



Dr Allan Simpson

Ophthalmologist

Southern Eye Specialists, Christchurch

Sunday, August 14, 2016

(Room 1)

8:30 - 9:25 WS #144: Glaucoma - The Silent Raider

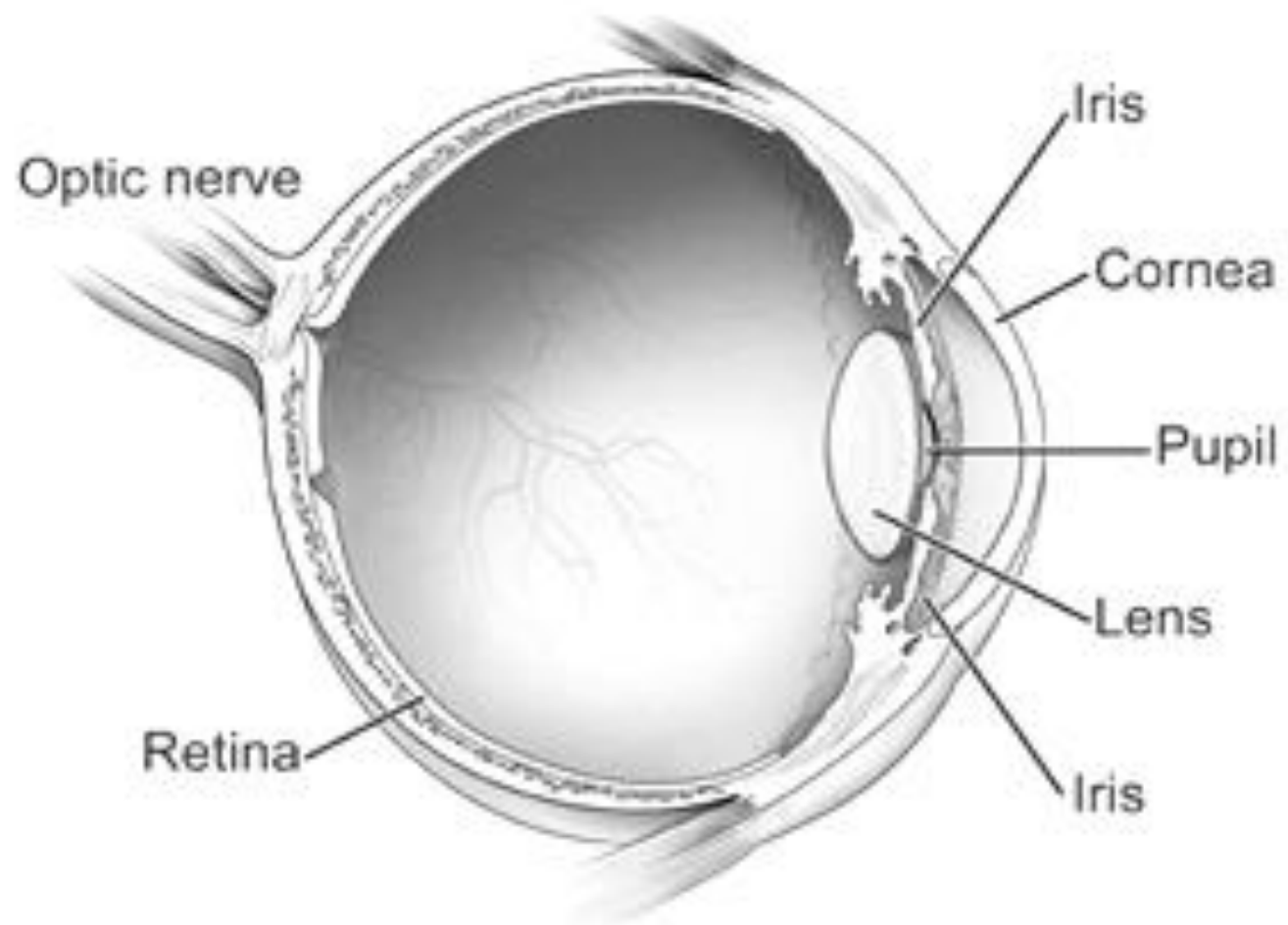
9:35 - 10:30 WS #154: Glaucoma - The Silent Raider (Repeated)

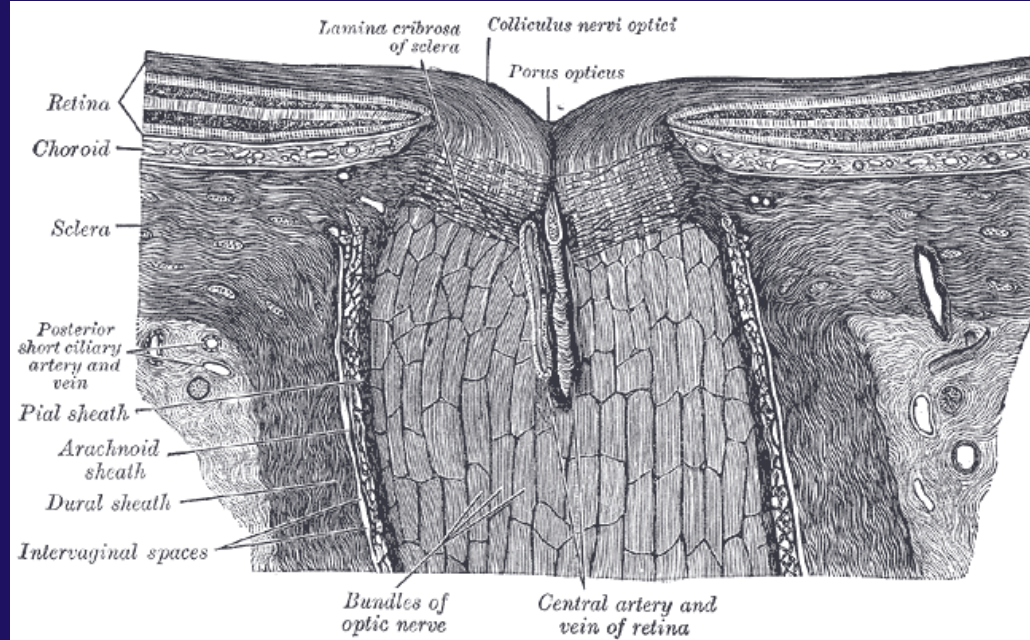
A fundus photograph of a human eye, showing the retina, optic disc, and retinal vessels. The image is circular and has a warm, orange-brown color palette. The optic disc is visible on the left side, and the retinal vessels branch out from it. The text is overlaid on the image.

Glaucoma:

The Silent Raider

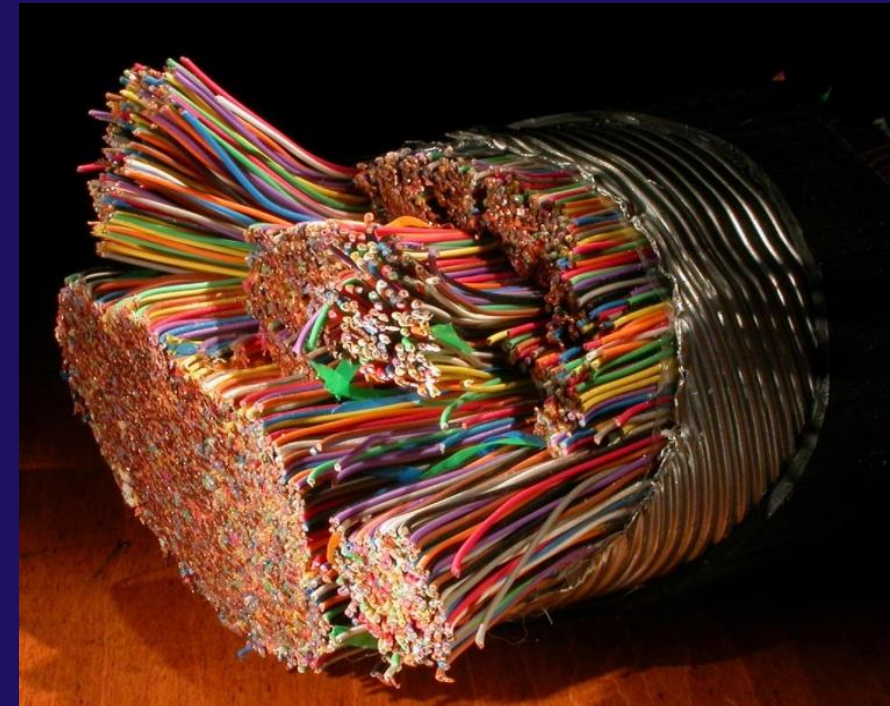
**Dr Allan Simpson
Southern Eye Specialists
Christchurch**

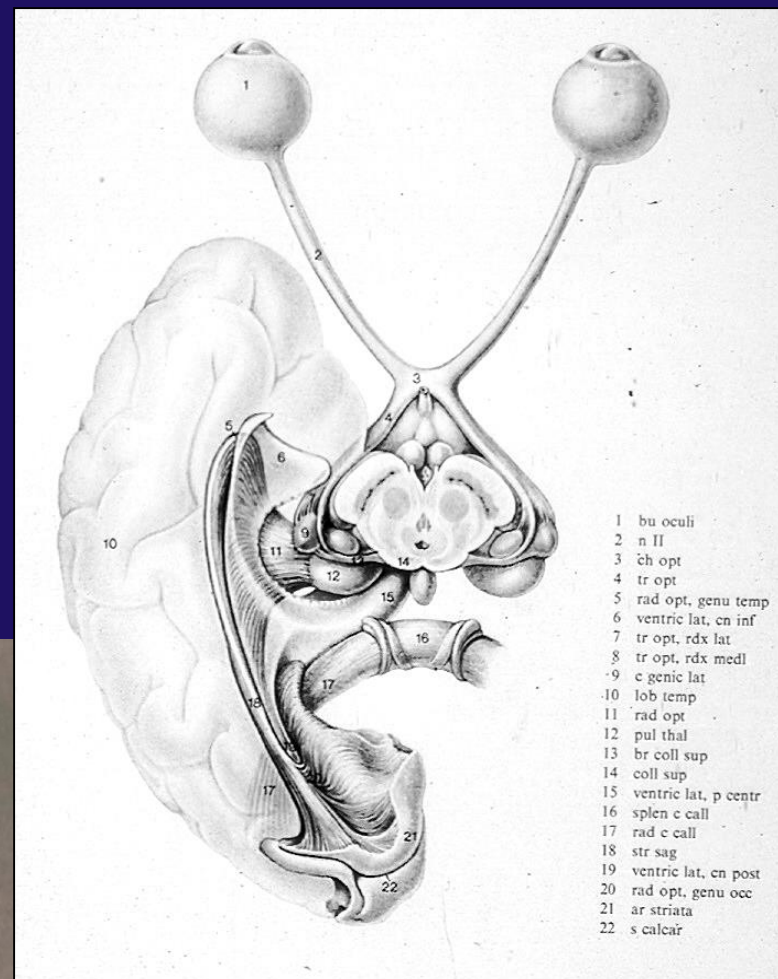
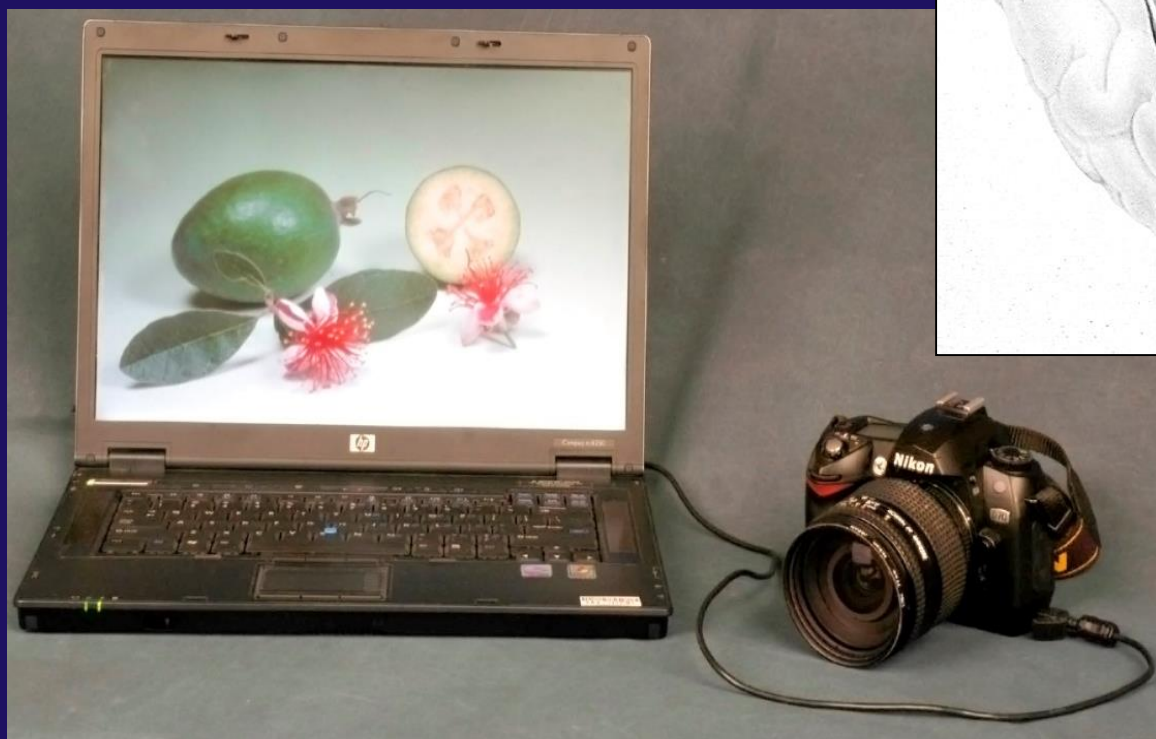




Optic nerve

Telephone Cable







Glaucoma: the common feature –

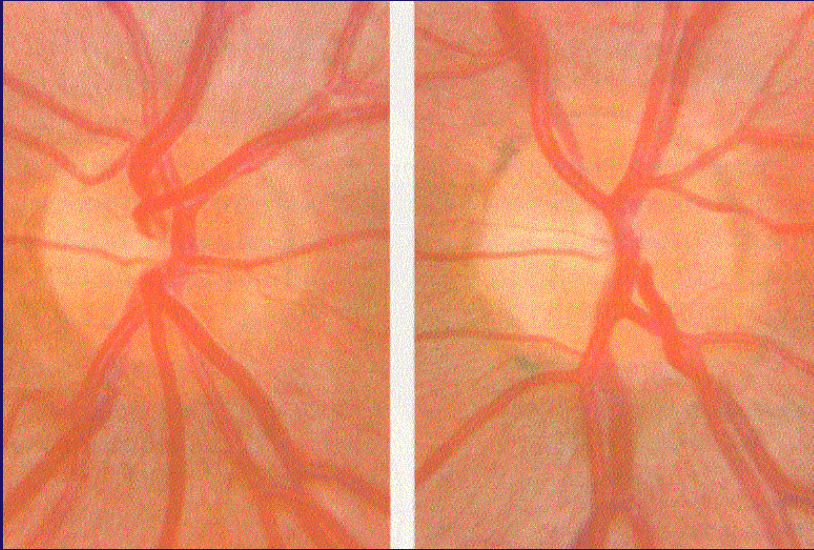
Characteristic damage to the optic disc known as



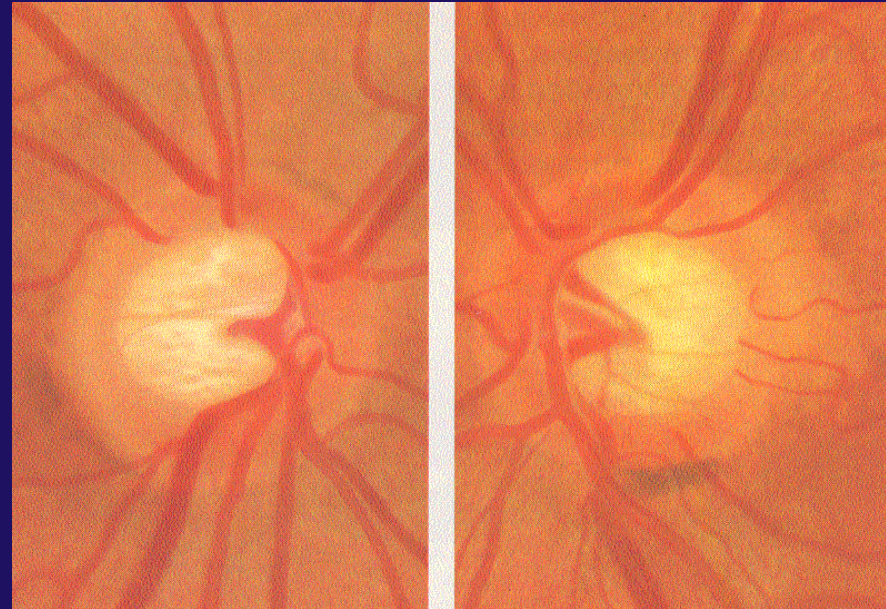
disc “cupping”

