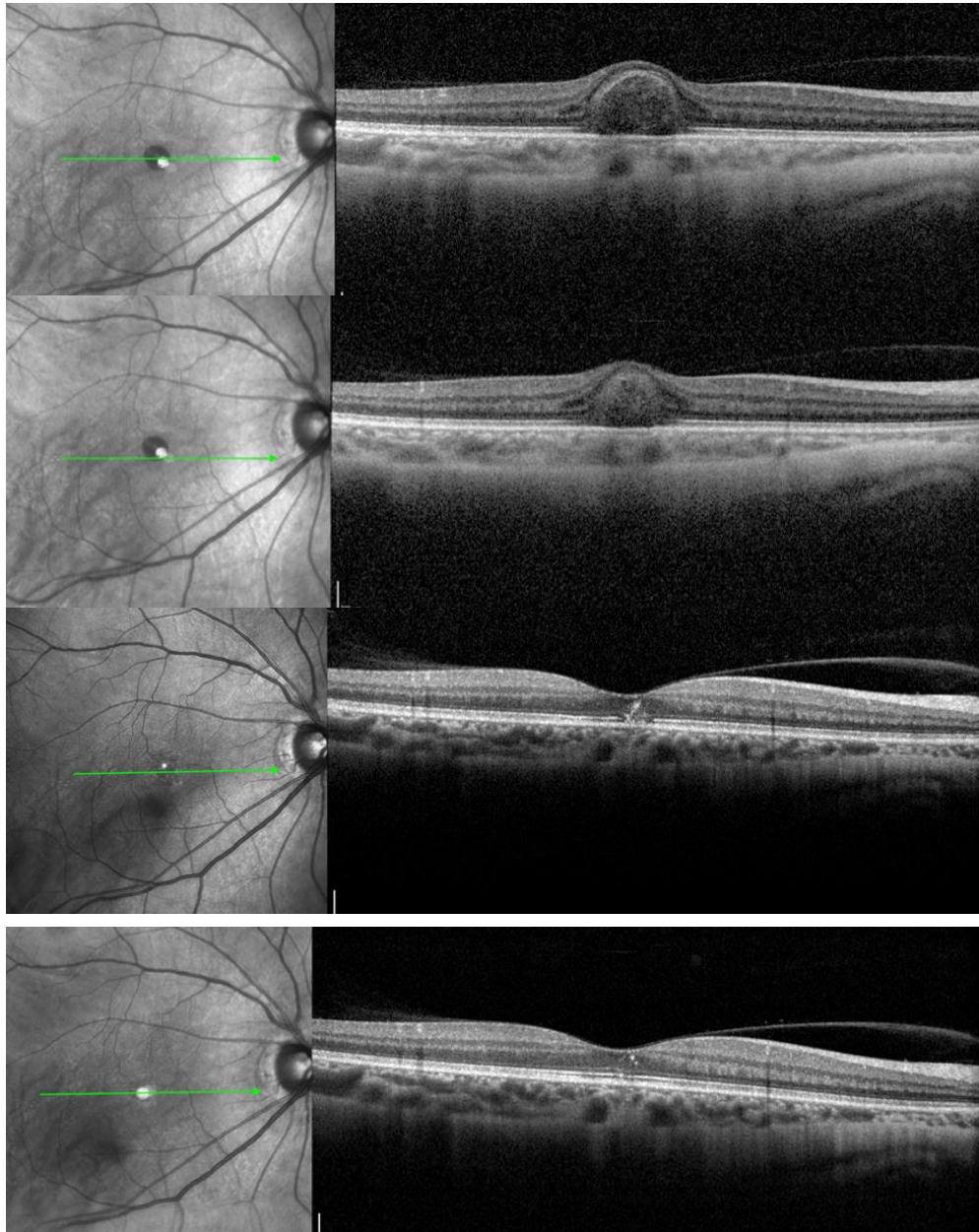
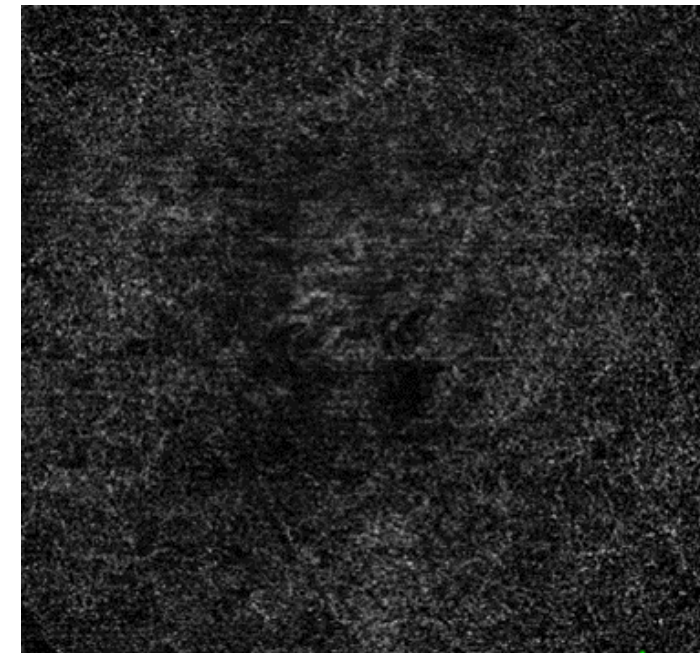
3x IV Lucentis.

