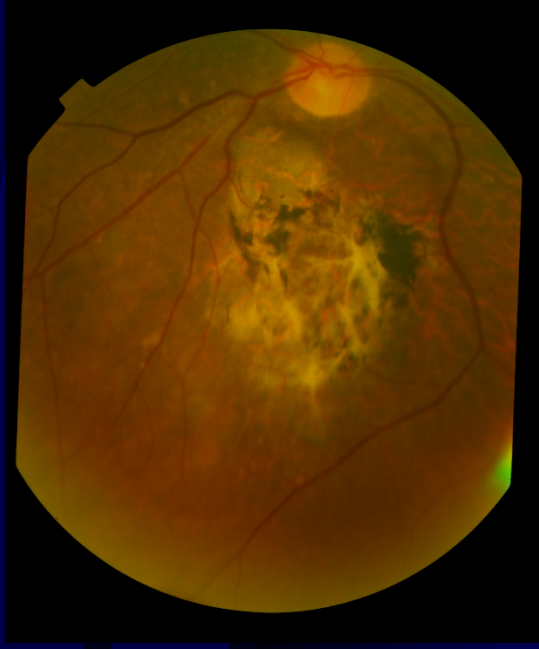


# Photodynamic Therapy

Selective occlusion of abnormal vessels without  
damage to overlying retina

S/P green laser



S/P PDT

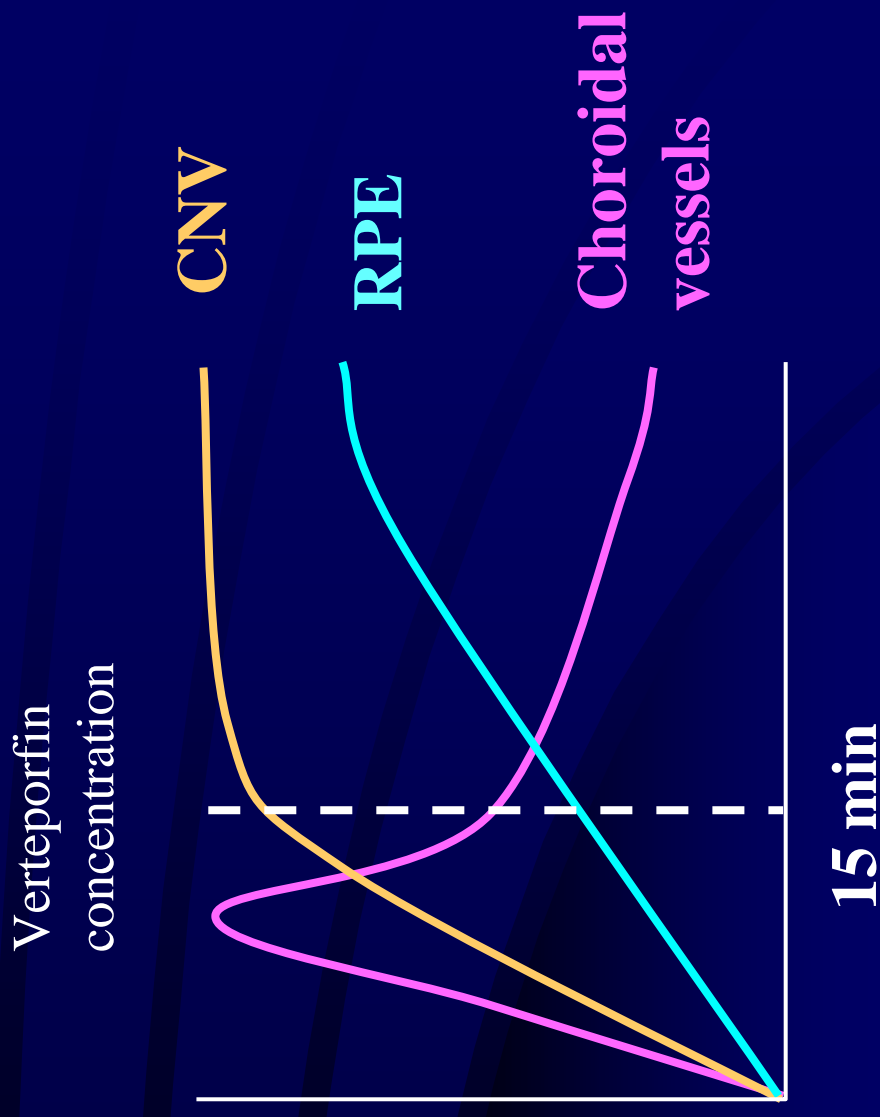


## A 2-step Procedure

1. Drug infusion over 10 minutes (3 ml / minute)
2. Light application at 15 minutes



At 15 minutes concentration in the CNVM much higher than in normal tissue



# Photodynamic Therapy

Light + light-sensitive agents



Free radicals & singlet oxygen



Endothelial cell damage



Occlusion of CNVM

# Parameters

## Infusion

- Dose: 6 mg/ sq m BSA
- Duration: 10 minutes

# Lasers

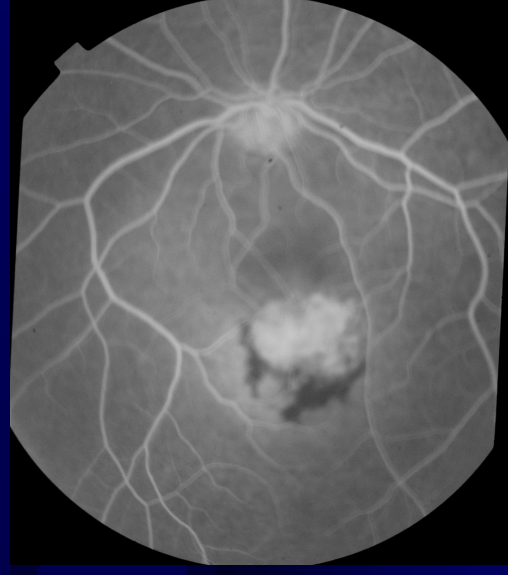
## Red light 689 nm

- Non-thermal diode laser
- Zeiss Visulas
- Coherent Opal Photoactivator

## Spot Size

GLD + 1000  $\mu\text{m}$

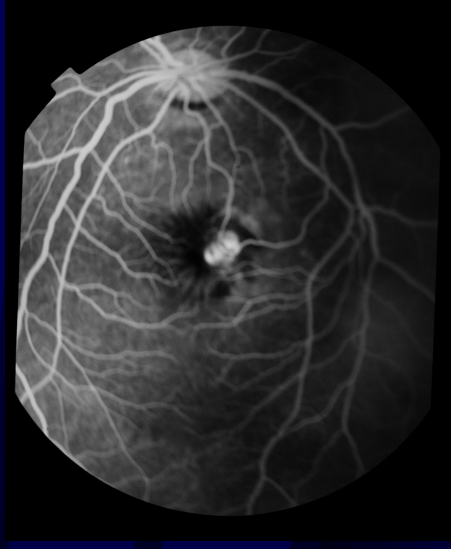
- Greatest Lesion Diameter
- All CNVM, blood, blocked fluorescence, RPE / serous detachment
- Allow 500  $\mu\text{m}$  margin on each side of lesion



## Concurrent bilateral treatment

Second eye treated < 20 minutes of start of infusion

Preferred therapy in bilateral disease





## Re-treatment

- Follow-up evaluations at 1 month intervals
- Re-treatment > 3 months

## Demerits of PDT

- Macular scarring
- RPE atrophy > area of CNVM
- RPE tears
- Maybe required repeatedly

Post-PDT 2 months



Post-PDT 6 months



## Indications for PDT

- Relatively large CNVM
- Poor initial vision
- Results better with classic CNVM

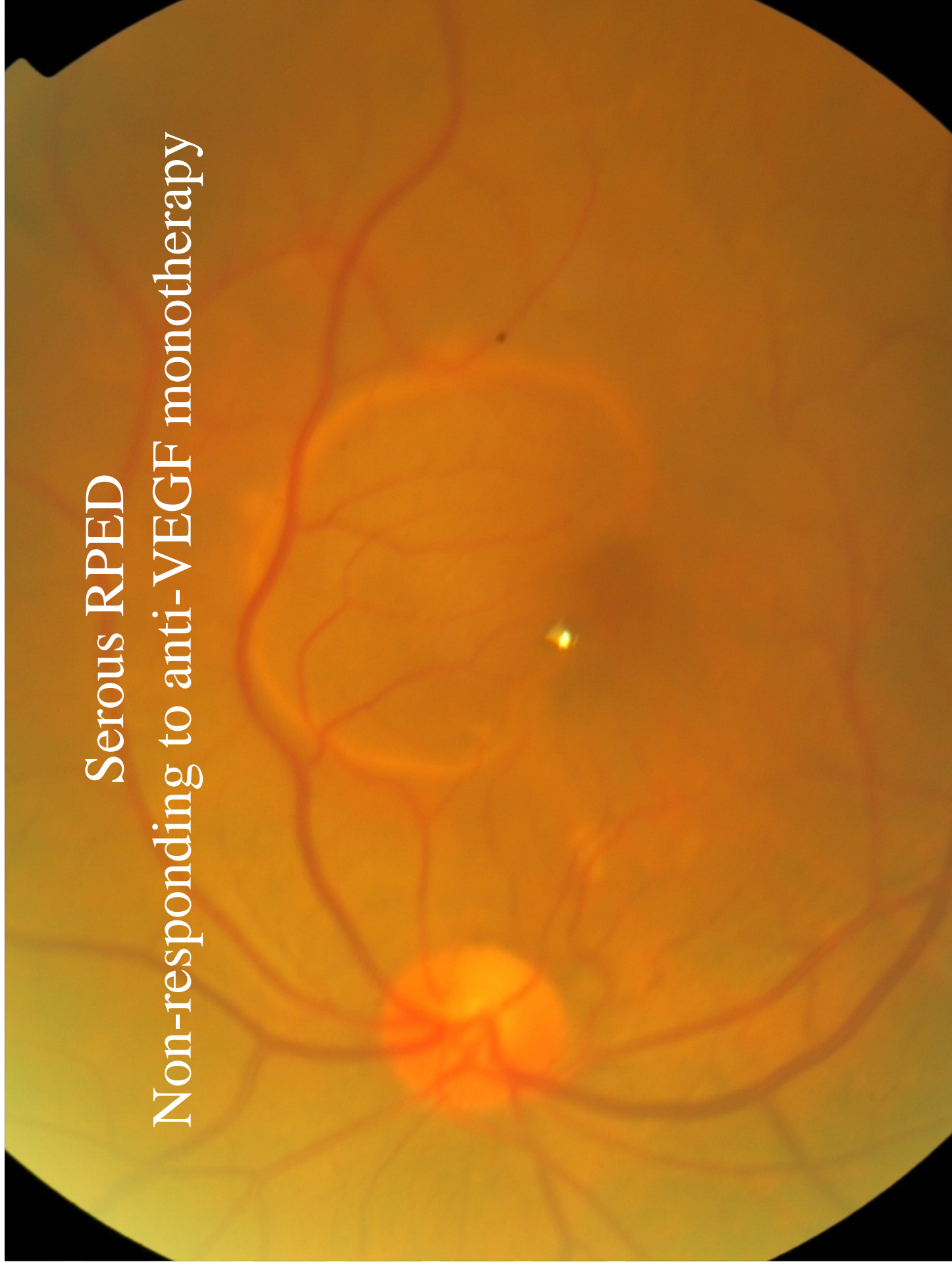
## Relative contraindications for PDT

- Small occult CNVM
- Good initial vision
- RPE detachments → RPE rips

## Combination Therapy

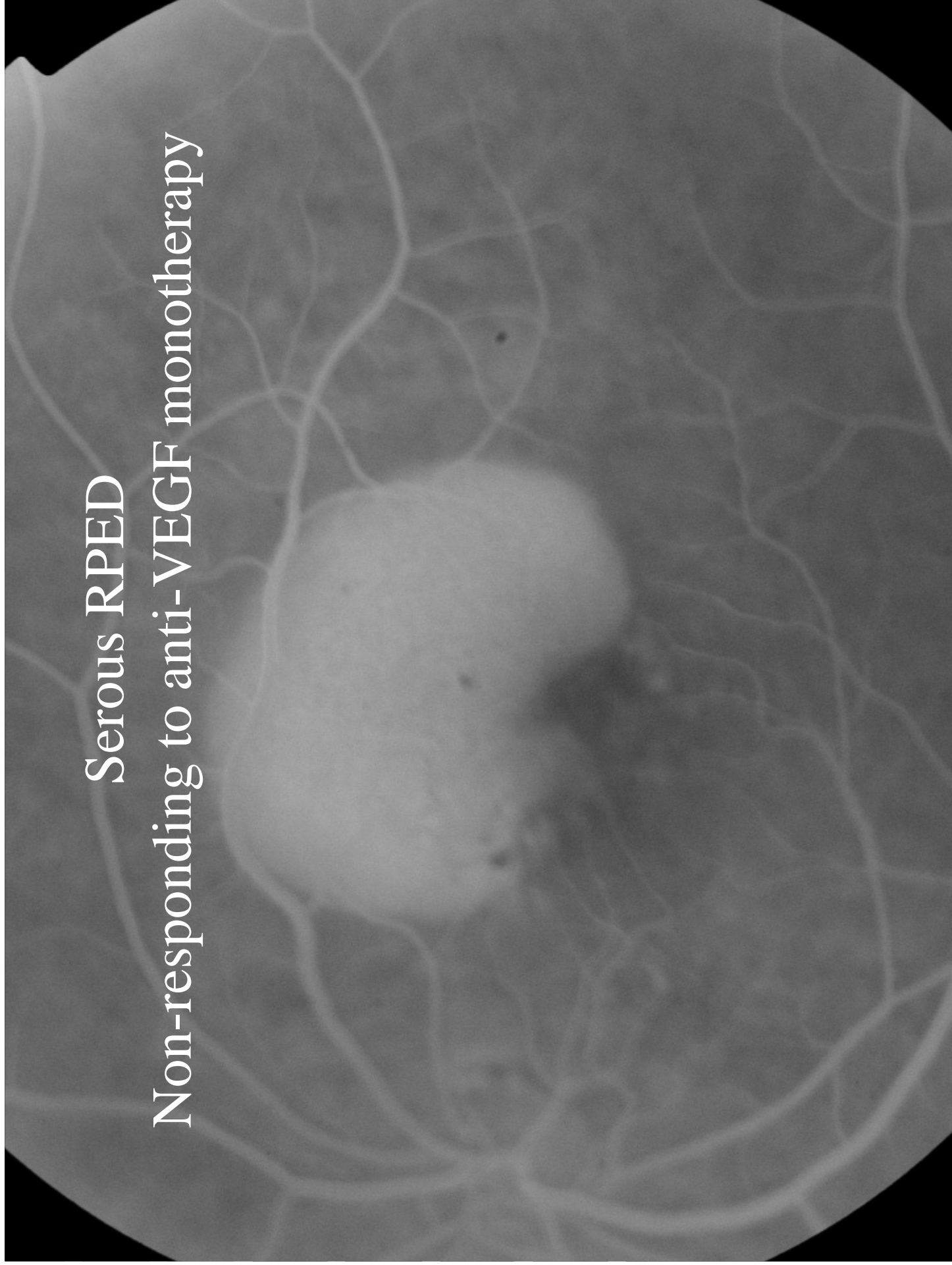
- PDT + anti-VEGF therapy
- PDT addresses pre-existing CNVM
- Anti-VEGF prevents growth of new vessels

Serous RPED  
Non-responding to anti-VEGF monotherapy

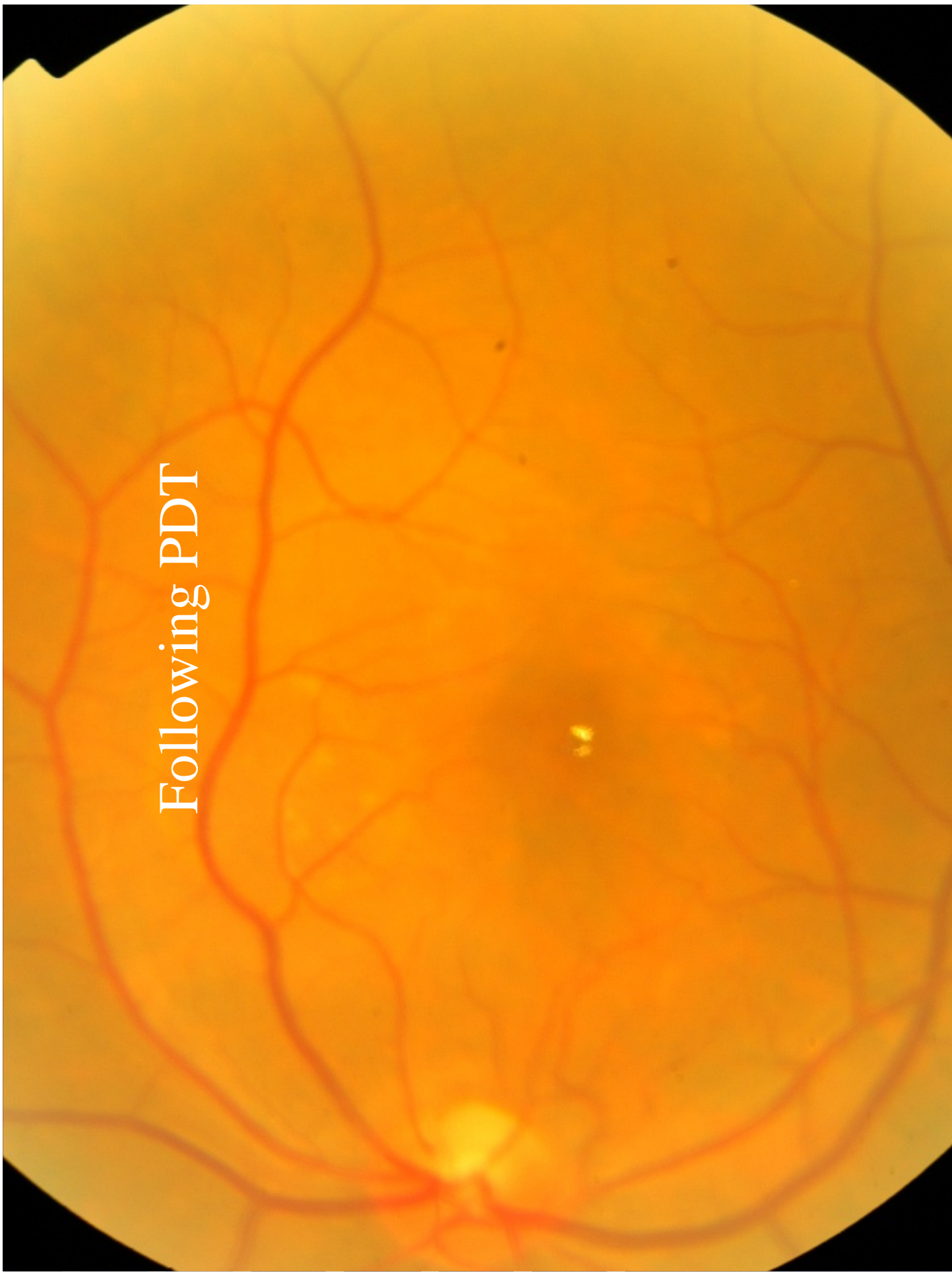


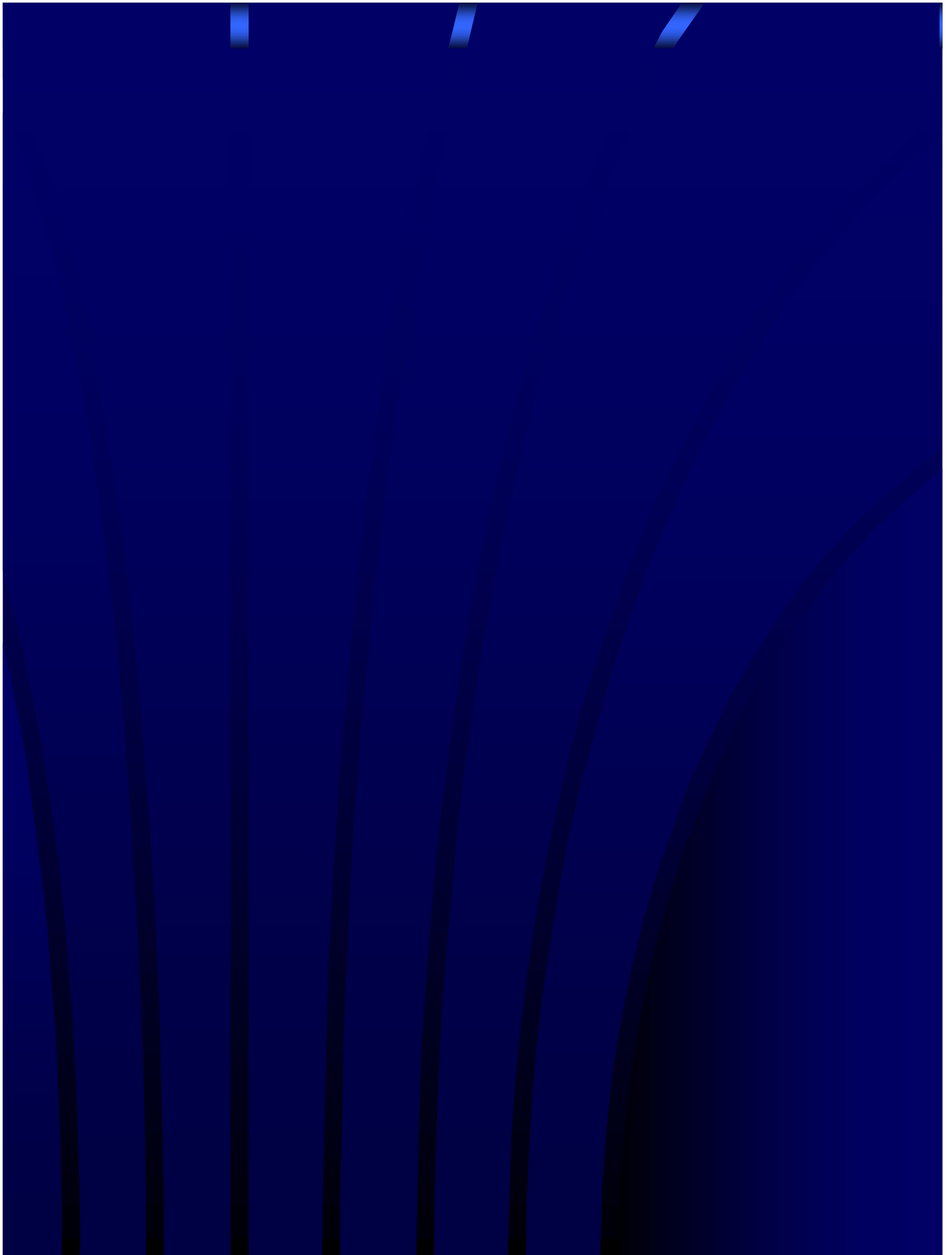


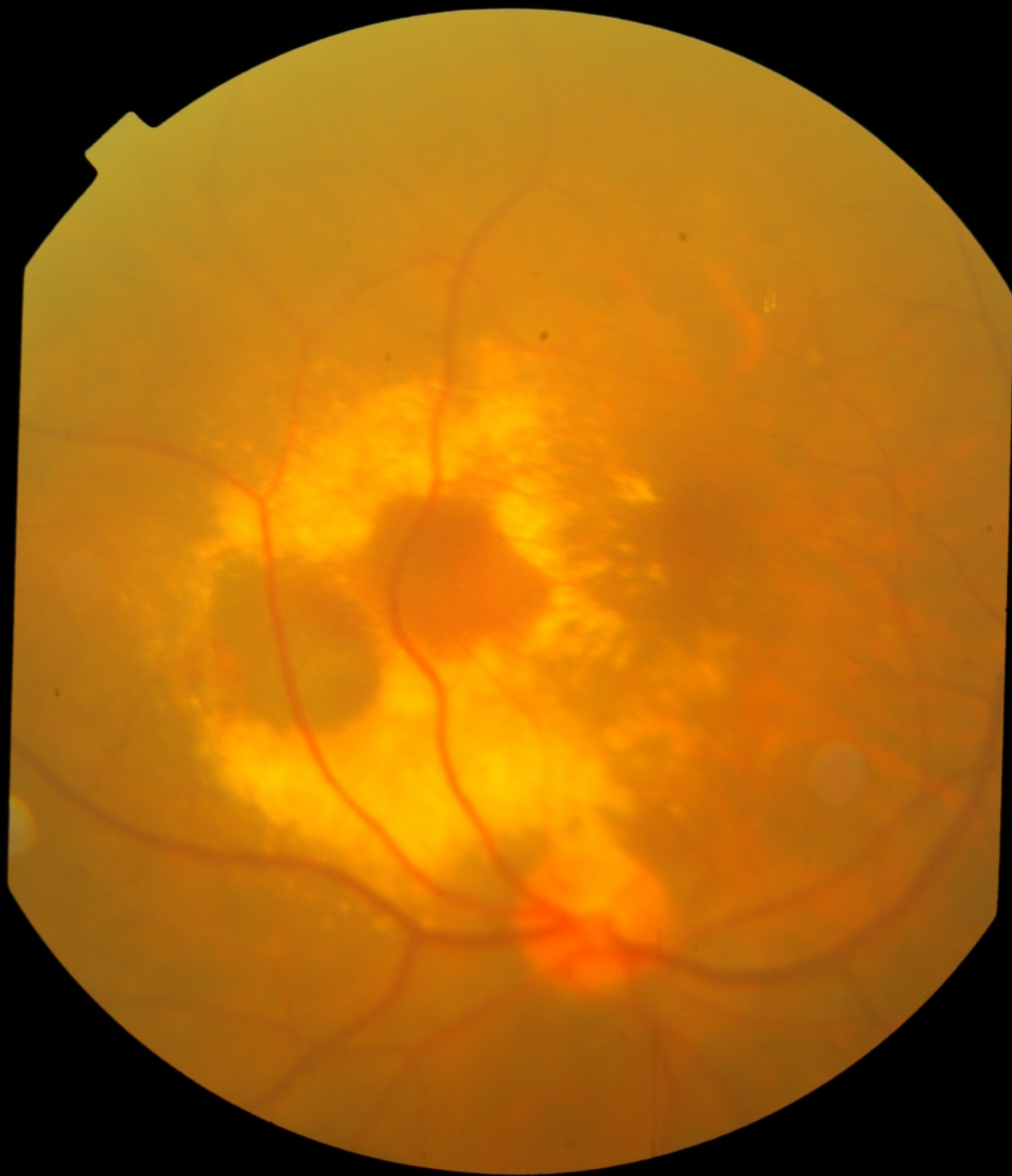
Serous RPED  
Non-responding to anti-VEGF monotherapy