Normal optic discs vary in size, shape and cup size

Discs usually have cups - but not always



and are usually a pair



The ISN'T Rule

neuroretinal rim
thickness

NASAL

N

S

β

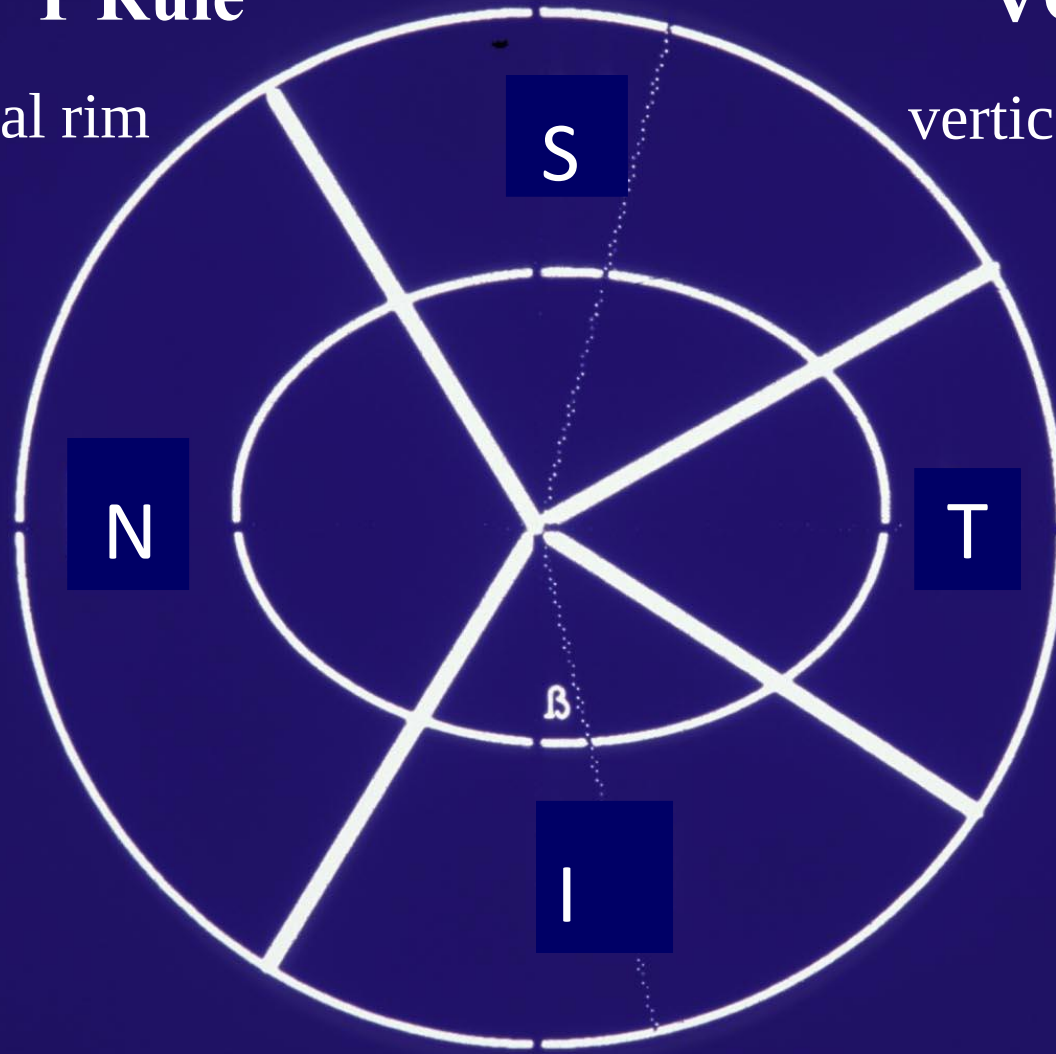
I

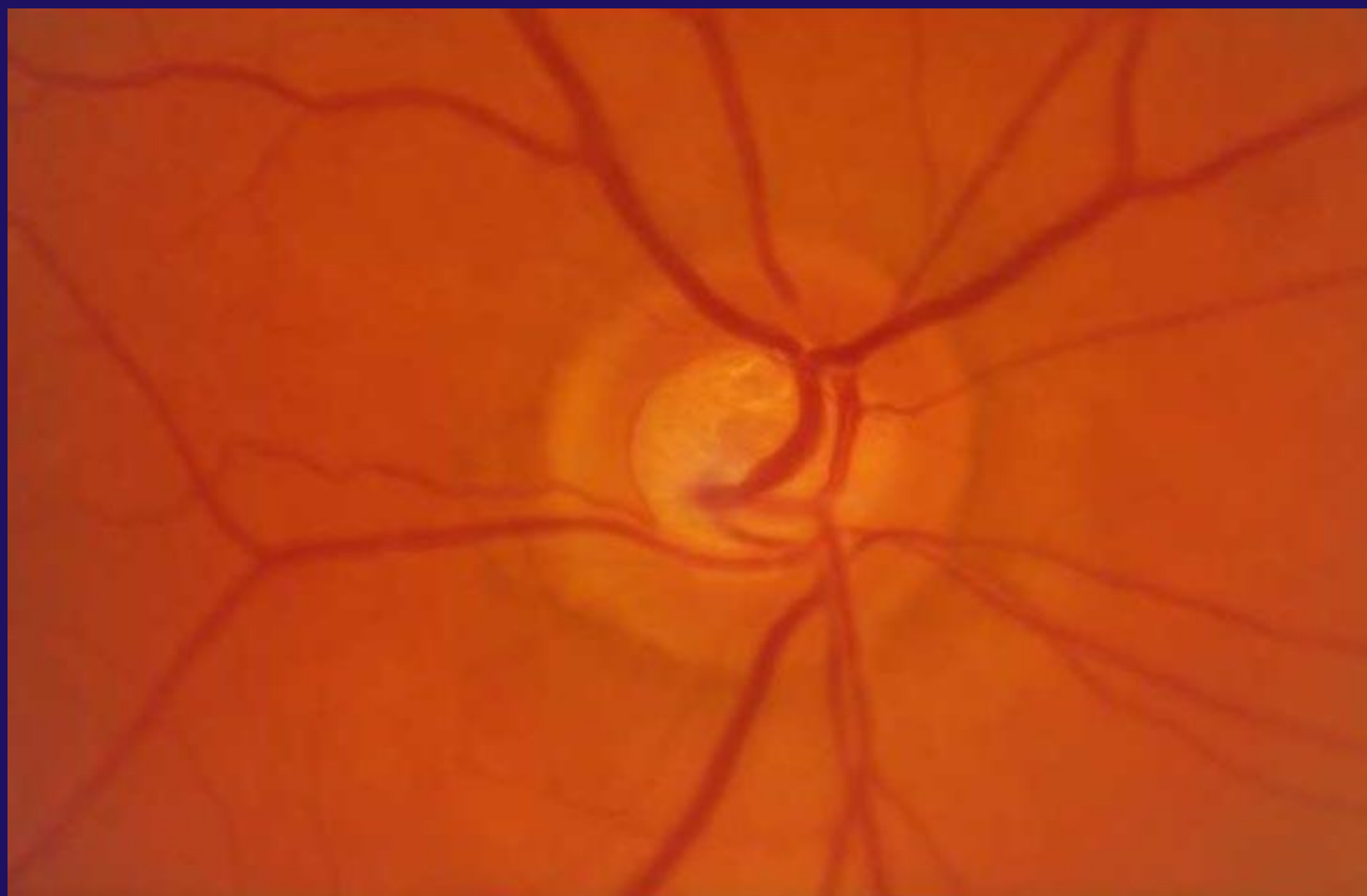
VCDR

vertical cup:disc ratio

T

TEMPORAL

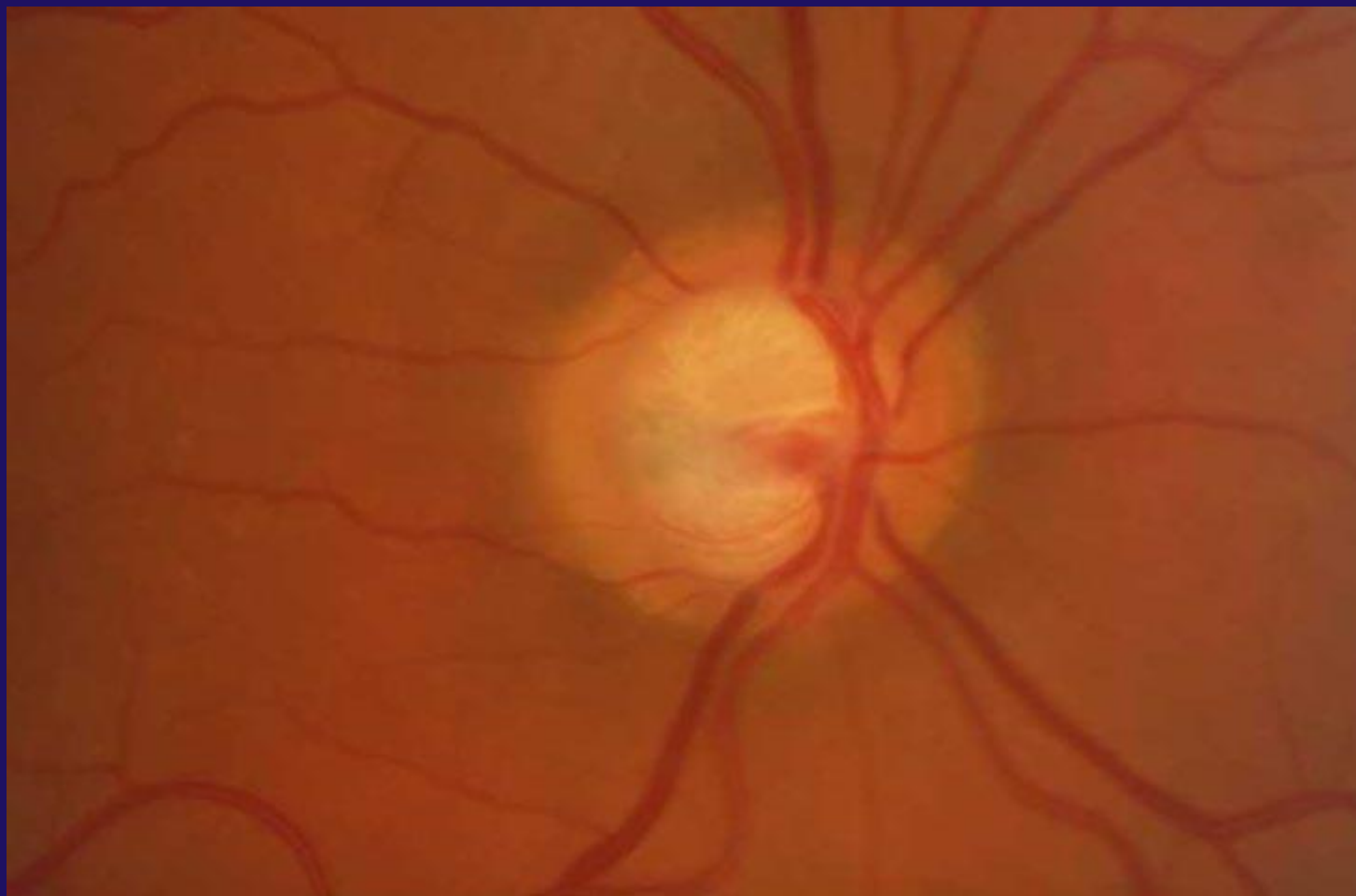


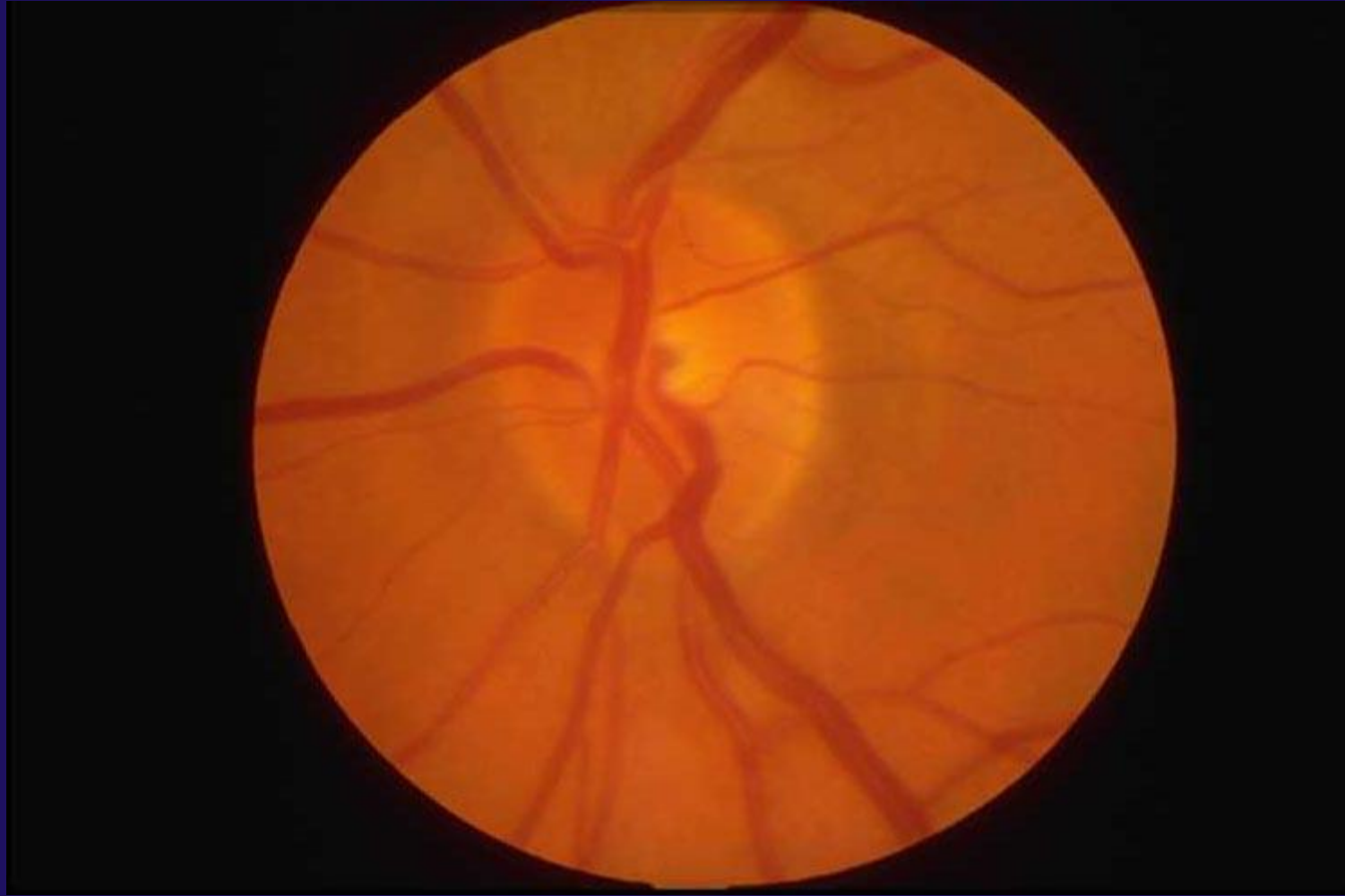


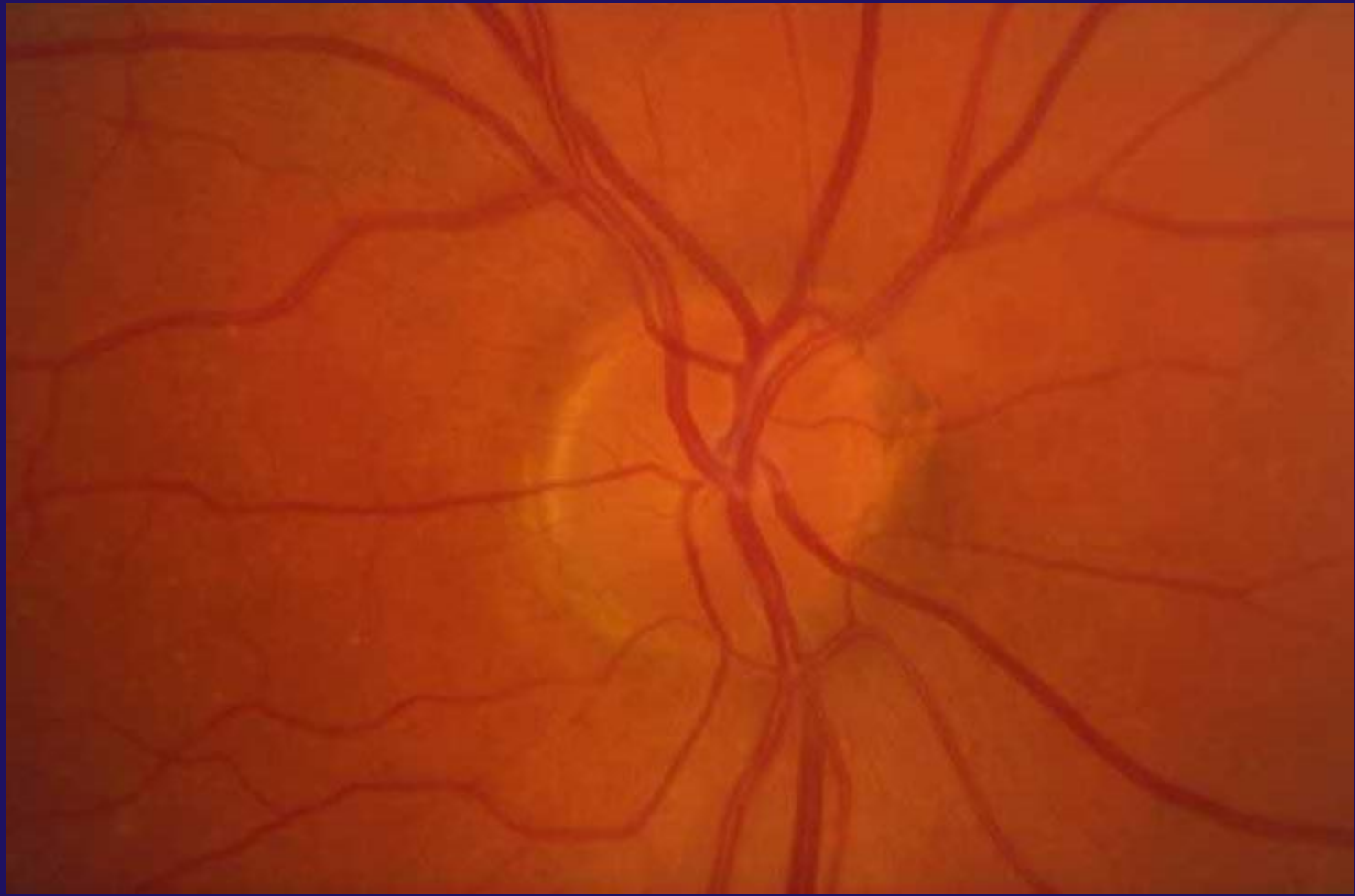


Vertical

Cup:Disc Ratio?

