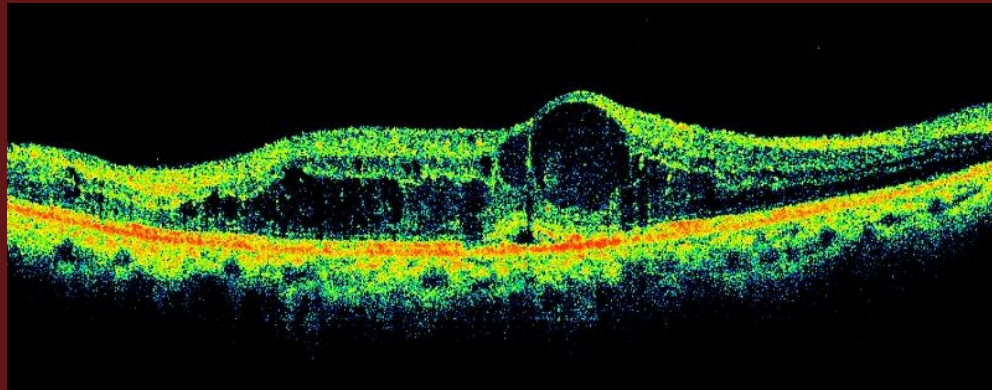


# Cataract & Diabetic Retinopathy



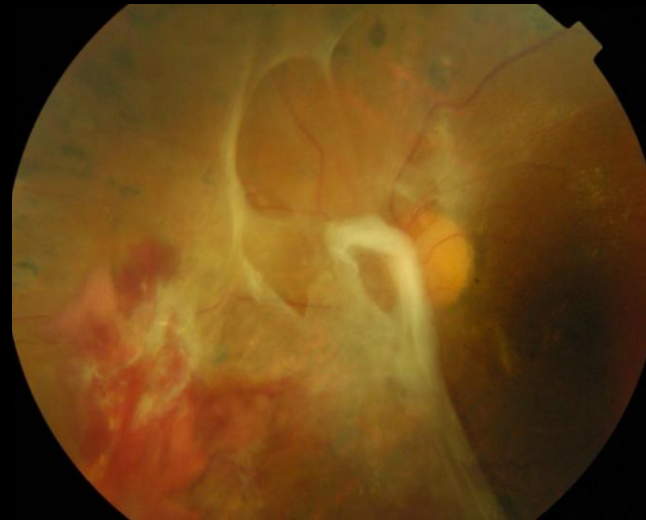
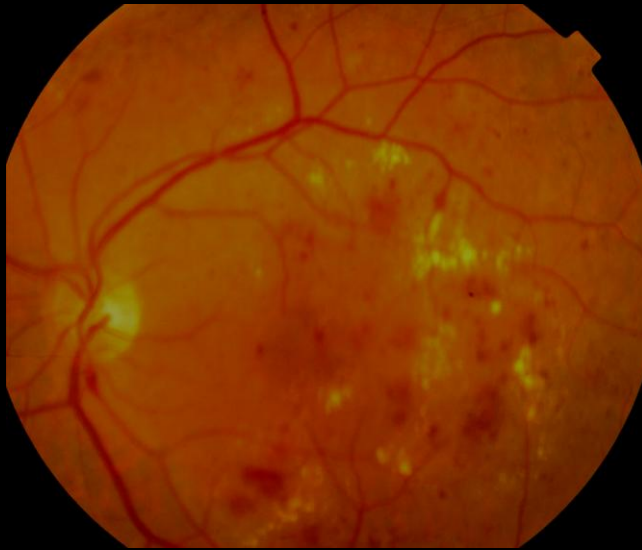
Mallika Goyal, MD

Apollo Health City, Jubilee Hills

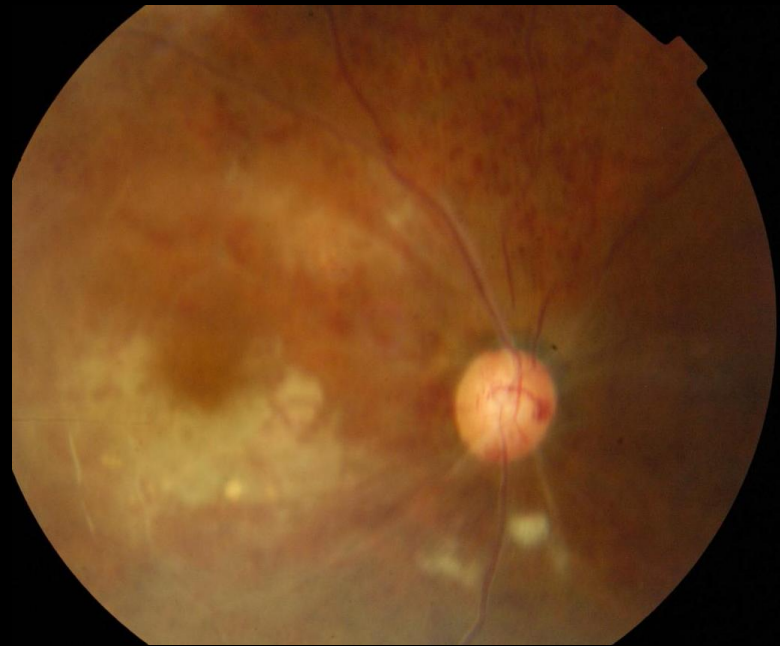
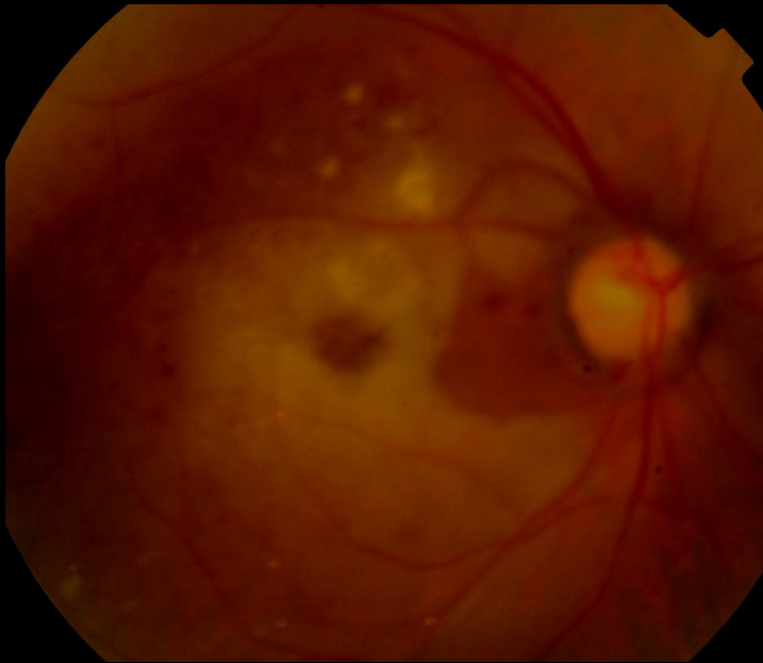
Hyderabad