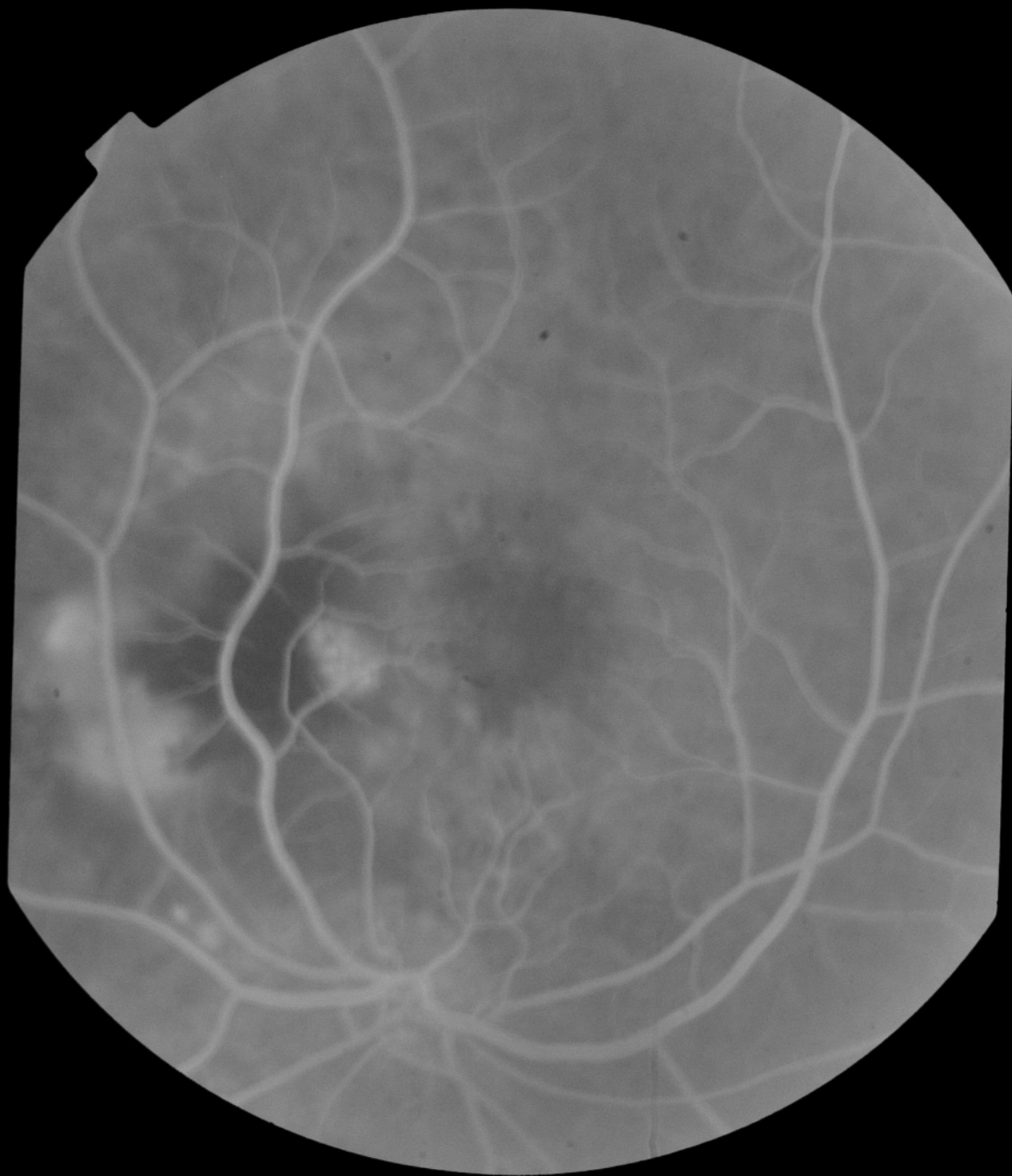


Following PDT

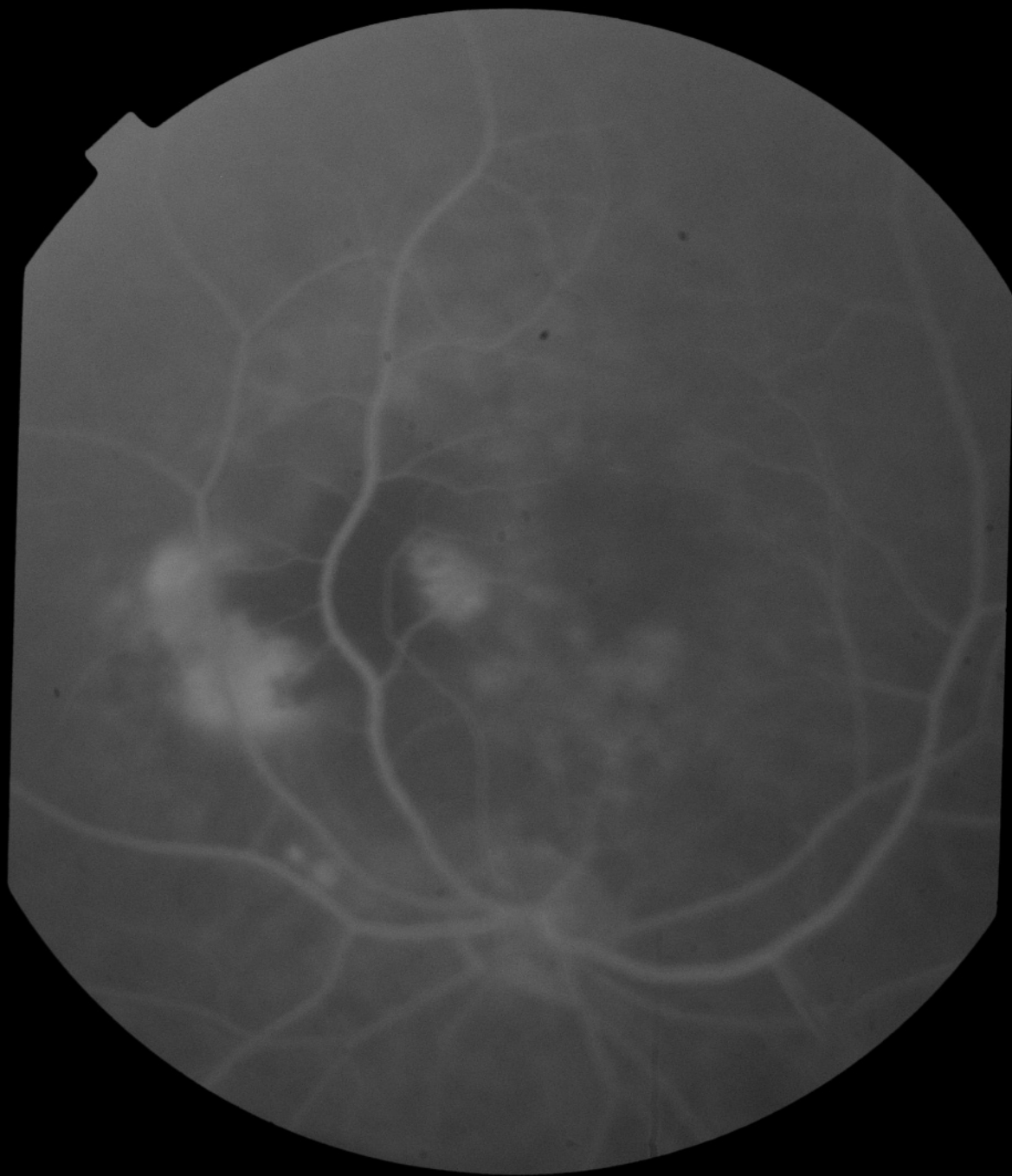


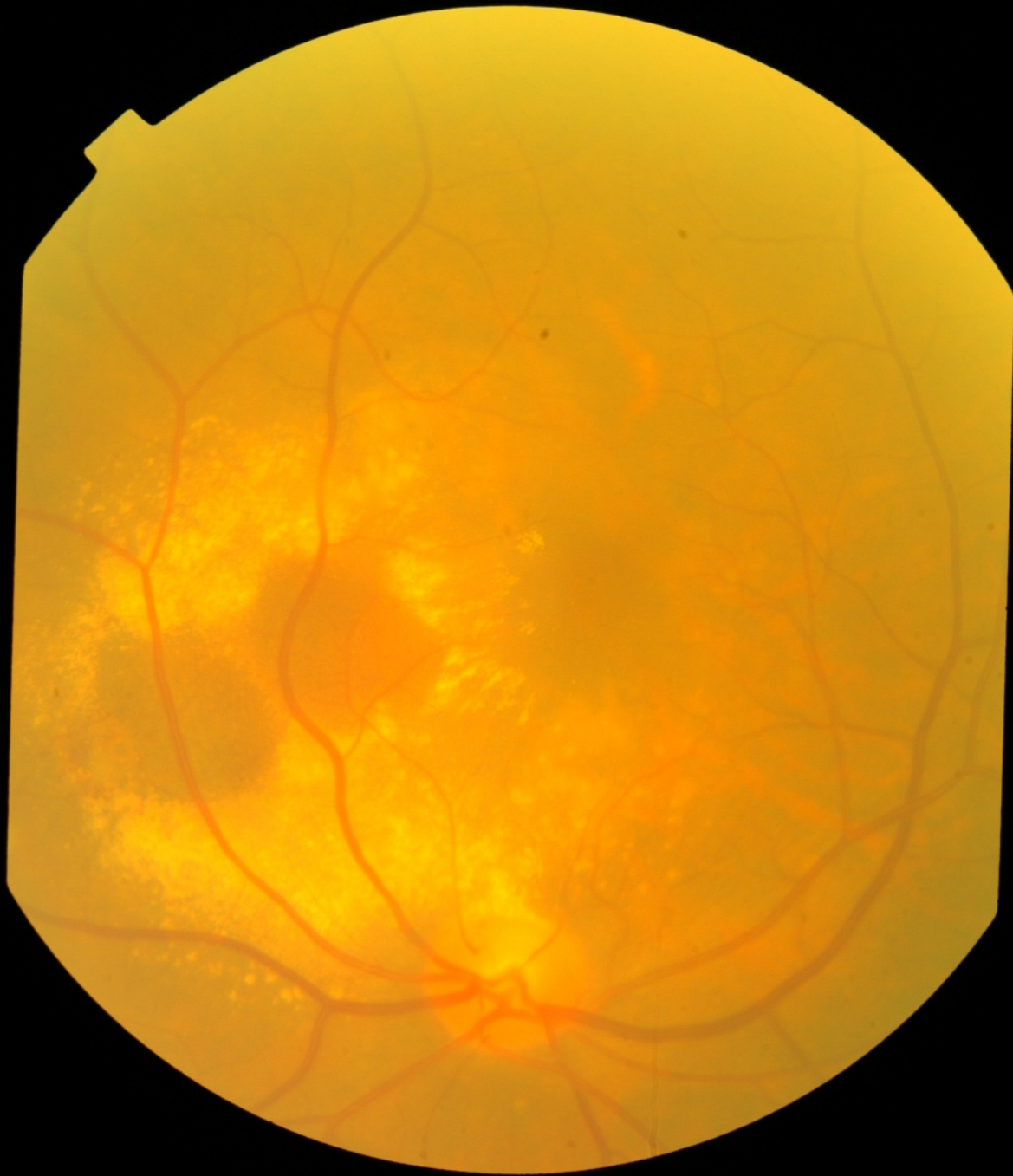




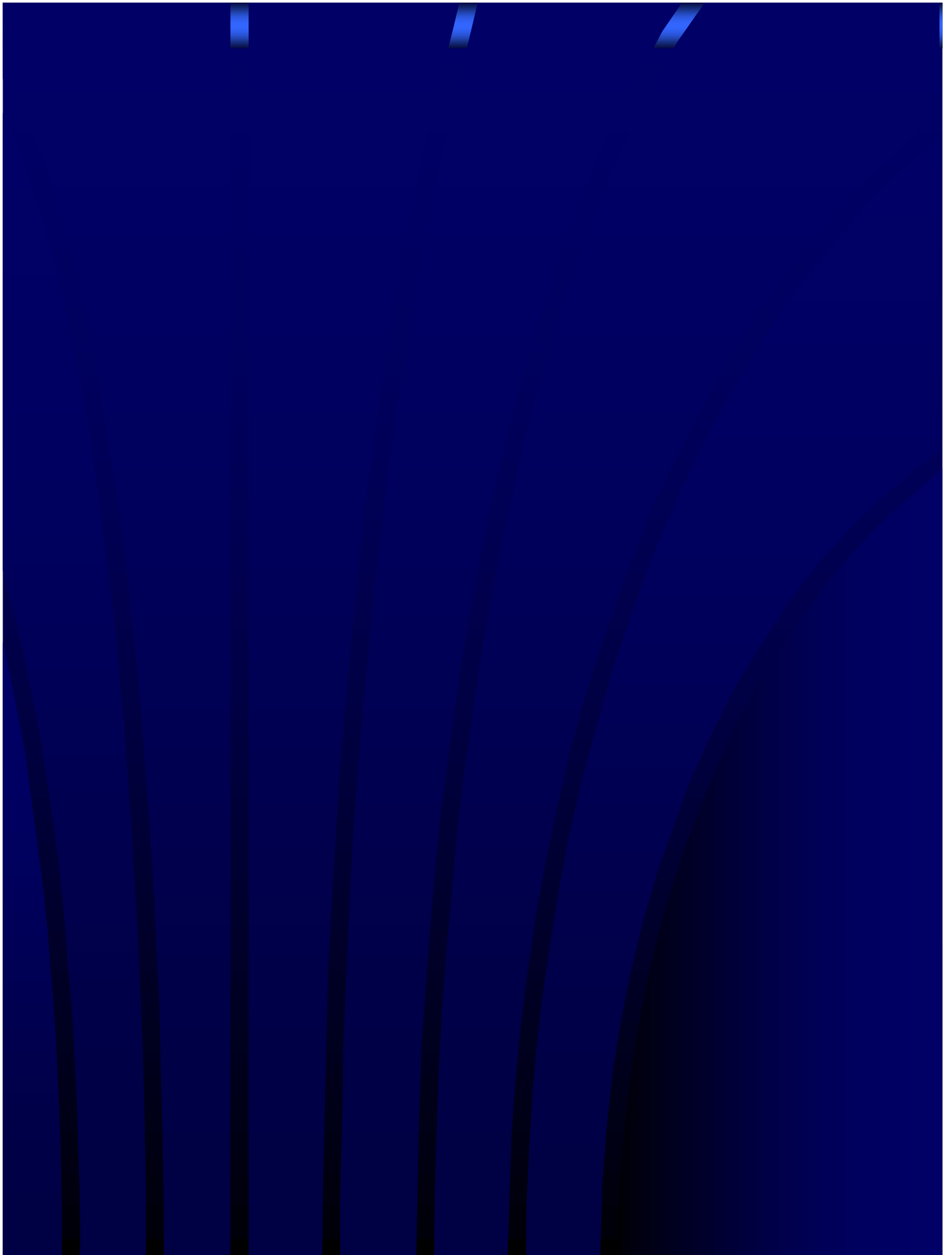


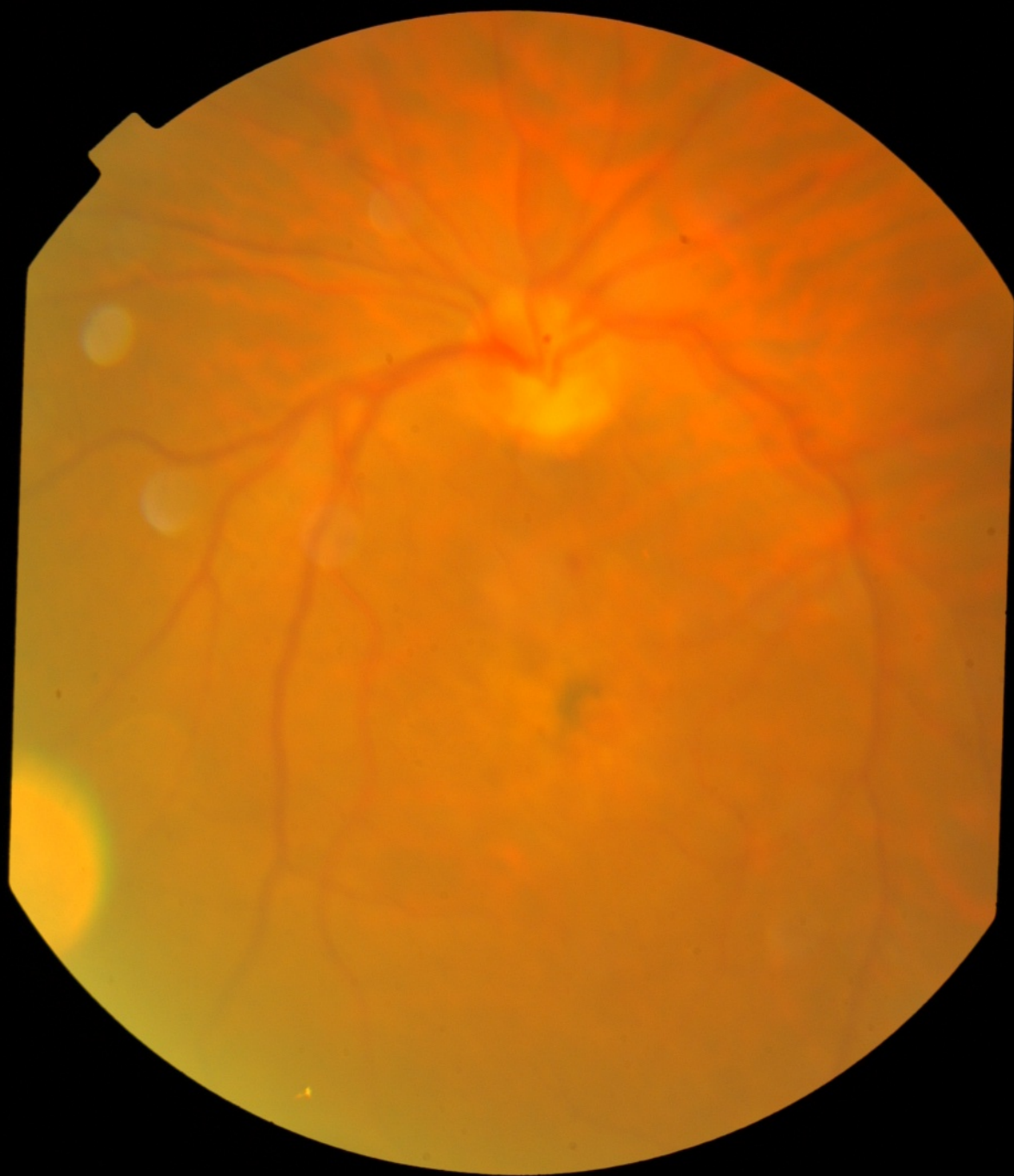


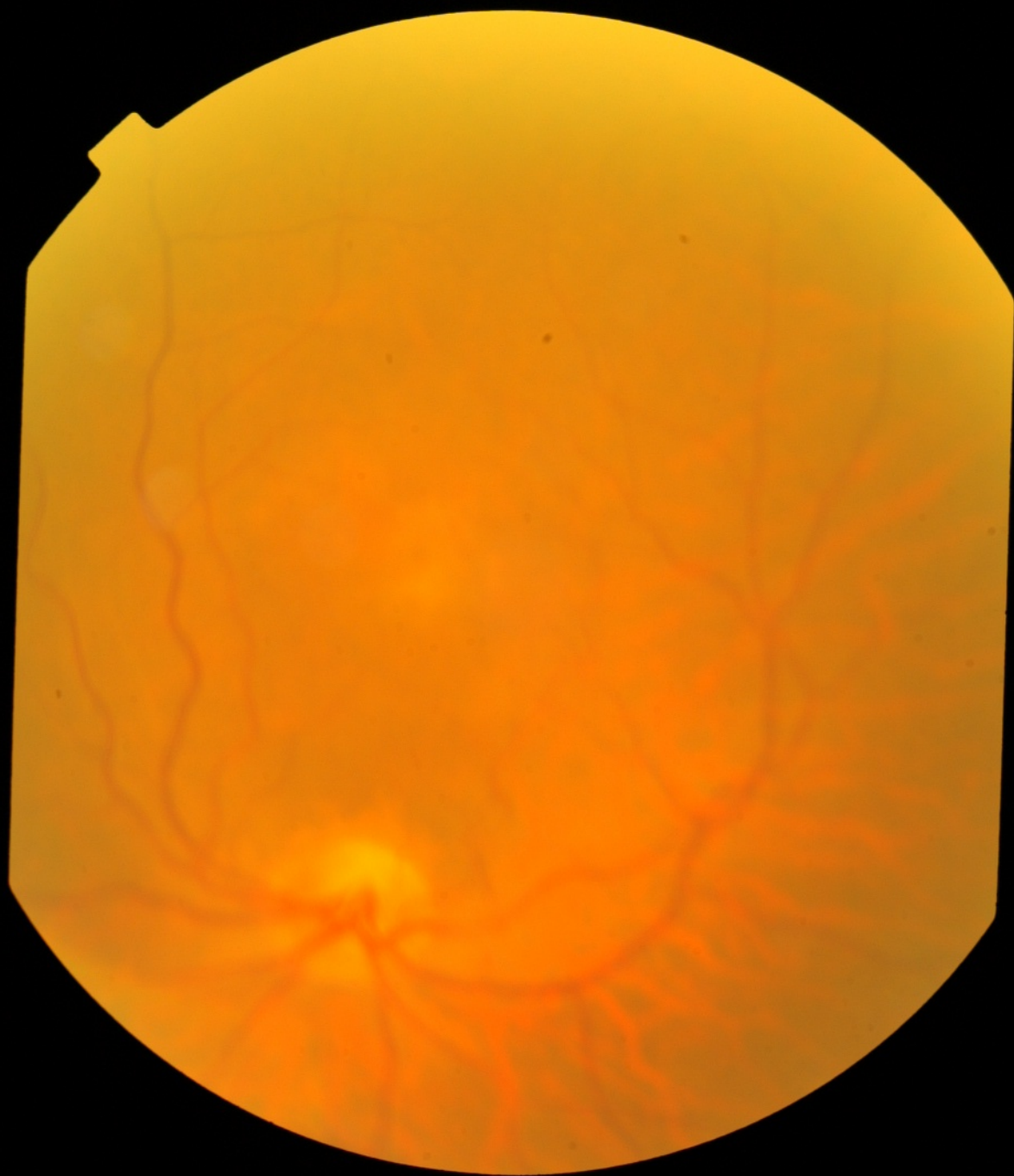


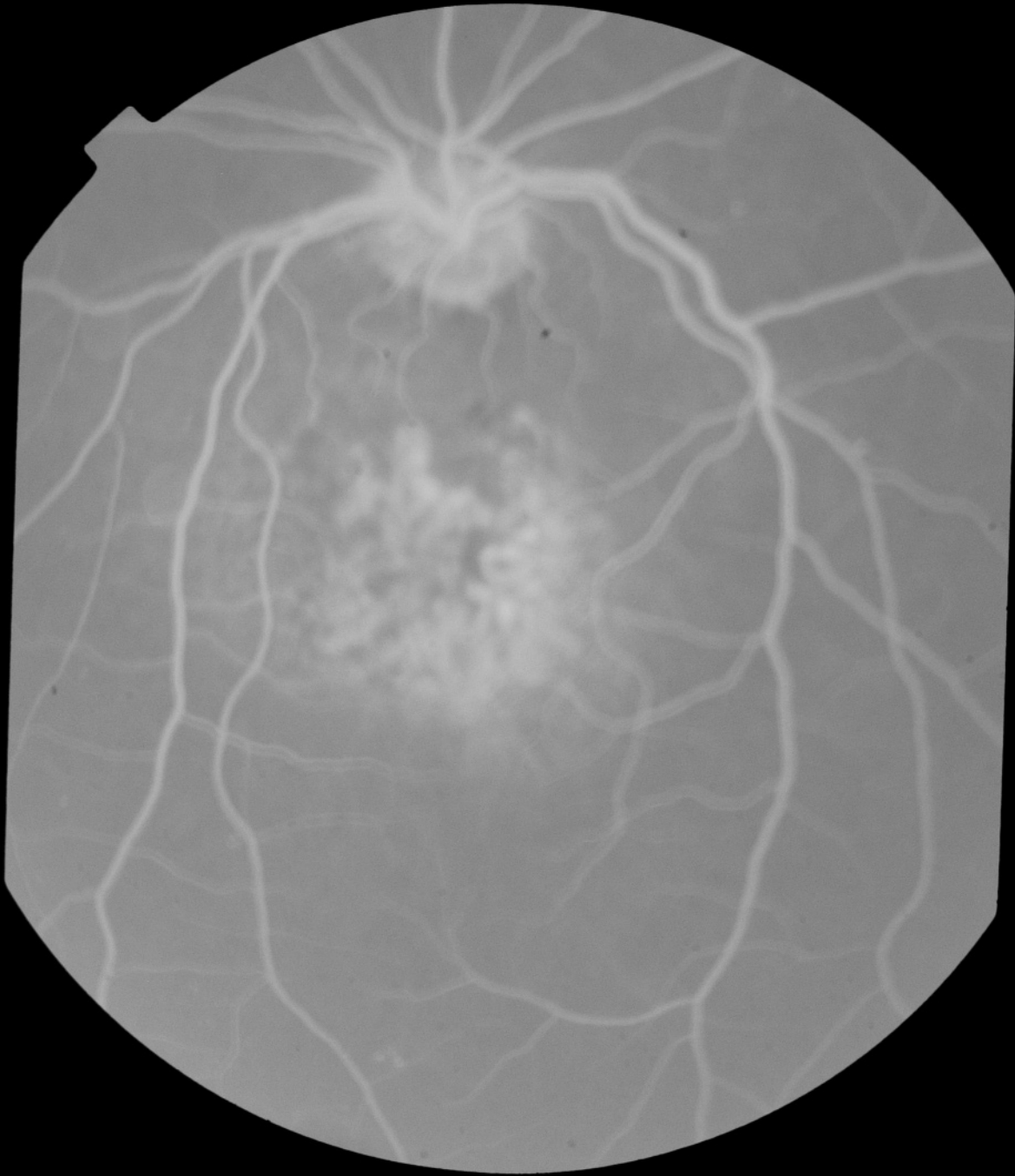