VAR 6/15

VAR 6/9

VAR: 6/6

OCTA: Likely CNVM





Case 5: Mrs EL 64 yo woman.

RE nAMD (type2 CNVM) Dx 2011. RE IV Eylea 4 weeks.

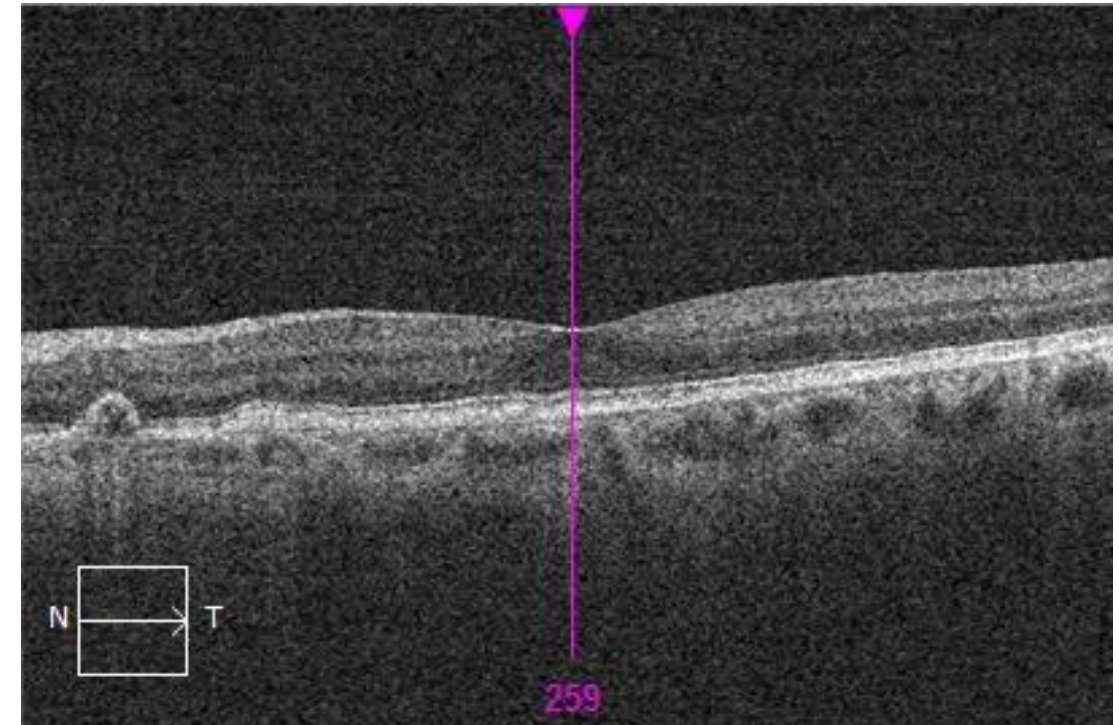
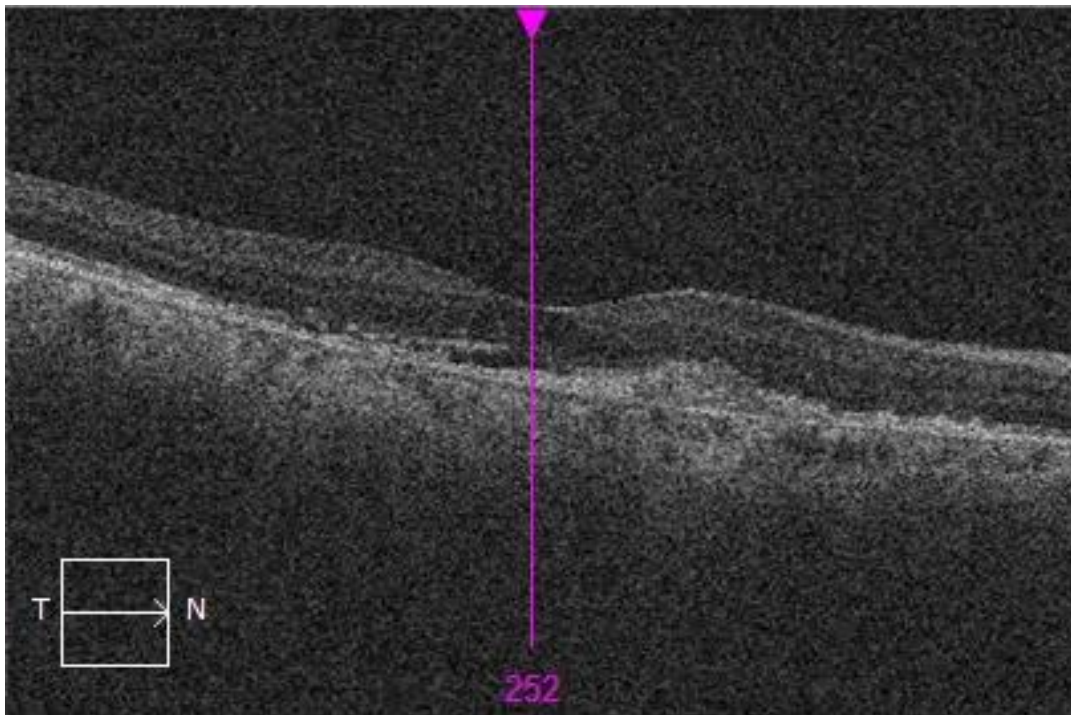
PMHx: wt 160kg!