## Two Concerns

1. Diabetic Maculopathy
2. Proliferative diabetic retinopathy



Not always DME  
CRAO, CRVO, BRVO

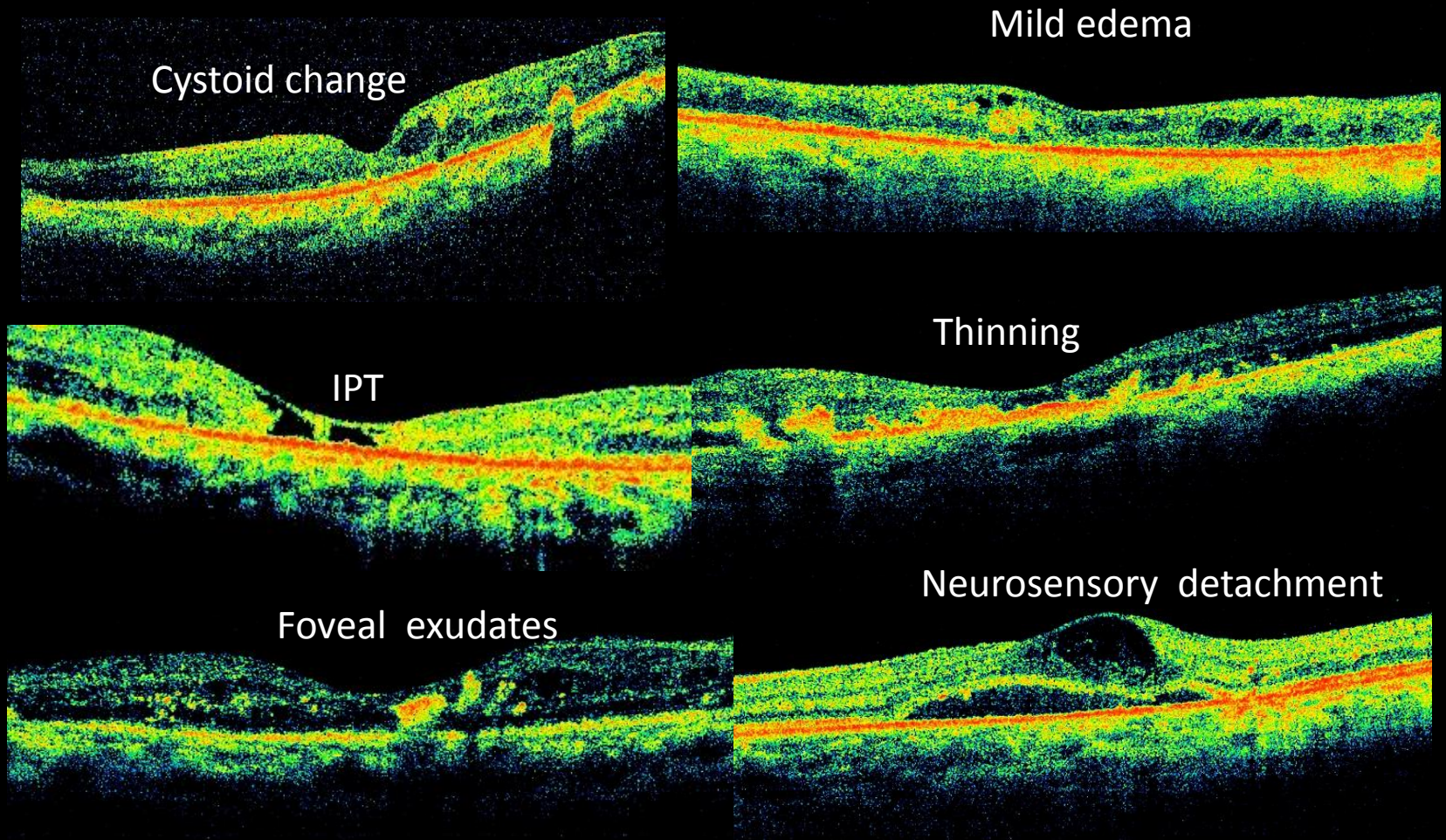


# Cataract & Diabetic Retinopathy

## Points to be answered...

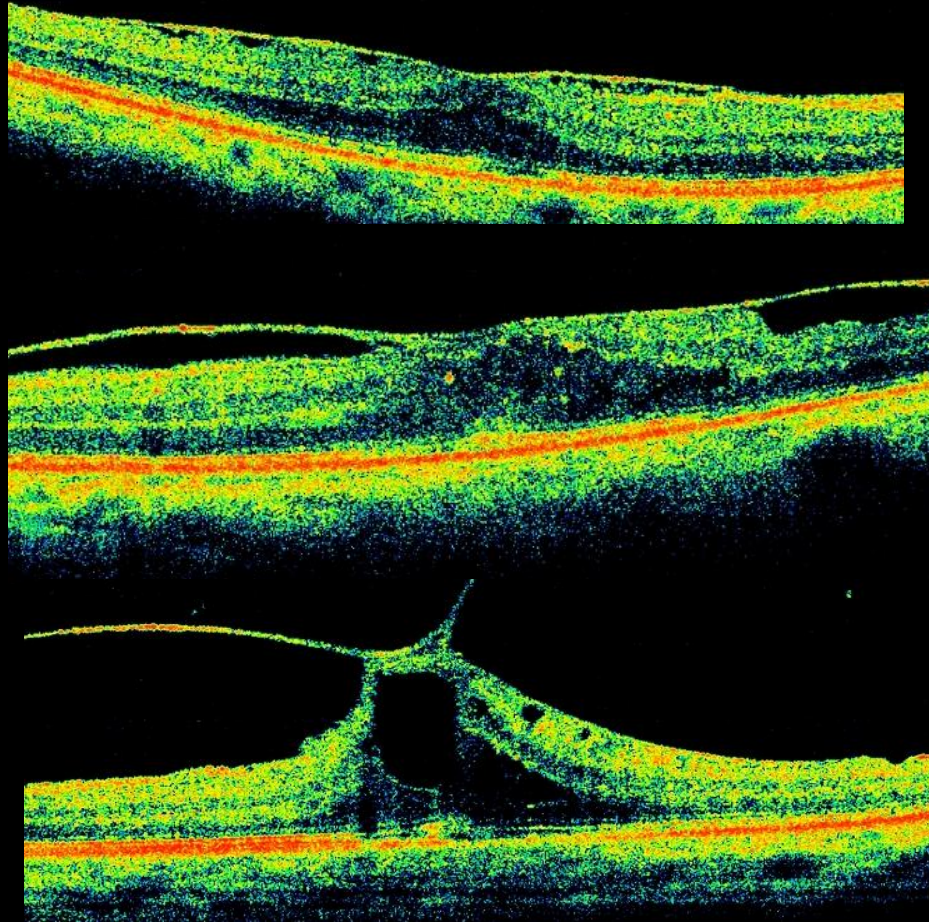
1. What is the contribution of cataract to the vision drop ?
2. Is it SAFE to remove the cataract?