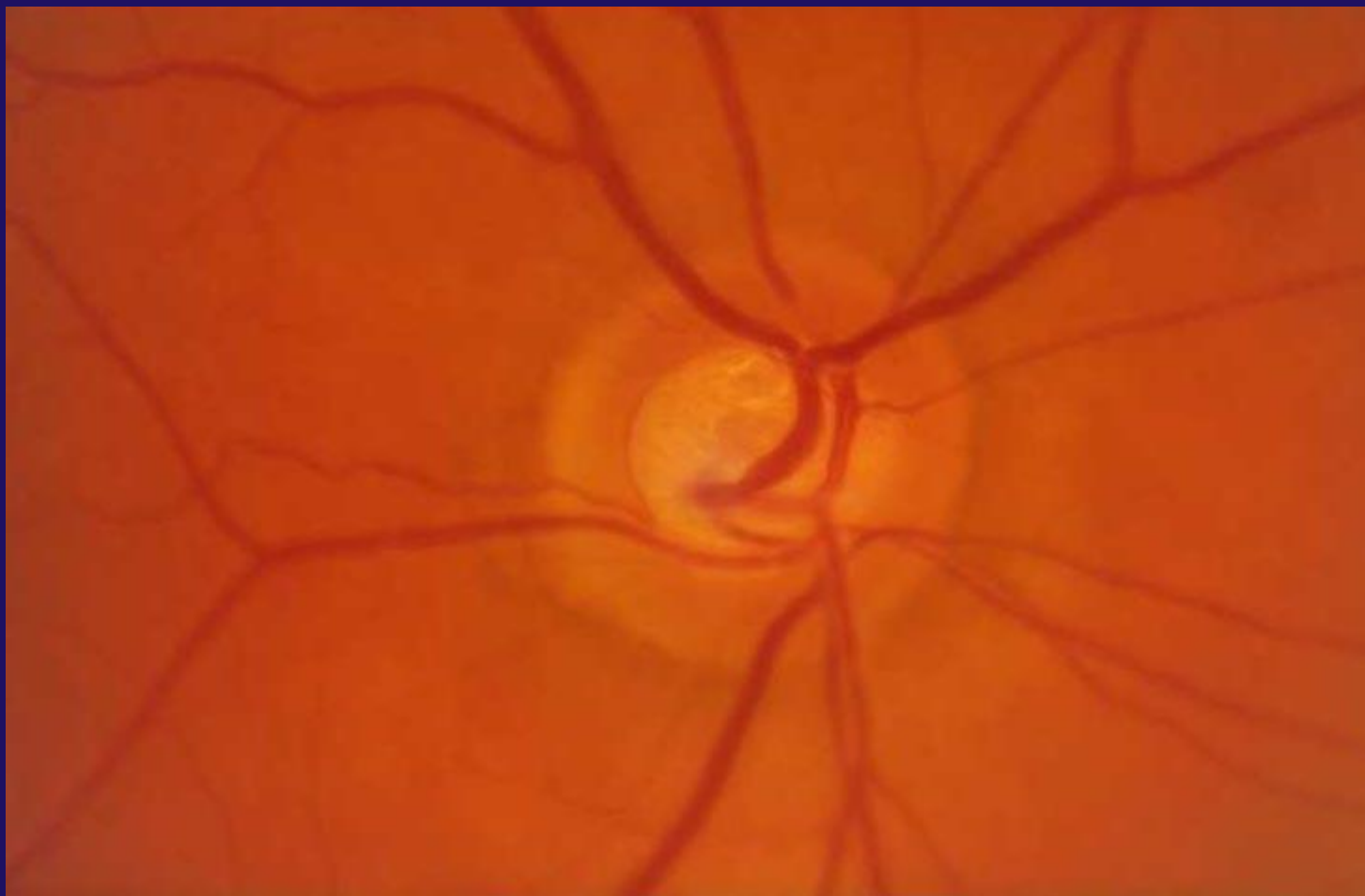




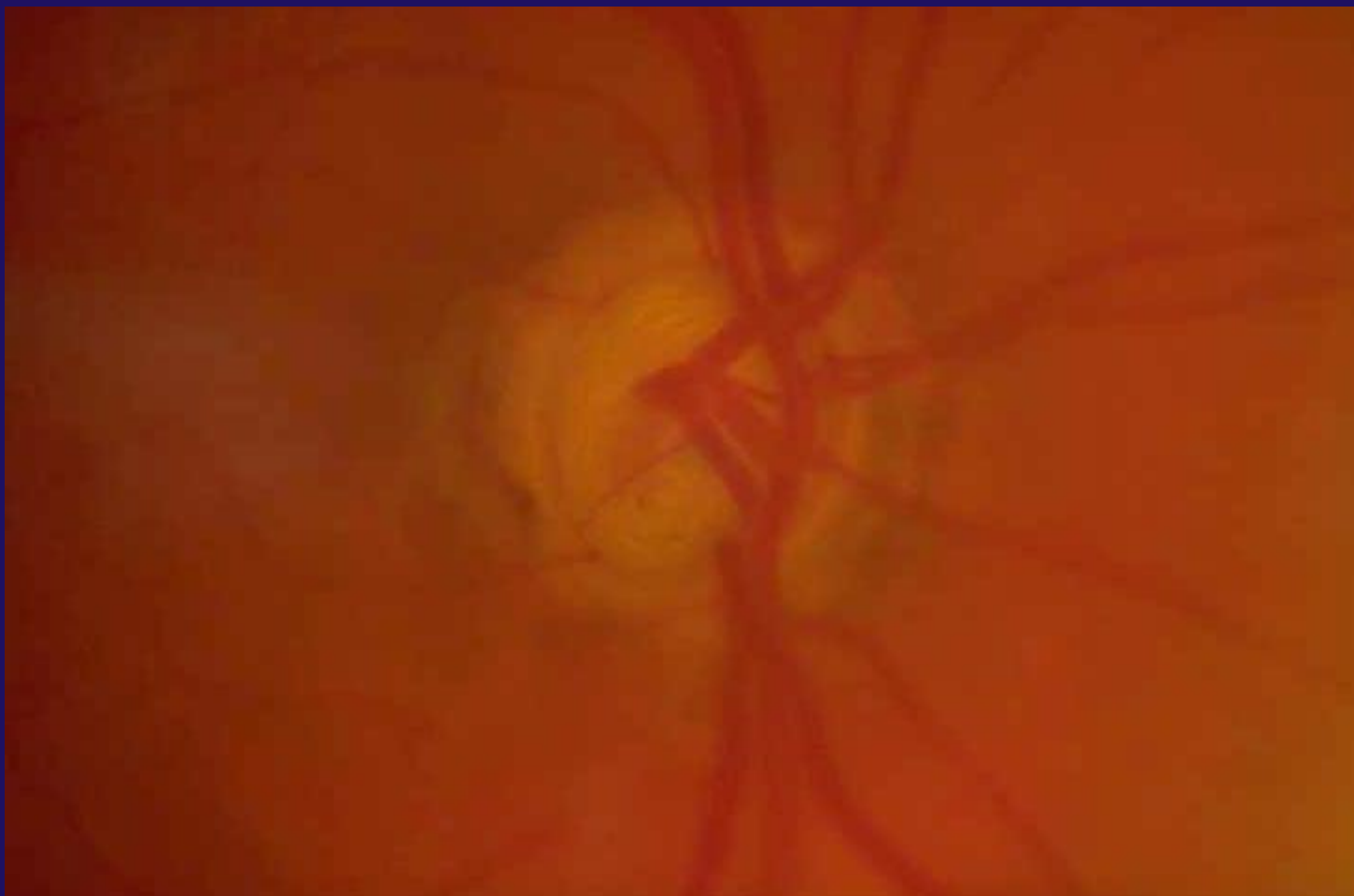


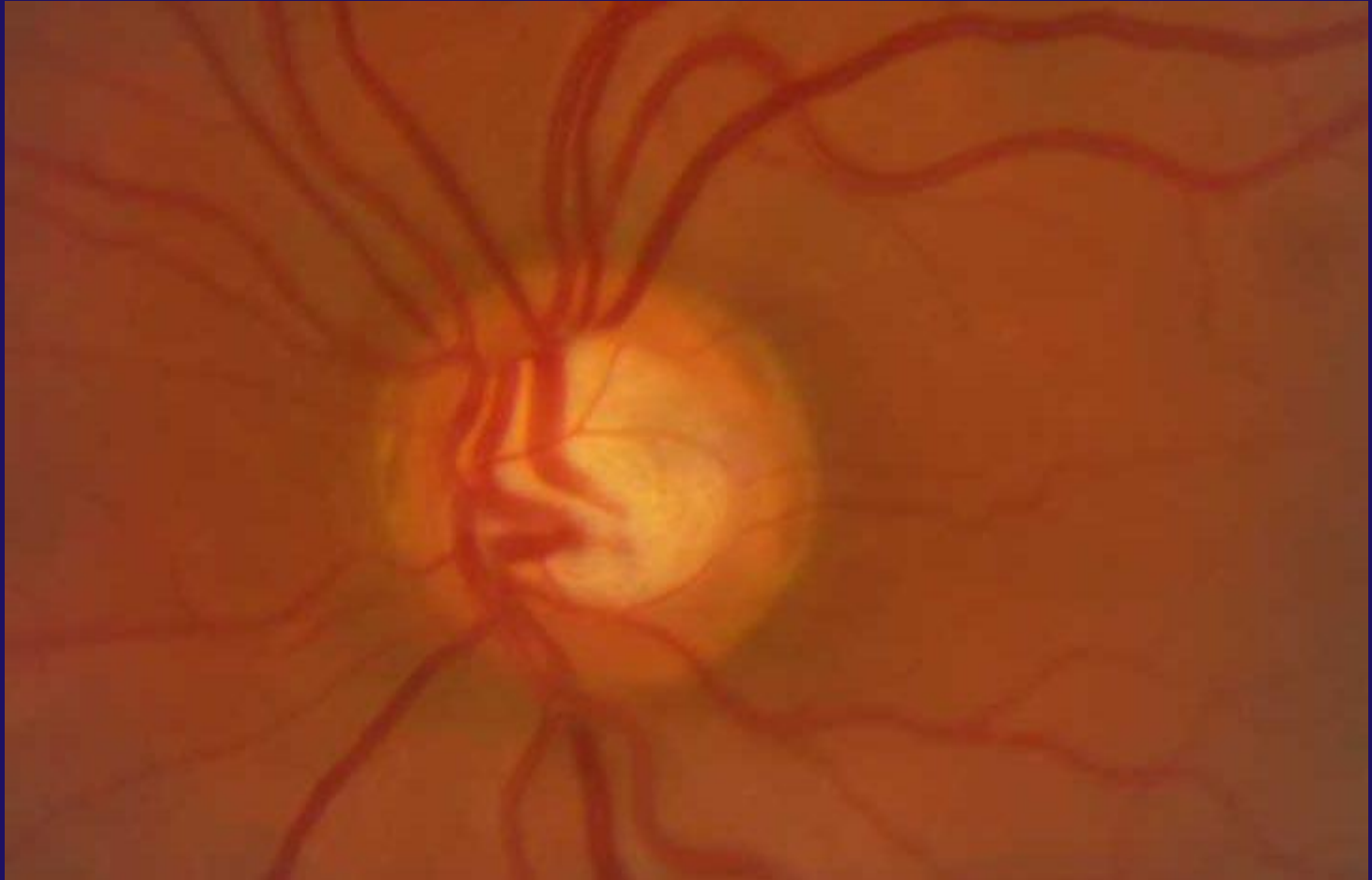




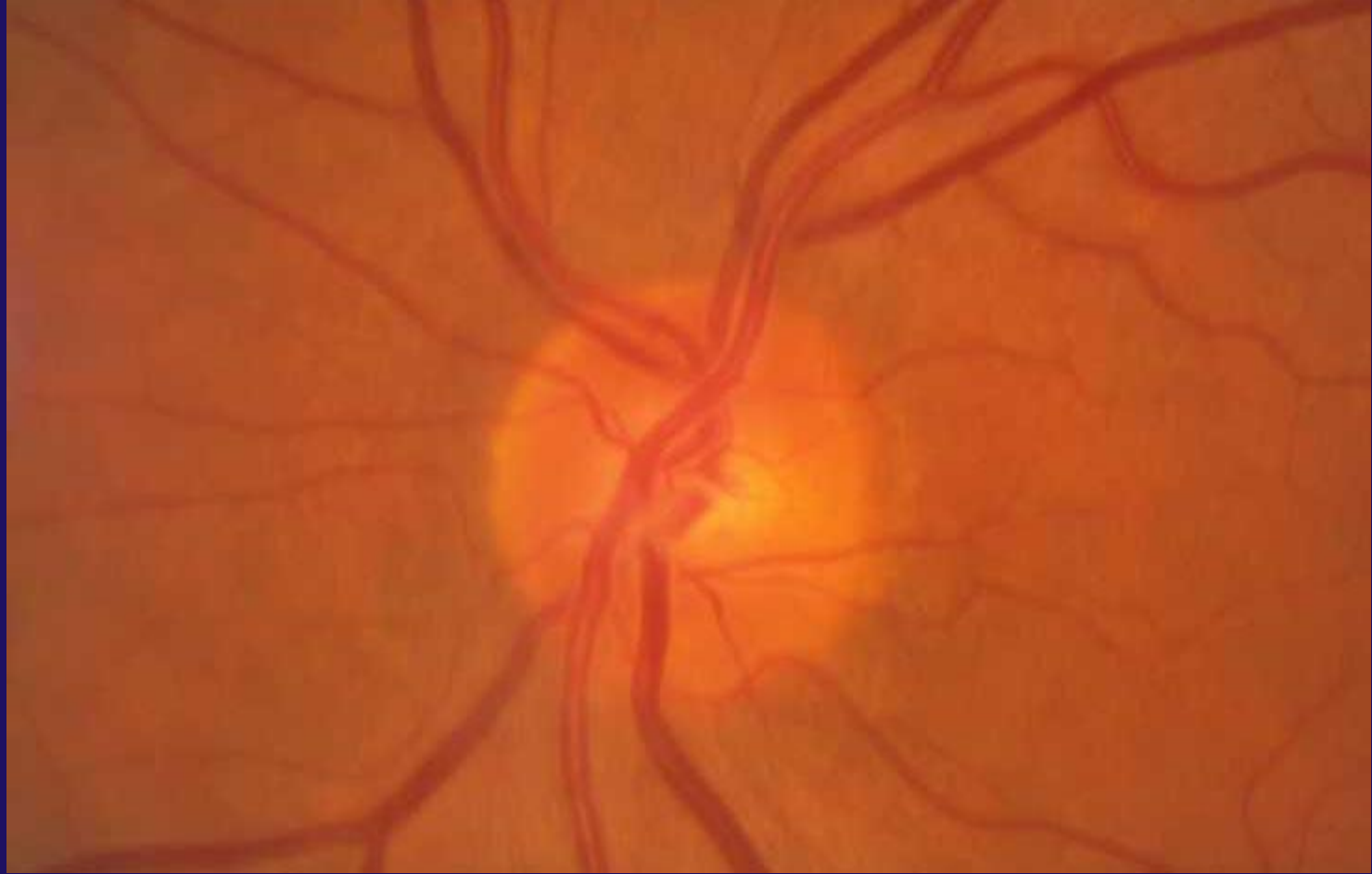








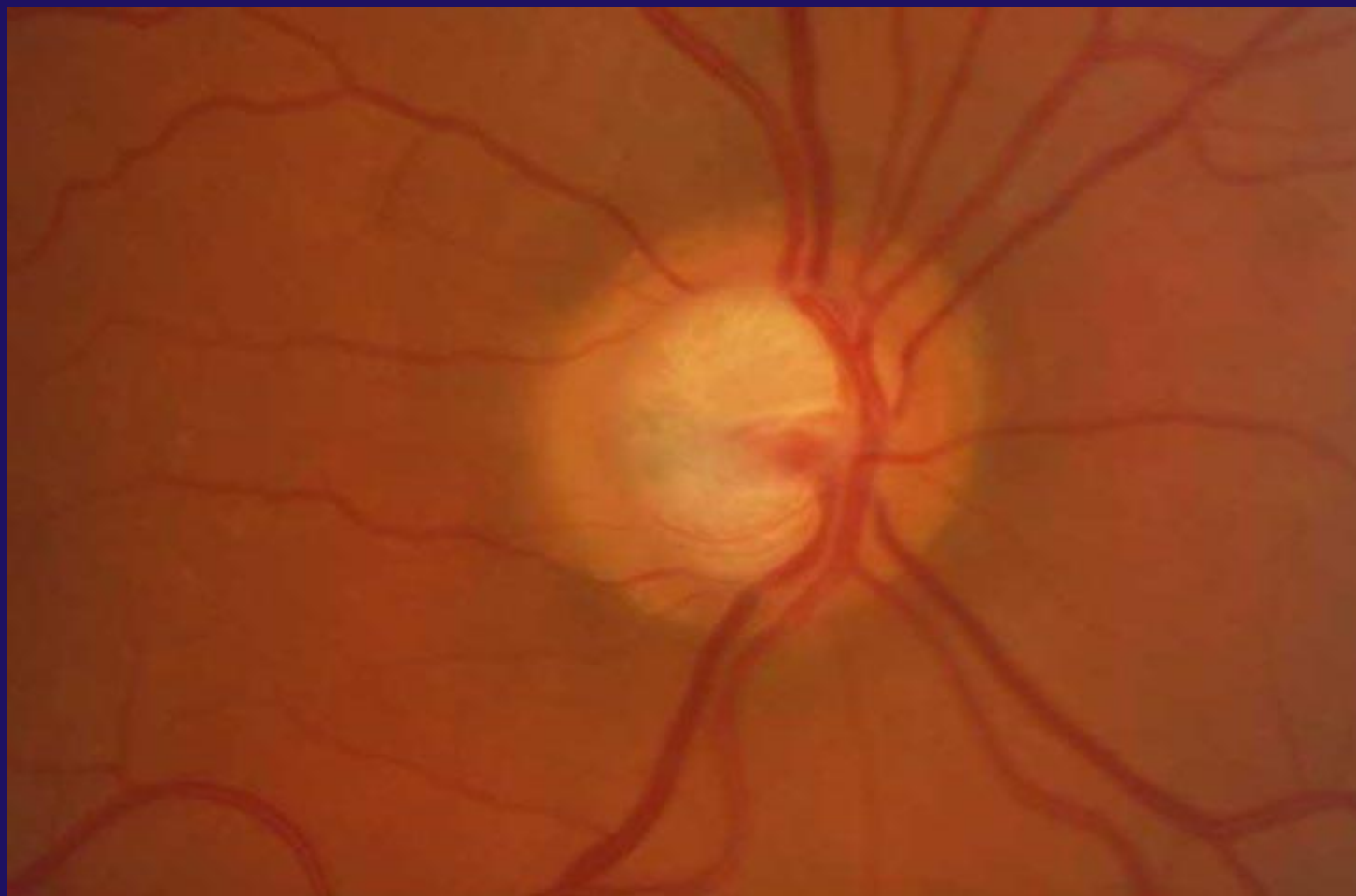




Vertical

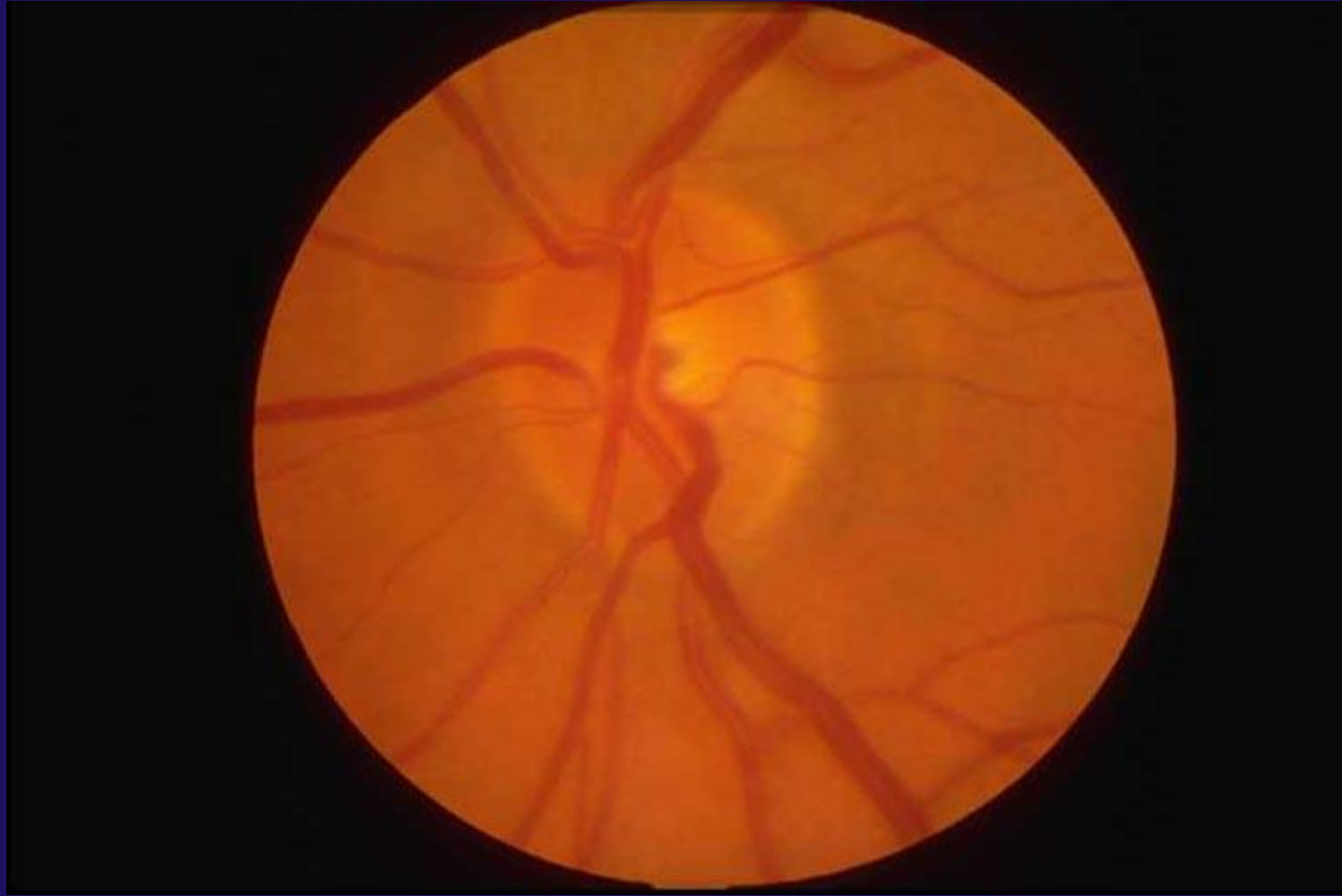