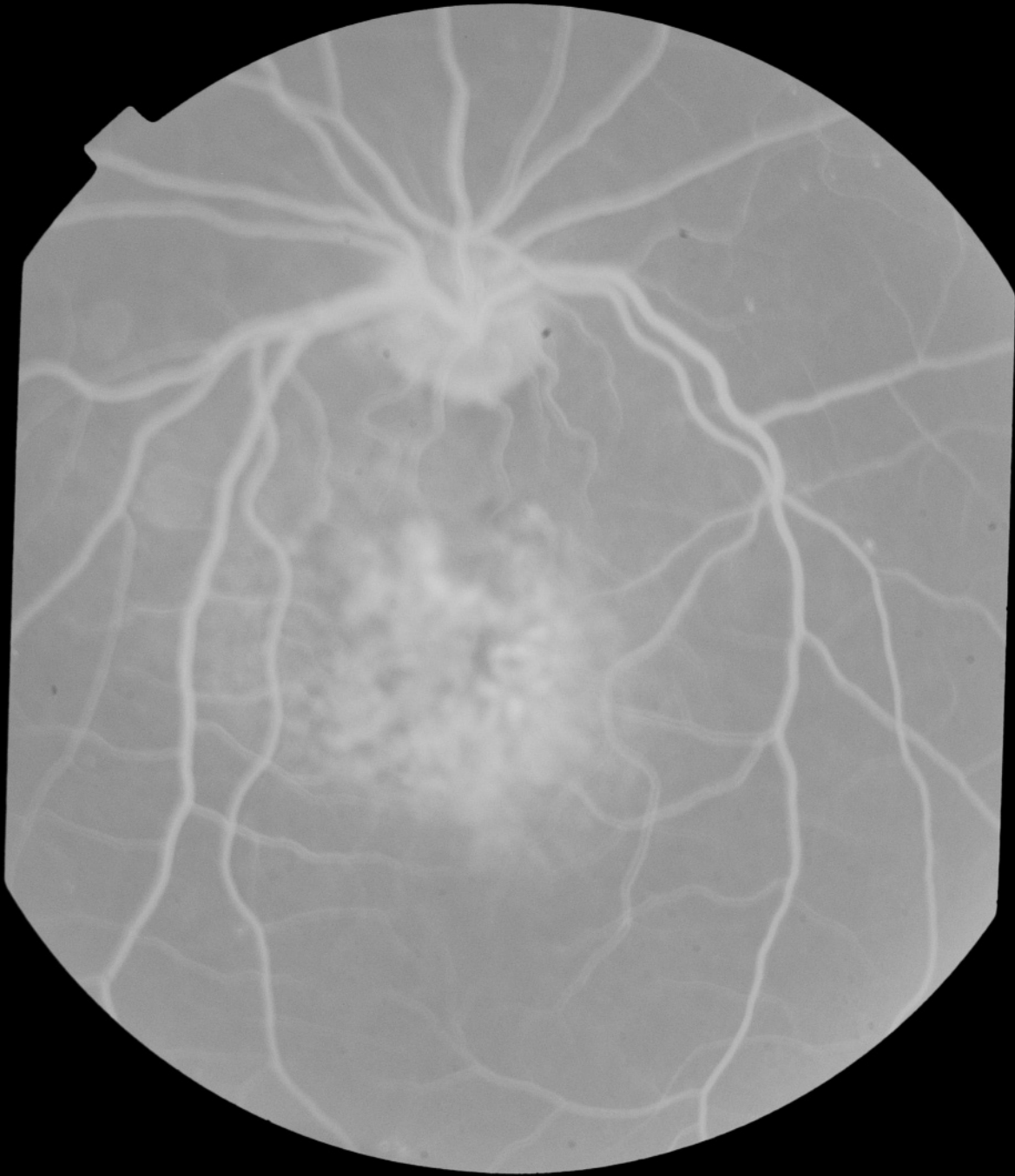


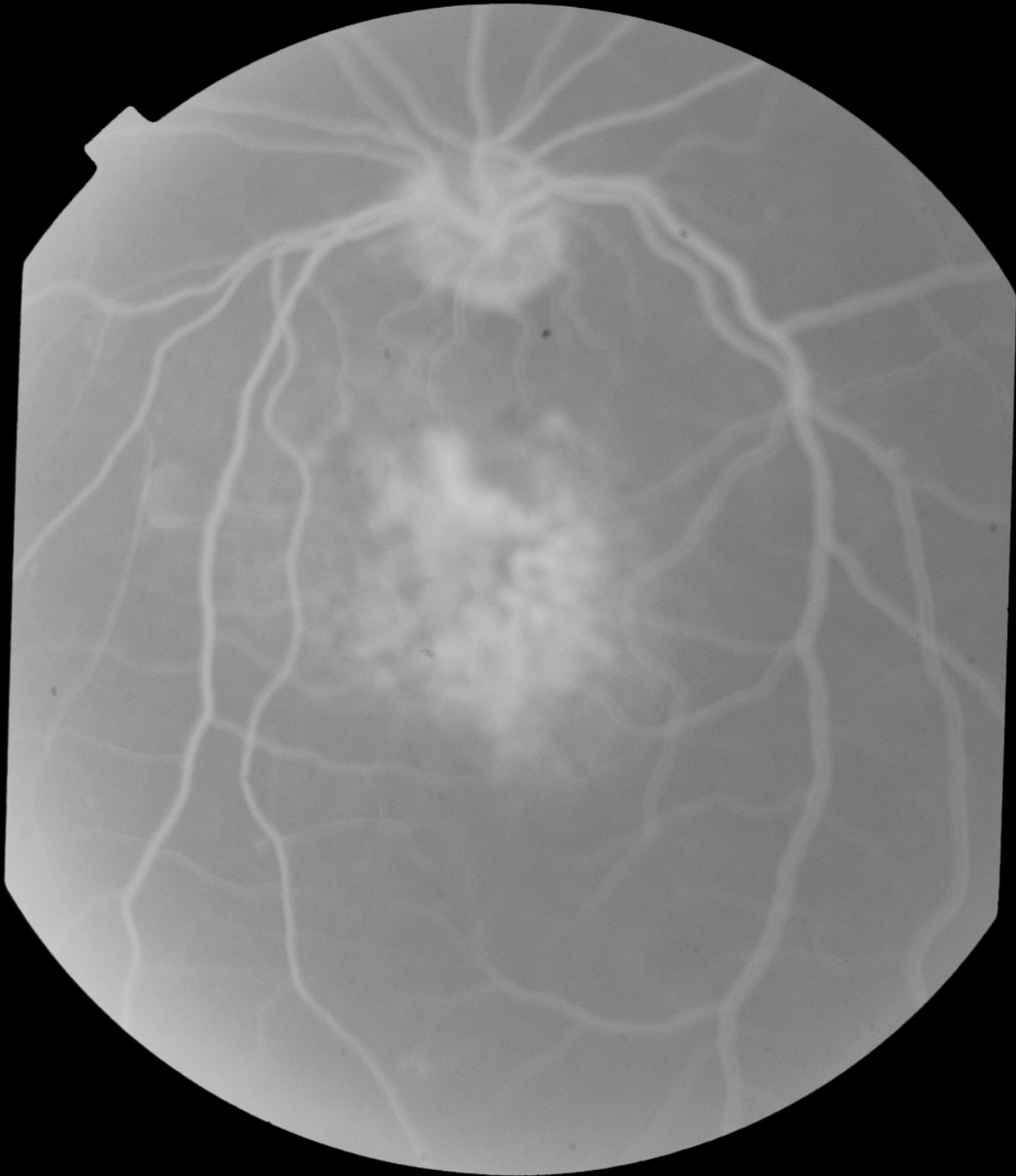


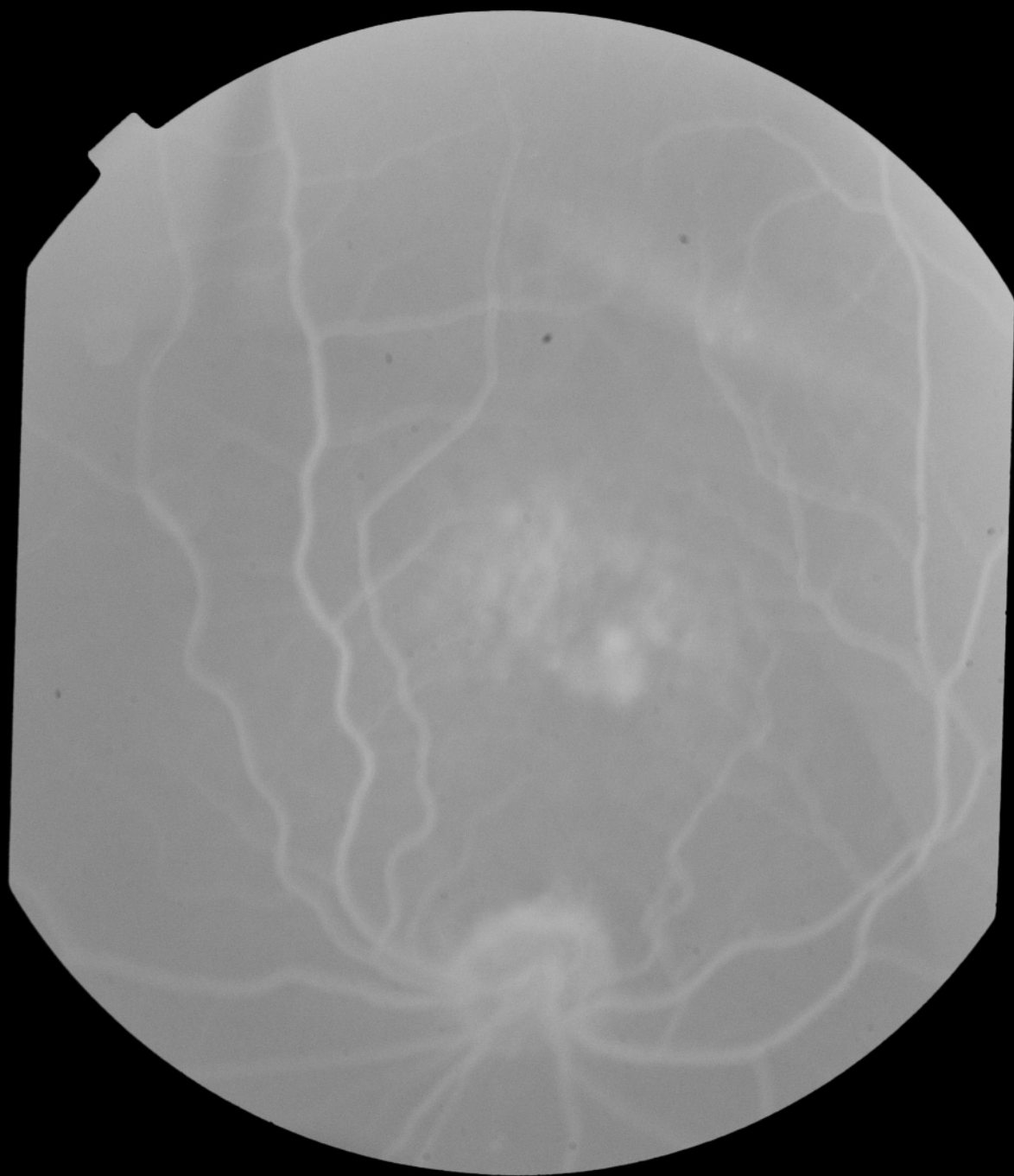


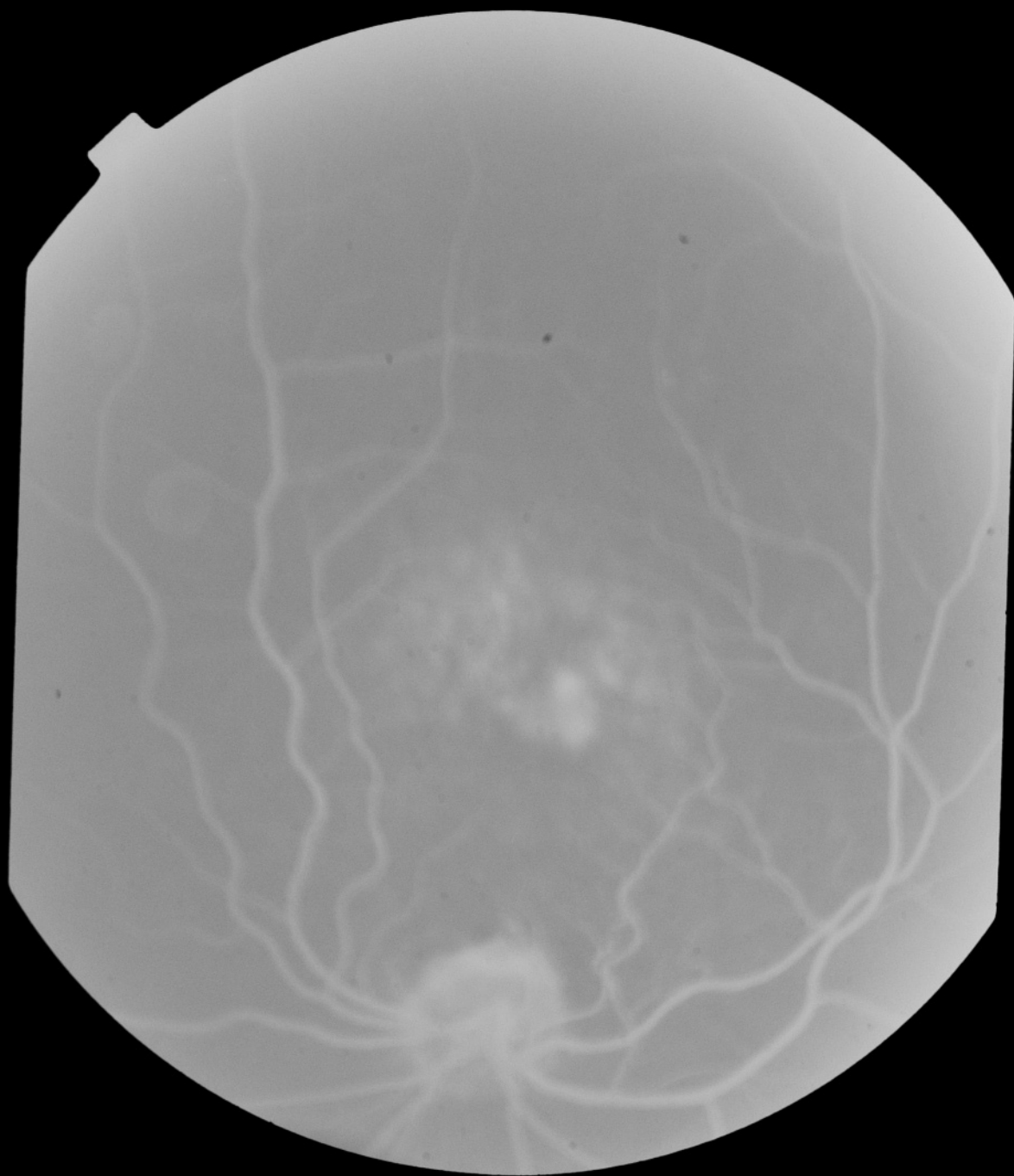




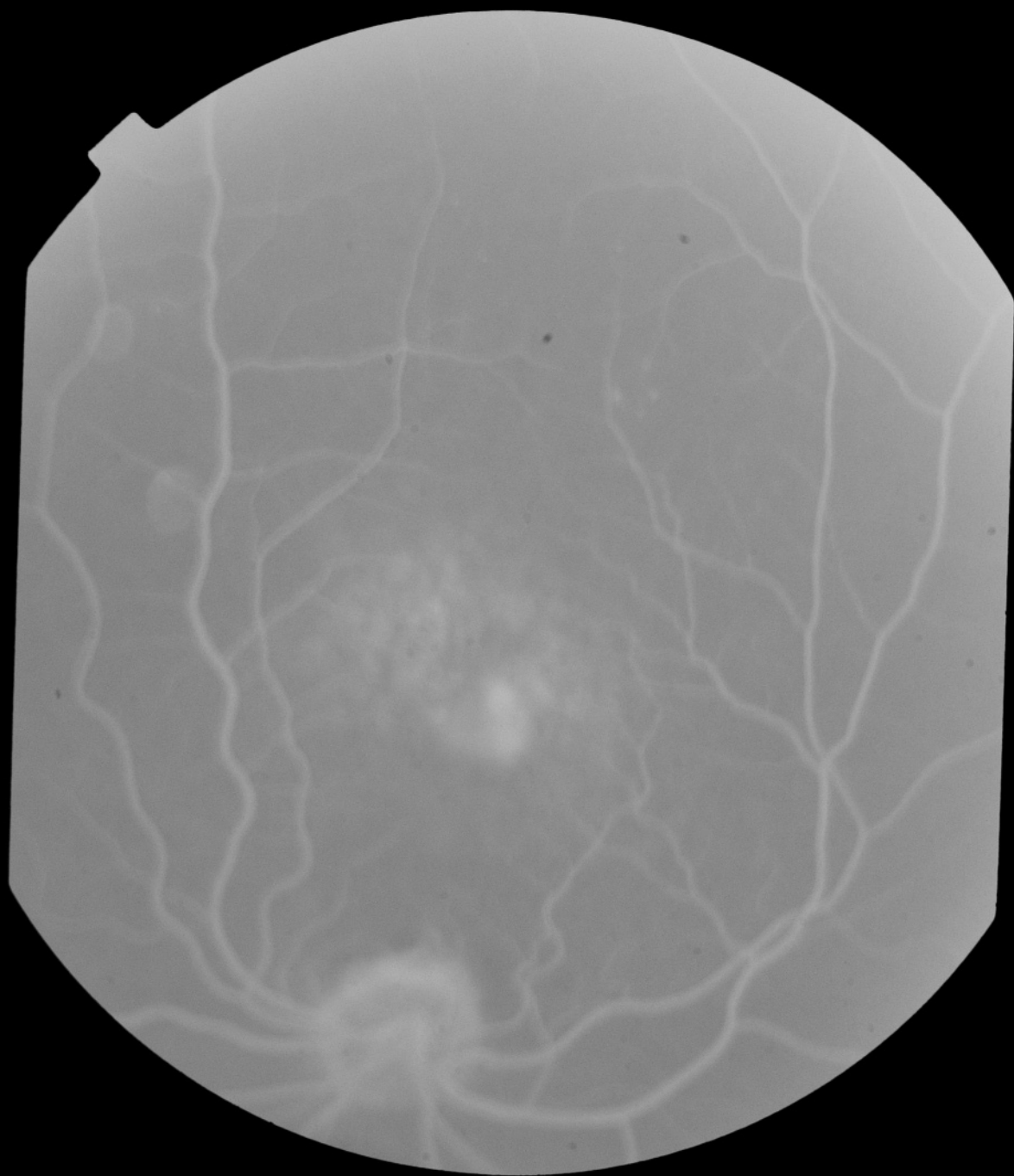




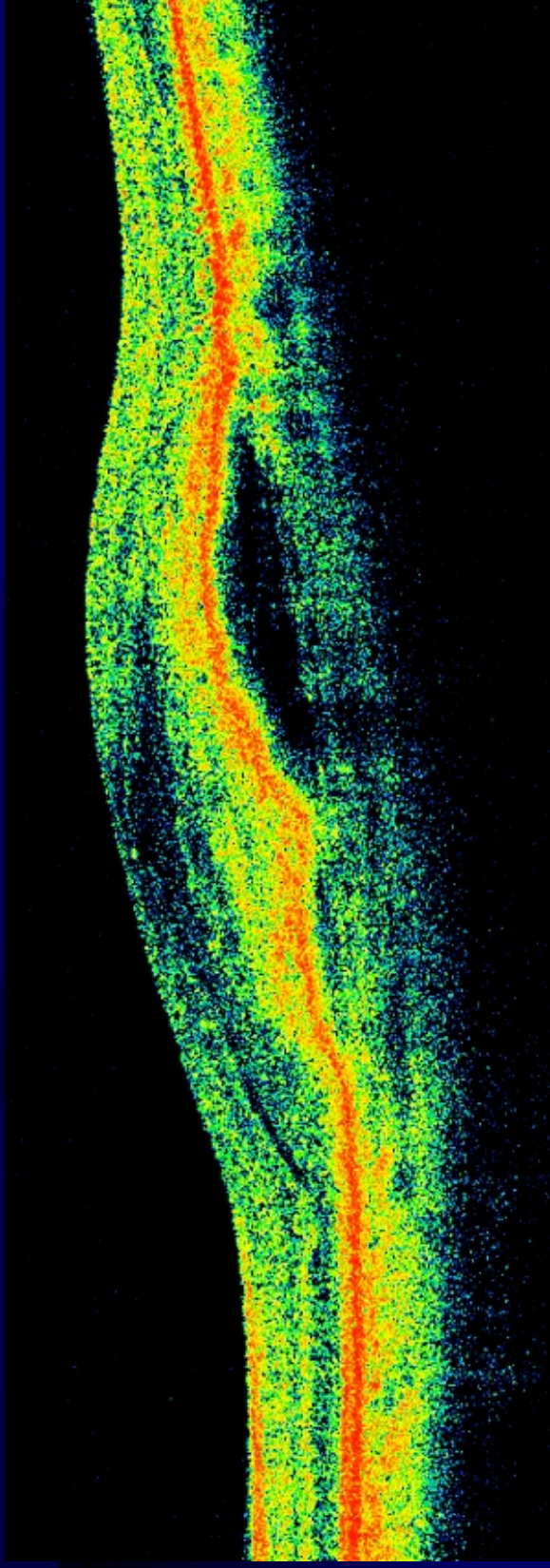
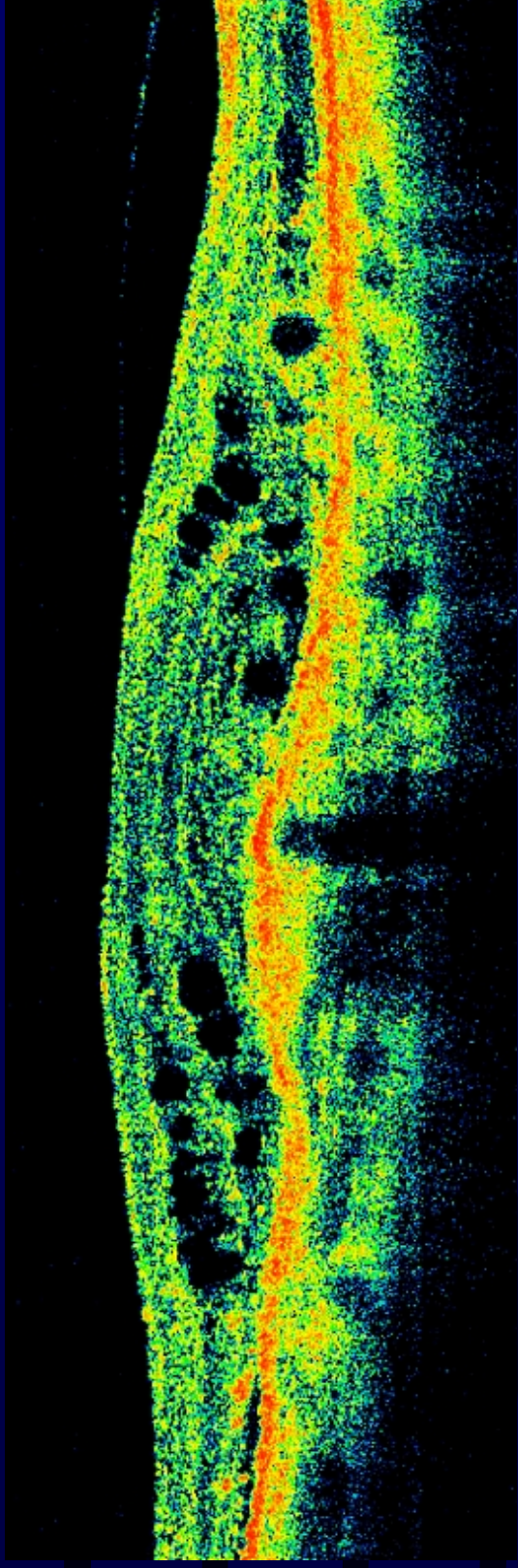