# OCT can detect subtle changes

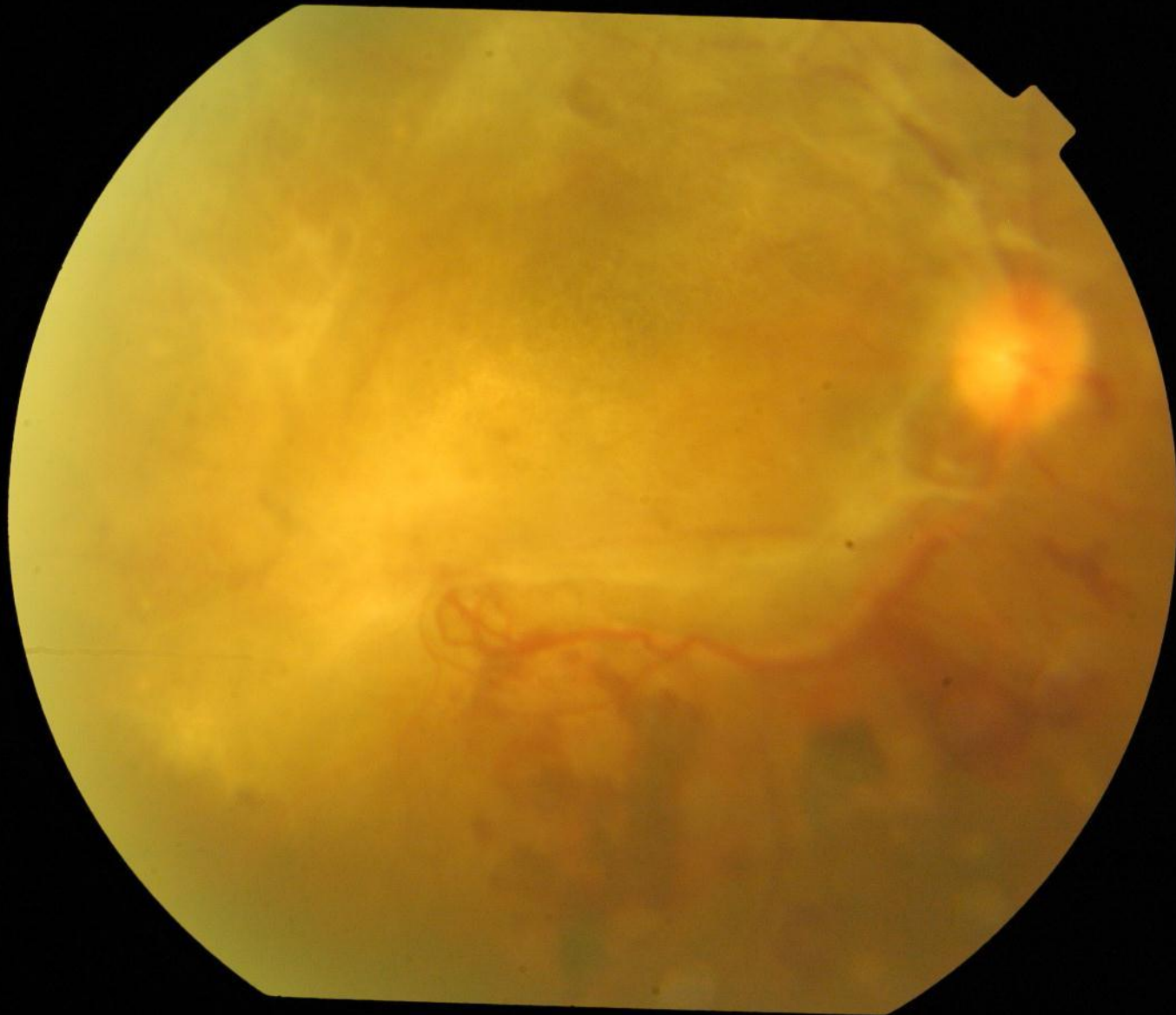


## Co-existing problems....

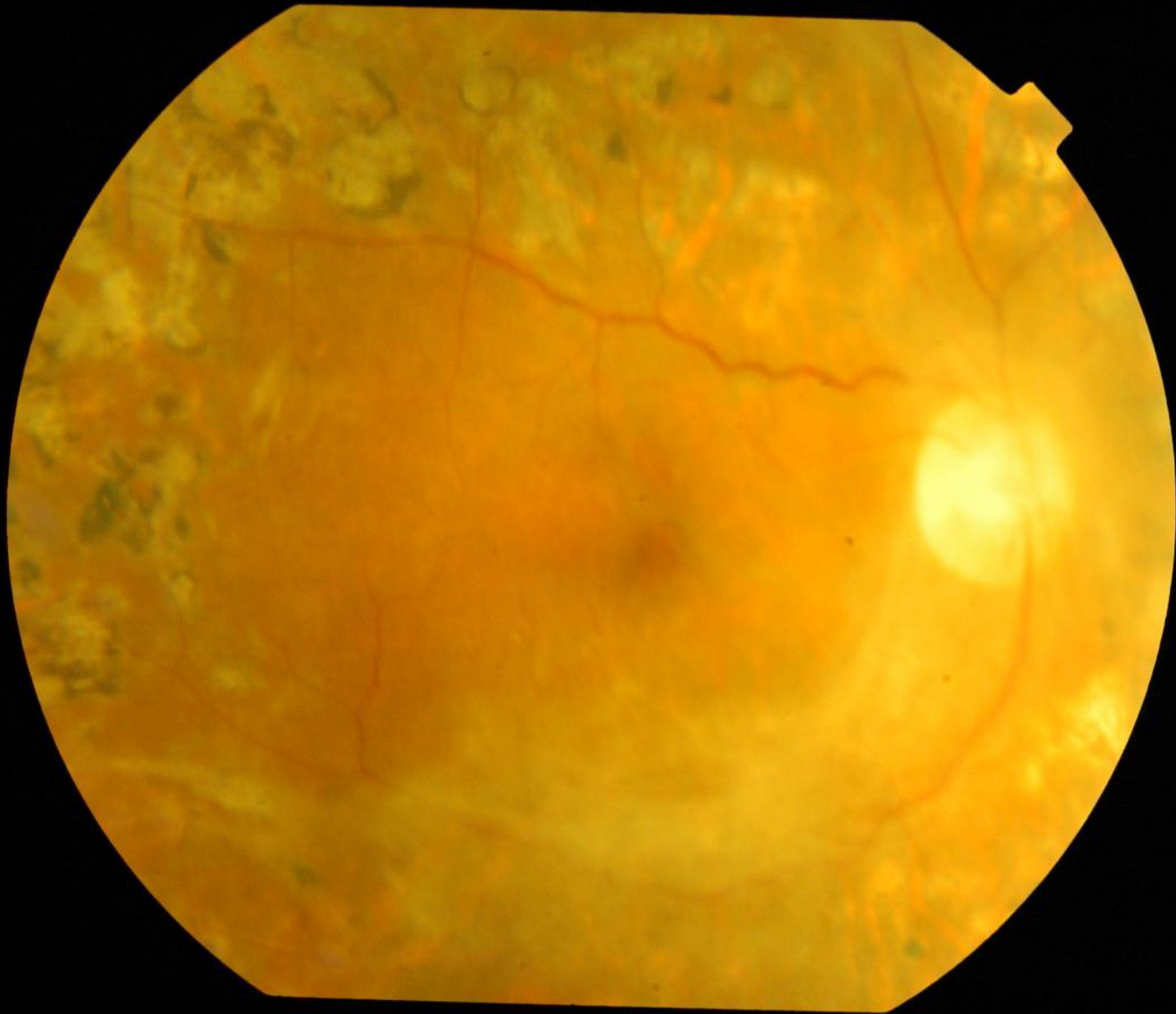
ERM/ VMT: cataract + vitreous surgery



PDR: Safety depends on whether Lasered



Lasered PDR: Safe to operate



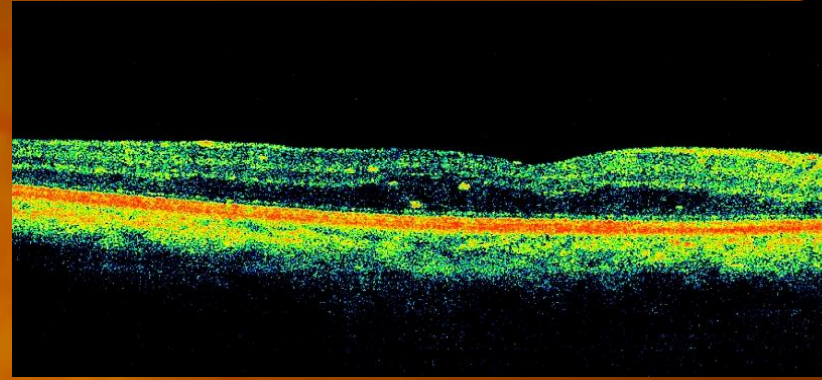


# Diabetic Maculopathy Types

- Macular Thickening
- Cystoid Macular Edema
- Exudates
- Ischaemic Maculopathy

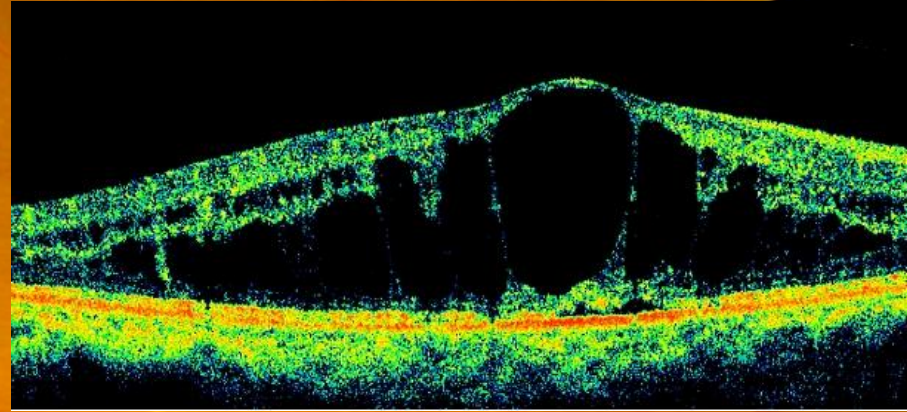
# Macular thickening

- Laser
- Anti-VEGF/ IVTA



# Cystoid macular edema

- Intravitreal Steroid
- × Poor response to Laser



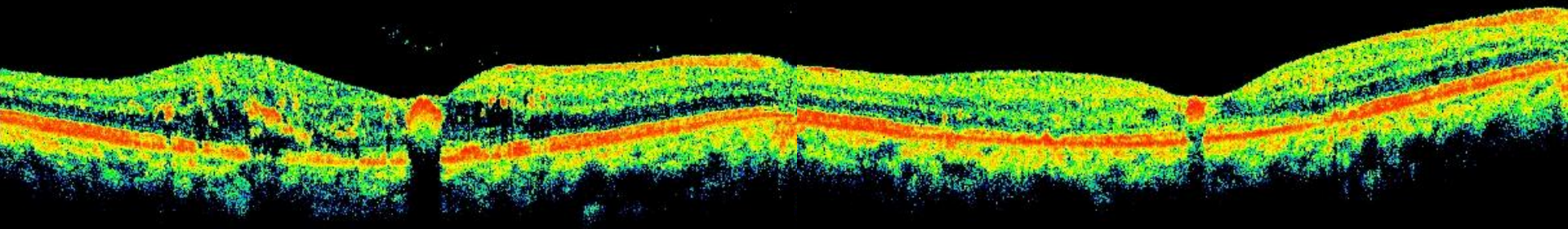
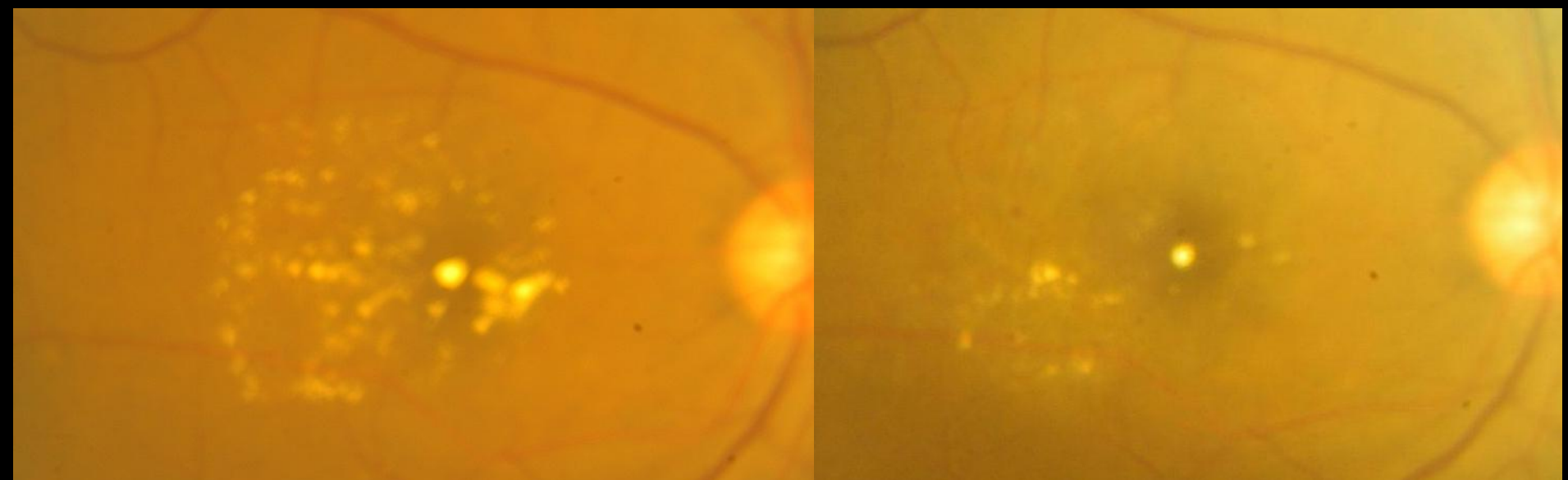
# Foveal exudates: take months to resolve