Cup:Disc Ratio

Answers



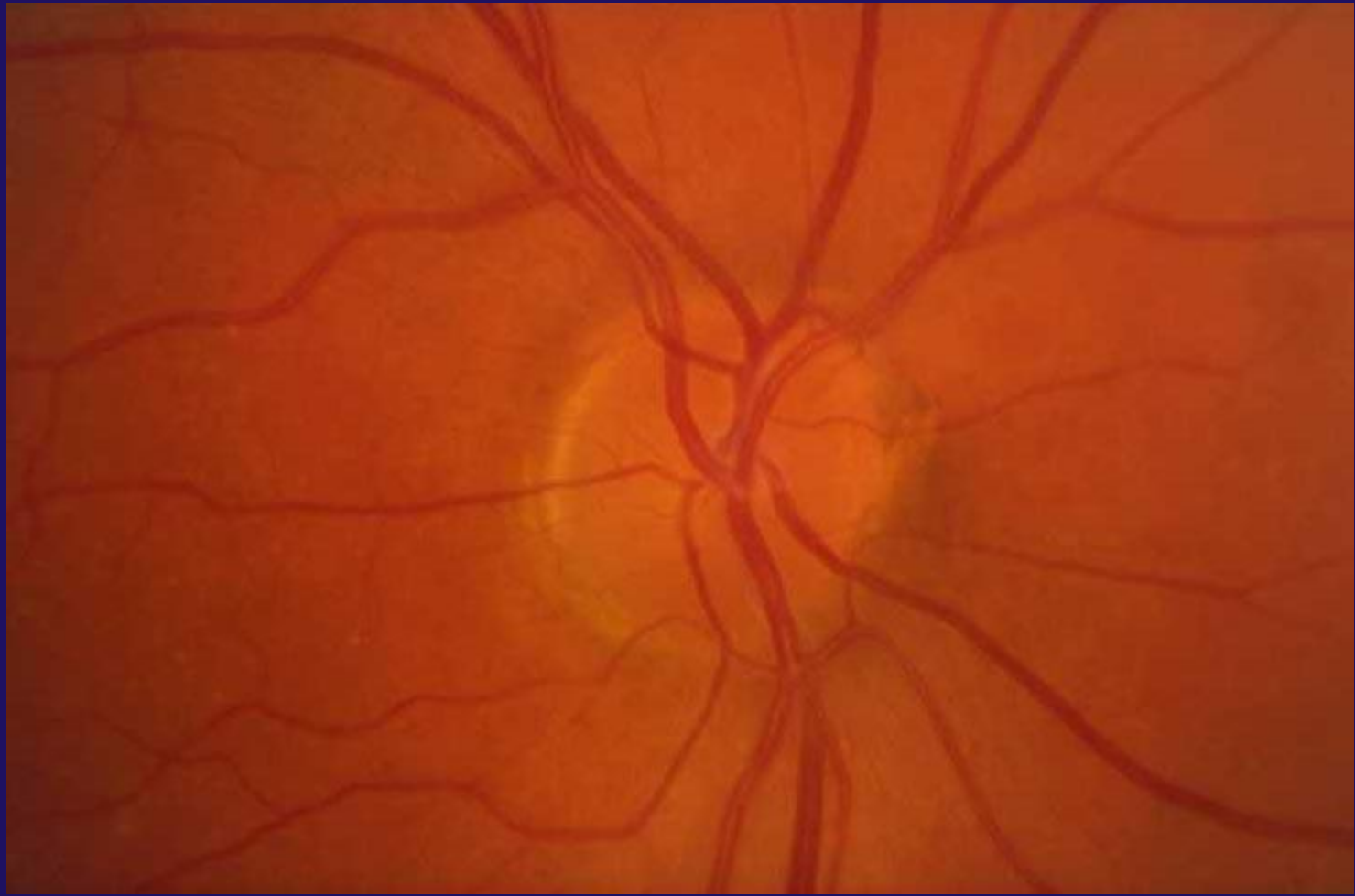
1

0.8



2

0.3



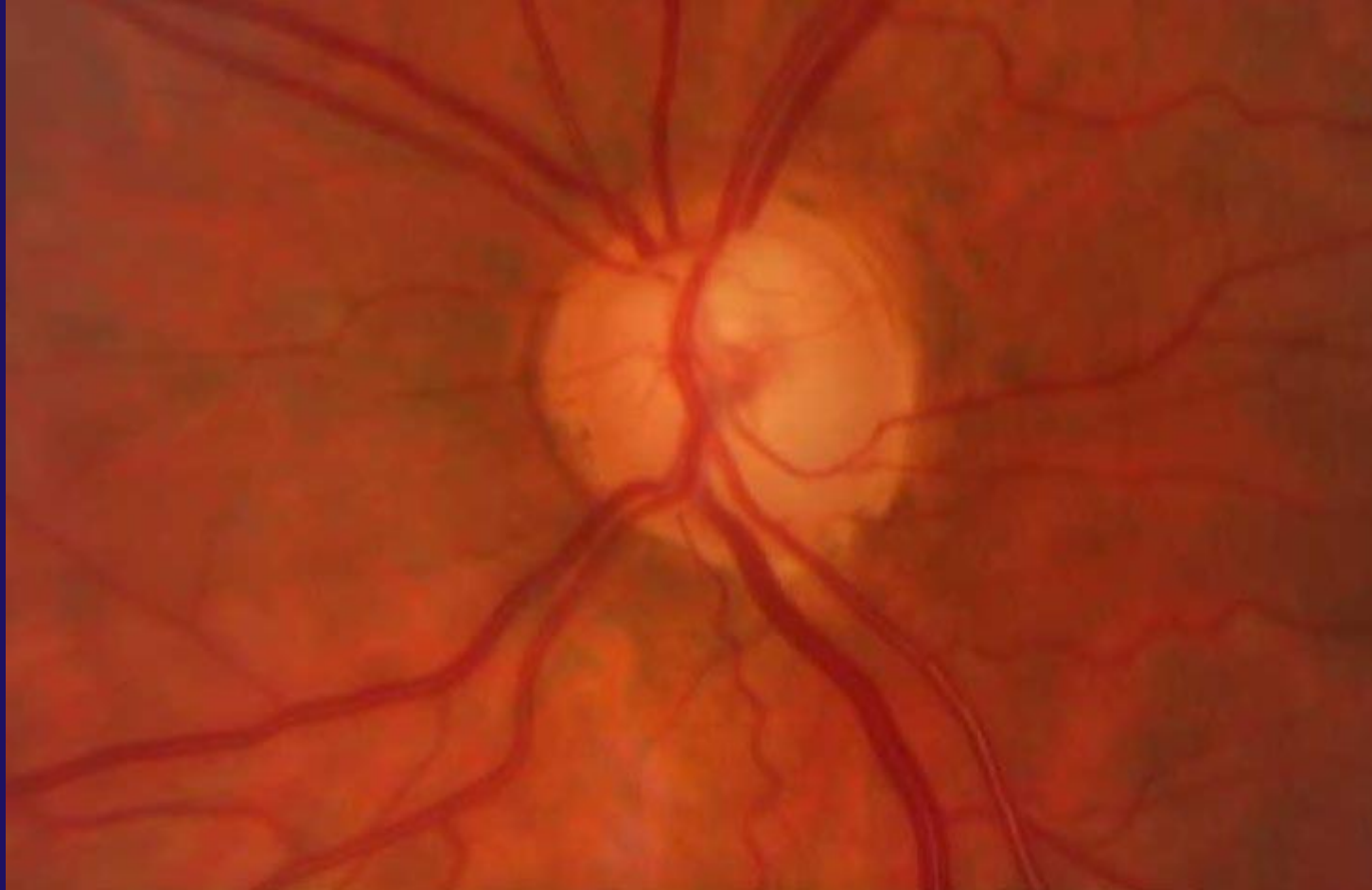
3

0.0



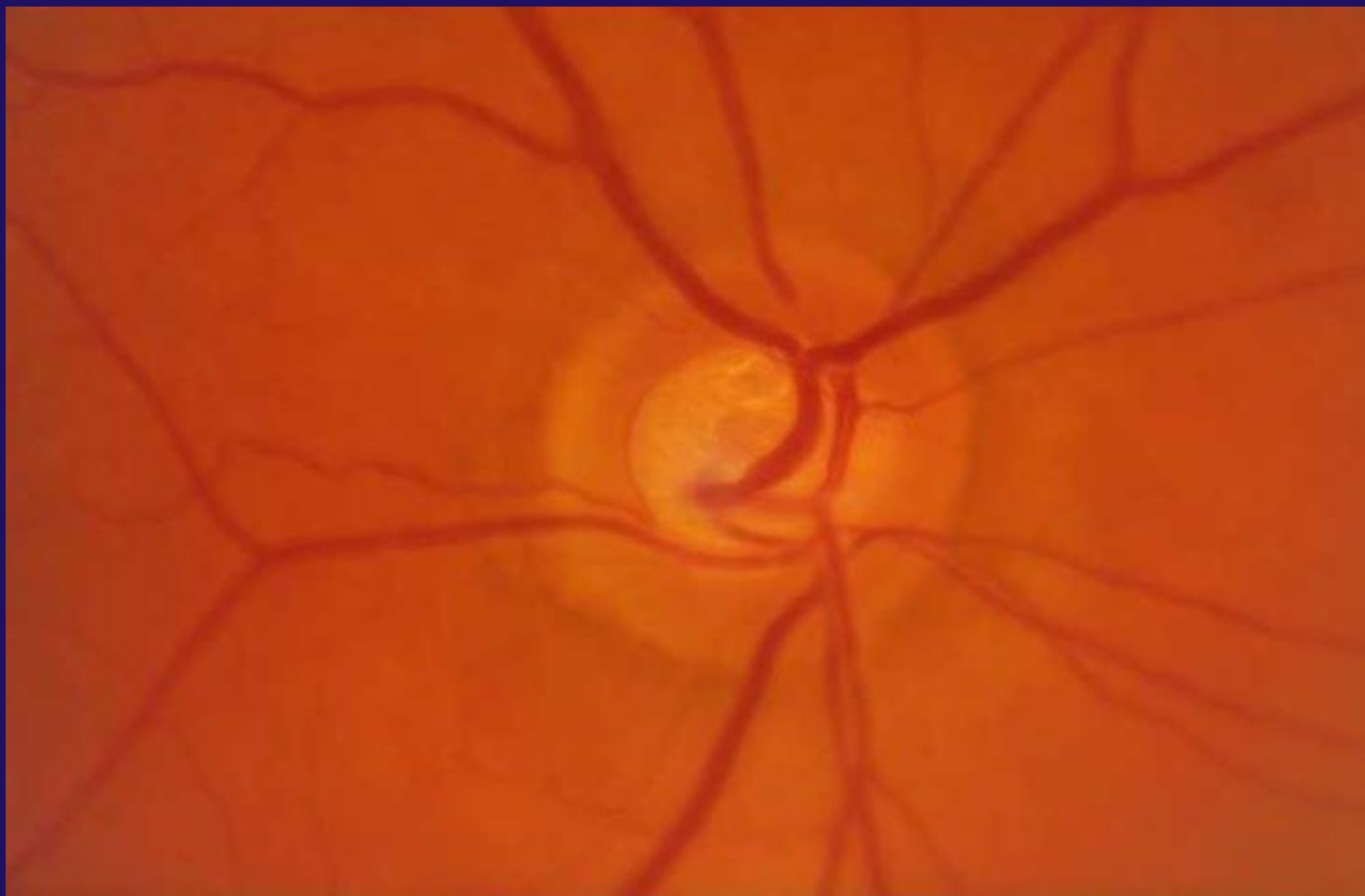
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0.5