HTNx: (Irbersartan + Hydrochlorothiazide), Hyperchol: Rosuvastatin, Hypothyroidism: thyroxine, OA knees: Panadol osteo + diclofenac

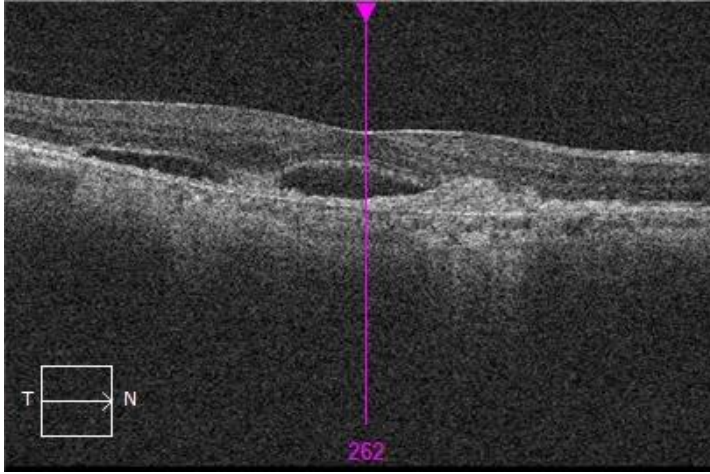
Pohx: cortical cataracts, myopic astigmatism