- Laser
- Lipid control
- Anti-VEGF



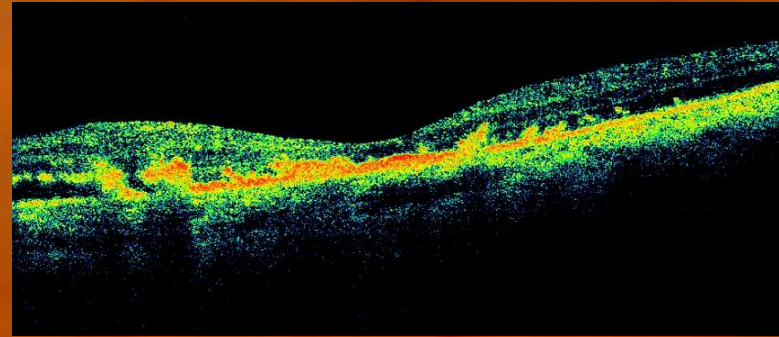
Pre-treatment

Post-treatment



# Macular Ischaemia

- No intervention

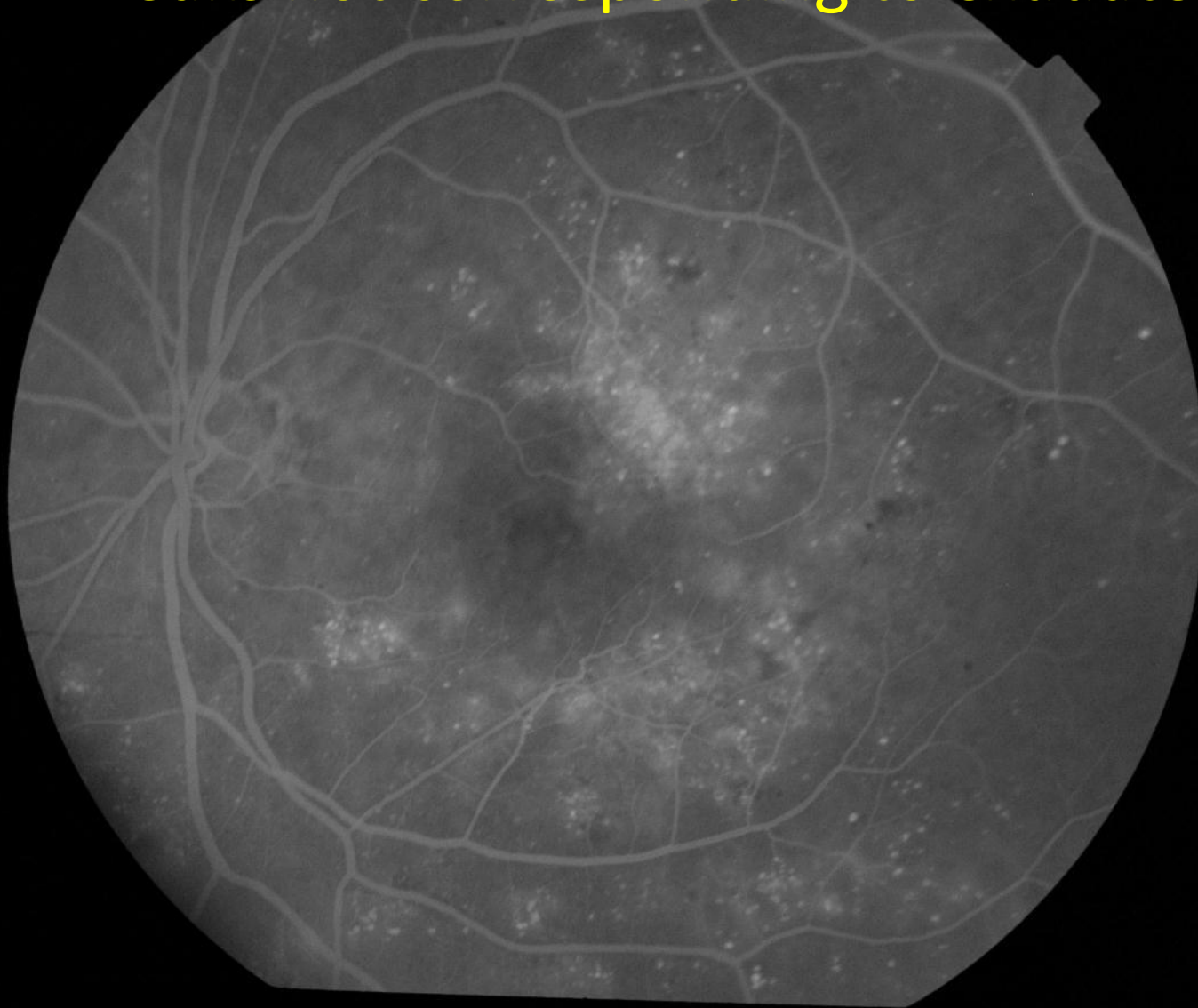


## Pre-operative Laser

- If media permits
- If not, 3-4 weeks after surgery

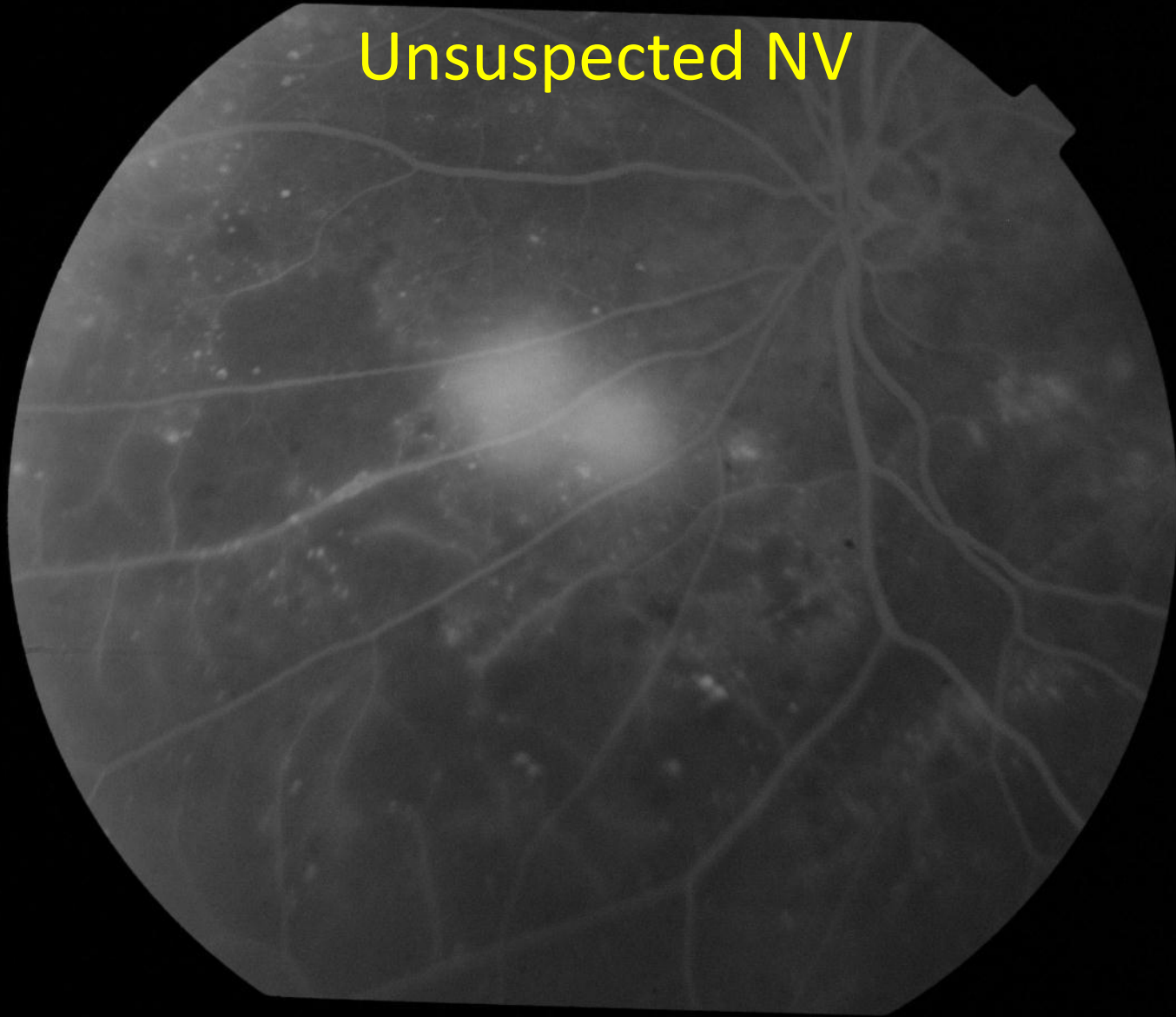


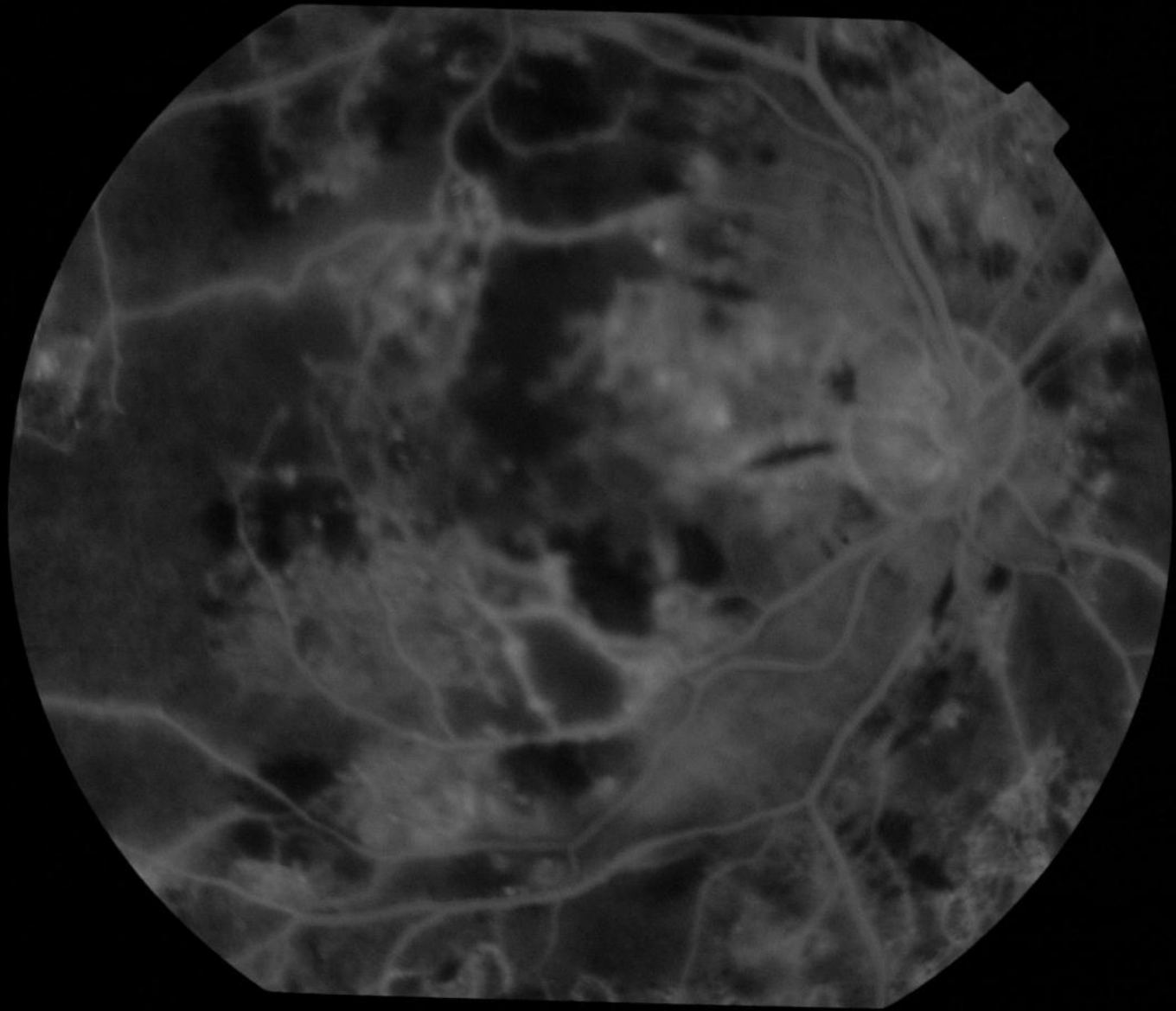
Leaks not corresponding to exudates





Unsuspected NV



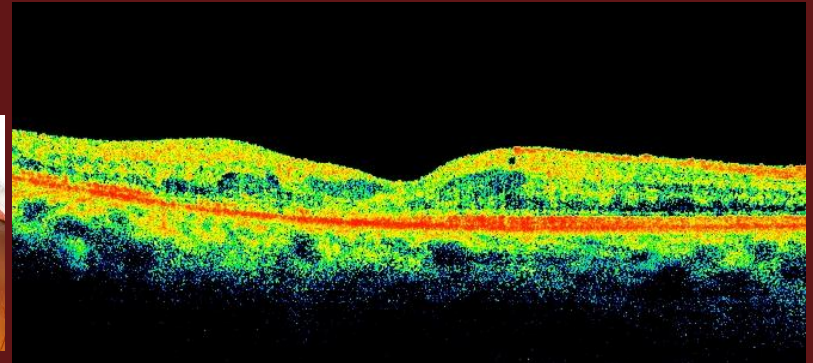
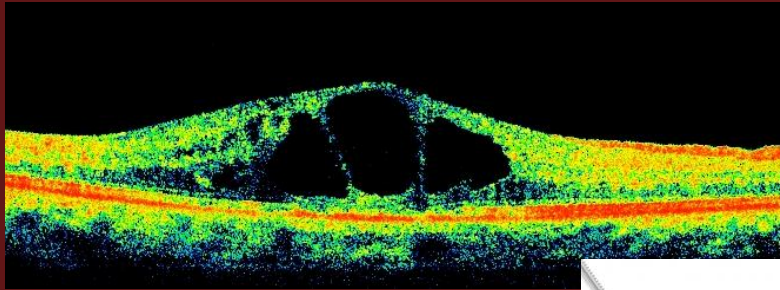


# Anti-VEGF/ Steroid injection

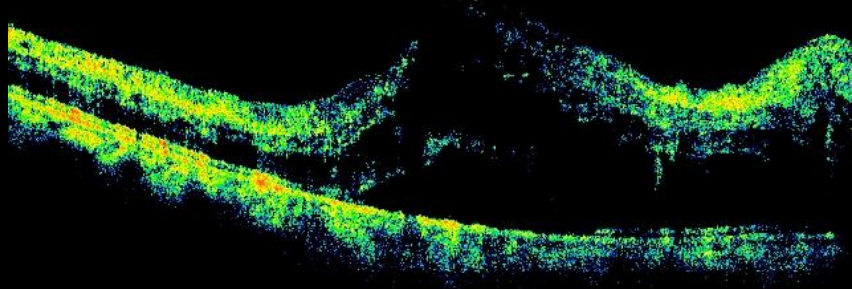
1. 2-4 weeks Pre-operative or
2. Per-operative