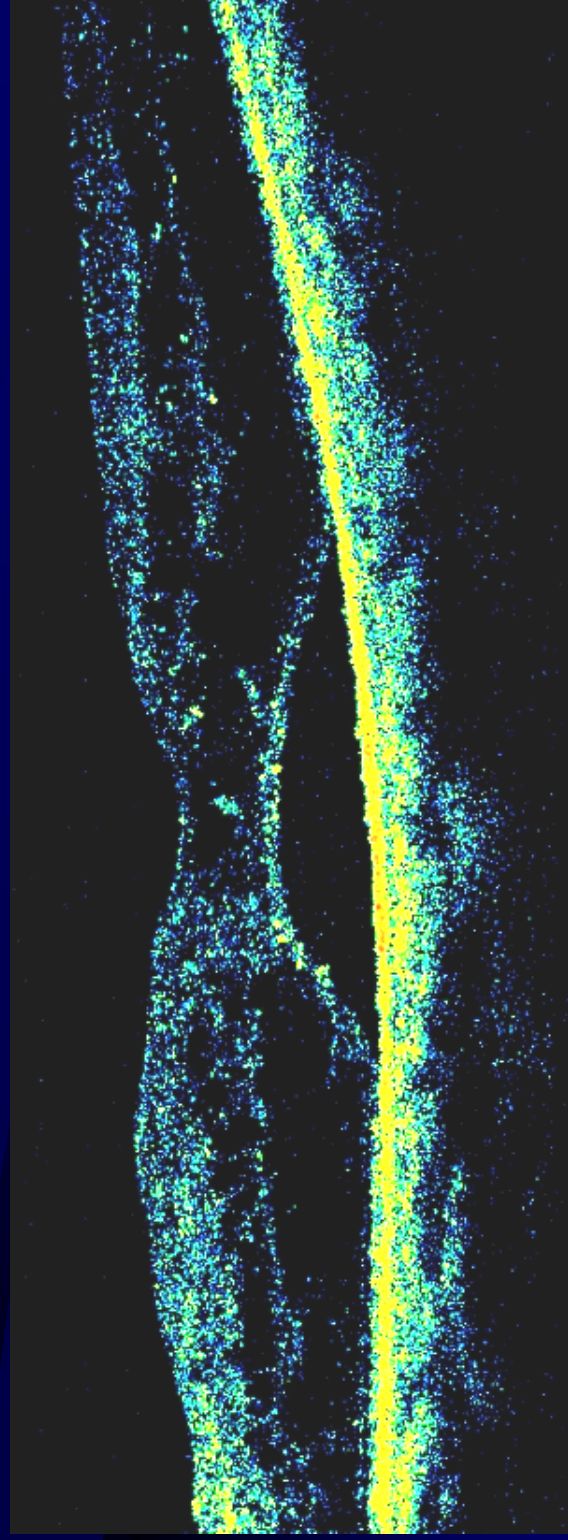
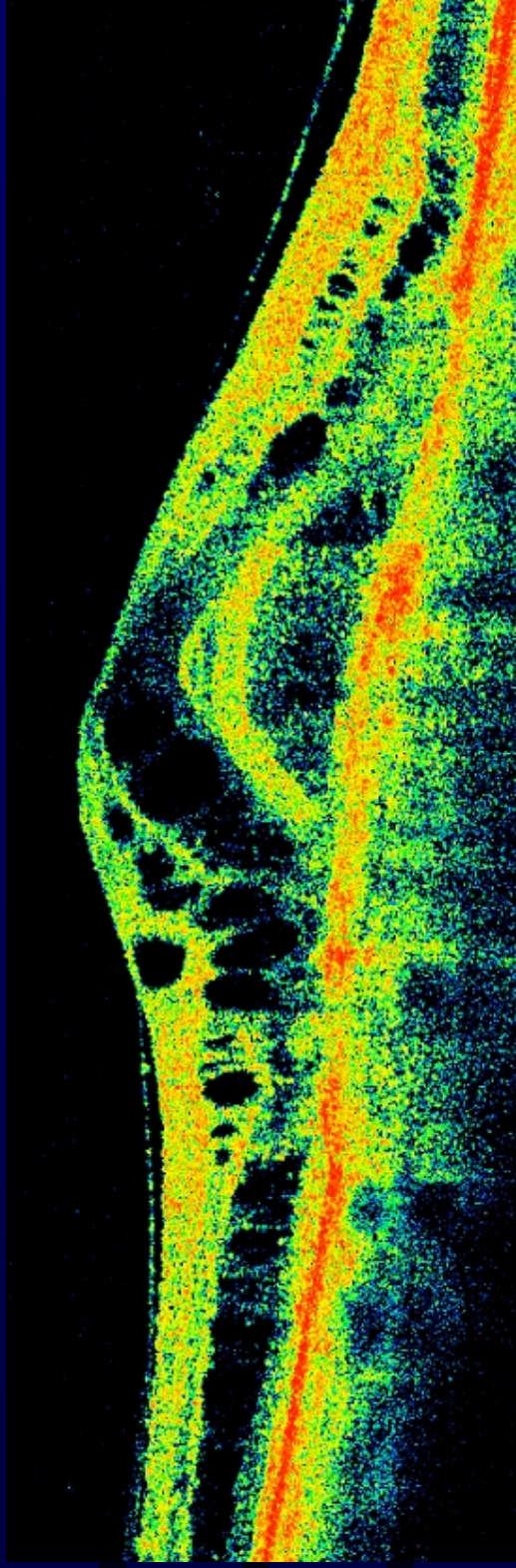




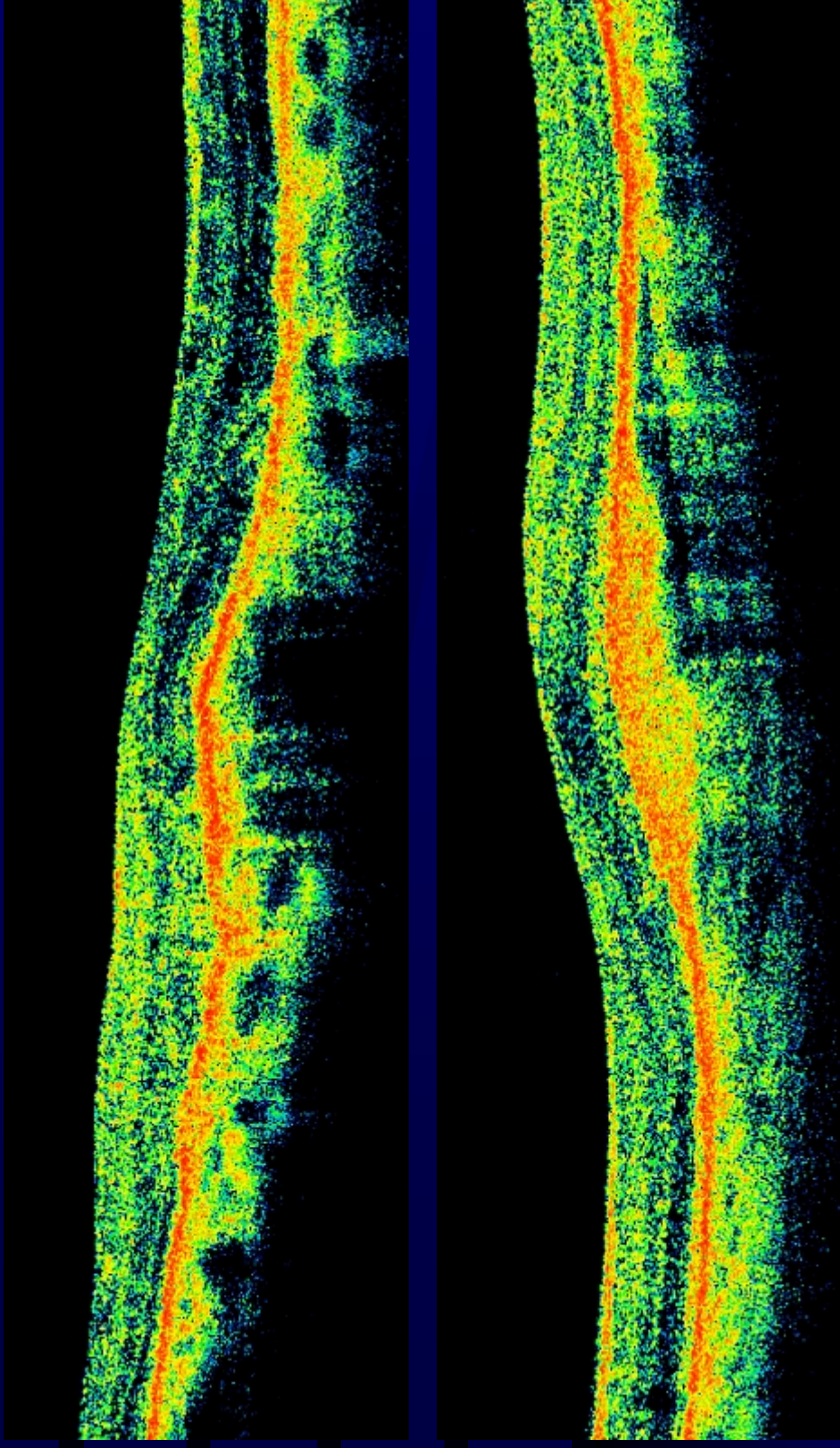
# Bilateral CNVM non-responding to anti-VEGF monotherapy

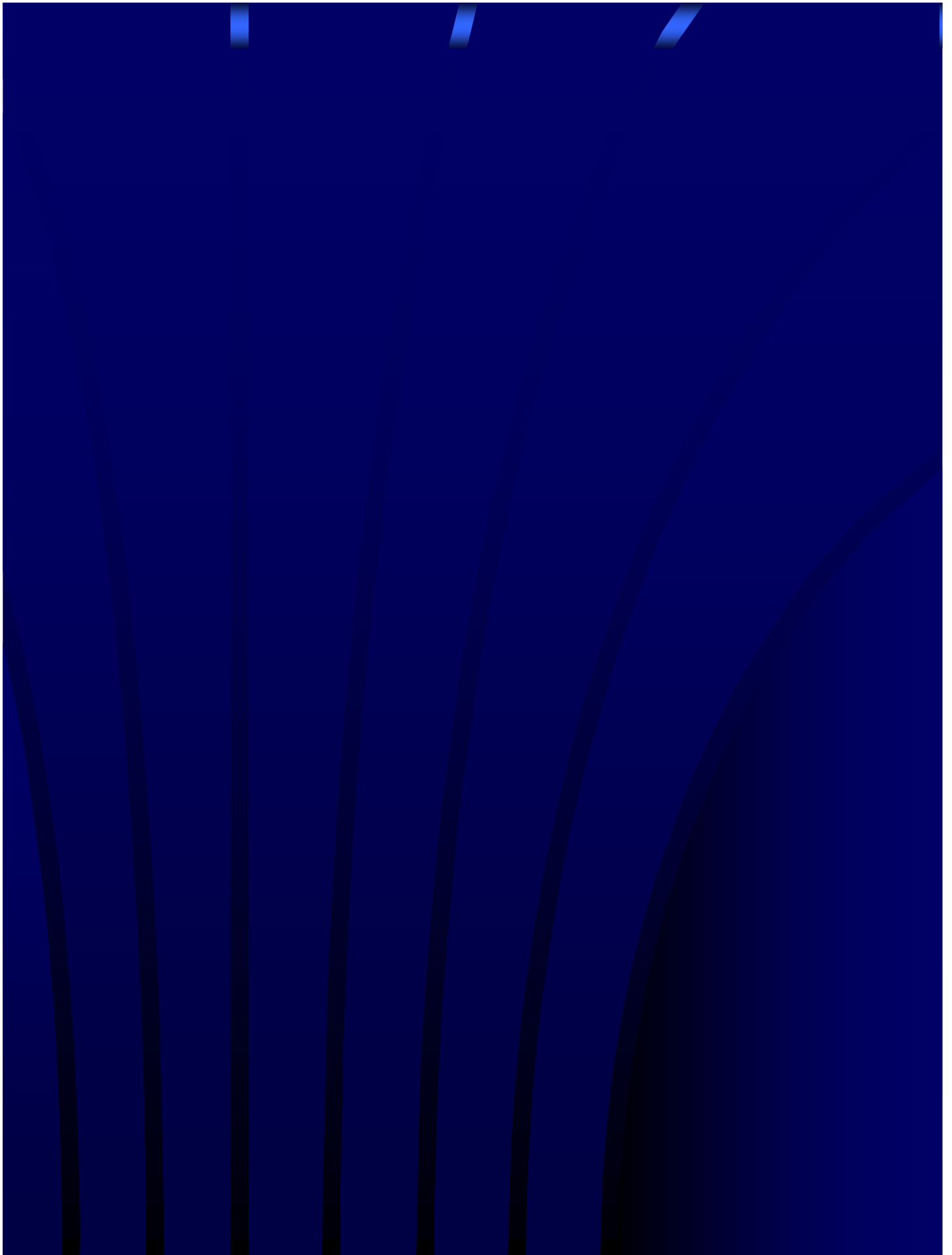


# Immediately following PDT



# 4 weeks after combination therapy





Patient: MANCHANDA, AVTMAASH  
DOB (age): 01/01/1944 (67)  
ID: 1017615

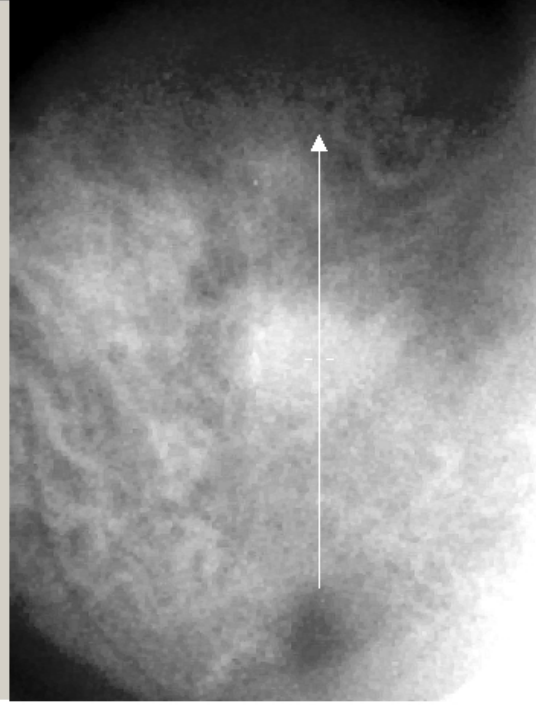
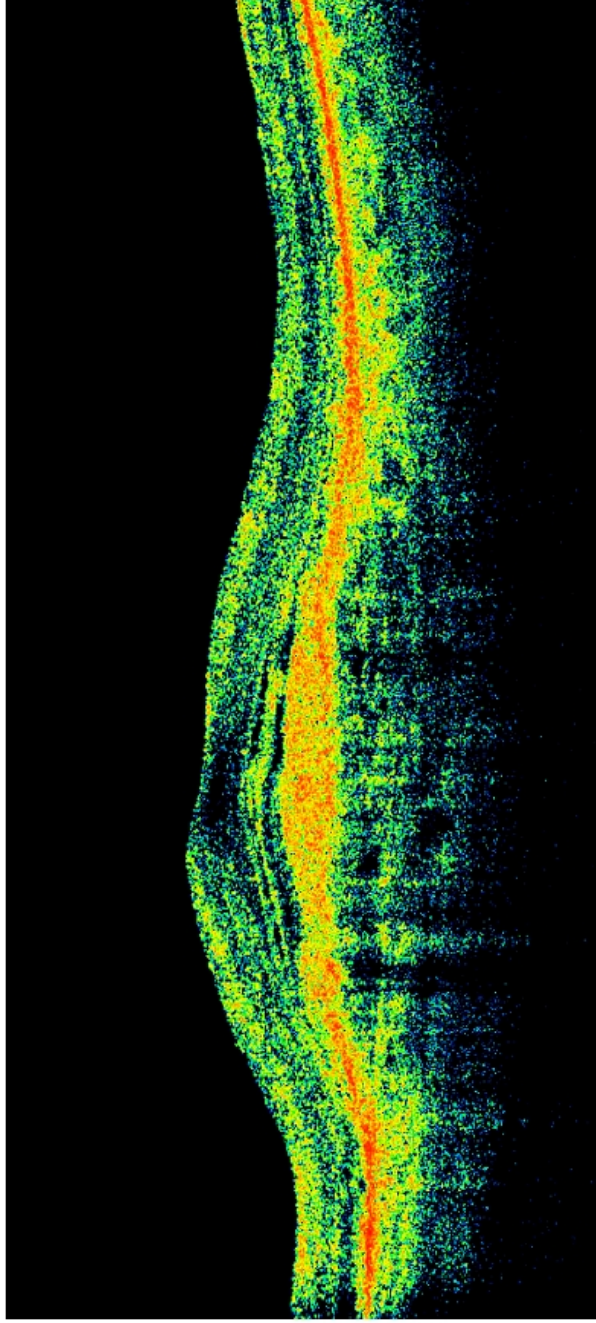
Disease:  
Algorithm Version: A5, 1, 0, 90  
Gender: M

Operator:  
Exam Date: 05/12/2011  
Physician:

05

HD Line SSI = 61.8

6.00mm Scan Length



Diagnosis:

Patient: MANCHANDA, AVTMAASH  
DOB (age): 01/01/1944 (67)  
ID: 1017615

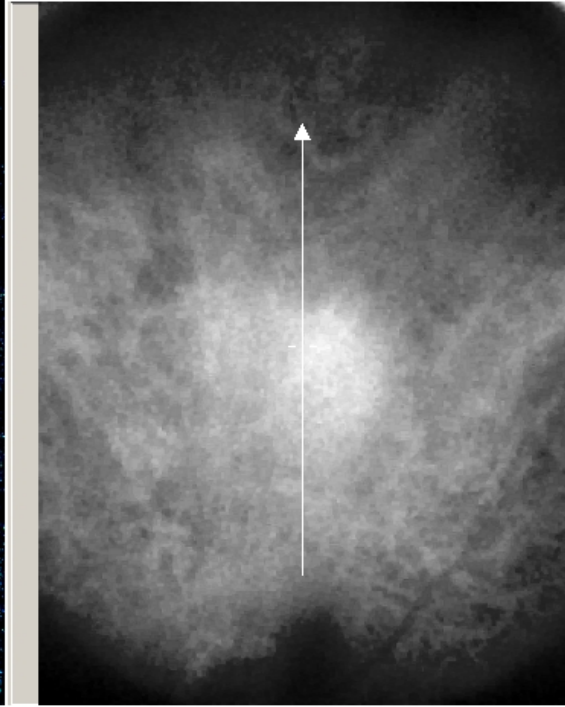
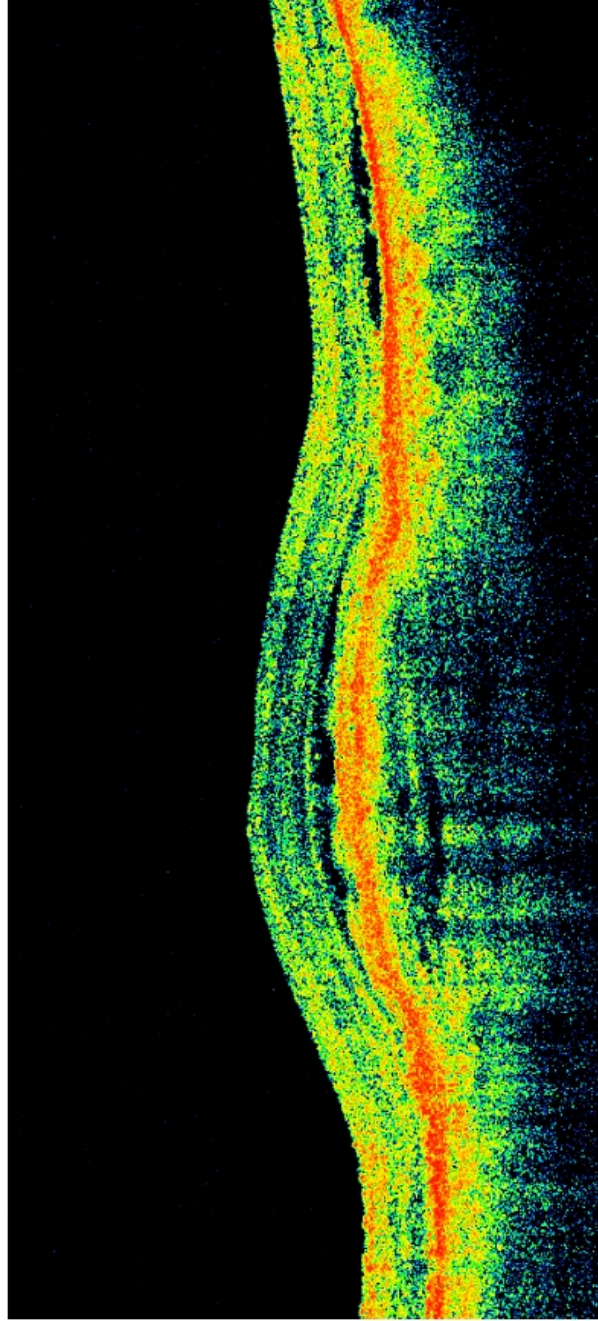
Disease:  
Algorithm Version: A5, 1, 0, 90  
Gender: M