2014: VAR: 6/9

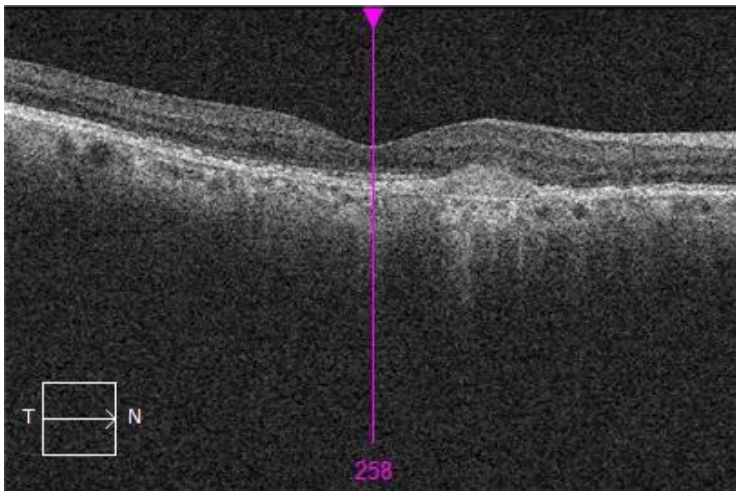
VAL: 6/5



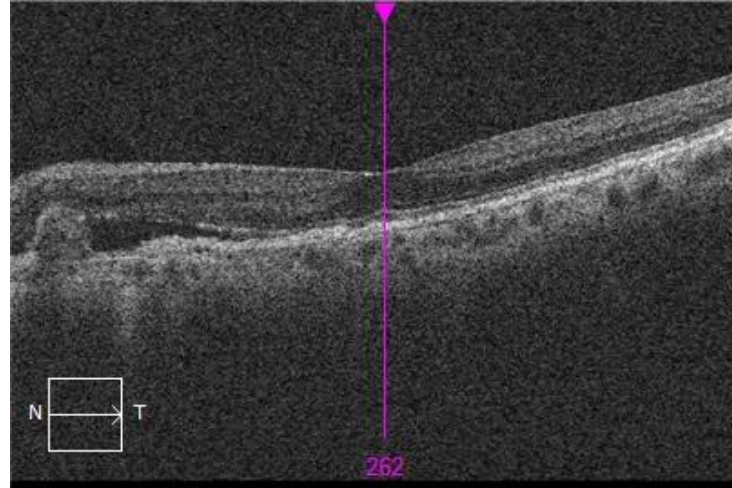
2014-2016



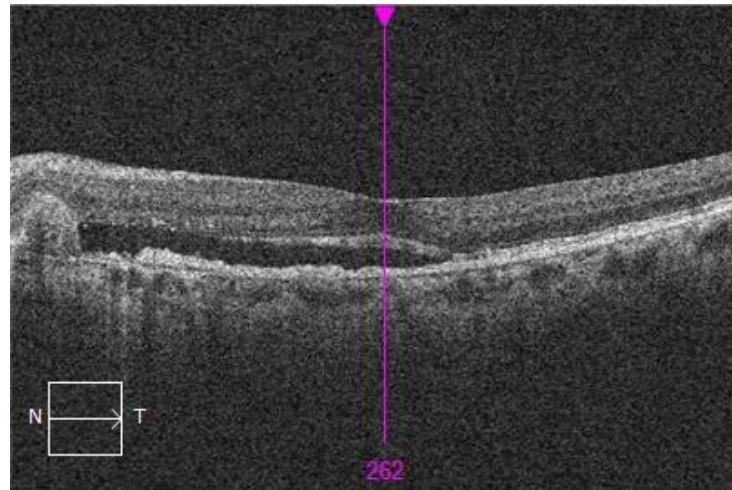
2/12 + Eylea treatment. VAR 6/9-6/12



1/12 Eylea treatment. VAR: 6/7.5-6/9



March 2018. VAL 6/6



Dec 2018. VAL 6/6- asymptomatic
Advised treatment: IV Eylea #1



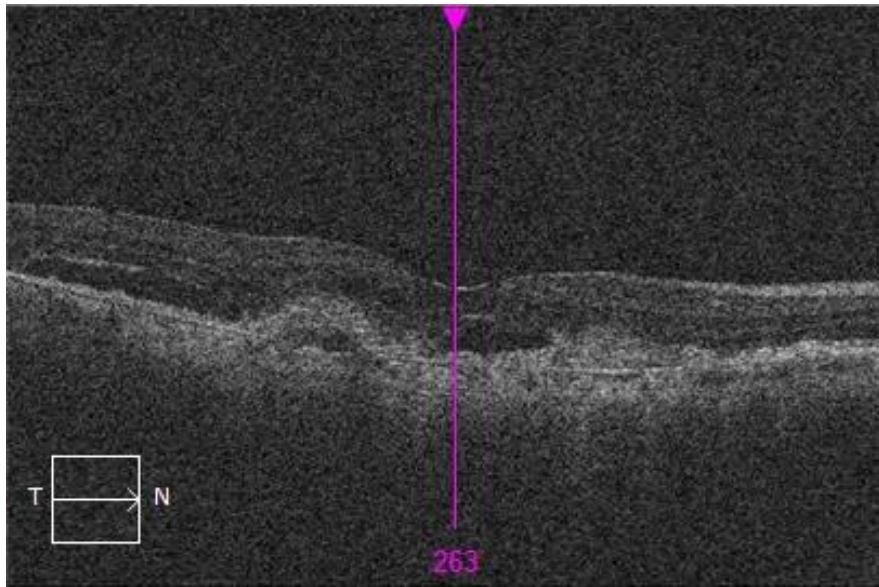
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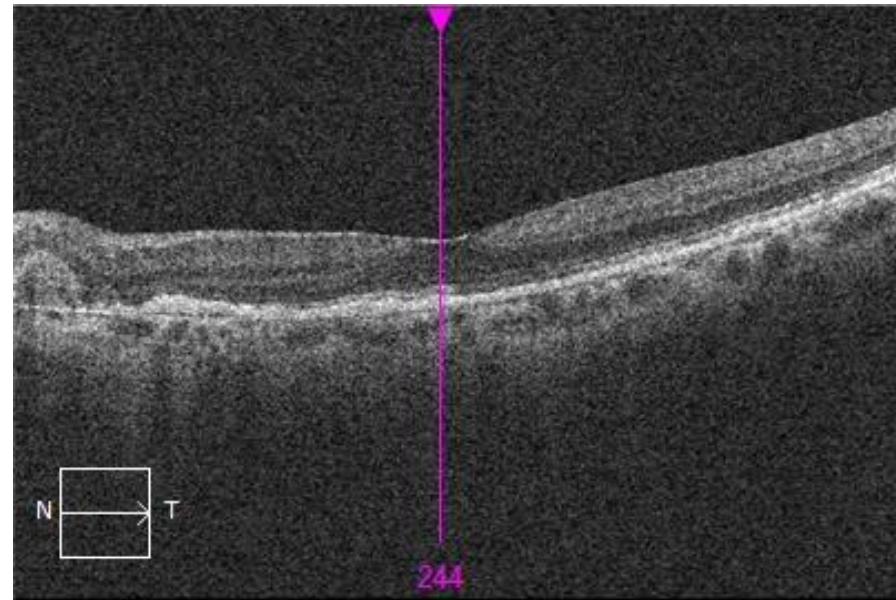
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Only wants 1 eye injection. Aged 68

- L Eylea #1
- RE: skip injection.