5

0.9



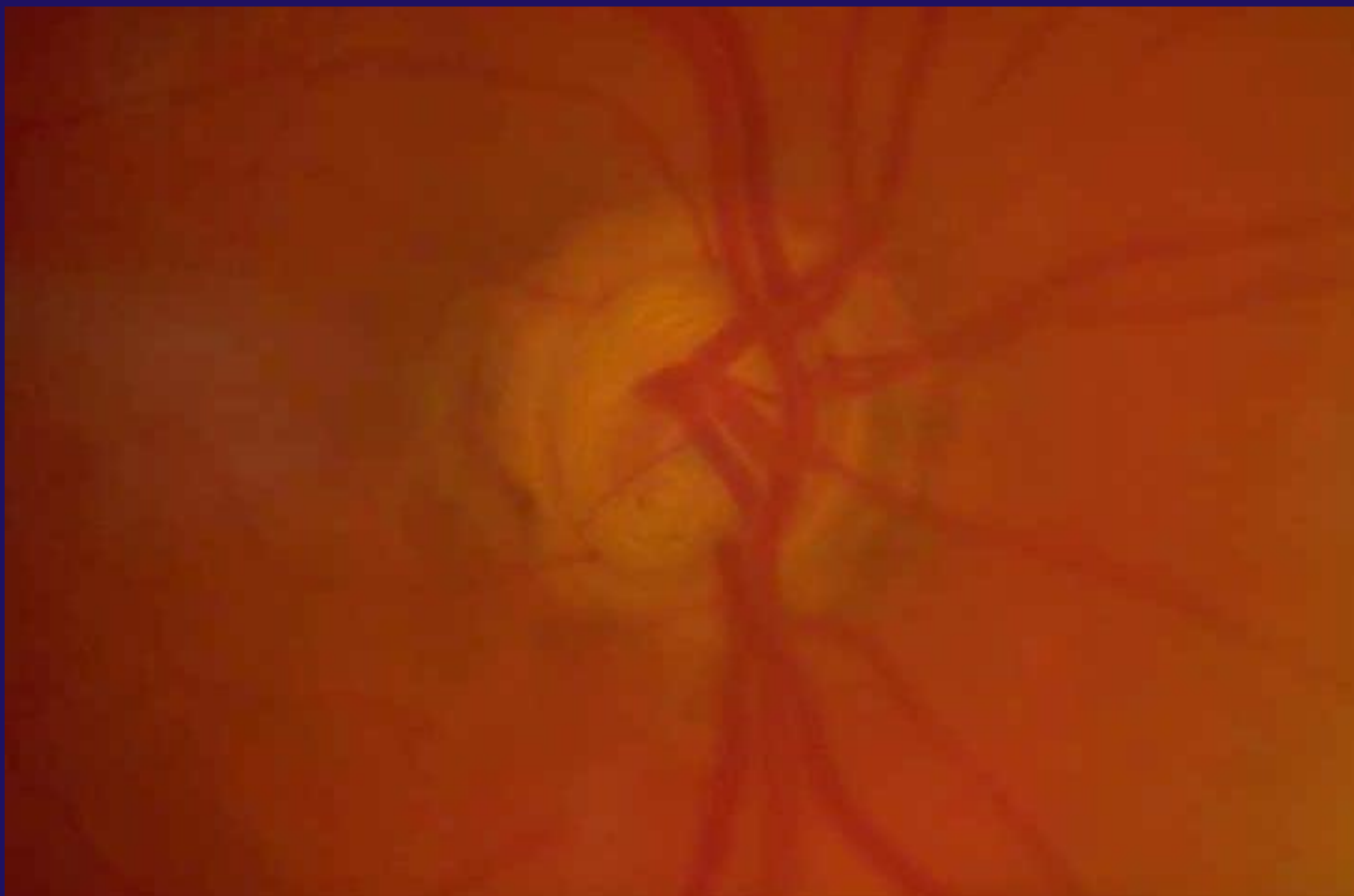
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0.6