# Steroid seems more effective than anti-VEGF....

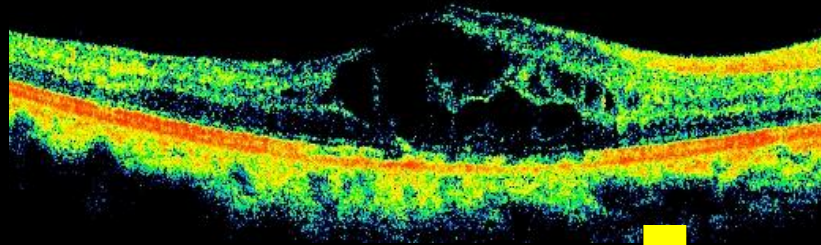
- More often successful
- Longer effect
- Covers for inflammatory edema post-op
- Rule out contraindication (Glaucoma/ steroid responder)



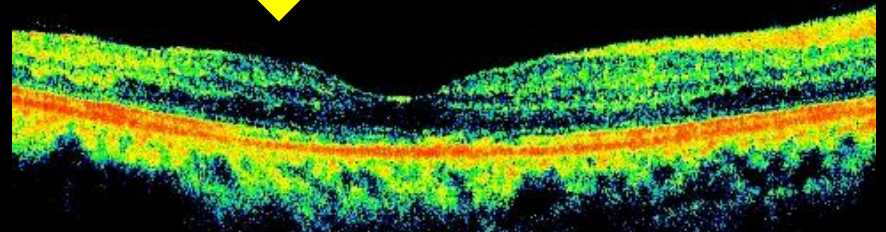
# Anti-VEGF vs Steroid



Avastin



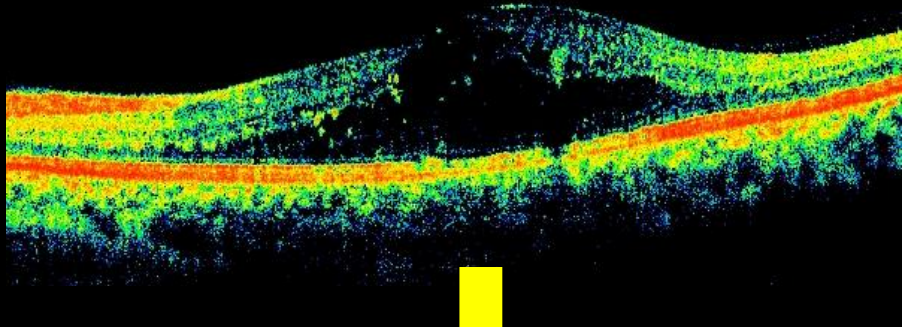
IVTA 1.0 mg



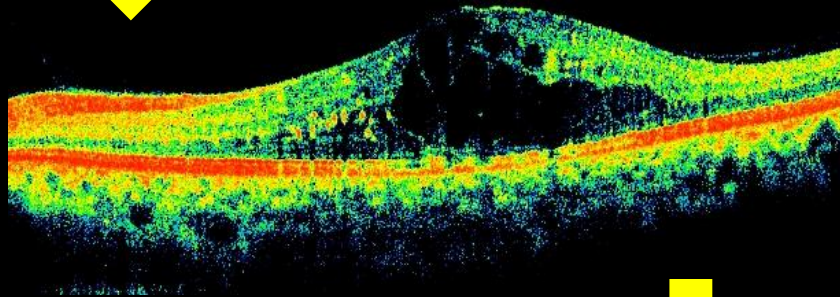
## BEVORDEX Trial for DME

- Bevacizumab vs Dexamethasone , n = 88
- Visual acuity outcomes same
- DEX implant → better anatomic outcome  
fewer treatments (avg 2.7 vs 8.6)

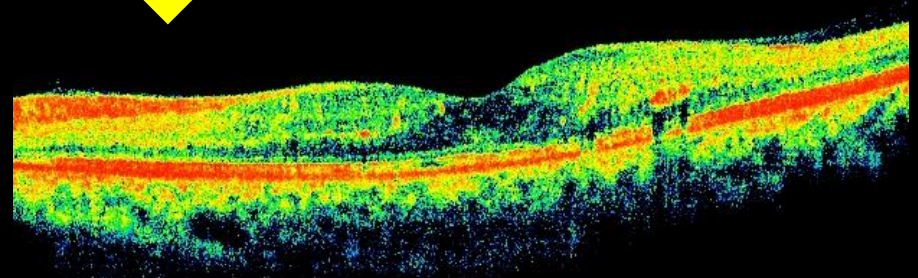
# Dexamethasone maybe more effective than Triamcinolone acetonide