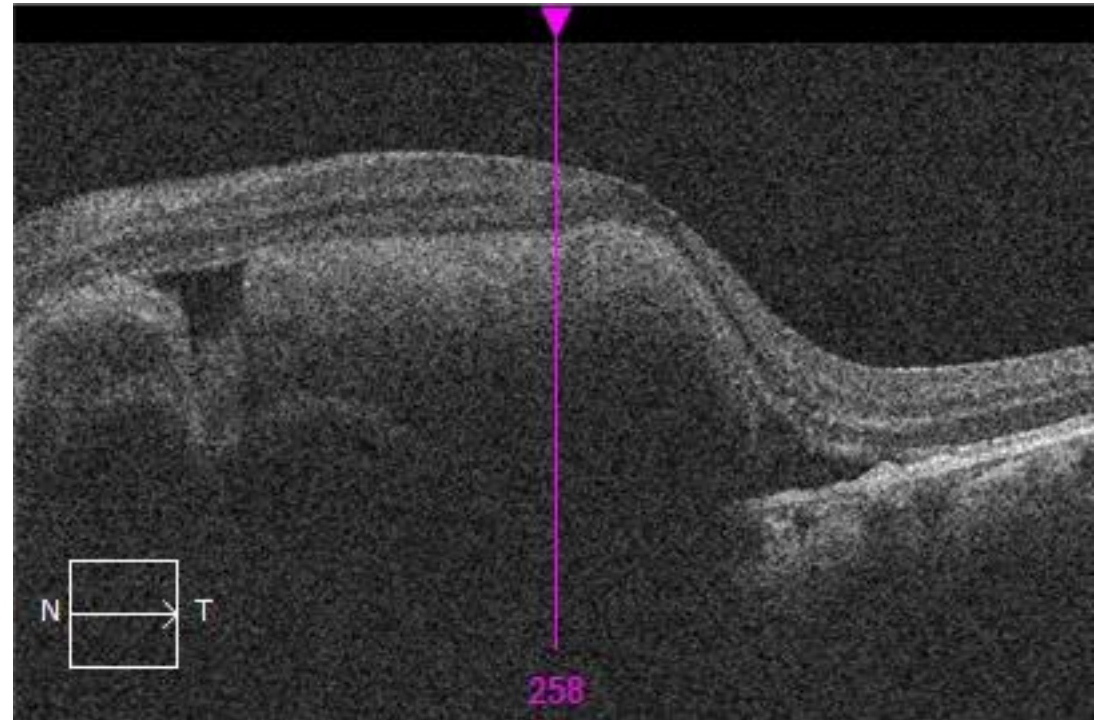
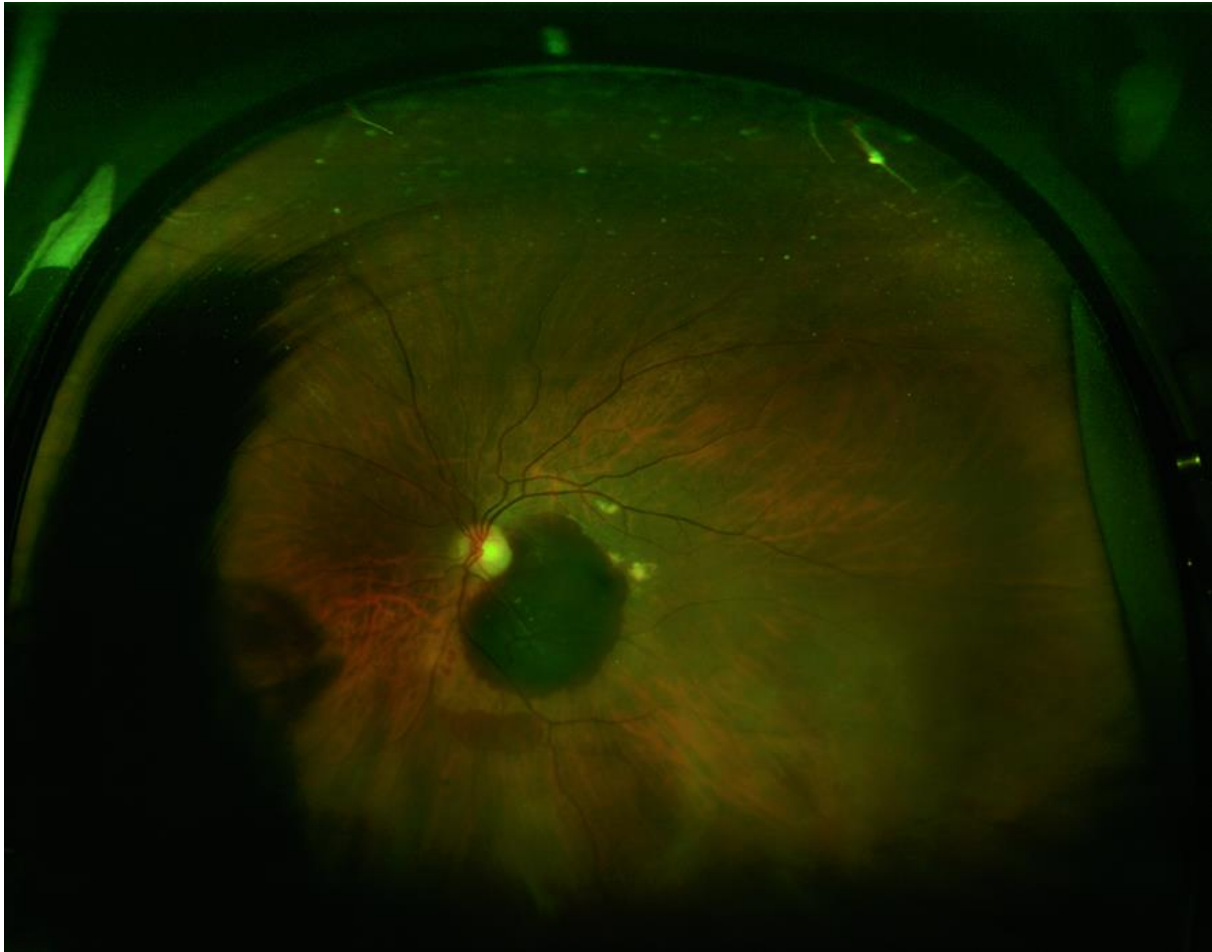
Jan 2019
VAR: 6/30 (+ cataract)