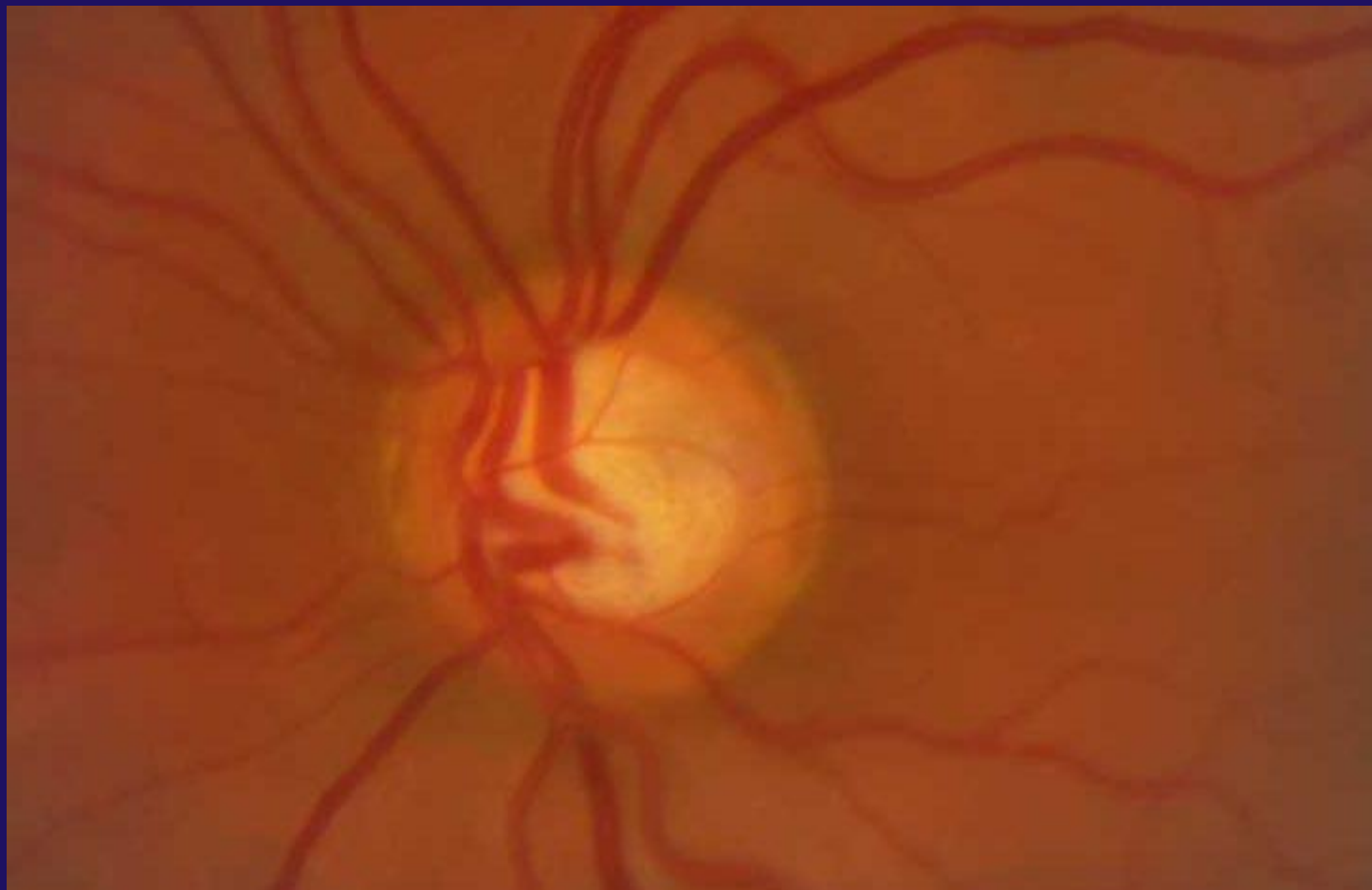
7

0.2



8

1.0



9

0.7



10

0.1



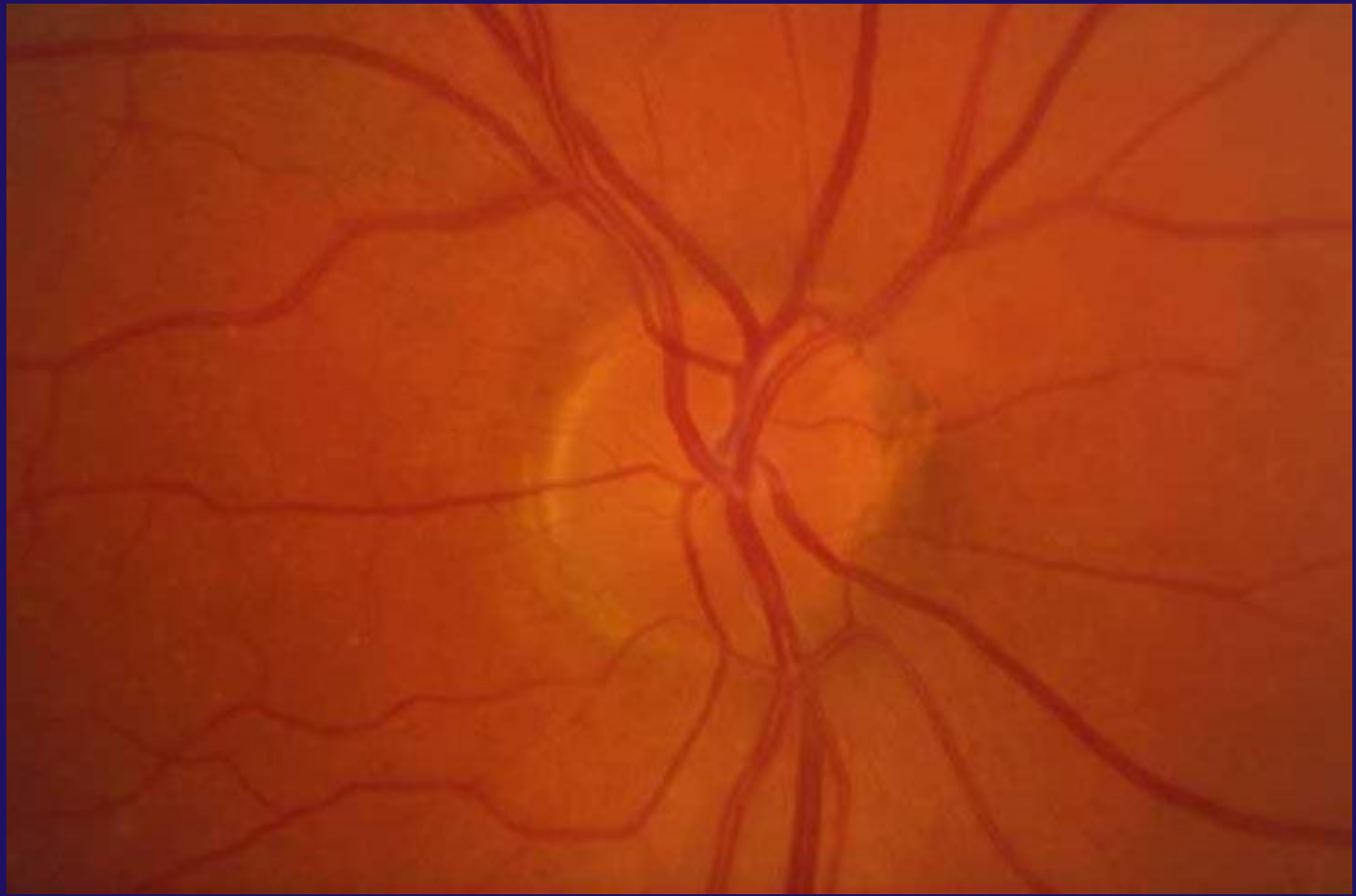
11

0.4

Vertical

Cup:Disc Ratio

In order



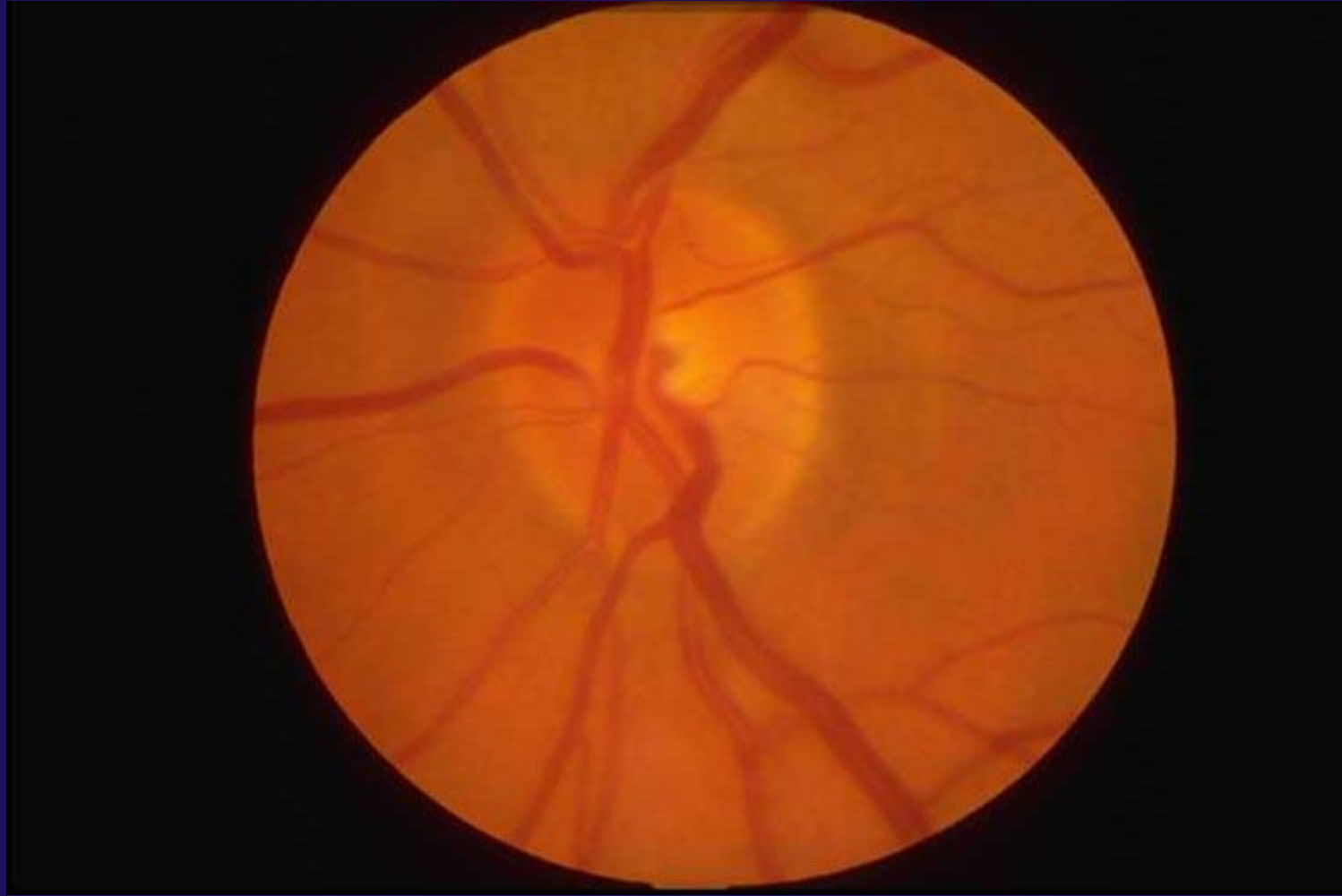
0.0



0.1



0.2



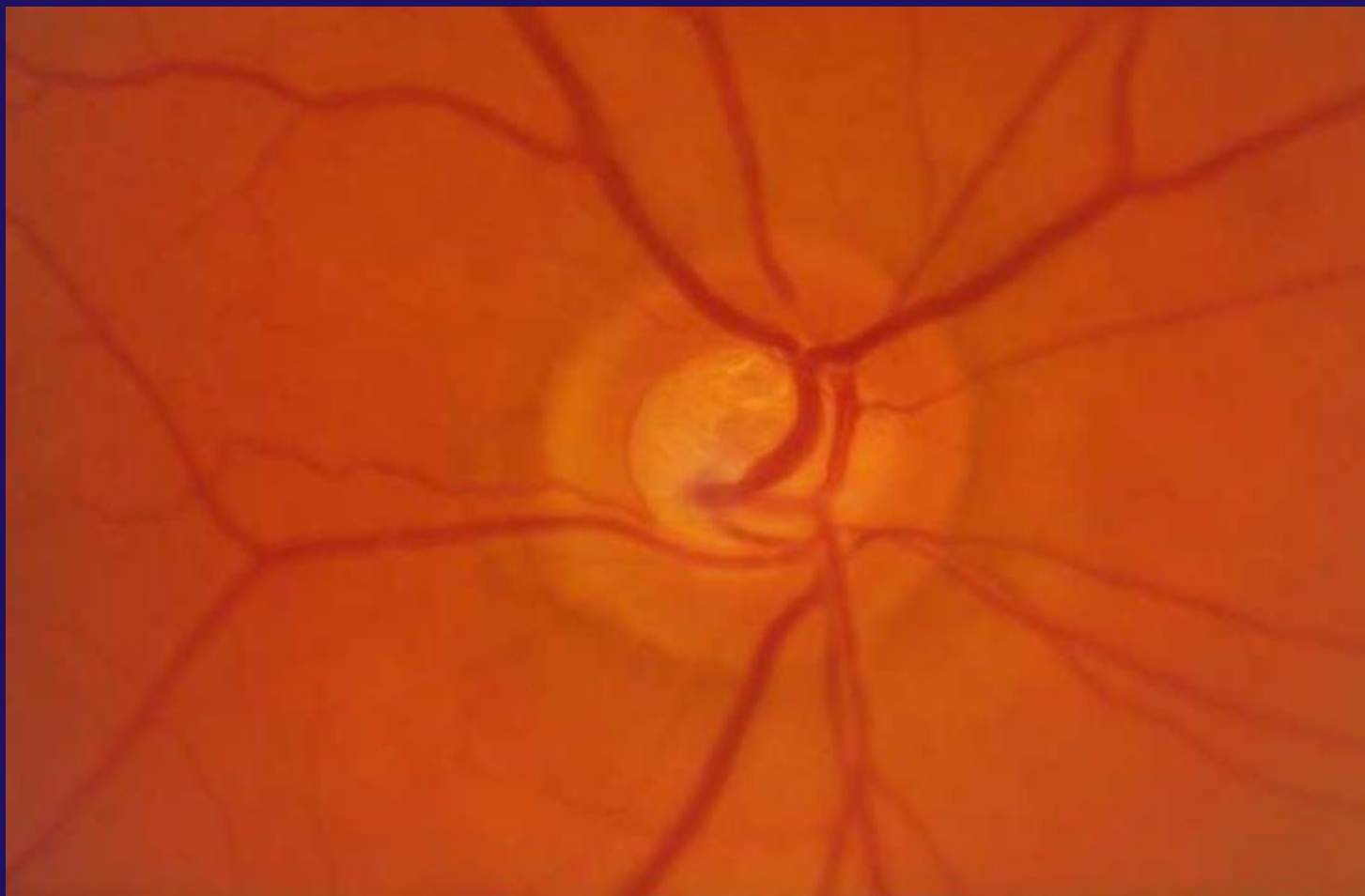
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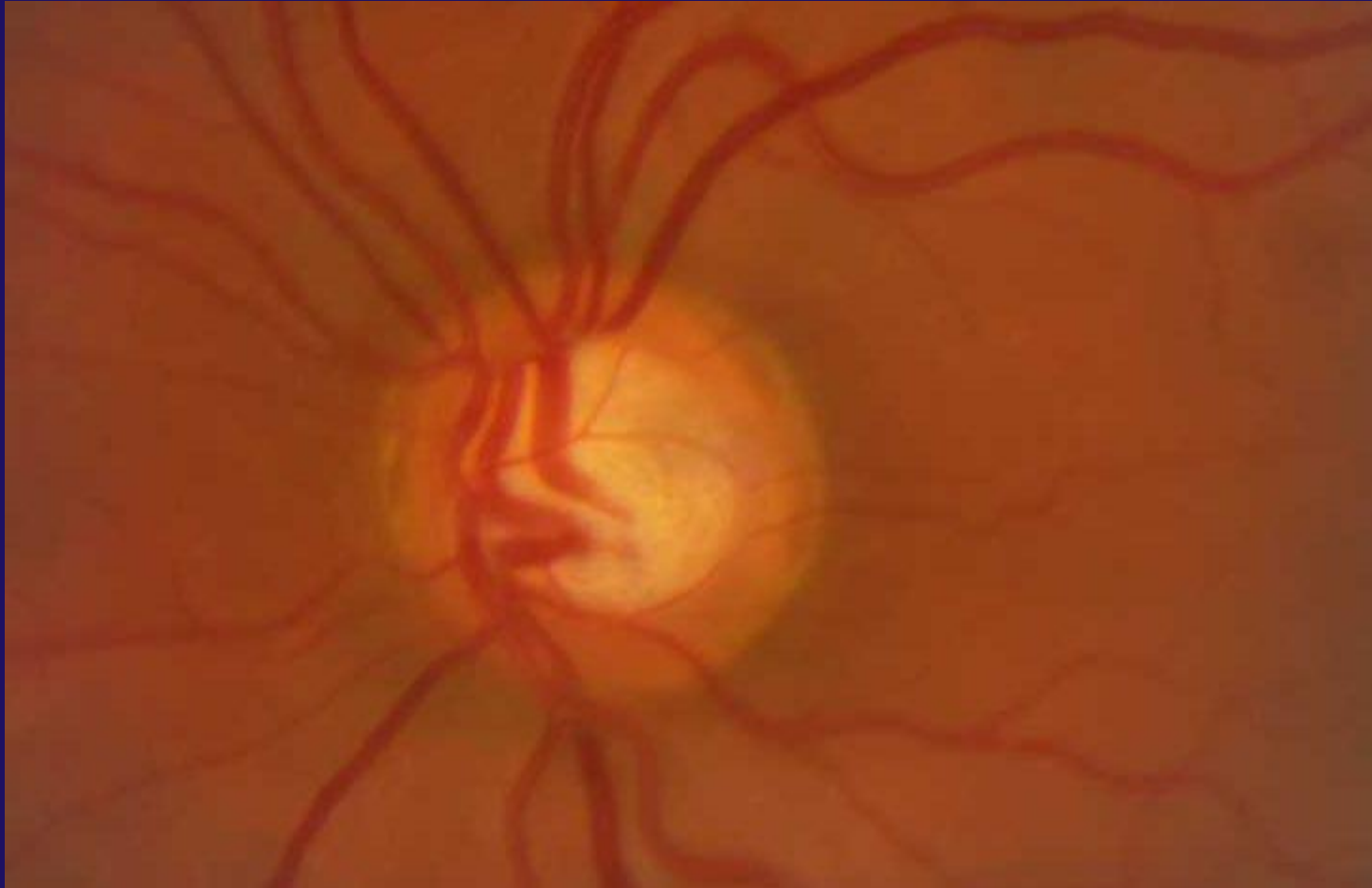
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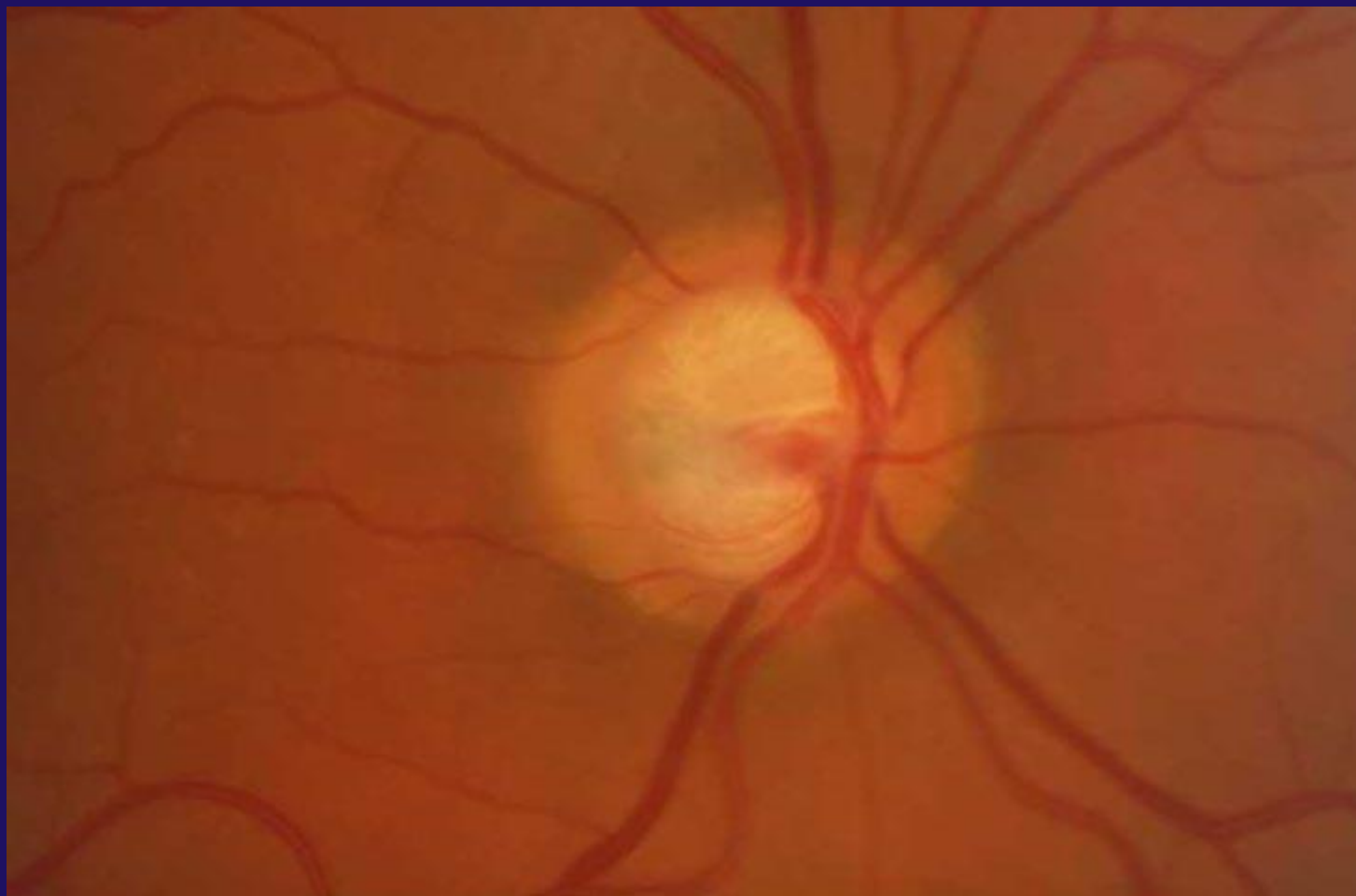
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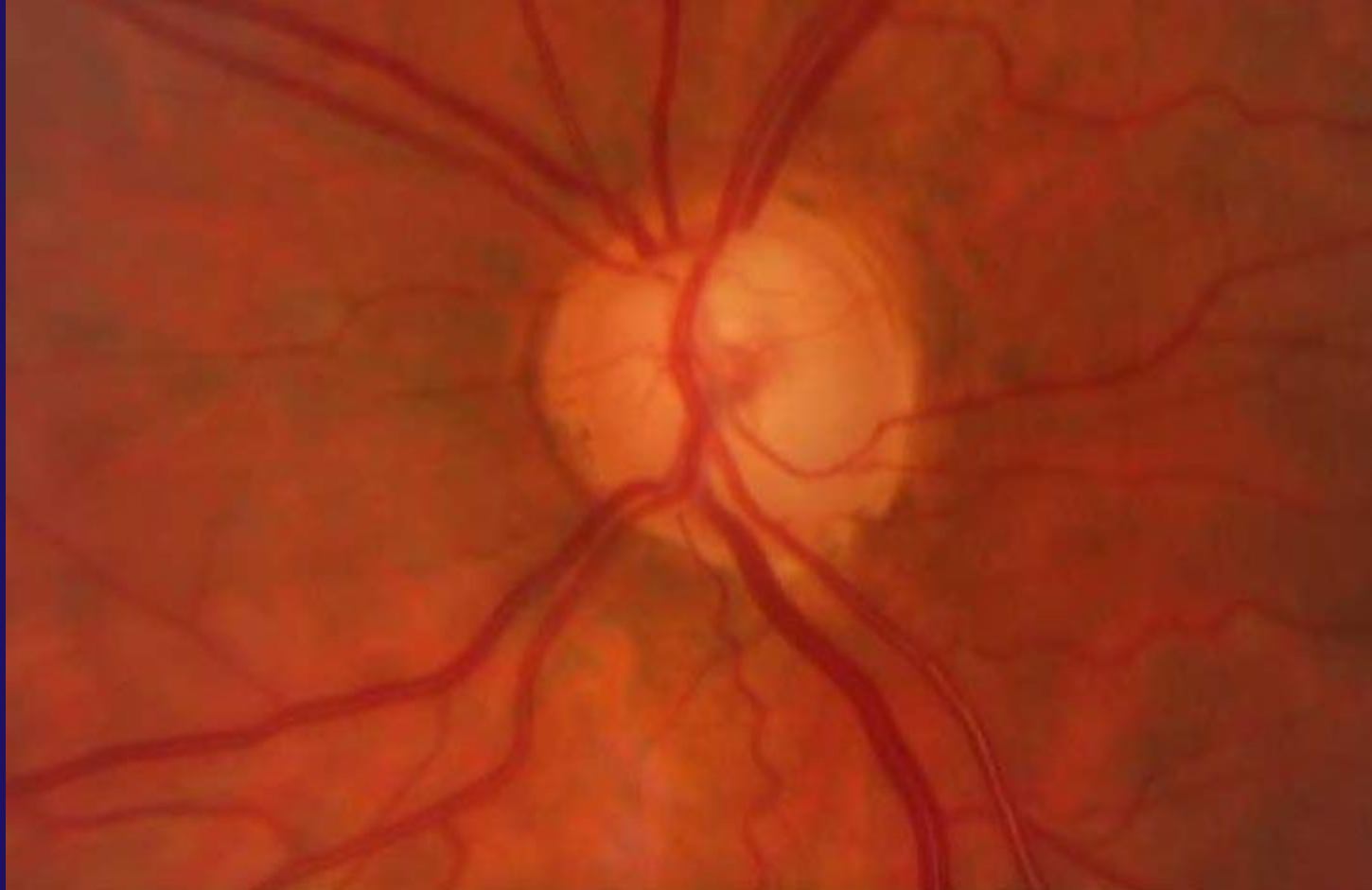
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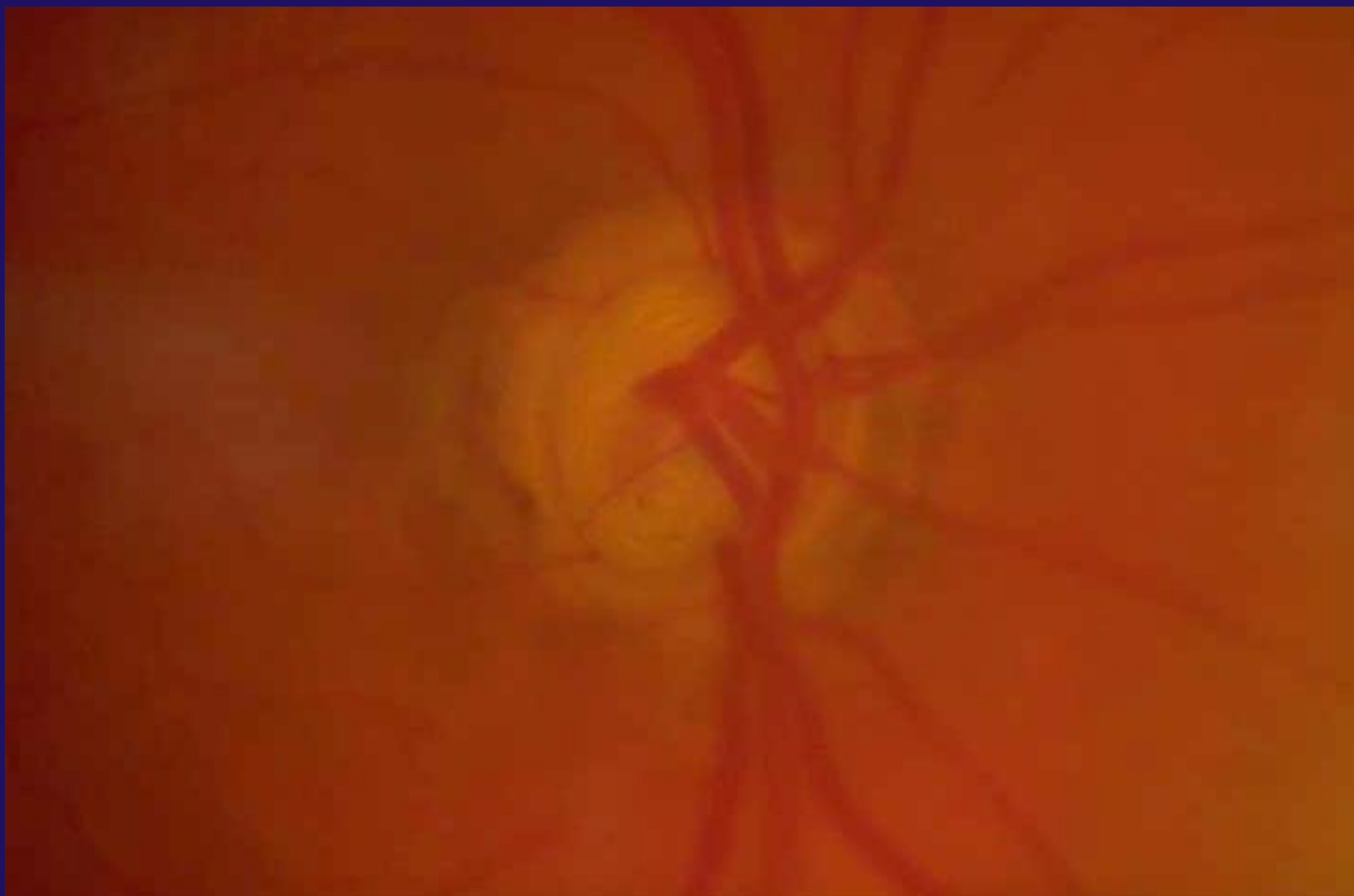
0.7