Operator:  
Exam Date: 03/28/2011  
Physician:

OS

HD Line SSI = 63.1

6.00mm Scan Length



Diagnosis:

Patient: MANCHANDA, AVTMAASH  
DOB (age): 01/01/1944 (67)  
ID: 1017615

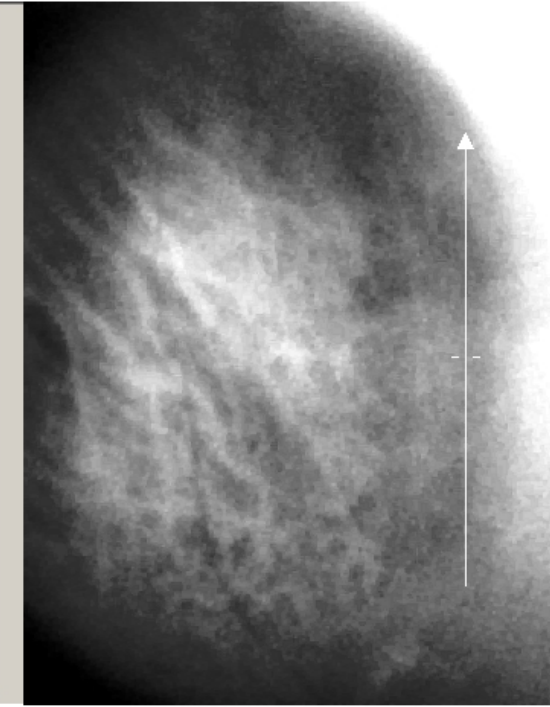
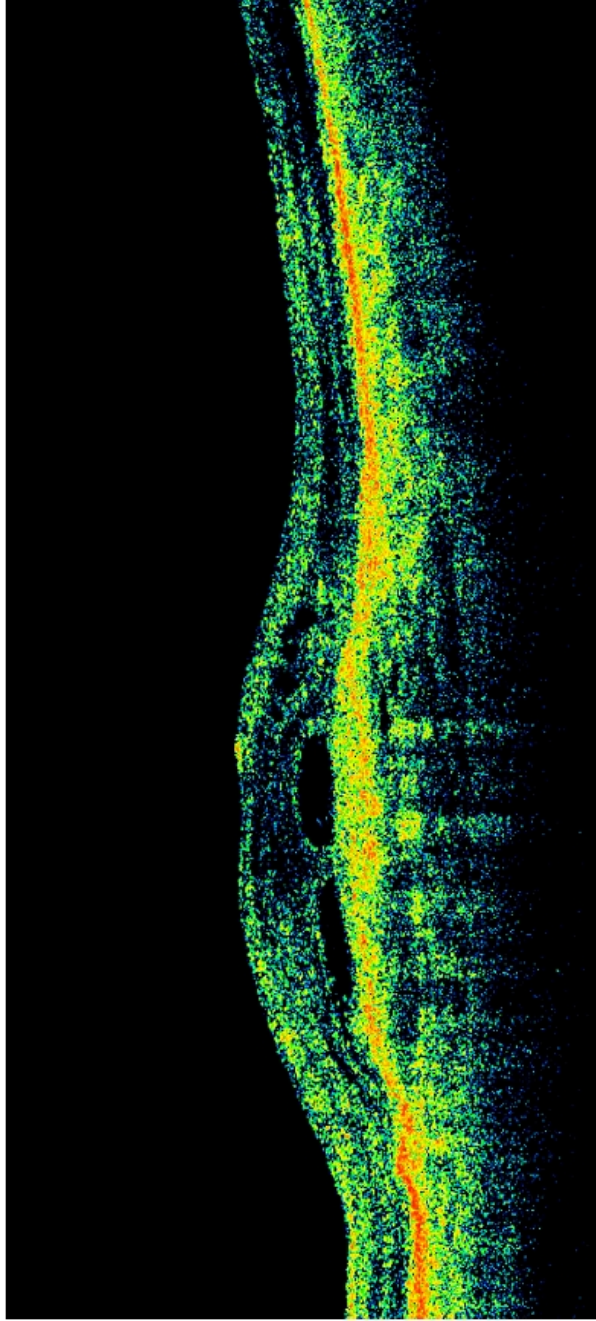
Disease:  
Algorithm Version: A5, 1, 0, 90  
Gender: M

Operator:  
Exam Date: 06/16/2011  
Physician:

OS

HD Line SSI= 51.2

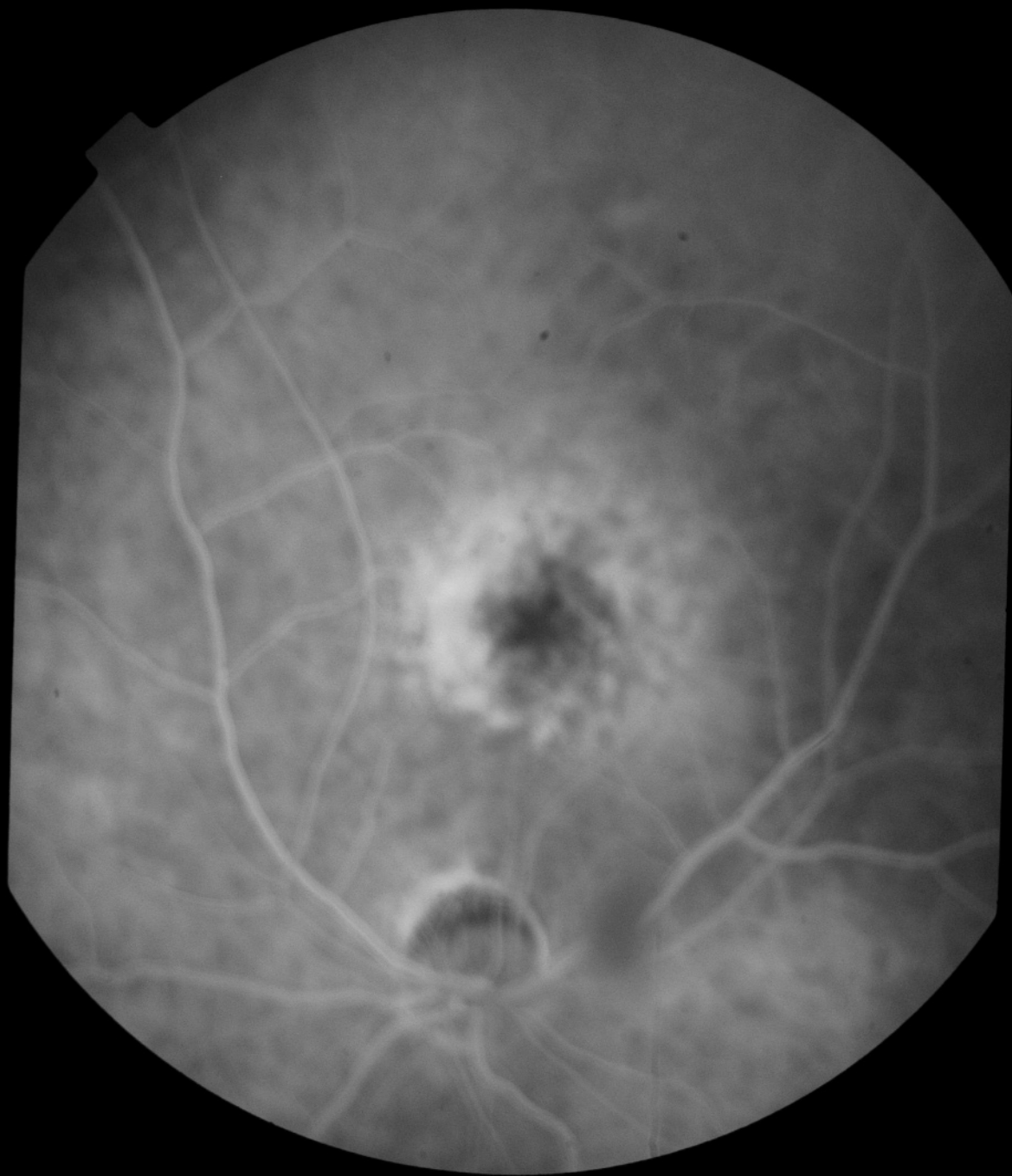
6.00mm Scan Length



Diagnosis:







Patient: MANCHANDA, AVTAMASH  
DOB (age): 01/01/1944 (67)  
ID: 1017615

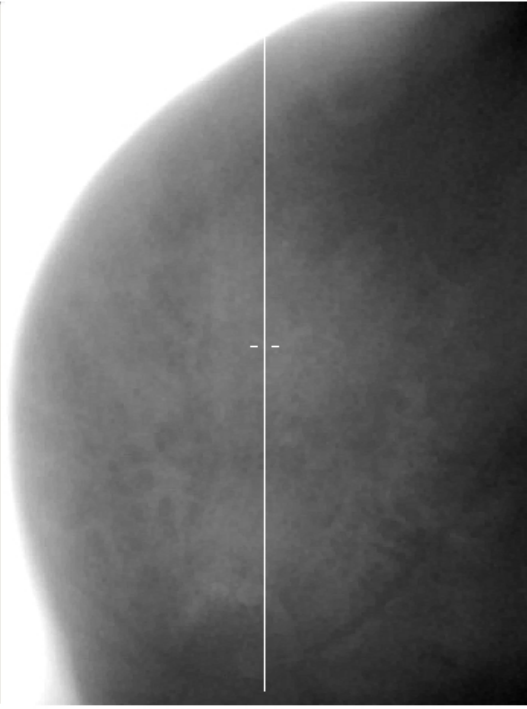
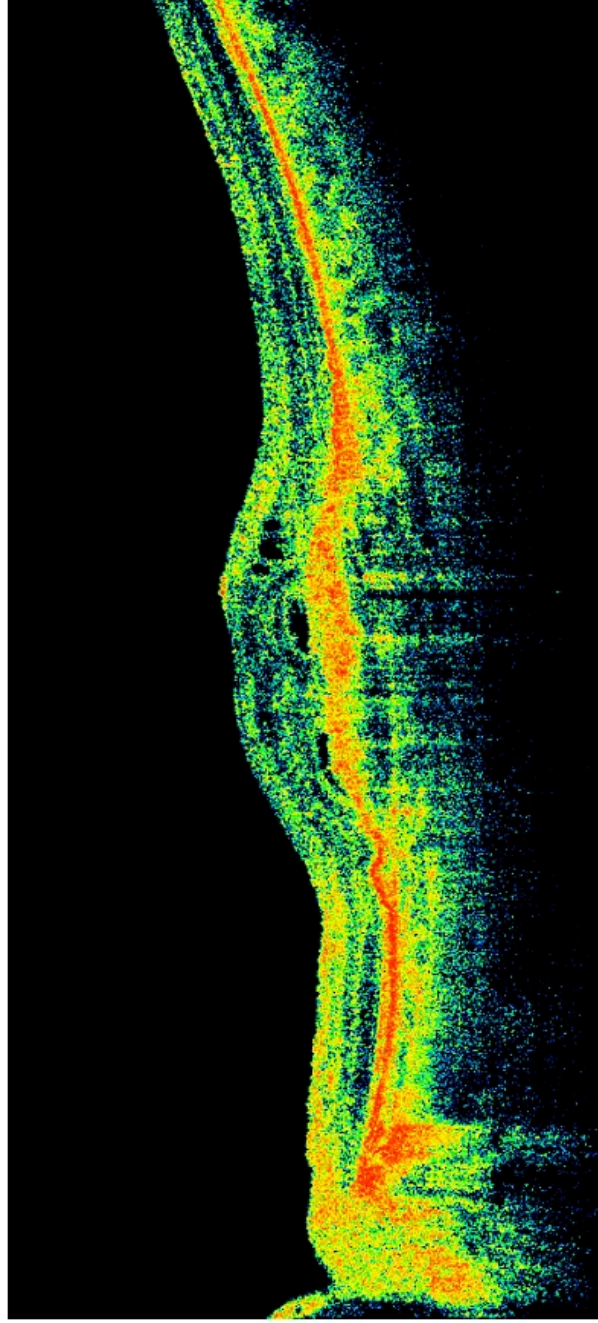
Disease:  
Algorithm Version: A5, 1, 0, 90  
Gender: M

Operator:  
Exam Date: 08/11/2011  
Physician:

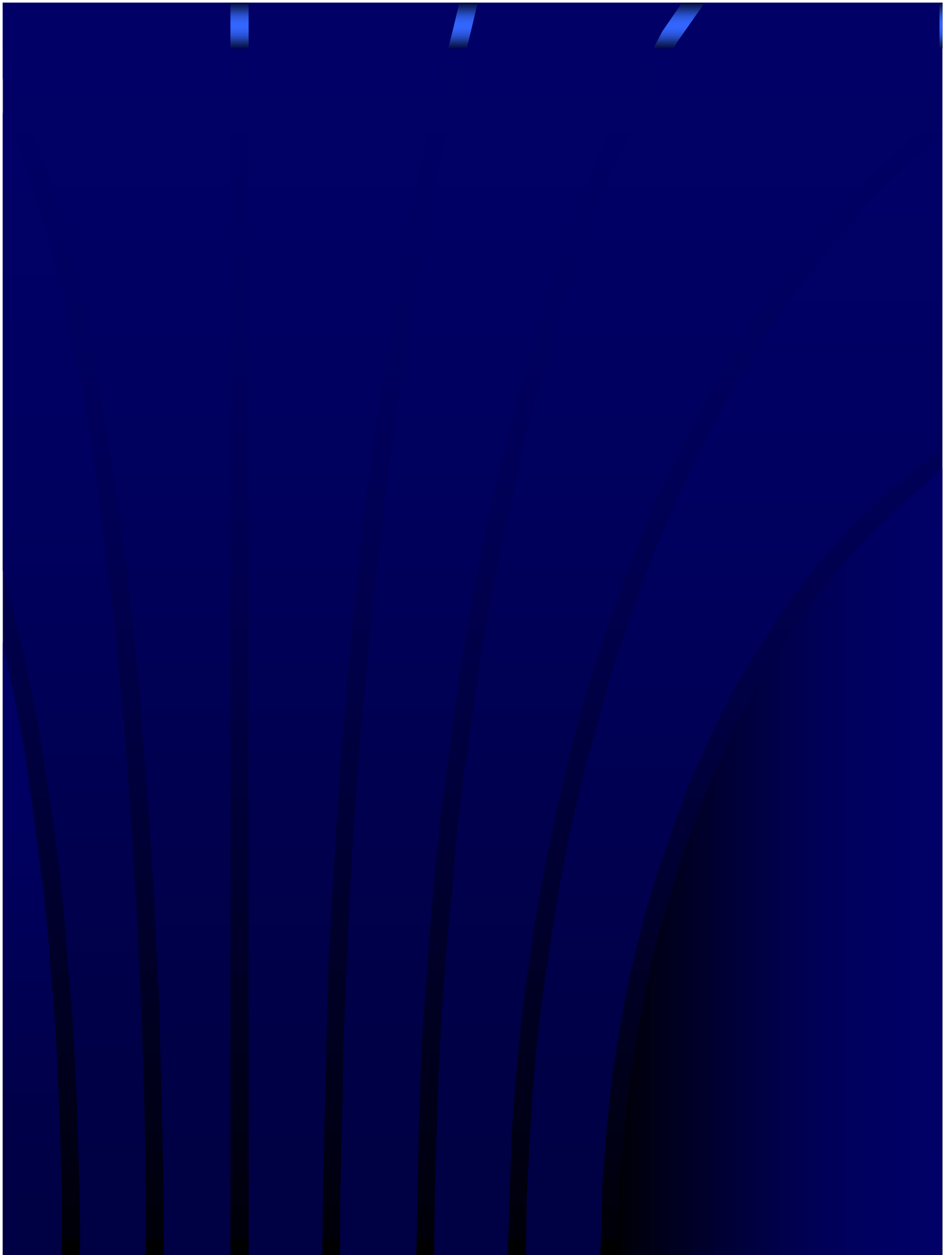
05

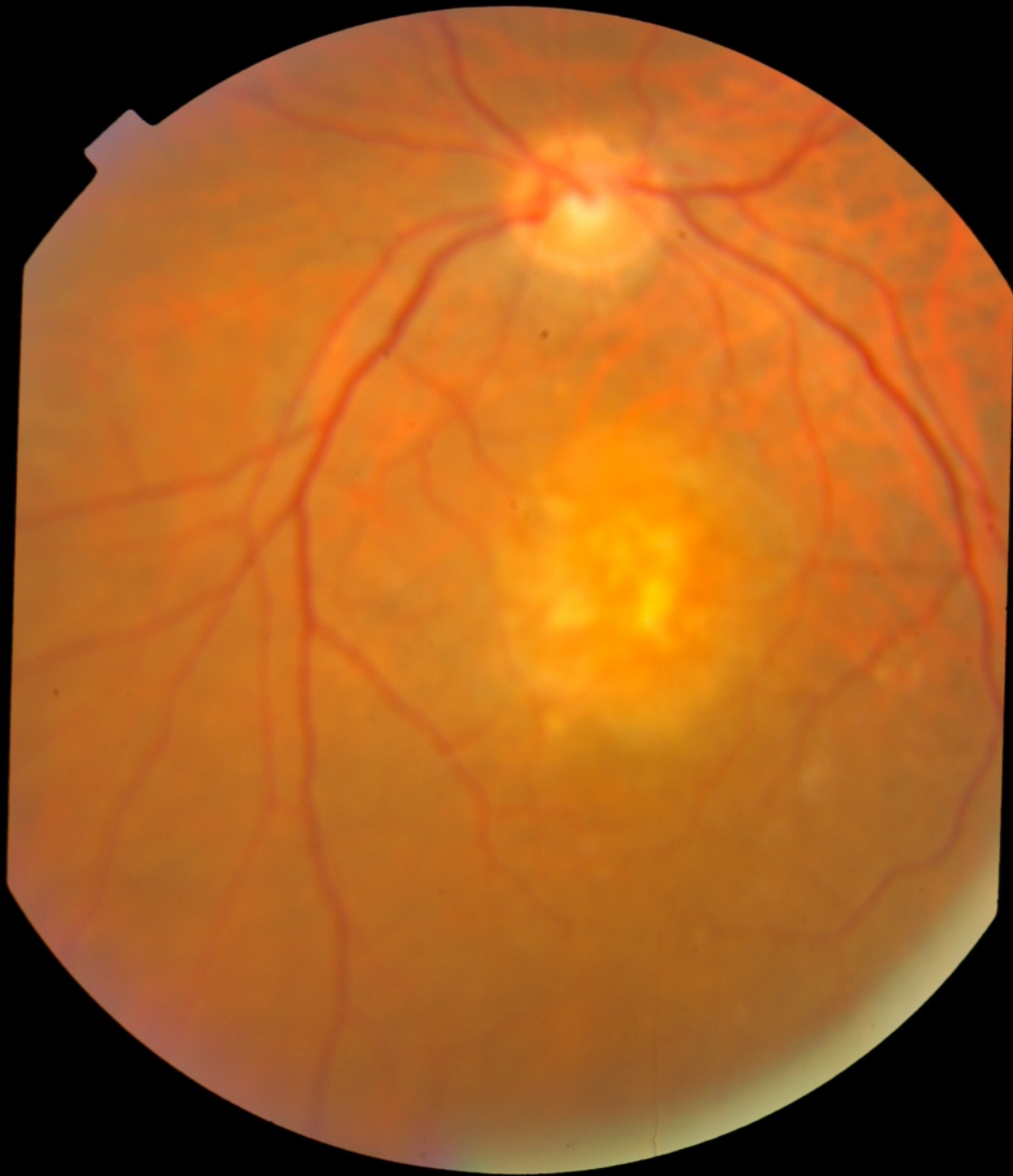
HD Line SSI = 63.3

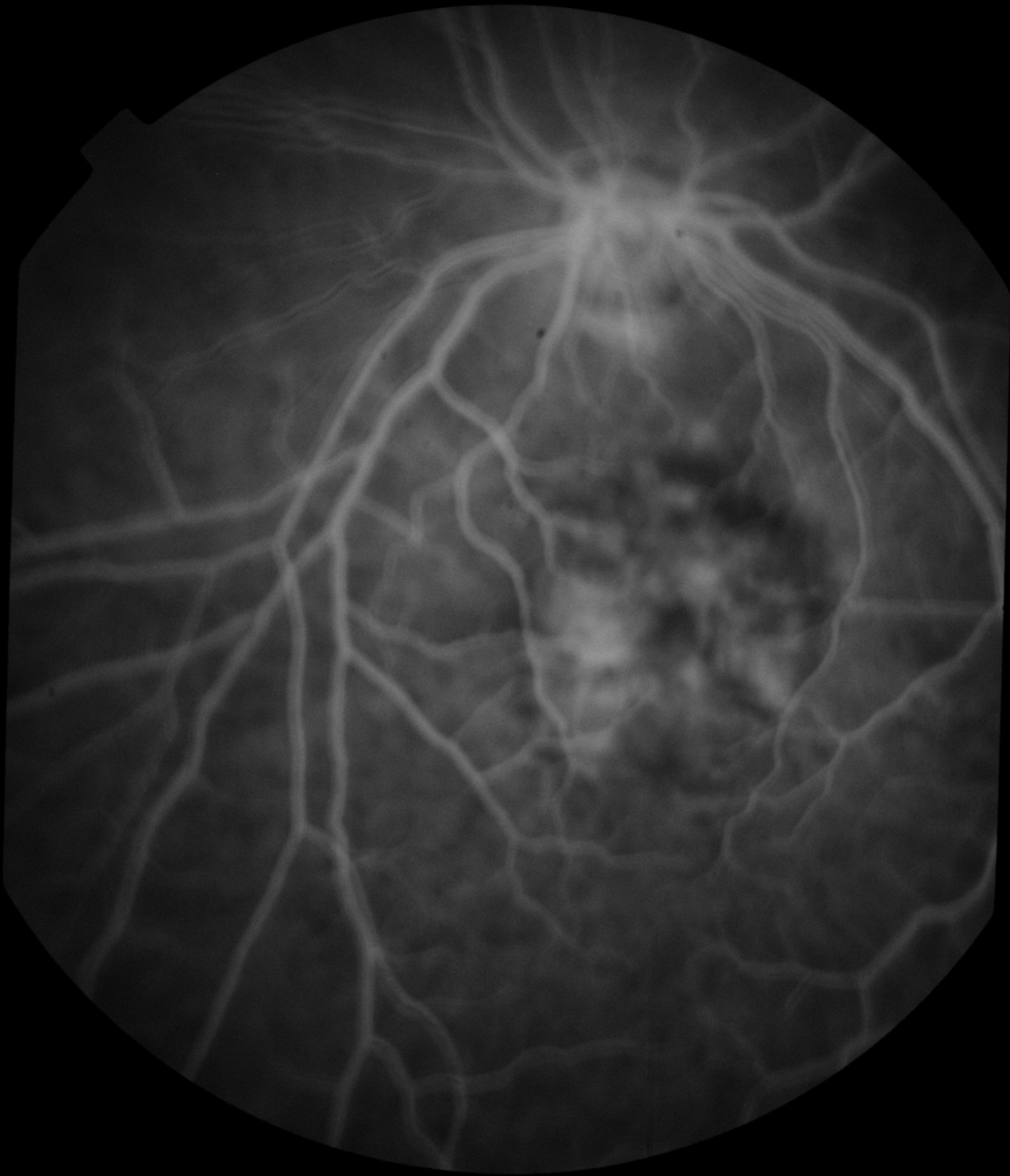
9.00mm Scan Length

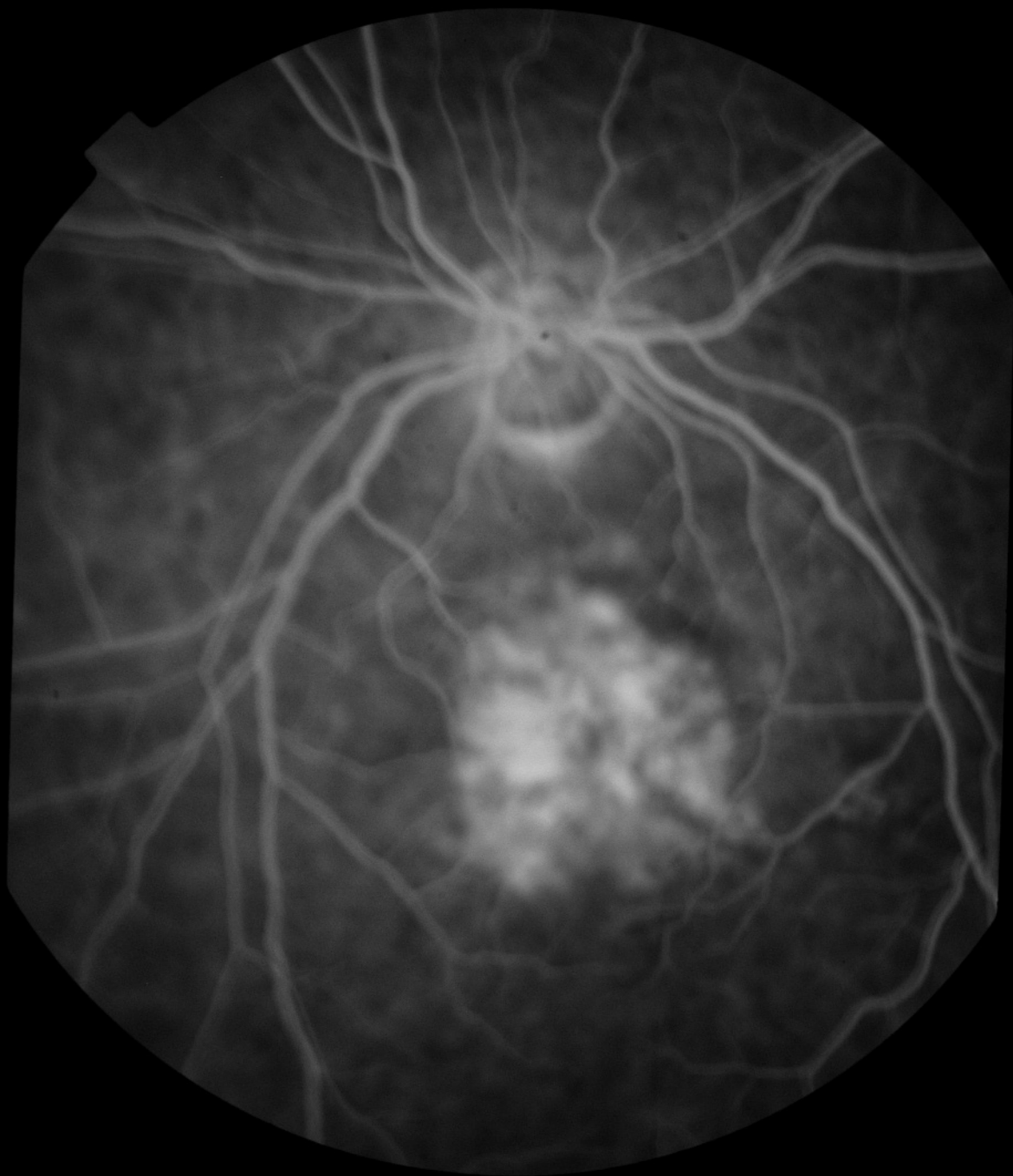


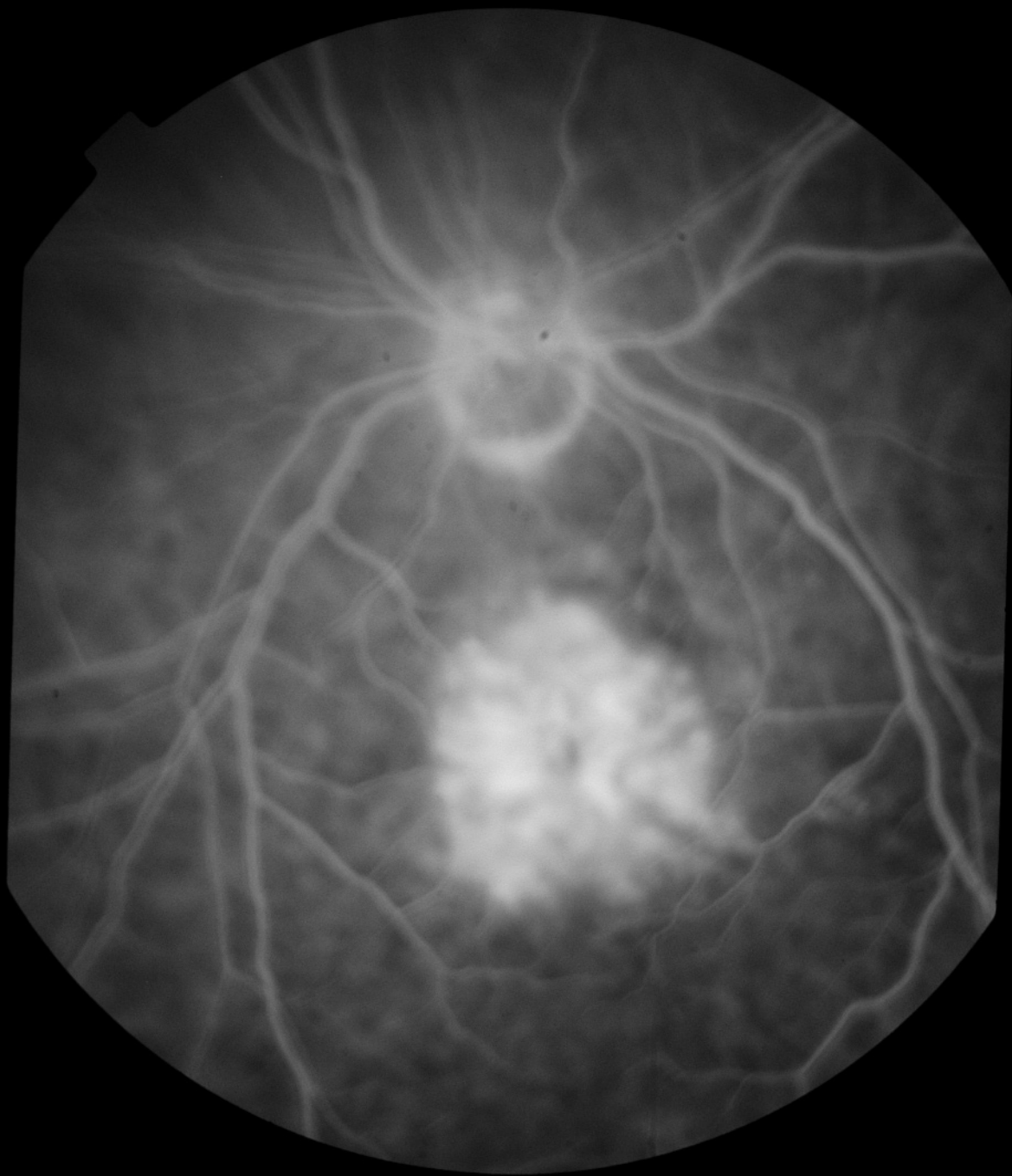
Diagnosis:



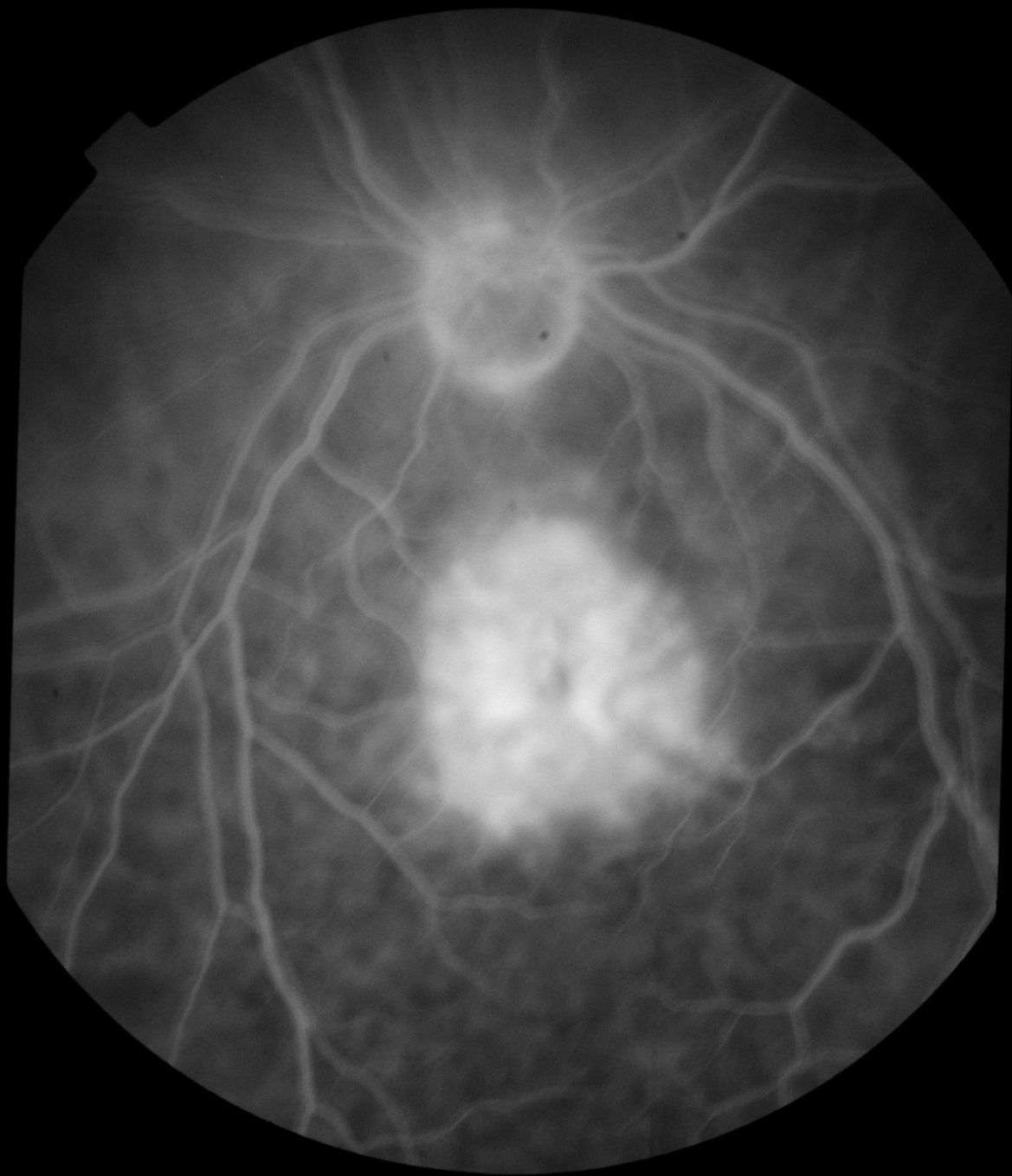


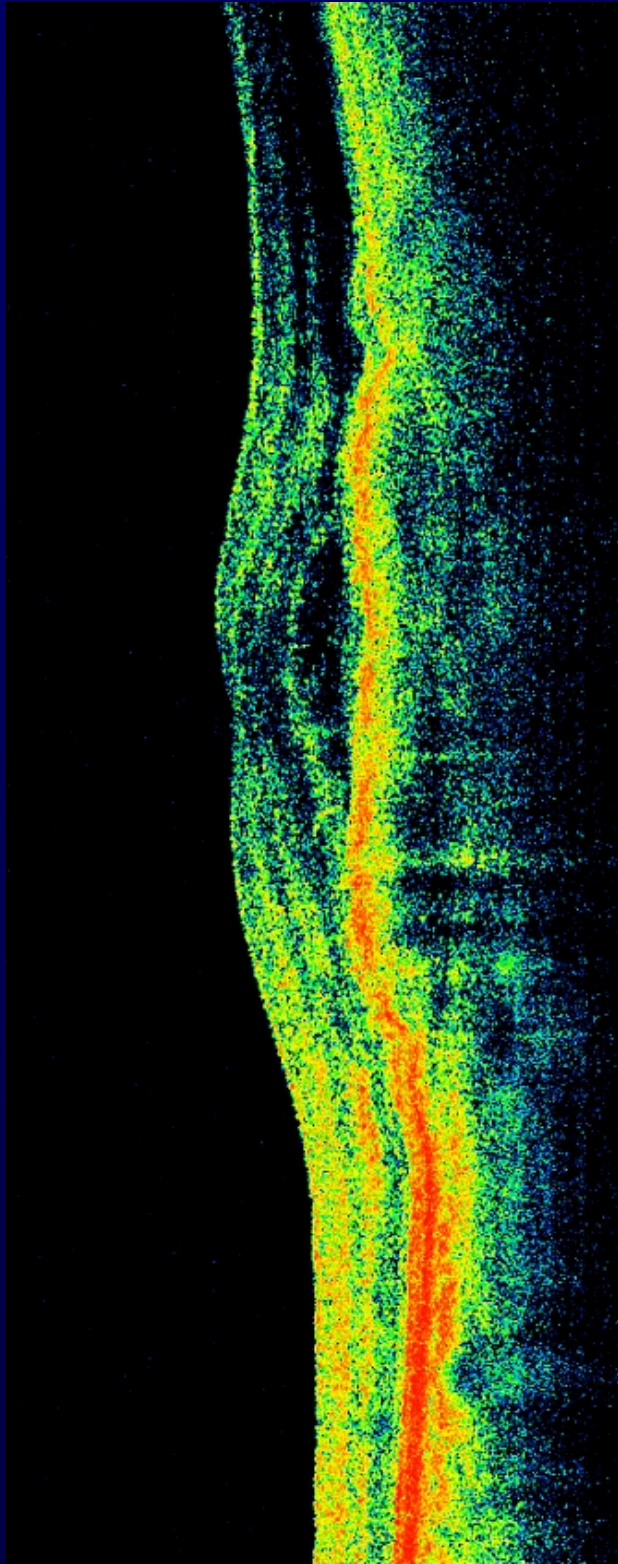


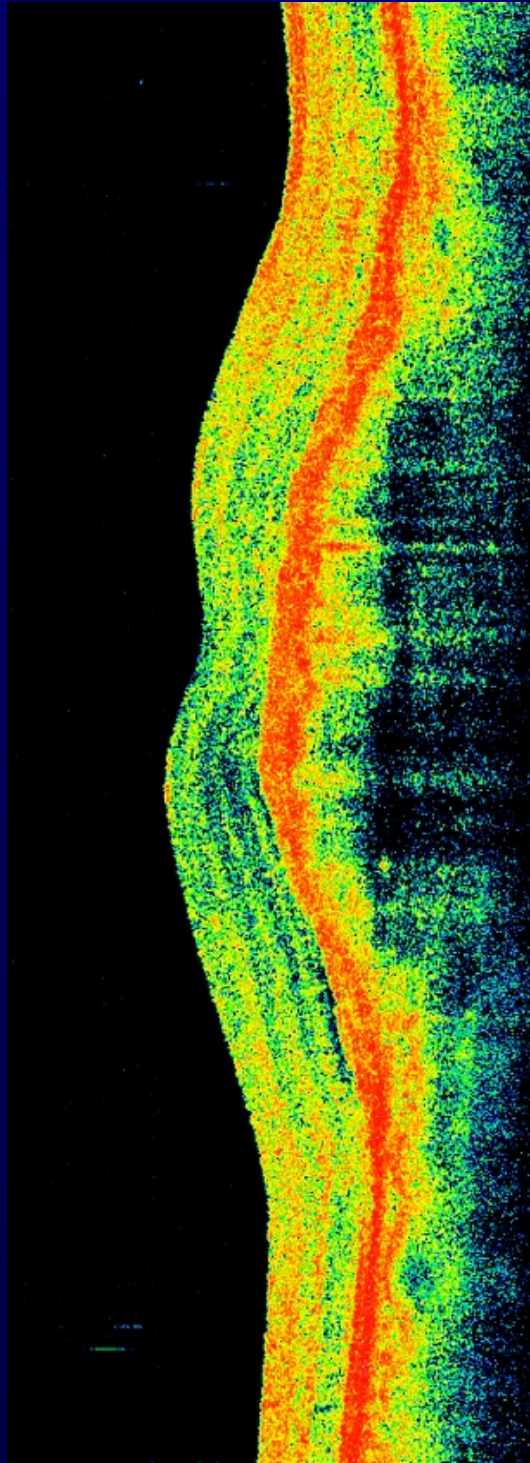


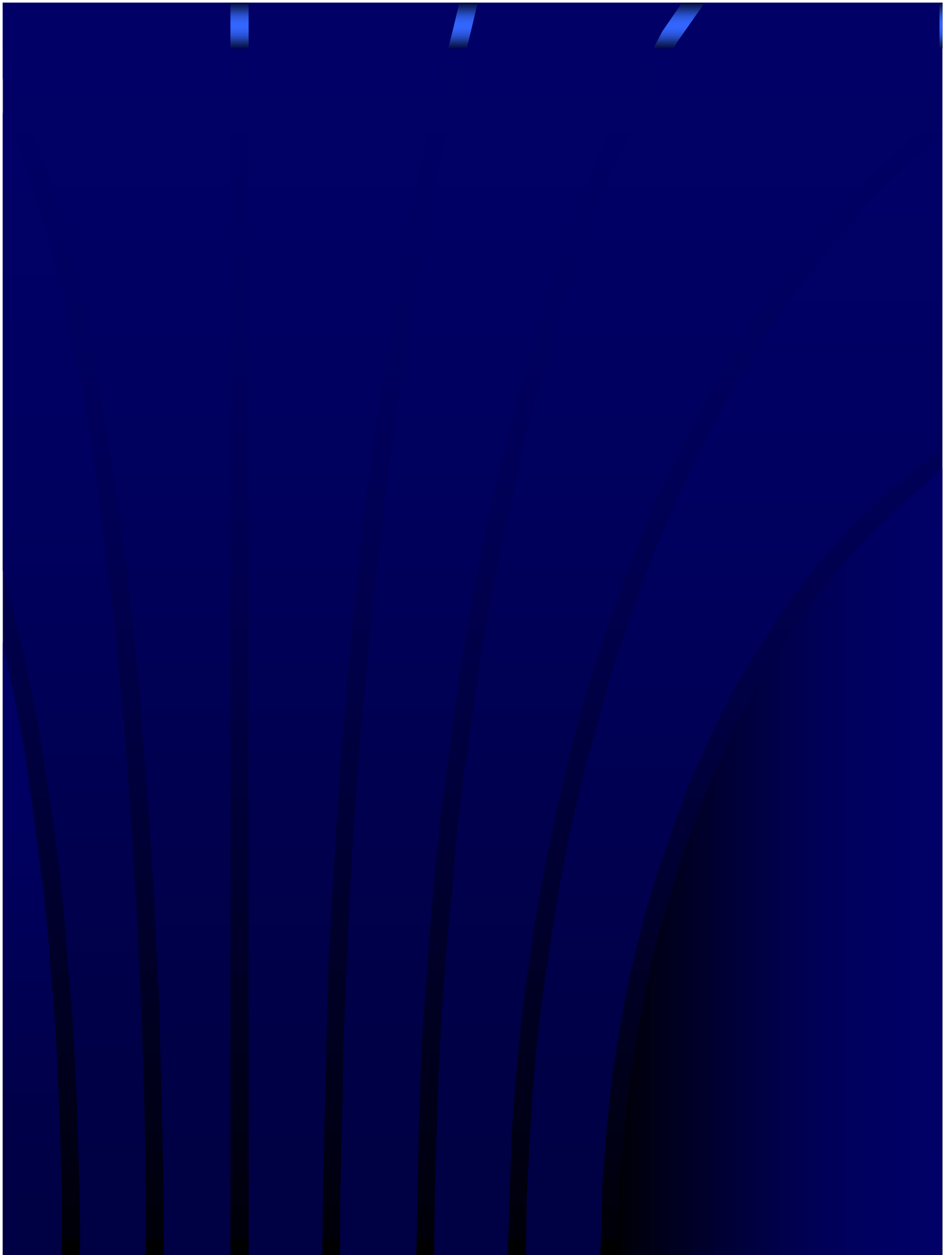












Patient: MR SITTA RAM, Y  
DOB (age): 01/01/1973 (38)  
ID: 1110395

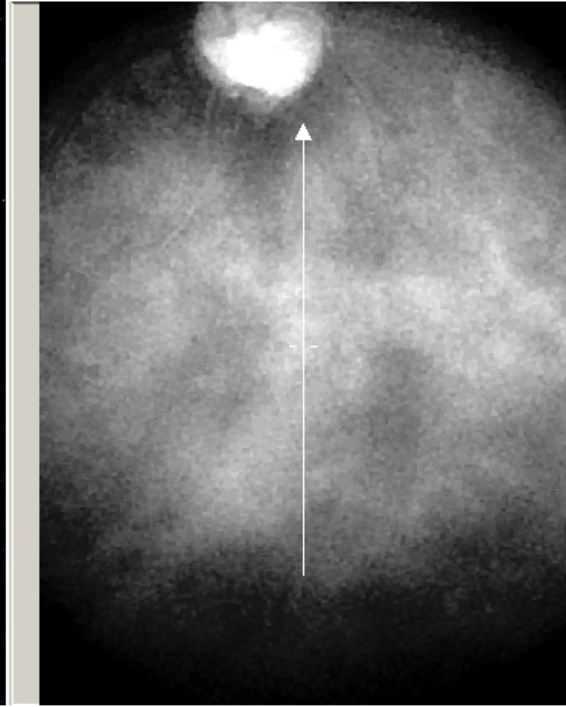
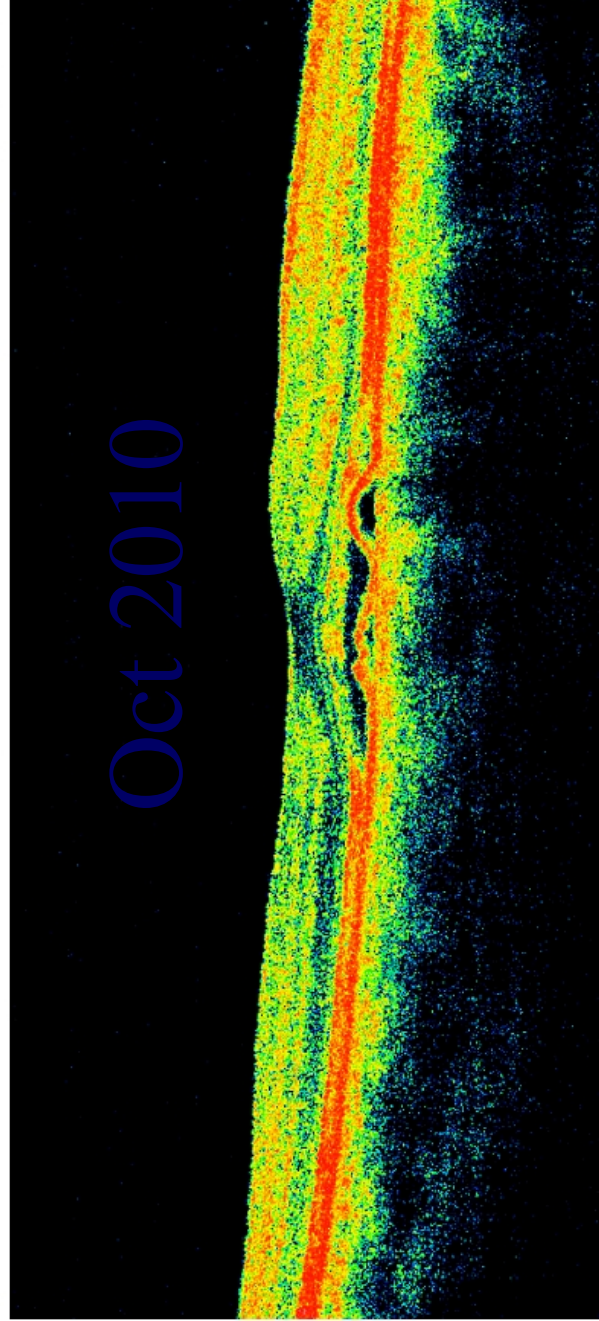
Disease:  
Algorithm Version: A5, 1, 0, 90  
Gender: M

Operator:  
Exam Date: 10/07/2010  
Physician:

OD

HD Line SSI= 79.0

6.00mm Scan Length



Diagnosis:

Patient: MR SITTA RAM, Y  
DOB (age): 01/01/1973 (38)  
ID: 1110395

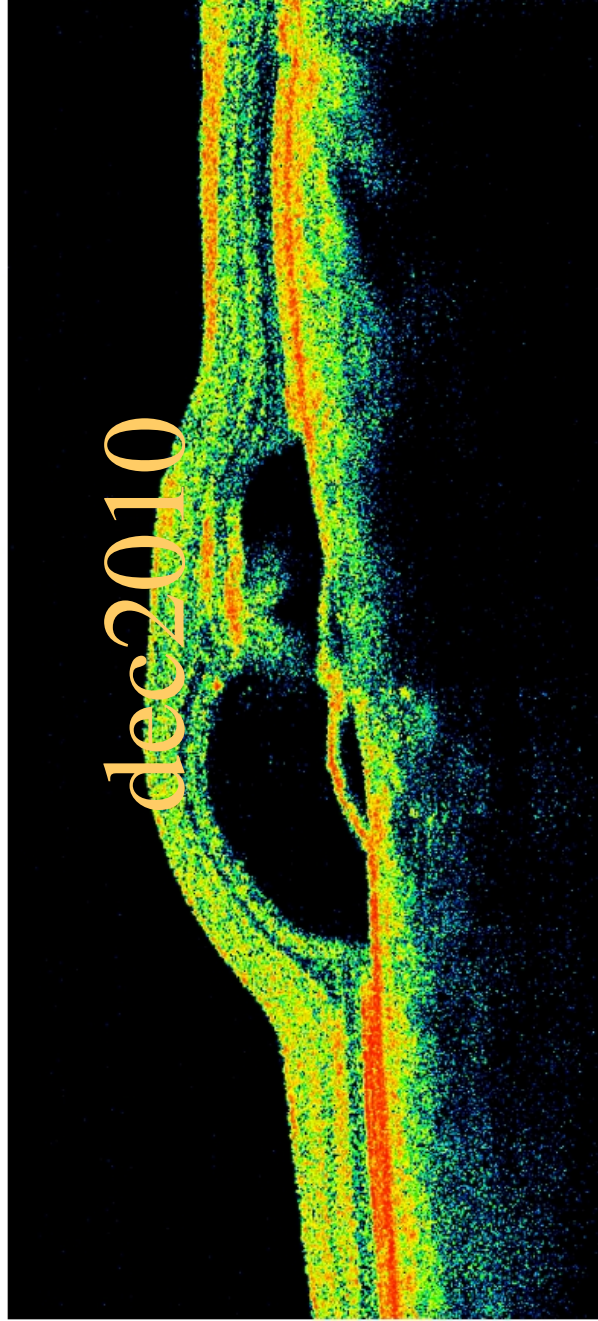
Disease:  
Algorithm Version: A5, 1, 0, 90  
Gender: M

Operator:  
Exam Date: 12/28/2010  
Physician:

OD

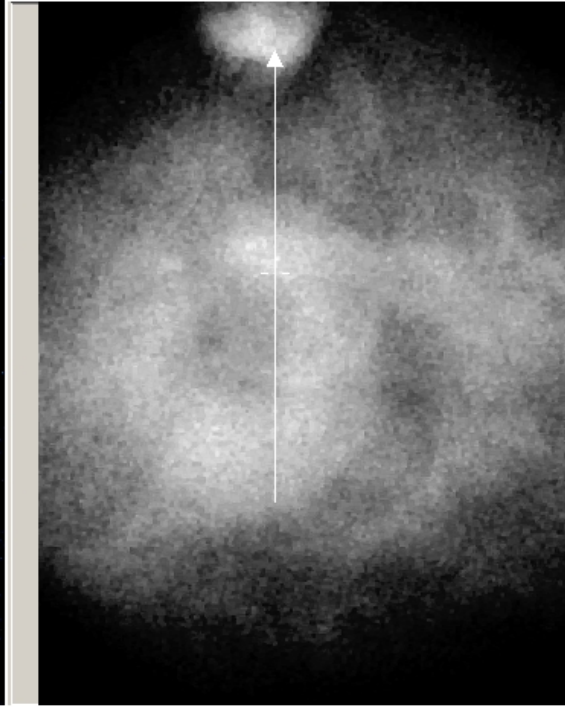
HD Line SSI = 56.9

6.00mm Scan Length



dec2010

250 μm

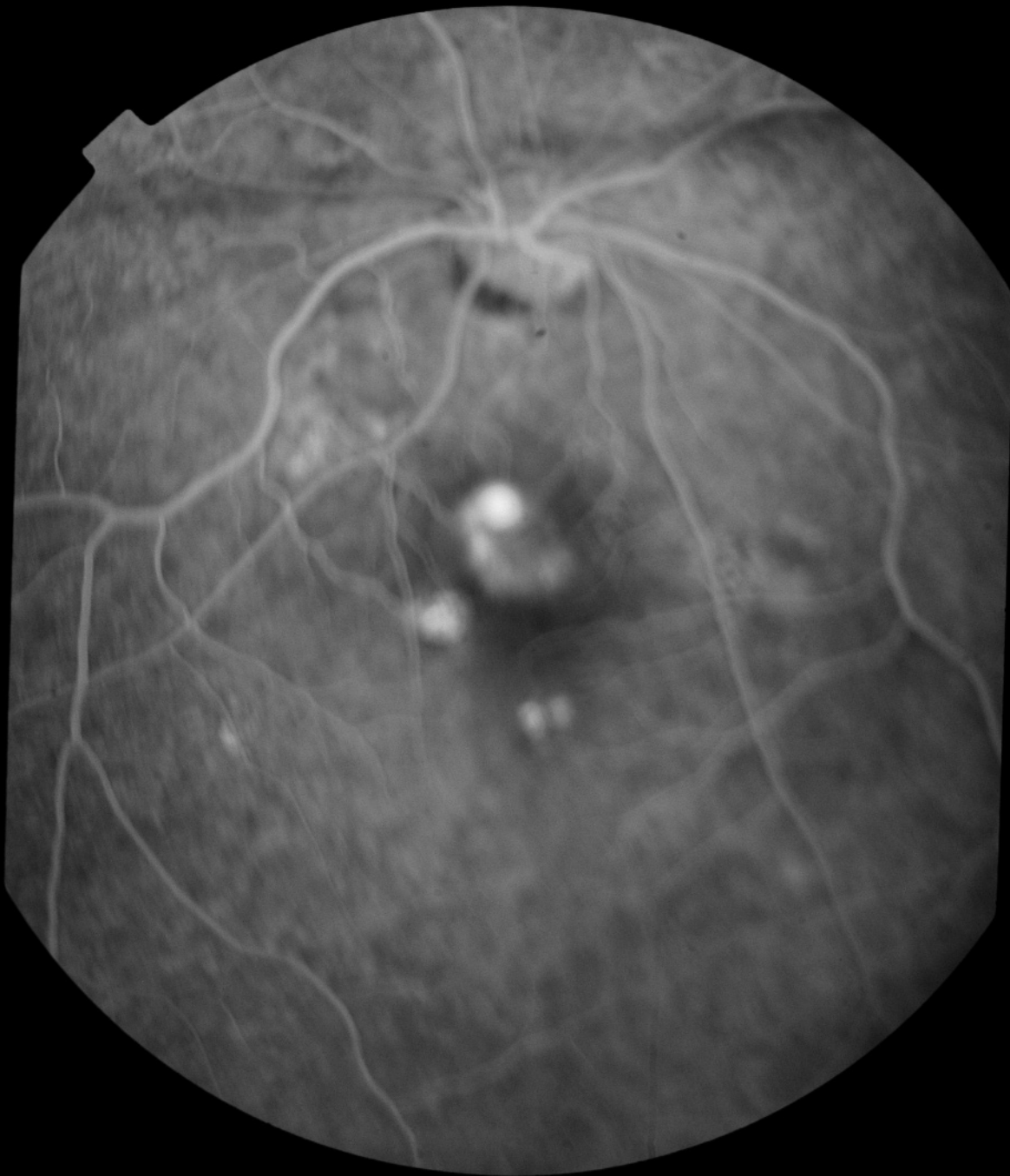


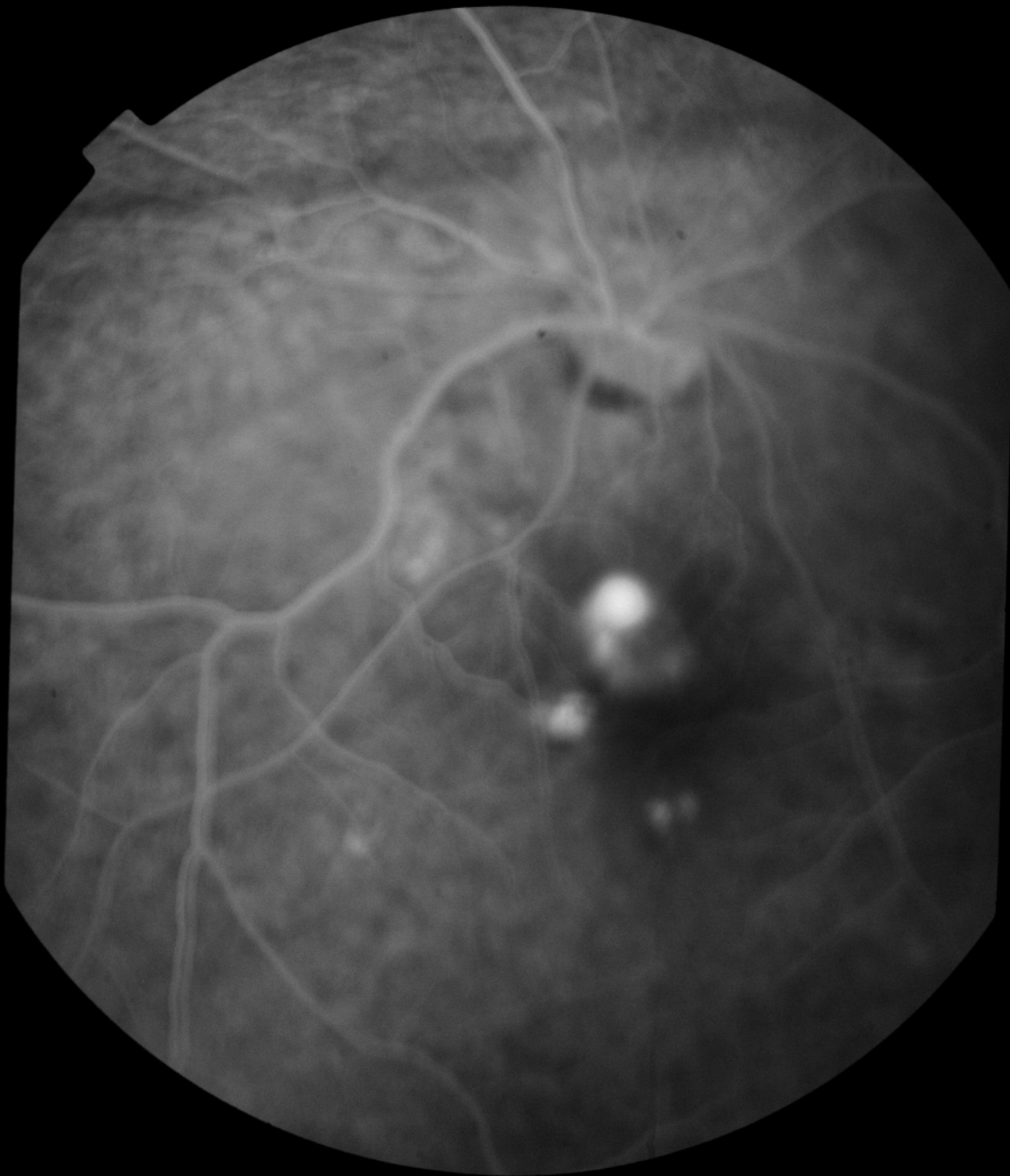
Diagnosis:



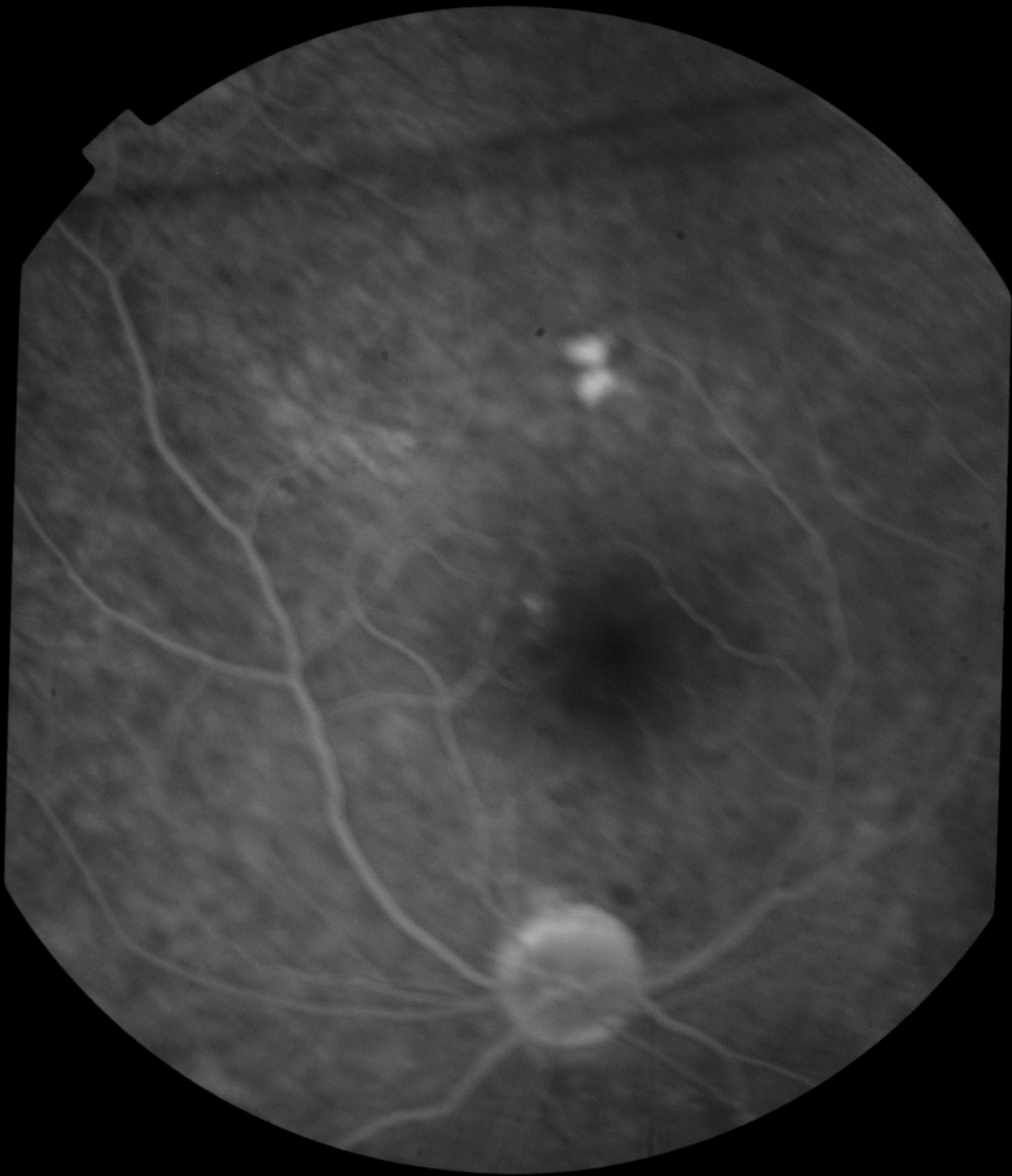












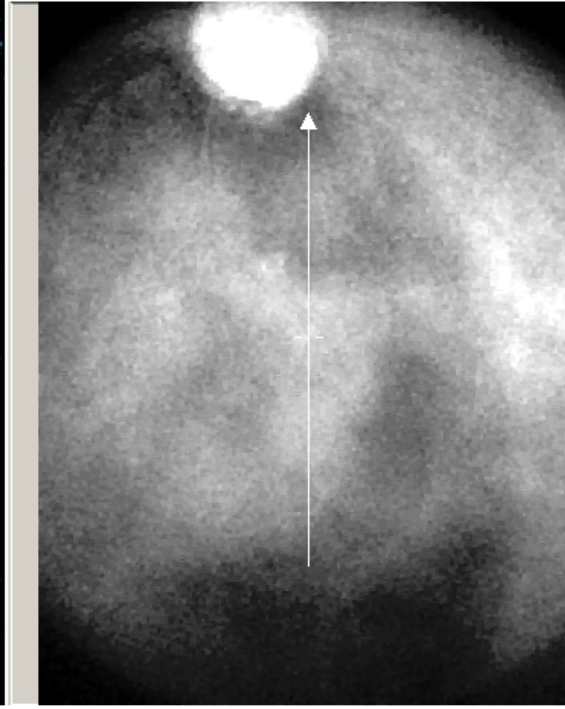
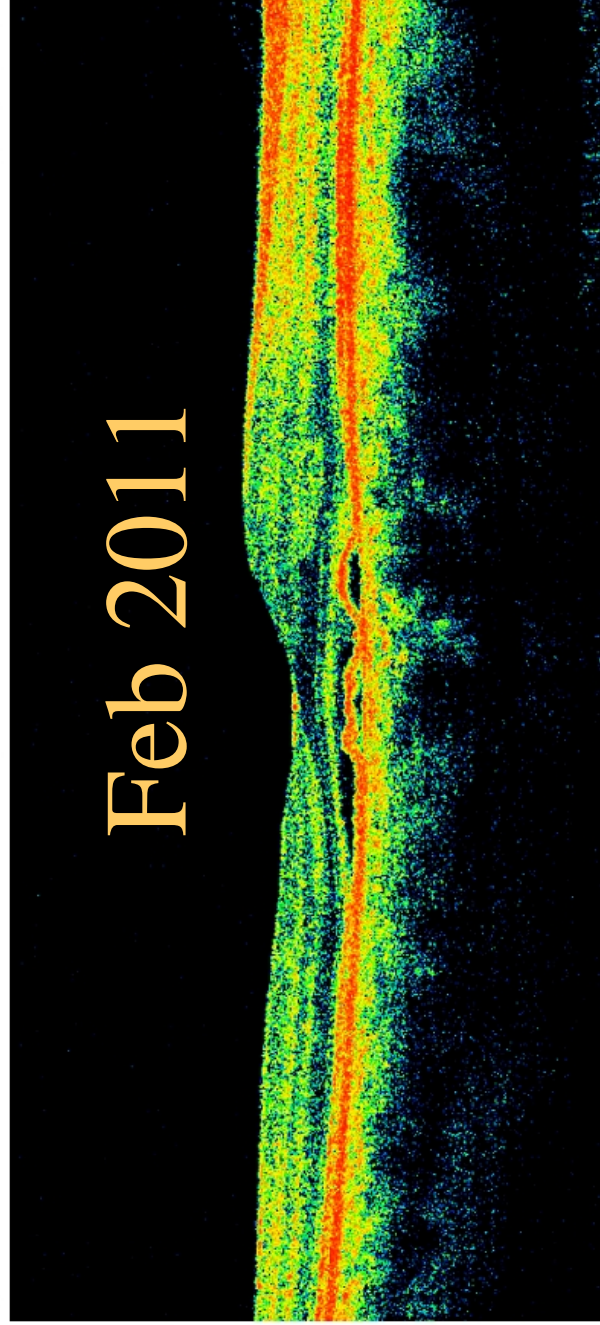
Patient: MR SITTA RAM, Y  
DOB (age): 01/01/1973 (38)  
ID: 1110395

Disease:  
Algorithm Version: A5, 1, 0, 90  
Gender: M

Operator:  
Exam Date: 02/18/2011  
Physician:

HD Line SSI = 66.6

6.00mm Scan Length



Diagnosis:

Patient: MR SITTA RAM, Y  
DOB (age): 01/01/1973 (38)  
ID: 1110395

Disease:  
Algorithm Version: A5, 1, 0, 90  
Gender: M

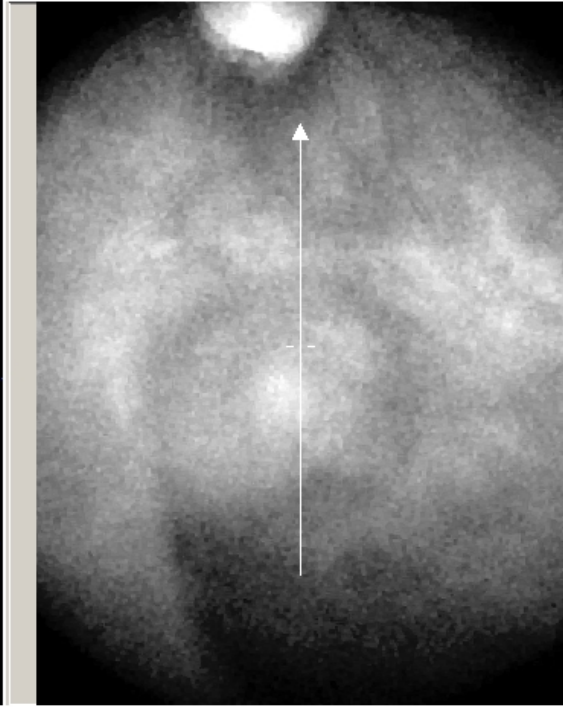
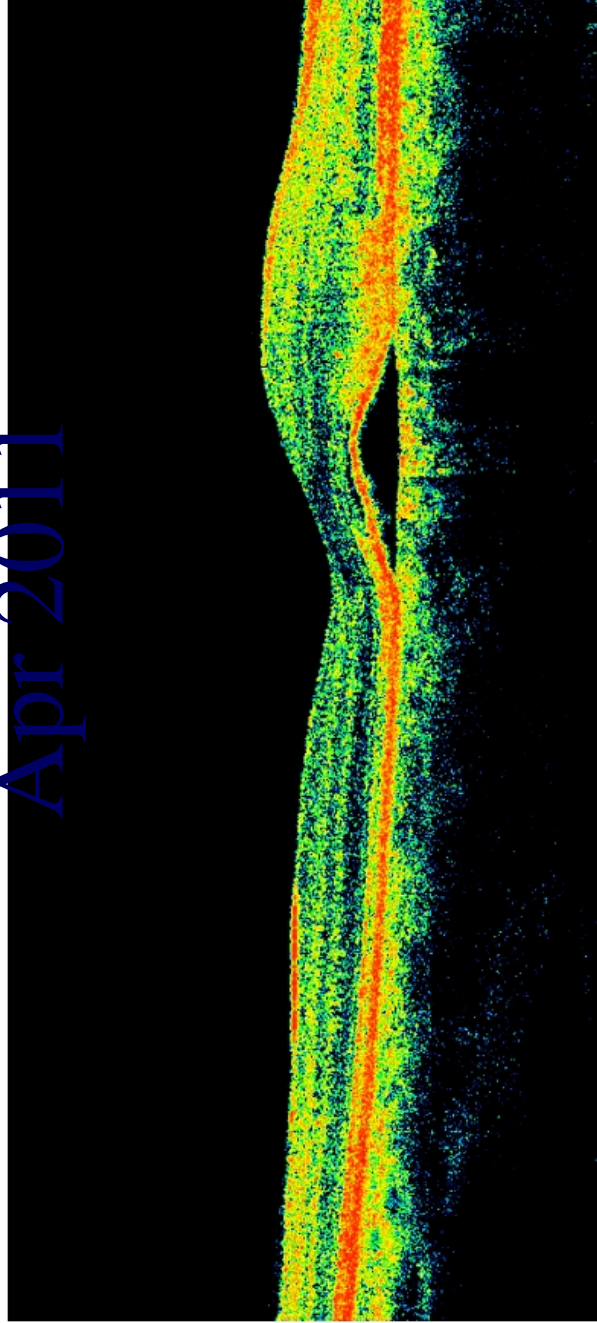
Operator:  
Exam Date: 04/14/2011  
Physician:

OD

HD Line SSI= 73.2

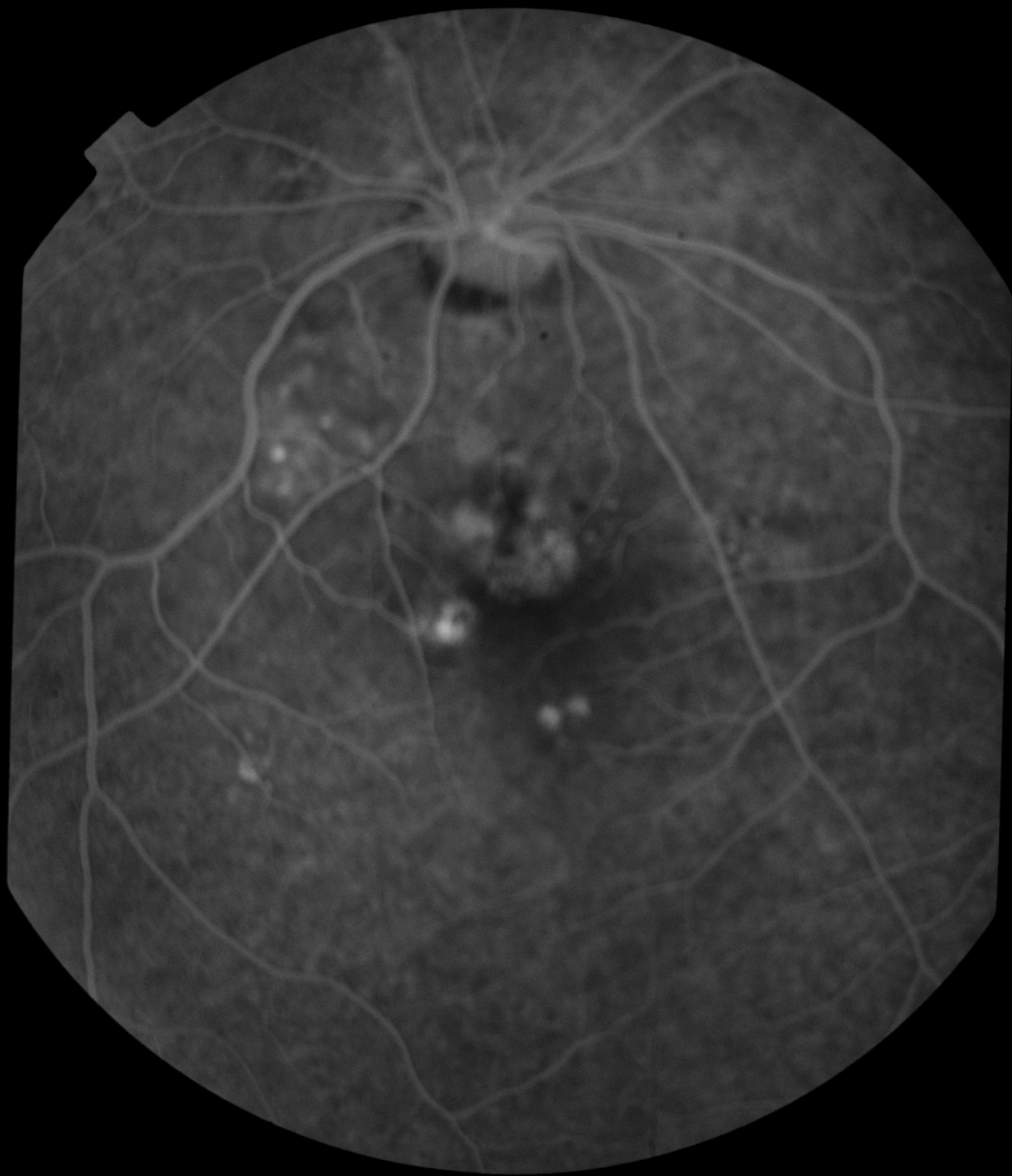
6.00mm Scan Length

Apr 2011

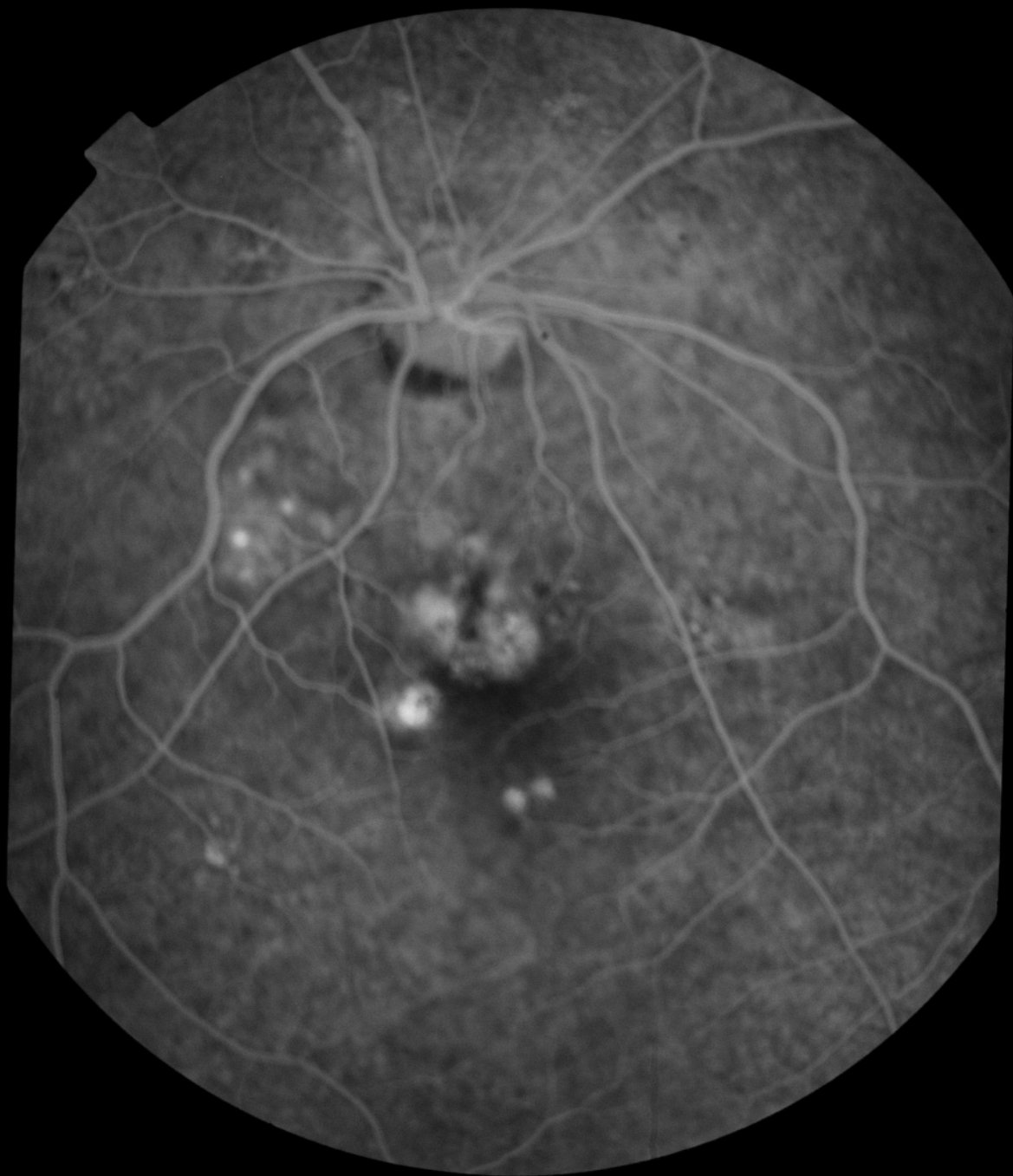


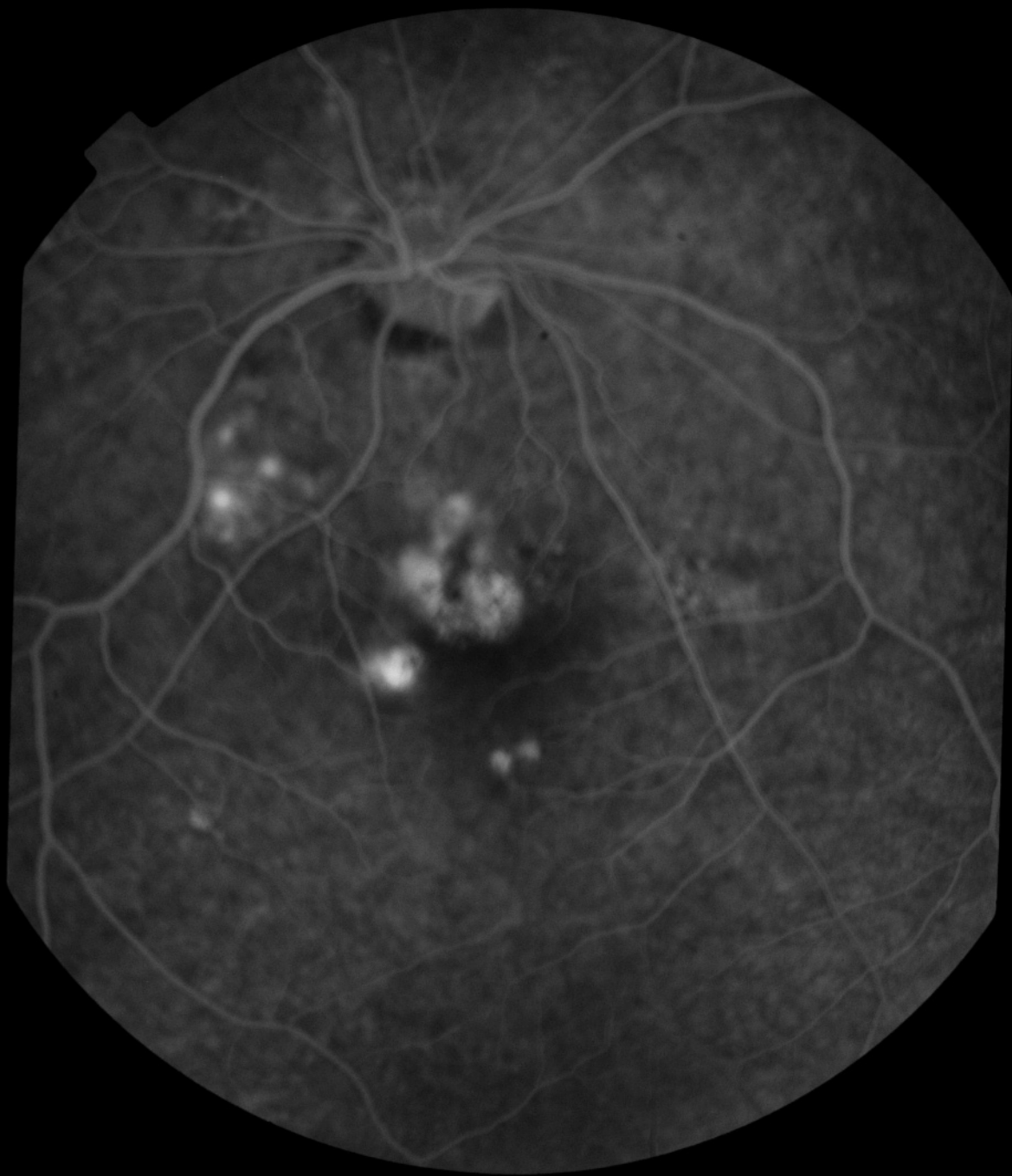
Diagnosis:

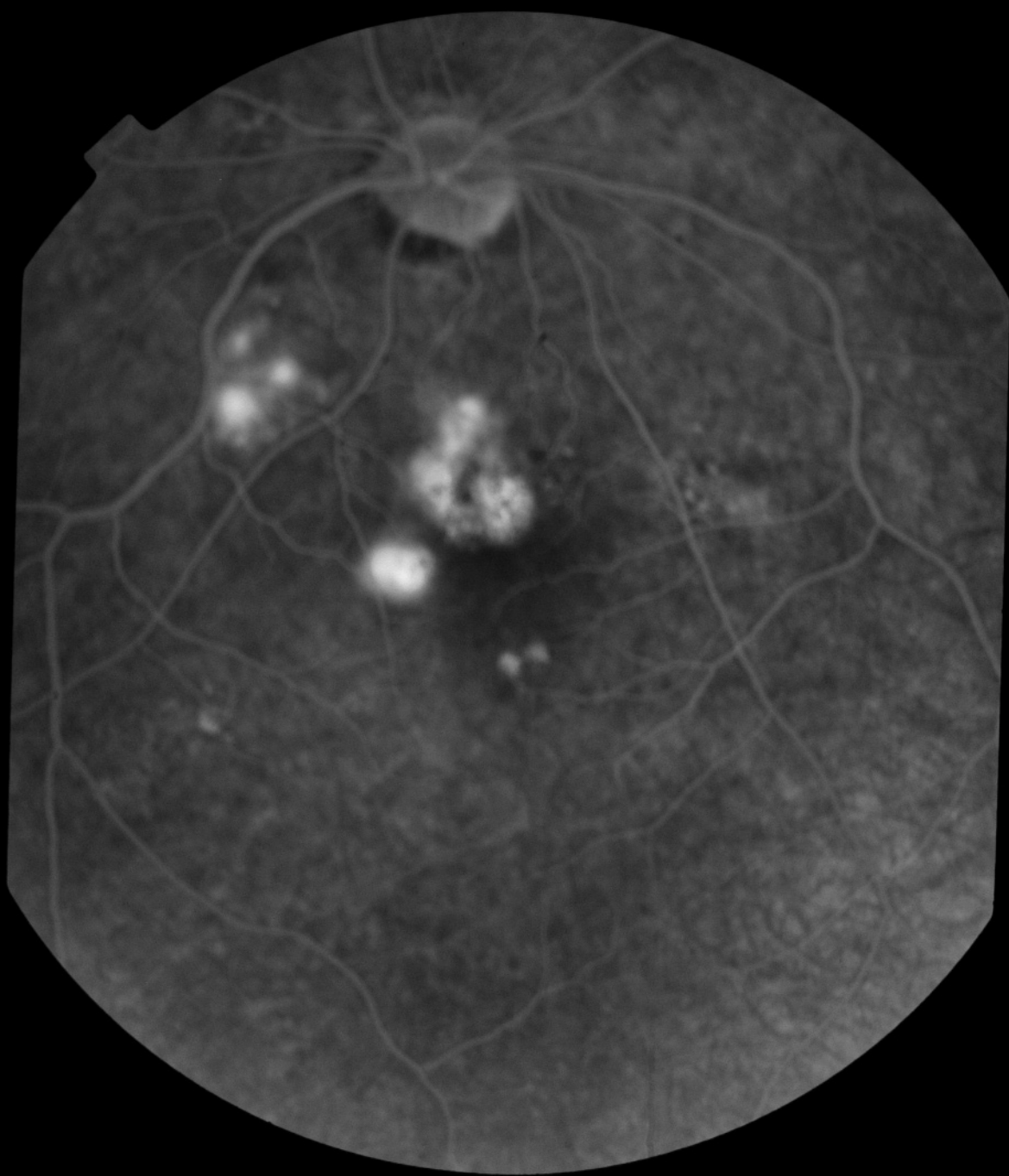












Patient: MR SITTA RAM, Y  
DOB (age): 01/01/1973 (38)  
ID: 1110395

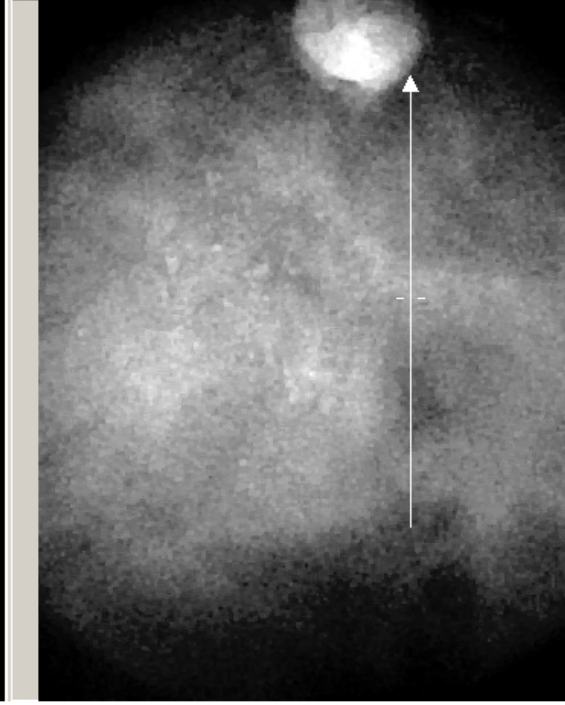
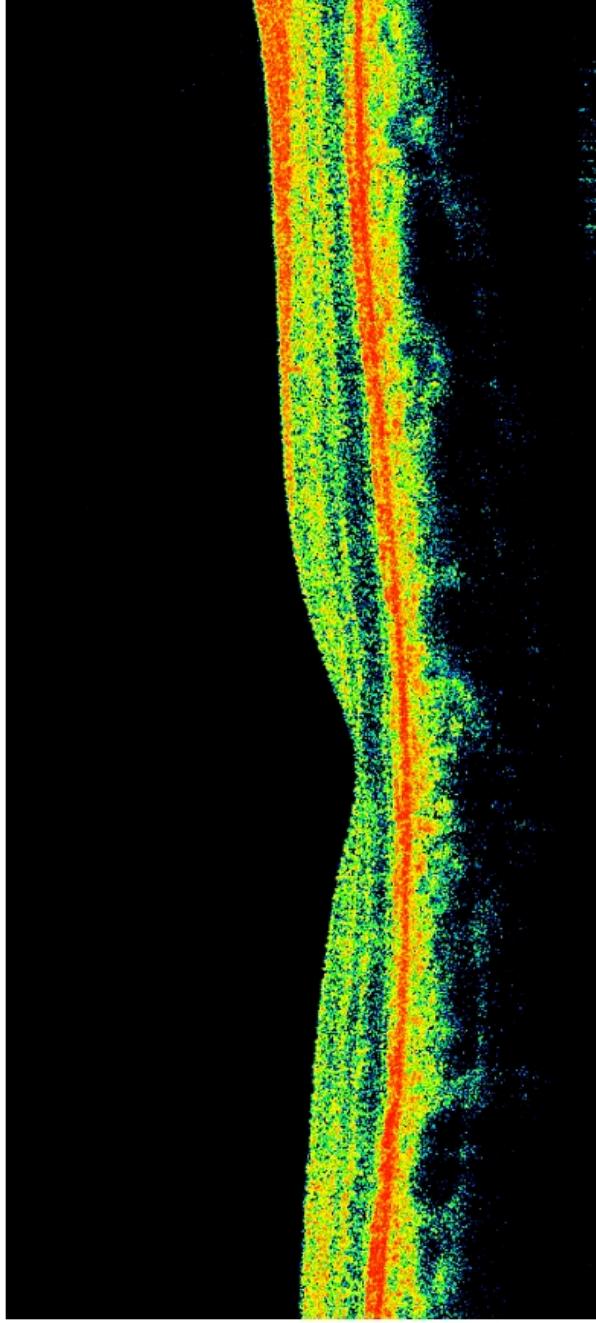
Disease:  
Algorithm Version: A5, 1, 0, 90  
Gender: M

Operator:  
Exam Date: 06/06/2011  
Physician:

OD

HD Line SSI = 82.2

6.00mm Scan Length



Diagnosis:

Patient: MR SITTA RAM, Y  
DOB (age): 01/01/1973 (38)  
ID: 1110395

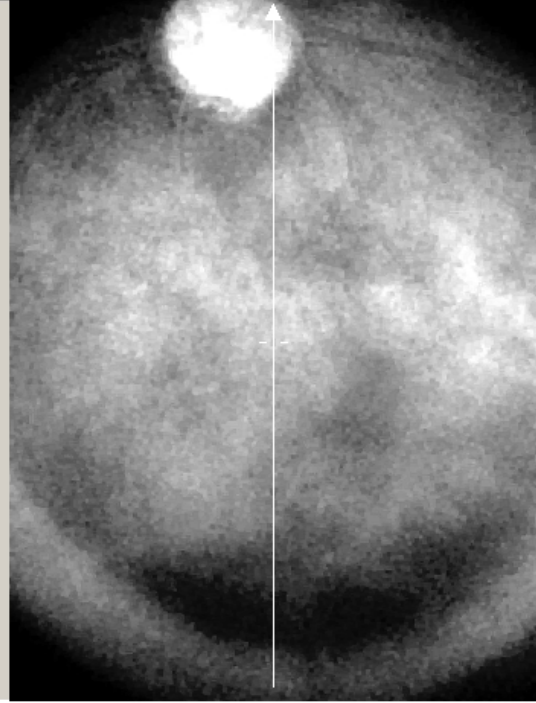
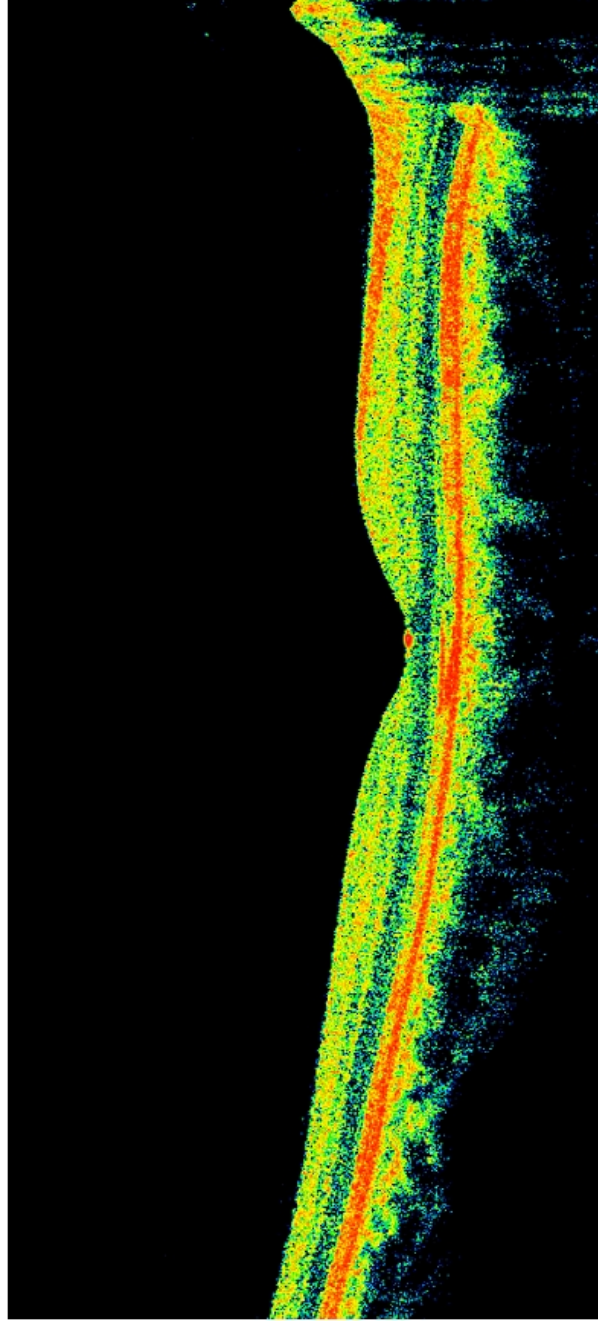
Disease:  
Algorithm Version: A5, 1, 0, 90  
Gender: M

Operator:  
Exam Date: 08/08/2011  
Physician:

OD

HD Line SSI = 81.1

9.00mm Scan Length

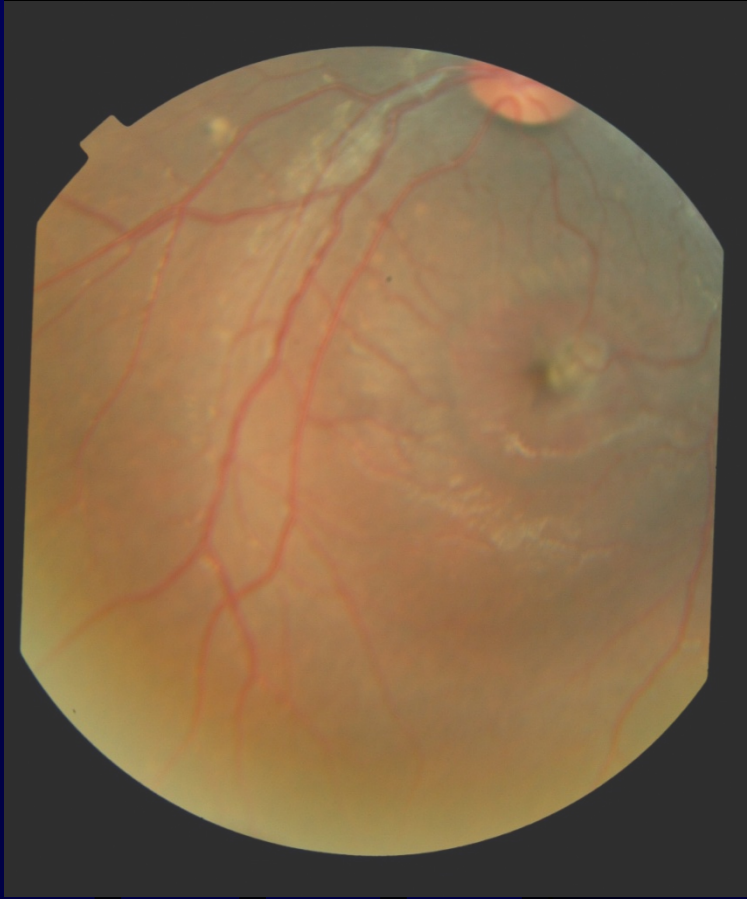


Diagnosis:

# Case History

- 11 year old girl
- c/o visual deterioration 6 months

6/60, n36



6/60, n36