Jan 2019
VAL: 6/6

RE injection only...FEB 2019

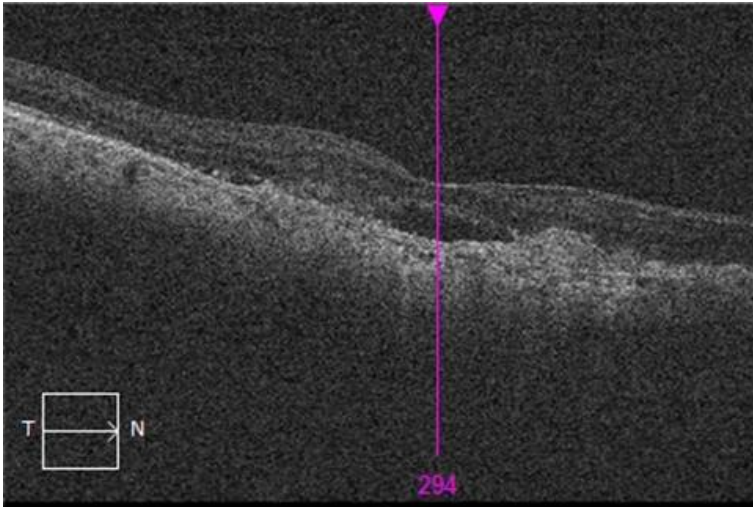
- Woke up with scotoma 1 wk prior to her scheduled LE injection!
- 4 wks post RE Eylea, 8 weeks post LE Eylea (#1)



VAL: CF

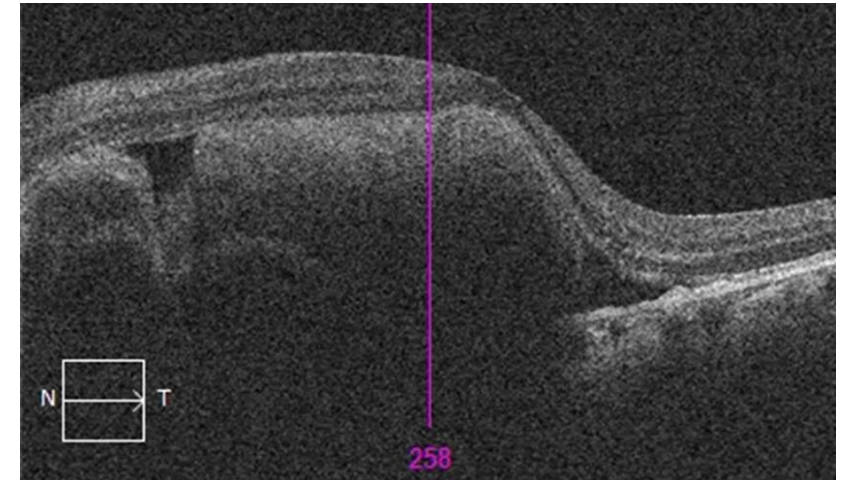
Large SR and sub RPE haemorrhage due to nAMD