0.8



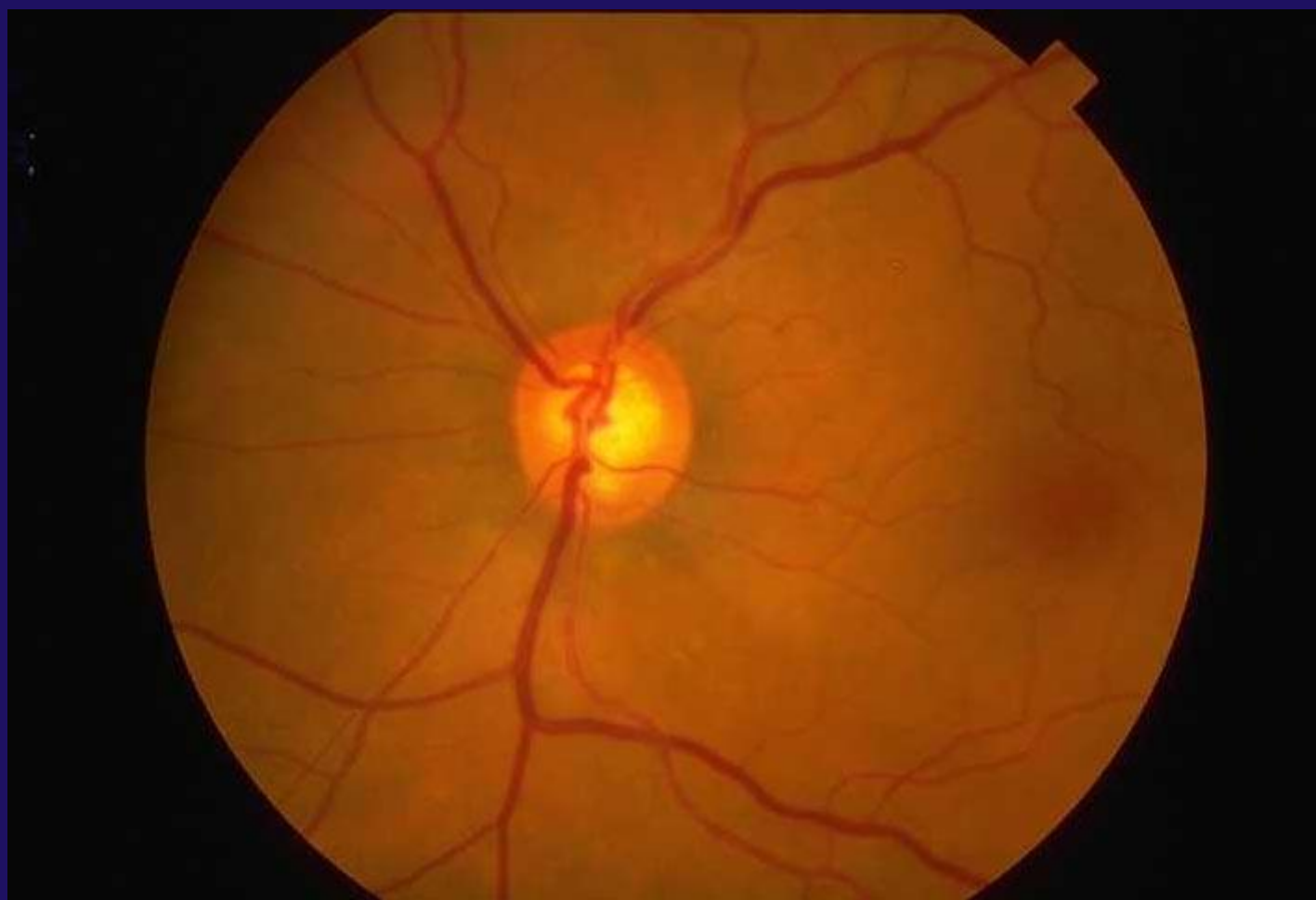
0.9



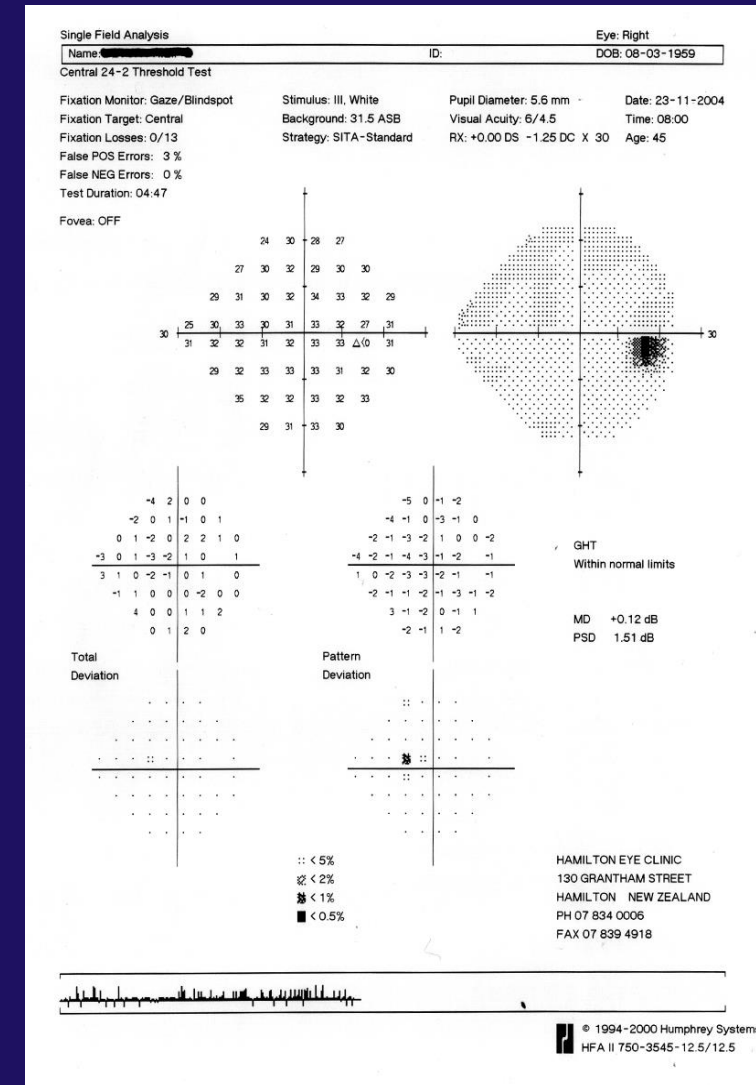
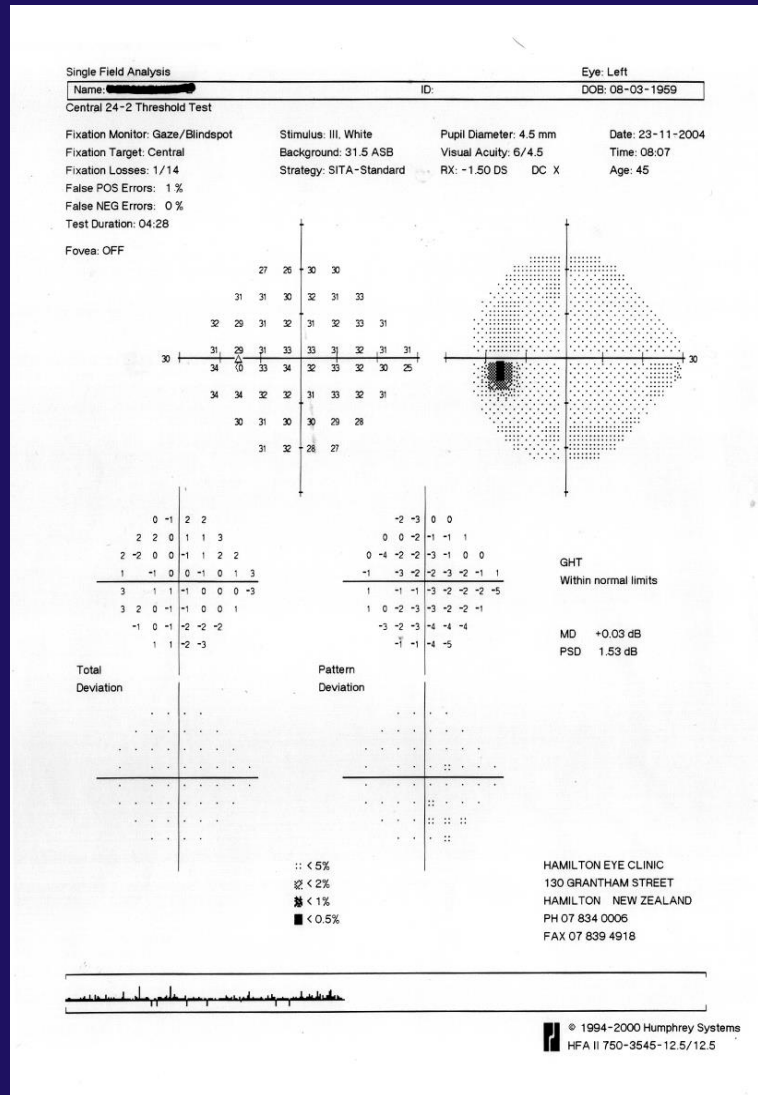
1.0



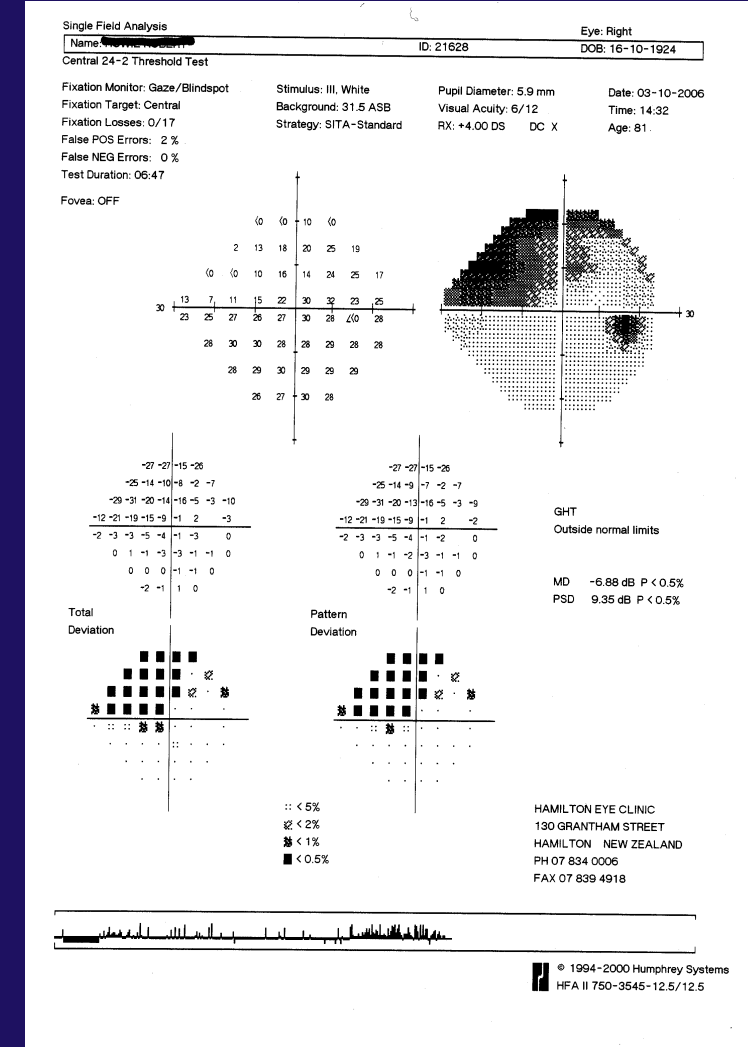
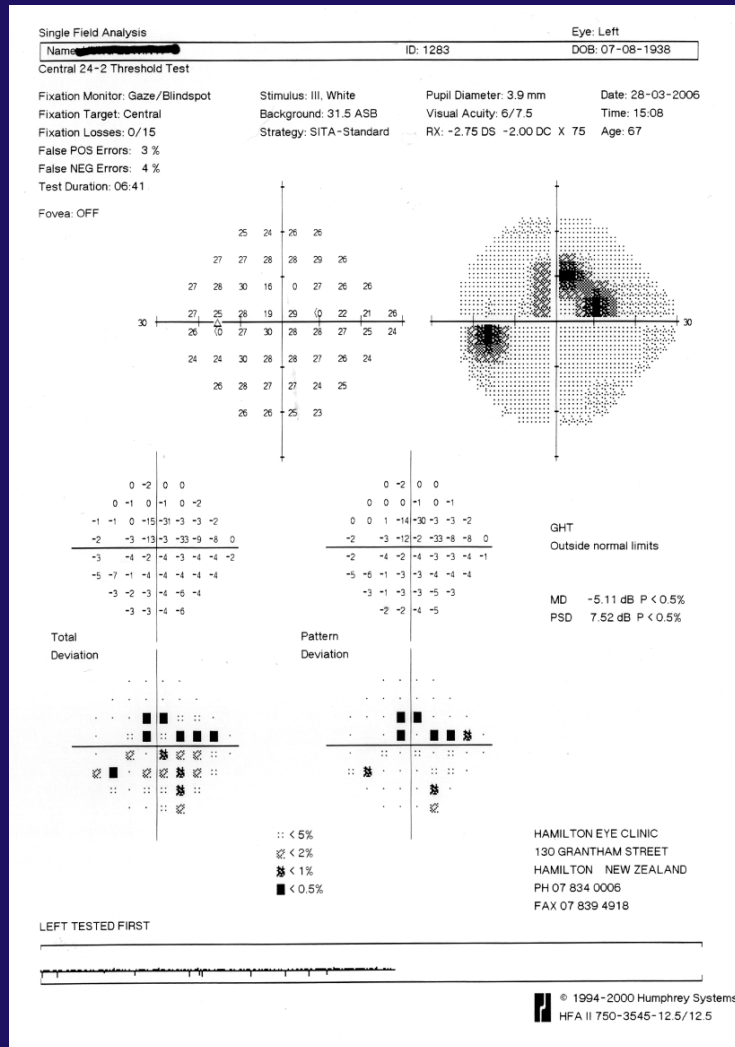




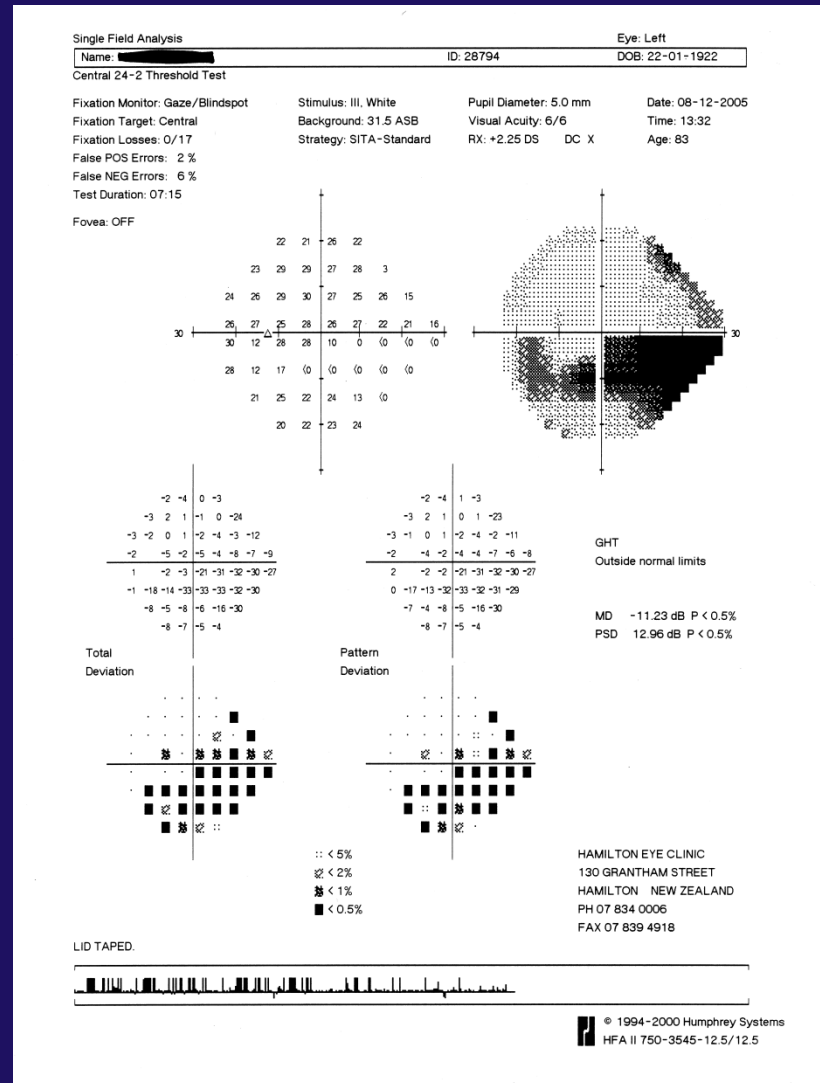
Normal visual field test



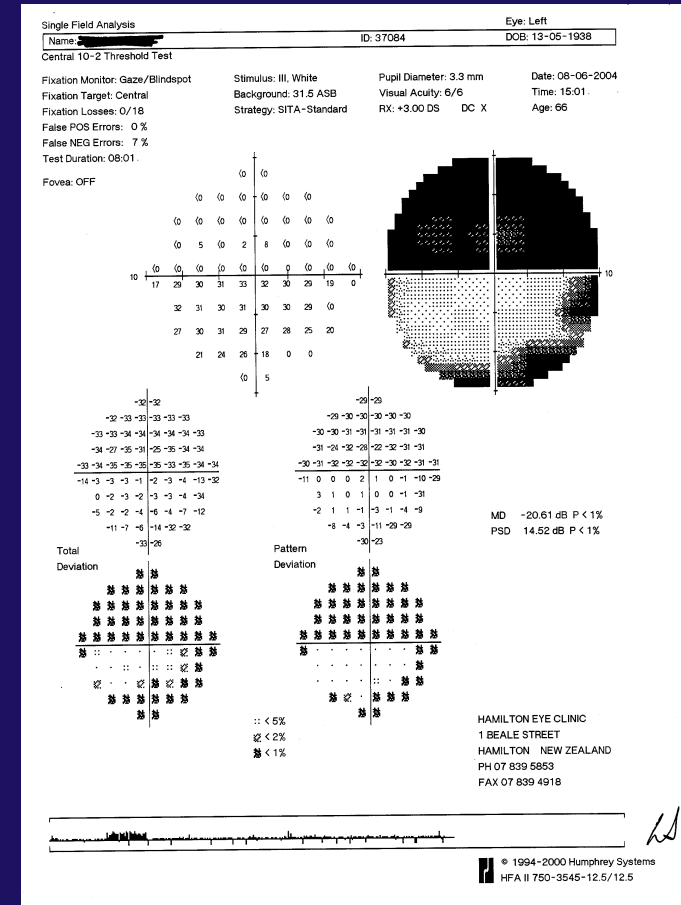
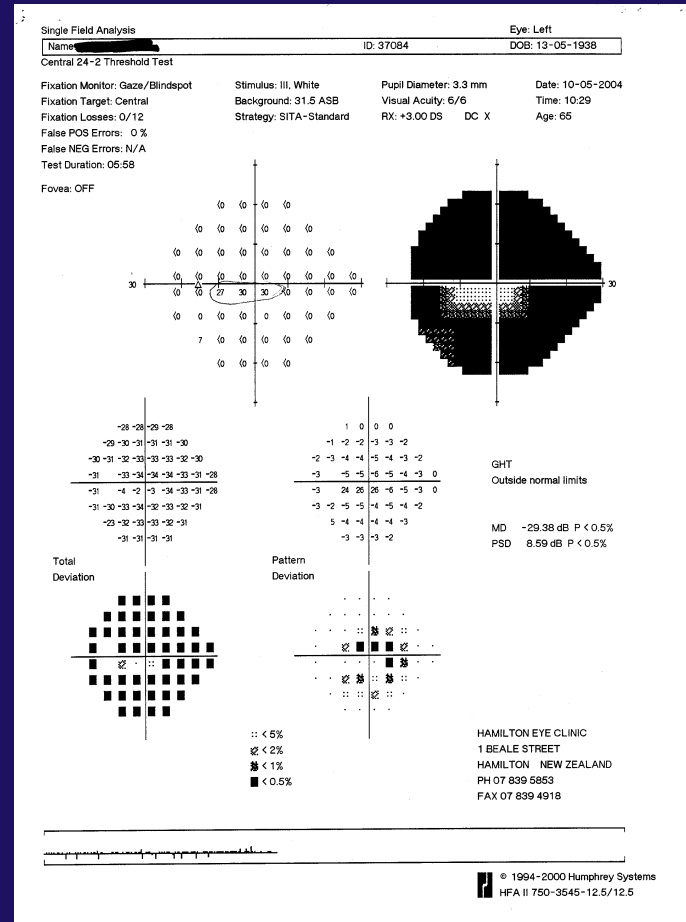
Early field loss