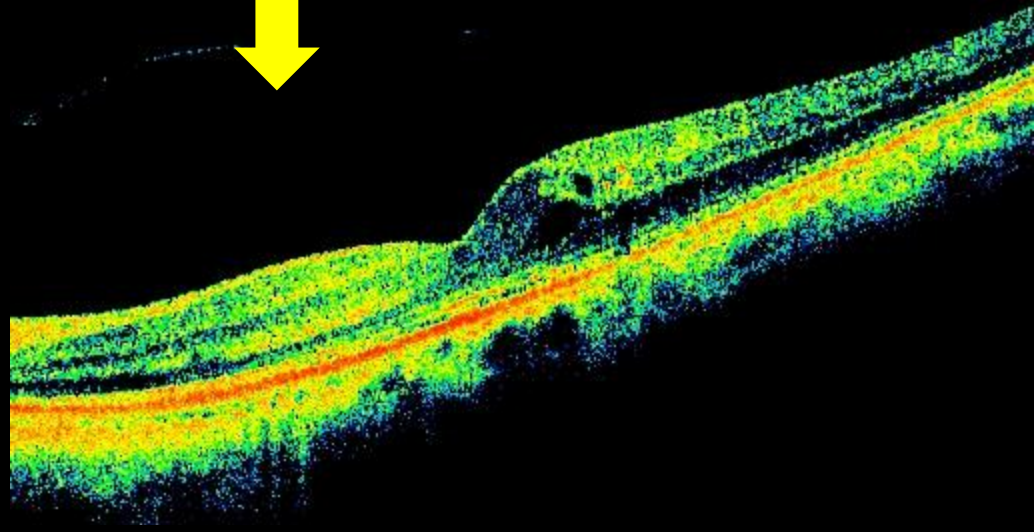
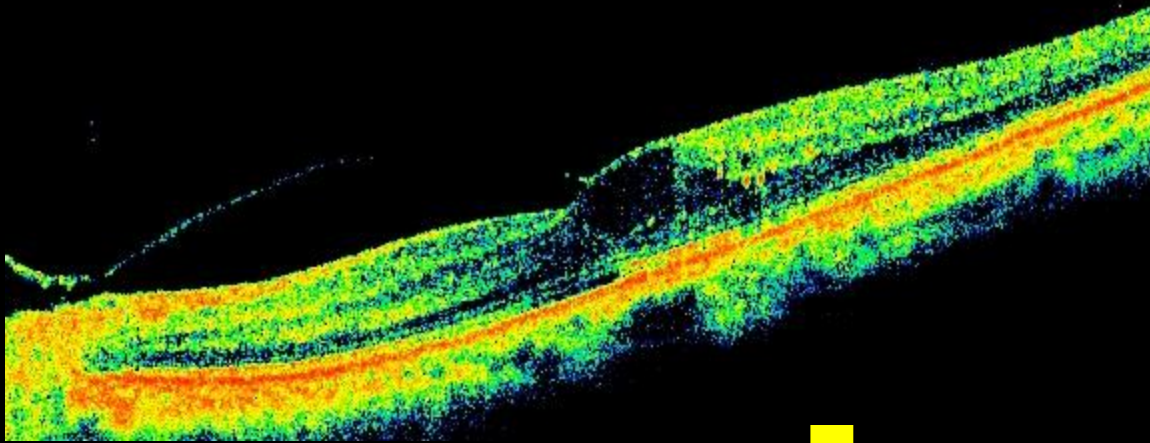
IVTA