VAR: 6/60 Cataract

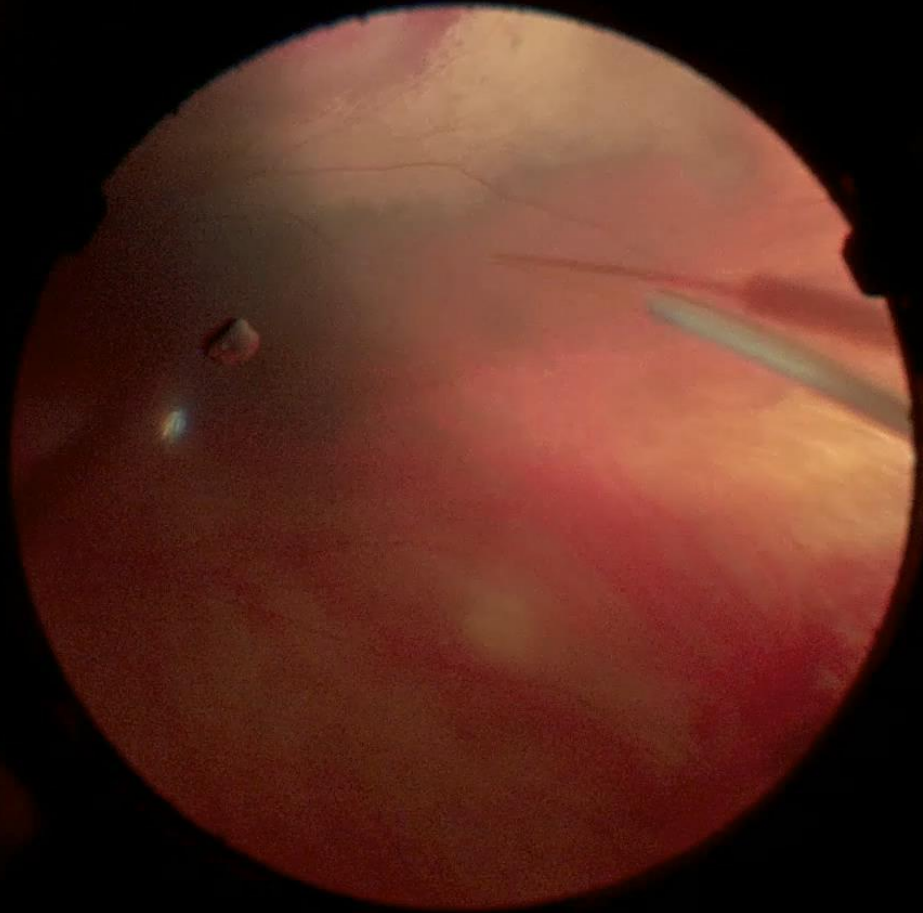


Options:

- 1) Start anti-VEGF (EYLEA) again
- 2) Strategies to shift SR blood
- 3) LE : better eye.



27:08



Vitrectomy +
subretinal TPA
+ gas
tamponade

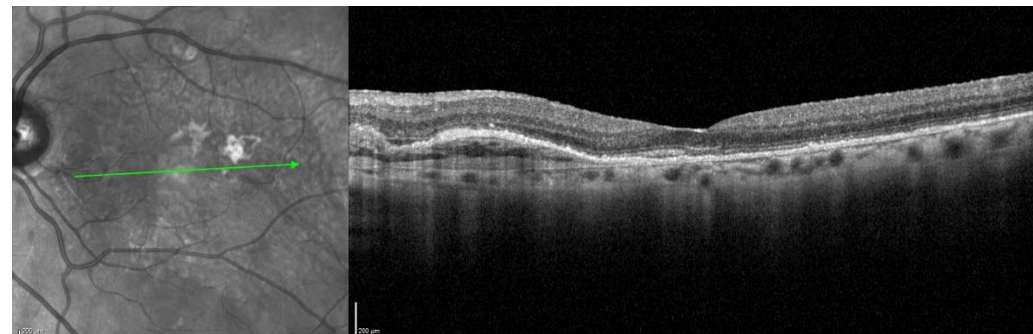
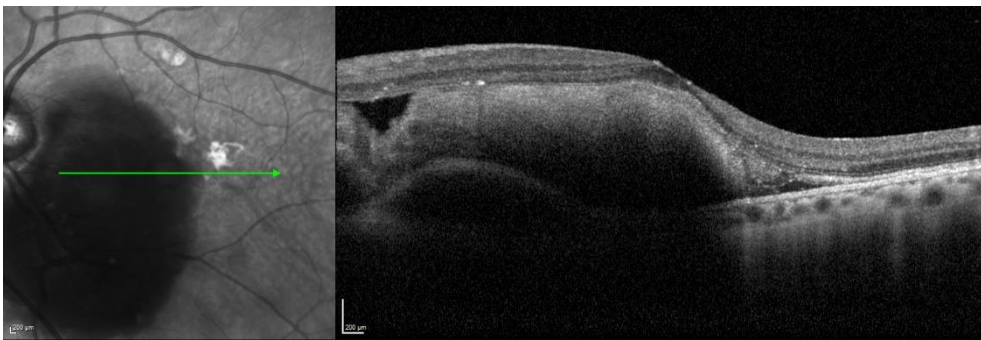
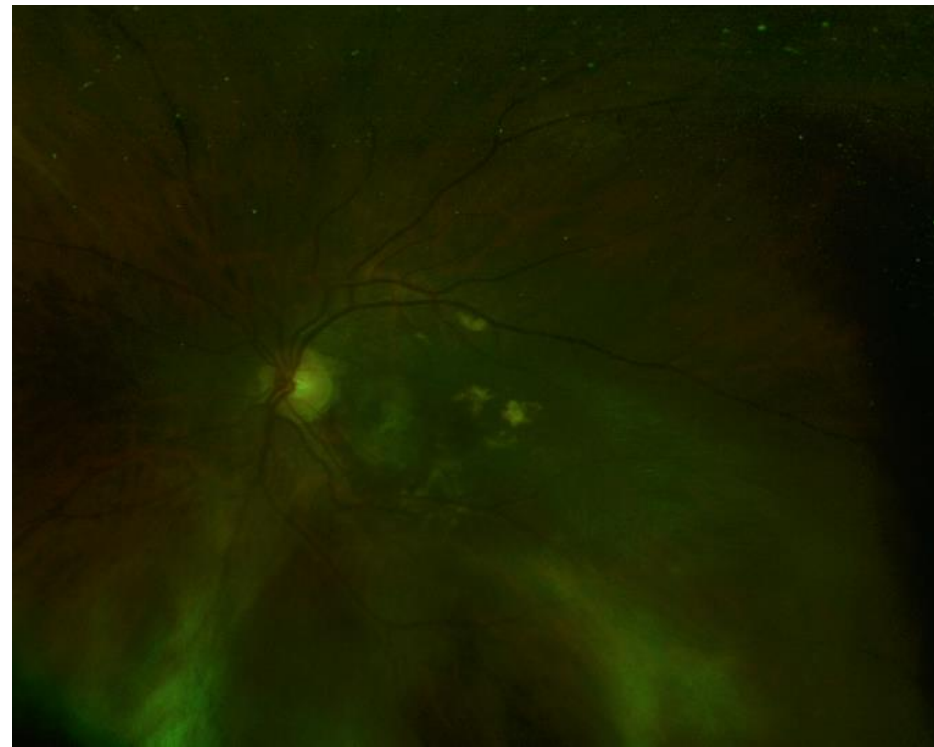
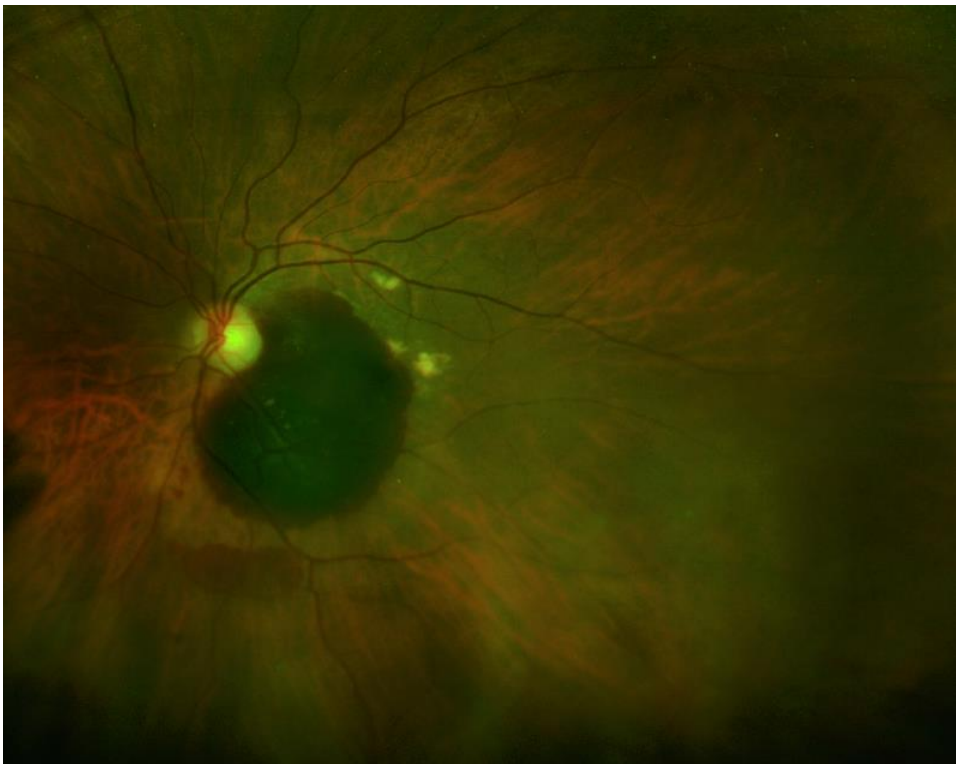
Alcon
a Novartis company



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Pre op: CF

6 wks post op: VA 6/60. (6/7.5 PH)

Diagnosis: Large SR haem due to nAMD: displaced with SR tPA & gas

Summary:

Macular haemorrhage can result in severe visual loss.

Haemorrhage in the inner layers of the retina (eg subhyaloid or subILM) is often derived from pathology involving retinal vasculature. Eg. Valsava retinopathy, retinal microaneurysm, leukemic retinopathy.

Haemorrhage in the outer layers of the retina (eg subretinal or subRPE) is often derived from pathology involving the choroidal circulation. Eg. Choroidal neovascular membrane.

Treatment is aimed treating underlying aetiology. Eg. antiVEGF for CNVM

Small haemorrhage can be managed conservatively.

Large haemorrhage can be removed or displaced surgically to assist quicker visual recovery and reduce risk of potential irreversible toxic and fibrotic damage to the fovea