Dexamethasone  
Implant



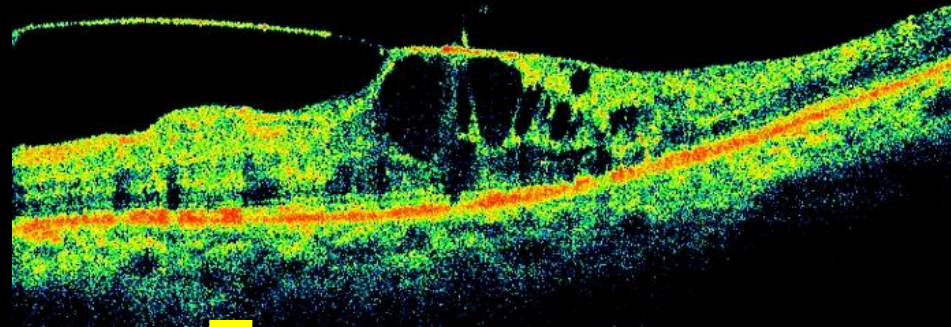
# VMT release with avastin



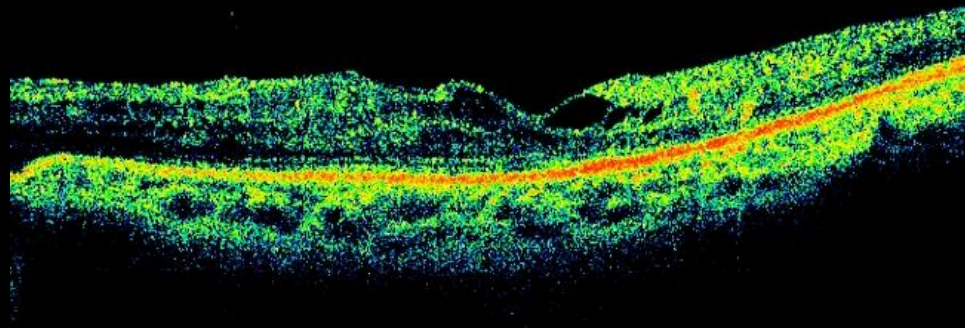


# VMT release with IVTA

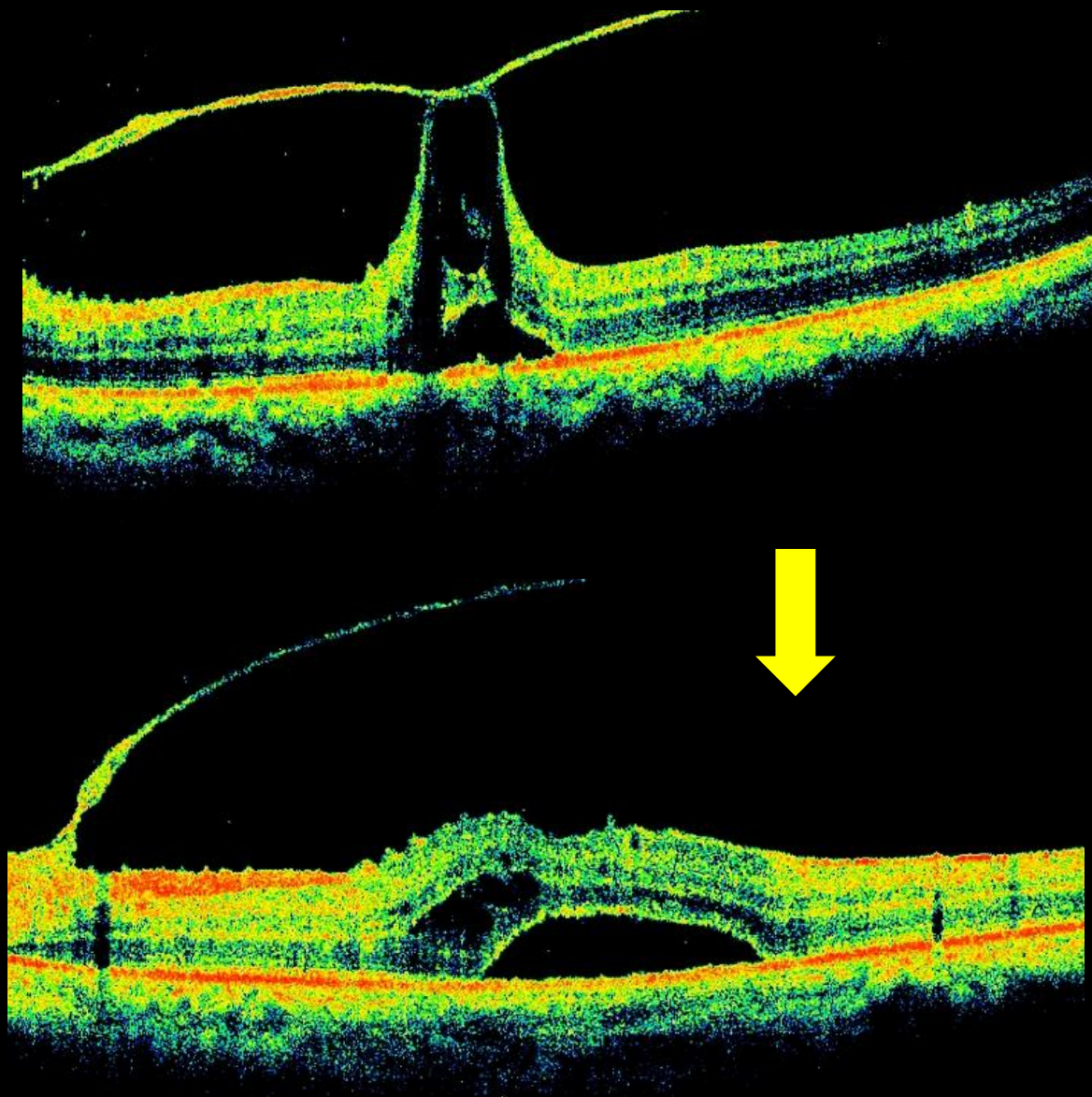
Mar 2014



Jun 2014



VMT release  
after laser



## Per-operative Anti-VEGF or Steroid

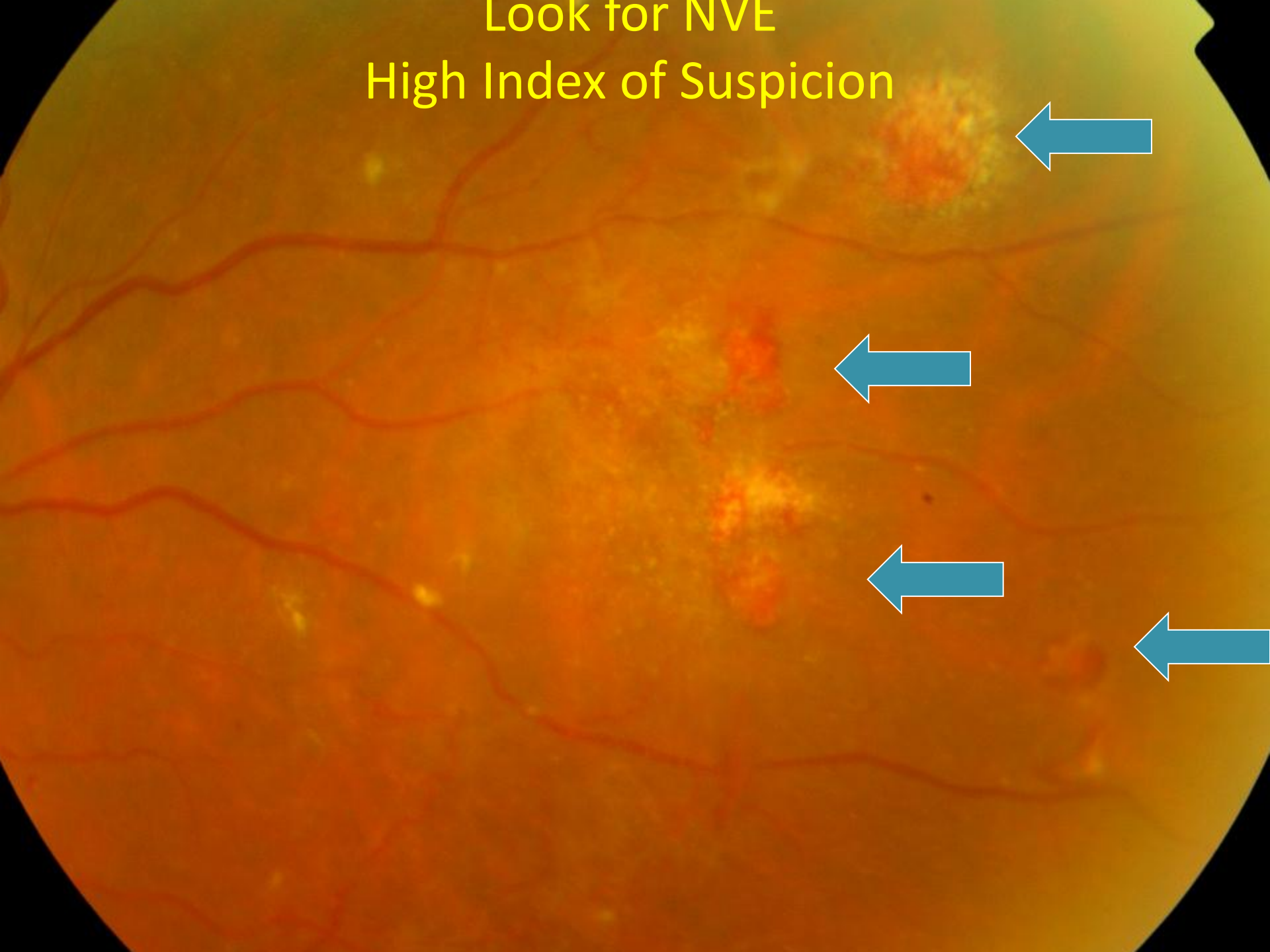
- At the end of surgery
- Laser 1 month after surgery



# Proliferative Diabetic Retinopathy

- NVE/ NVD
- NVI
- Vitreous heme
- RD

Look for NVE  
High Index of Suspicion



## Look for Vitreous Haemorrhage

- Anti-VEGF injection to buy time if fresh heme with no traction
- Combined vitreous surgery if old heme or traction present

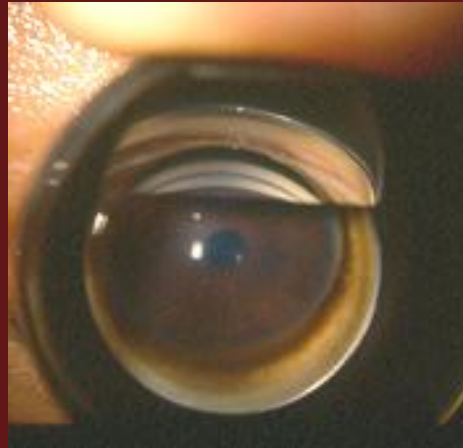
# Panretinal Photocoagulation mandatory

- Pre-operative / Early post-operative period
- Anti-VEGF Pre-/Peroperative in severe cases



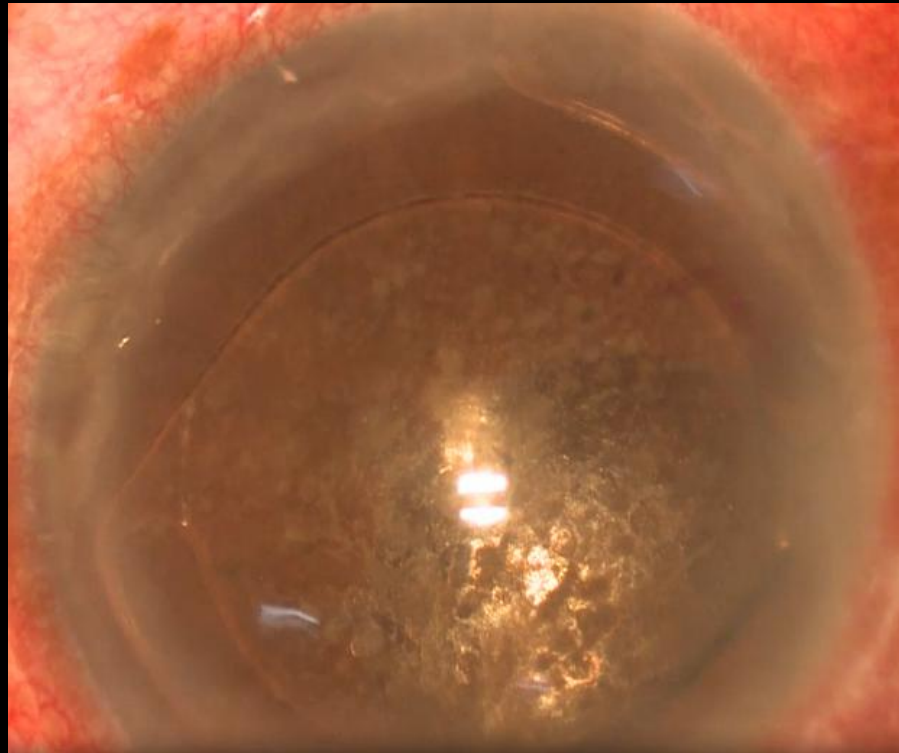
# Neovascularisation Iris

- Long-standing diabetes/ co-morbidities
- Fundus not seen
- Carotid occlusive disease
- History of cerebrovascular events

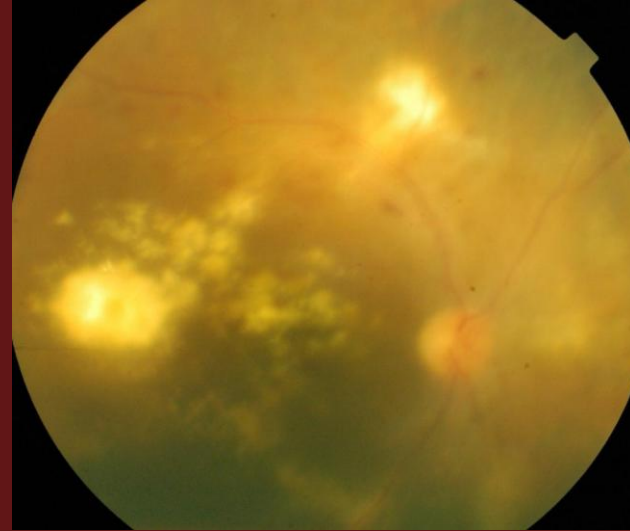
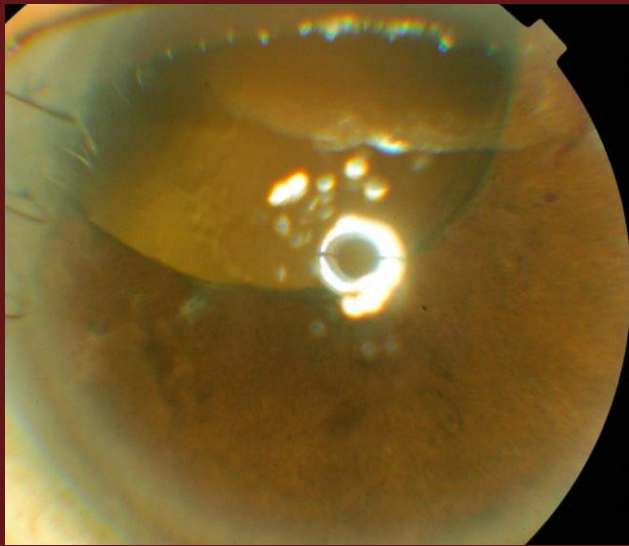




6 weeks postoperative  
? Endophthalmitis

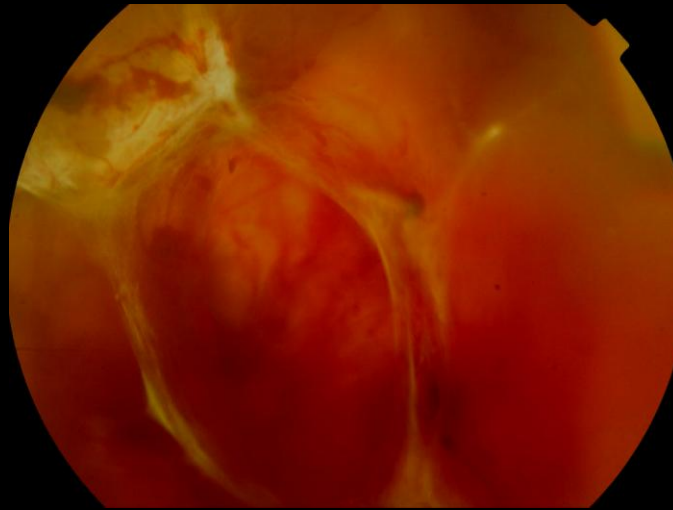


## 2 weeks after Vitrectomy + Endolaser



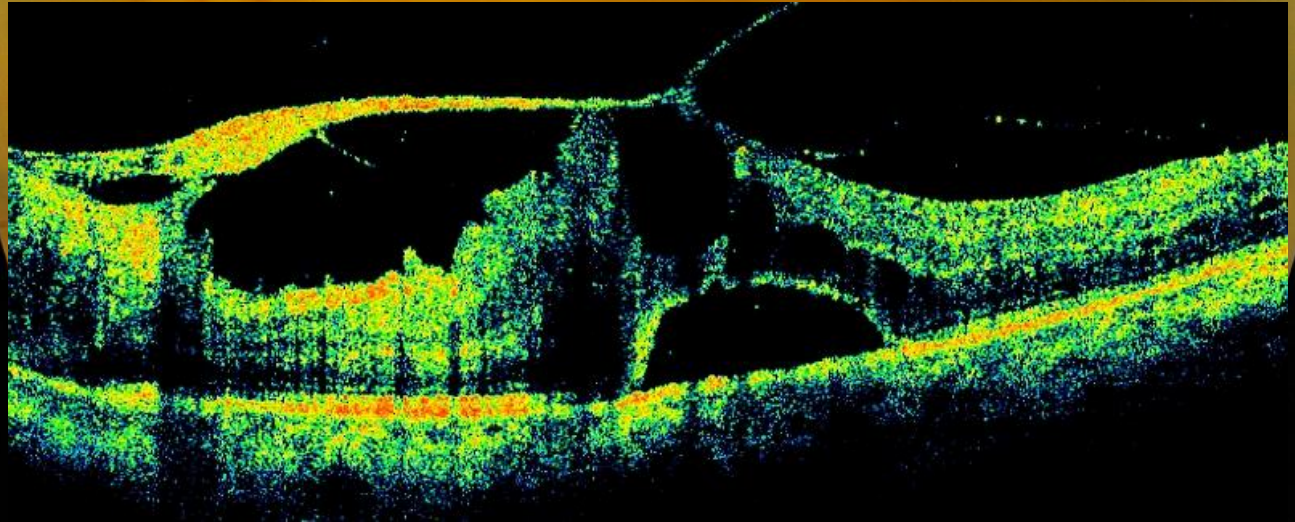
# Non-resolving Vitreous Haemorrhage or Retinal Detachment

- Combined Cataract & Vitreous Surgery
- Extensive endolaser

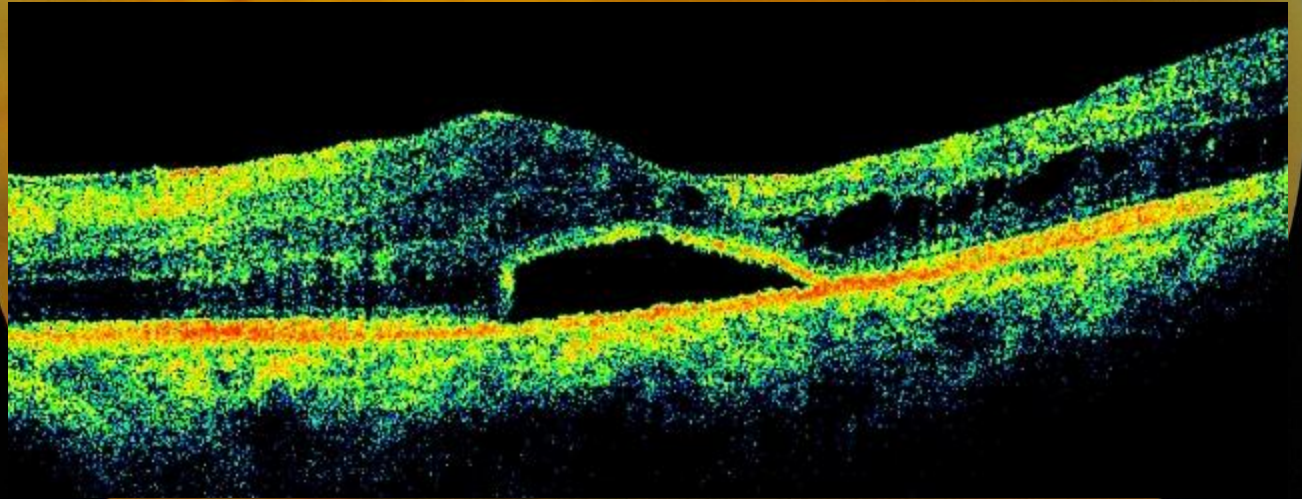


# PDR

- Foveal sparing membrane peel
- Gas injection as risk of FTM high



1 week postoperative



# Post-operative Management

- New edema < 3 months: inflammatory edema
- New edema > 3 months: diabetic maculopathy

# Inflammatory Macular Edema

# Inflammatory edema

## Topical NSAIDs

- Nepafenac 0.1% tid 3 weeks
- Bromfenac 0.09% (Xibrom, Ista)

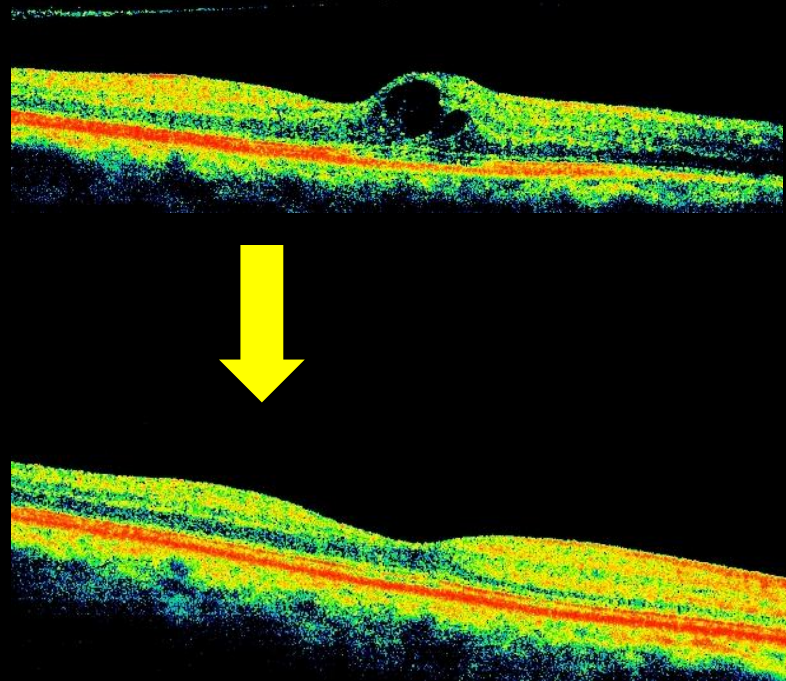
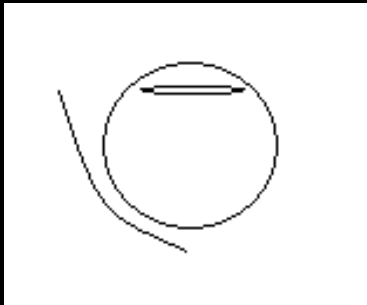




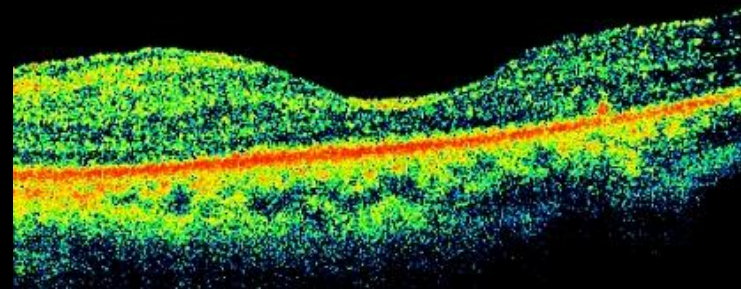
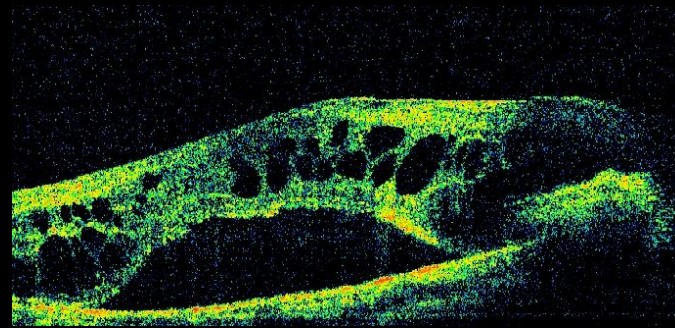
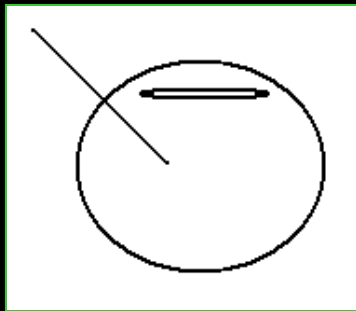
# Mild edema

## Posterior Sub-tenon Tricort 20 mg

- 3 injections at 2 weeks intervals



# Severe edema Intravitreal Steroid



Thank You !