Moderate field loss



Advanced field loss



- Left eye fields – standard, and central “10-2”

Endstage Glaucoma 1/3 (Pseudoexfoliative)

Central 24-2 Threshold Test

Fixation Monitor: Gaze/Blindspot

Fixation Target: Central

Fixation Losses: 1/13

False POS Errors: 0 %

False NEG Errors: N/A

Test Duration: 05:25

Fovea: OFF

Stimulus: III, White

Background: 31.5 ASB

Strategy: SITA-Standard

Pupil Diameter:

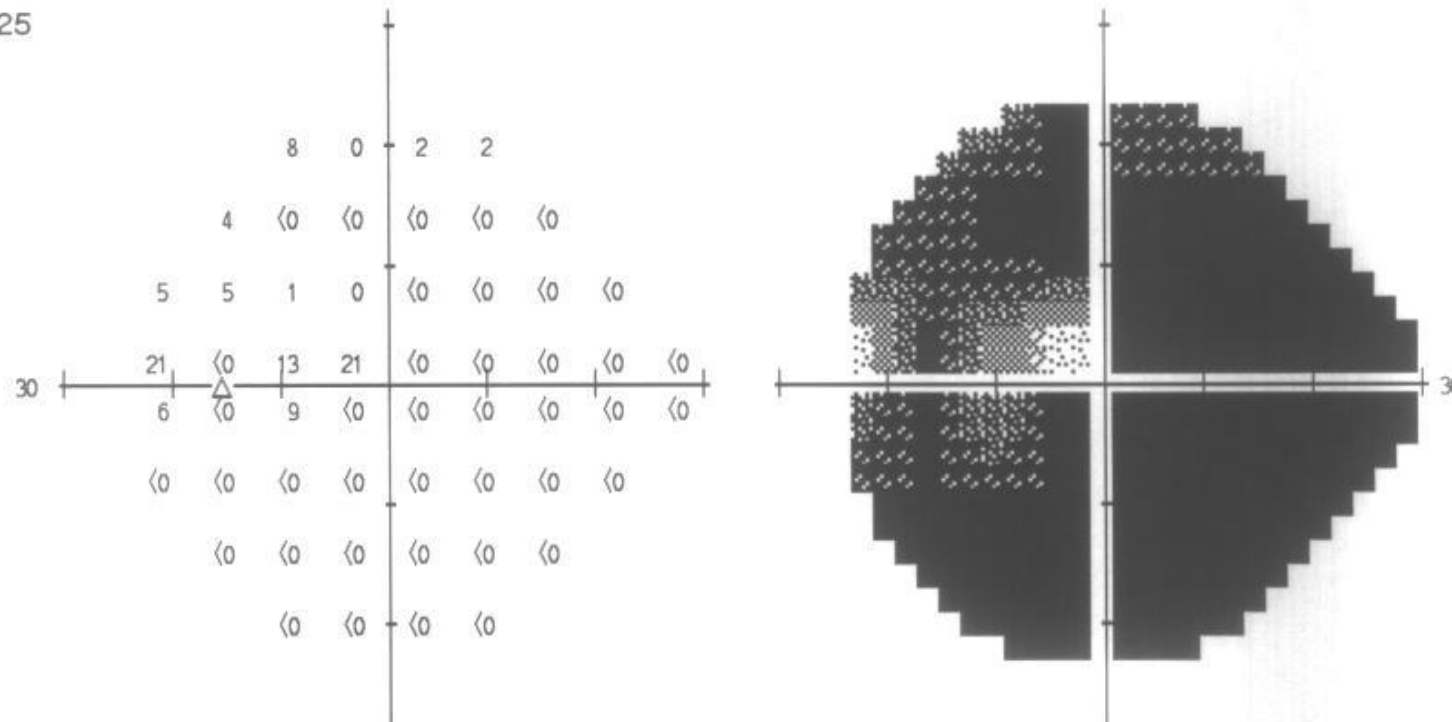
Visual Acuity:

RX: +1.50 DS DC X

Date: 19-08-1999

Time: 10:48

Age: 73



Endstage Glaucoma 3/3 (Pseudoexfoliative)

Central 24-2 Threshold Test

Fixation Monitor: Gaze/Blindspot

Fixation Target: Central

Fixation Losses: 0/11

False POS Errors: 0 %

False NEG Errors: N/A

Test Duration: 05:40

Fovea: OFF

Stimulus: III, White

Background: 31.5 ASB

Strategy: SITA-Standard

Pupil Diameter:

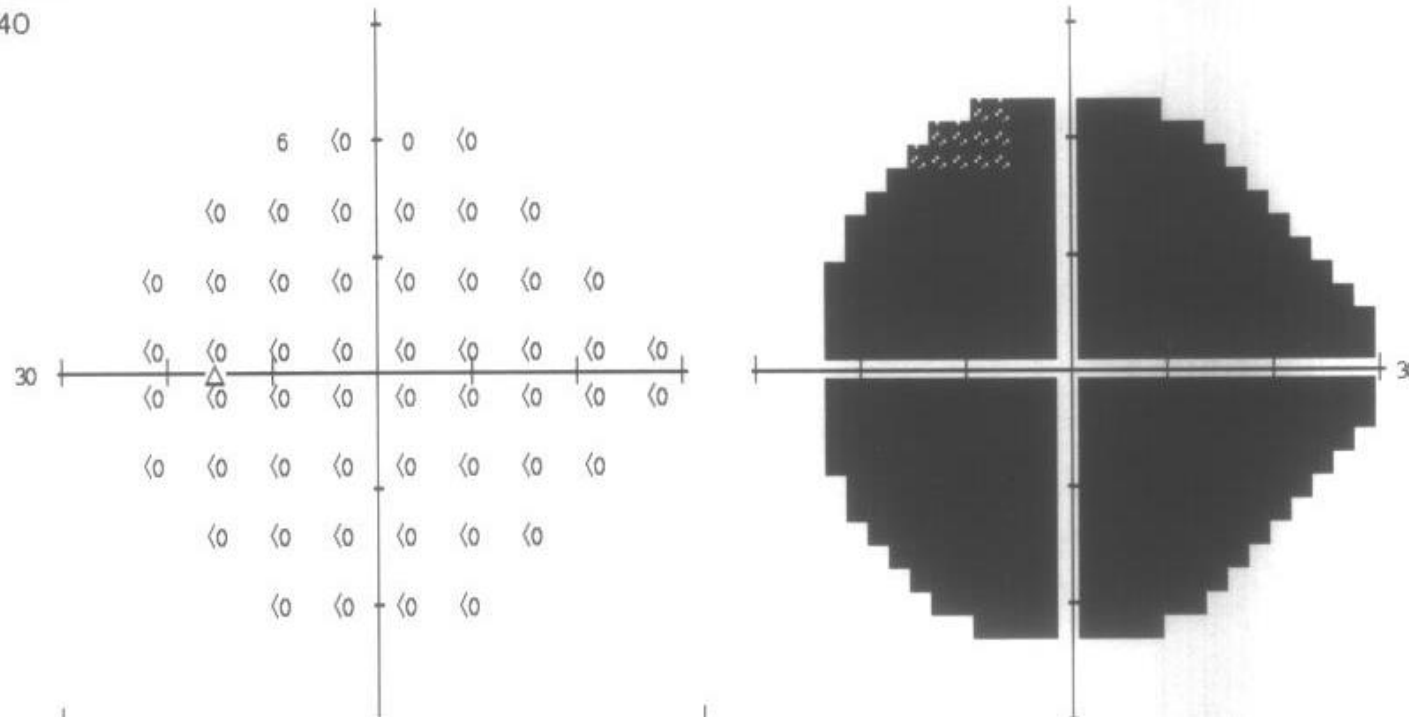
Visual Acuity:

RX: +3.00 DS DC X

Date: 08-10-2002

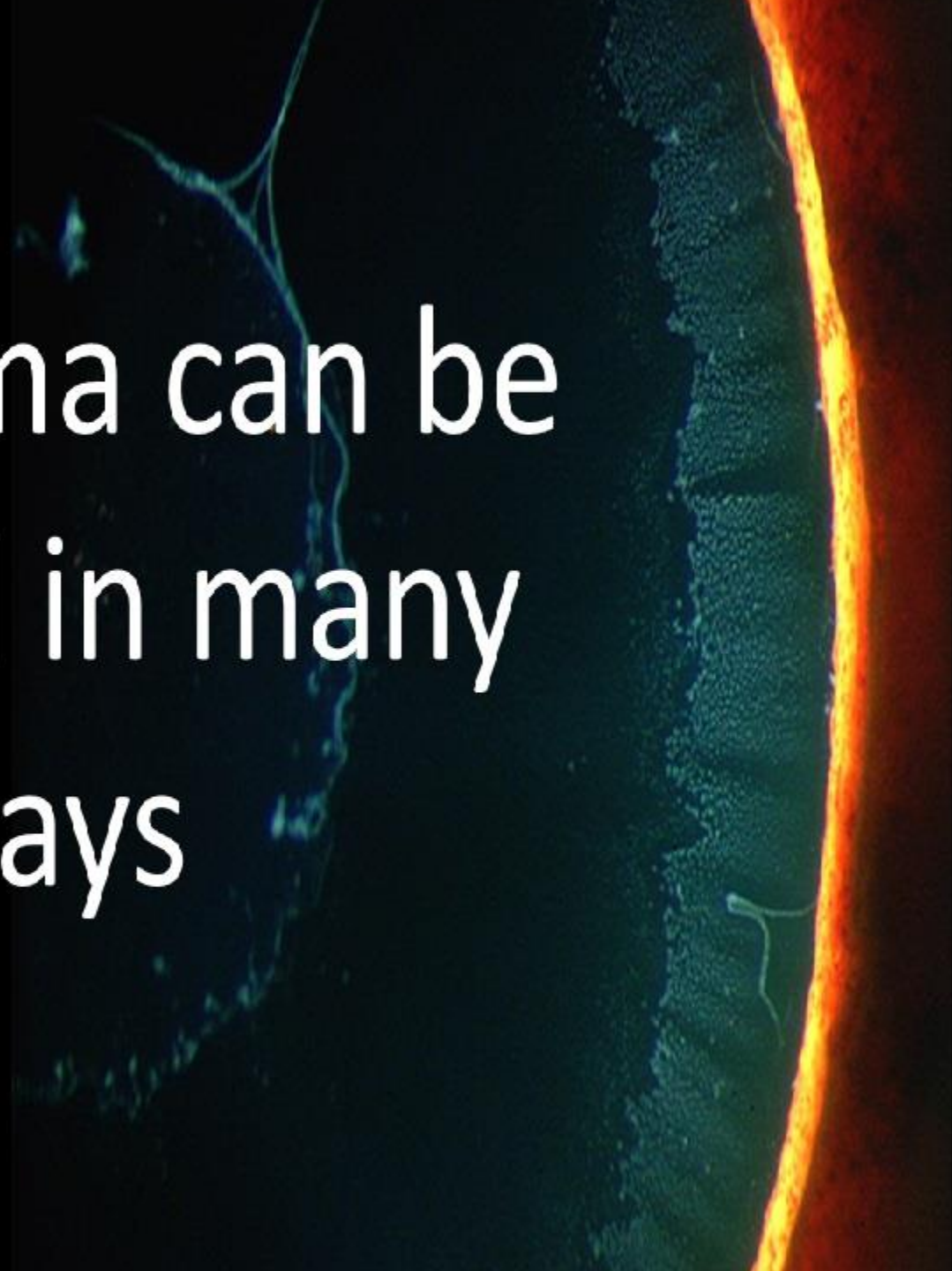
Time: 13:12

Age: 76



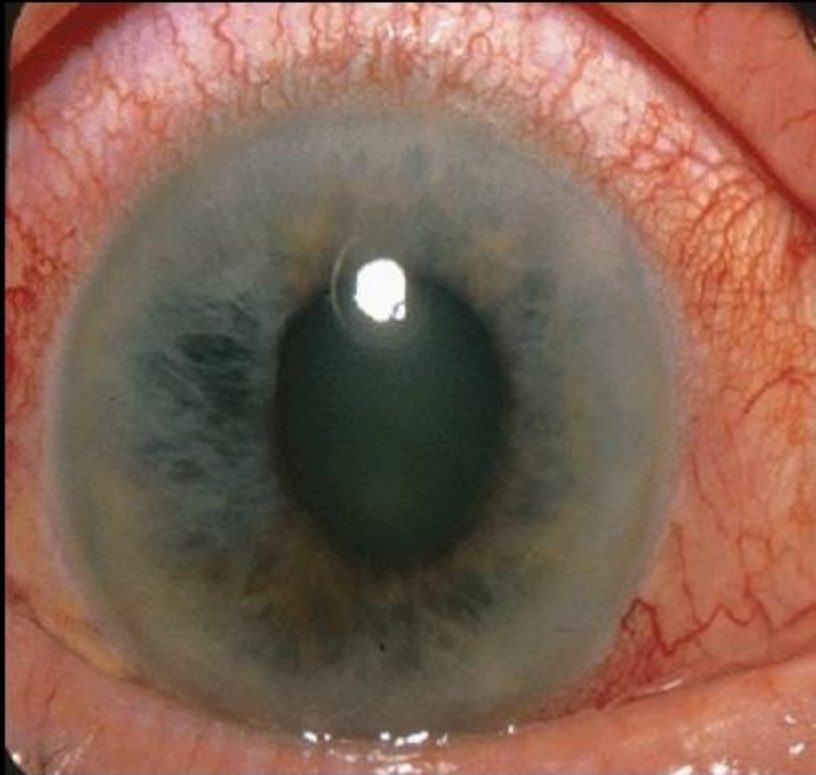
LV 6/12 c -0.50/-

Glaucoma can be
divided in many
ways

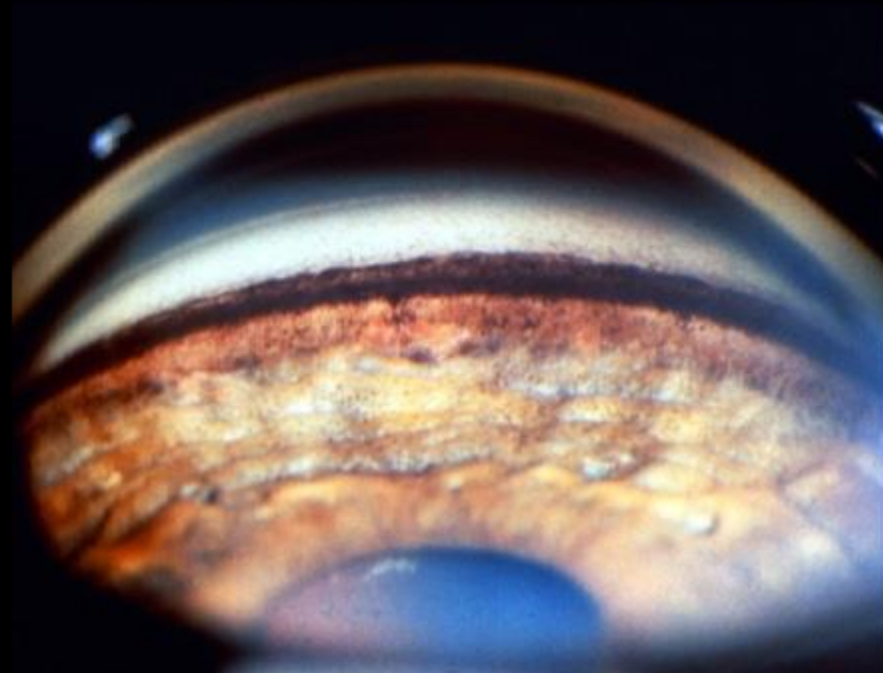


Timing

Acute (Sudden and severe)

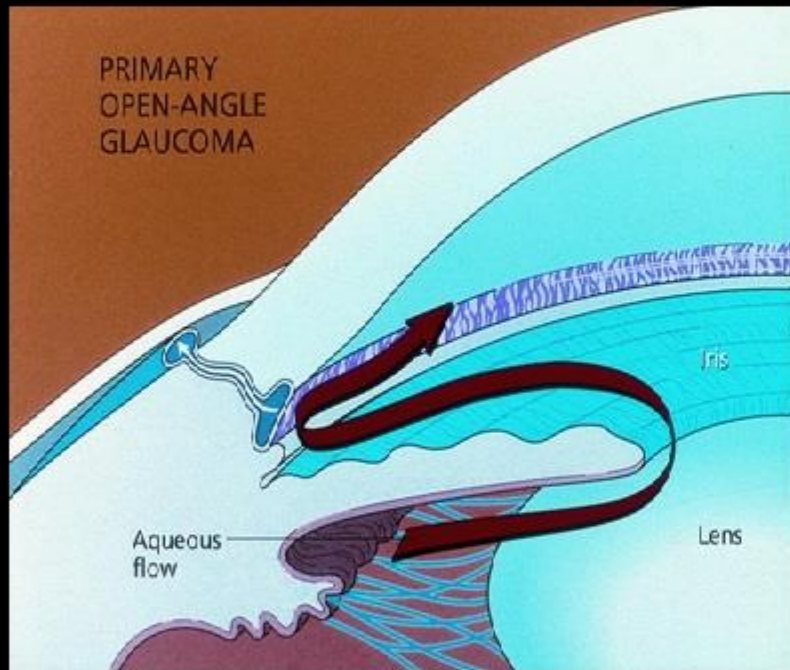


Chronic (Gradual and unnoticed)

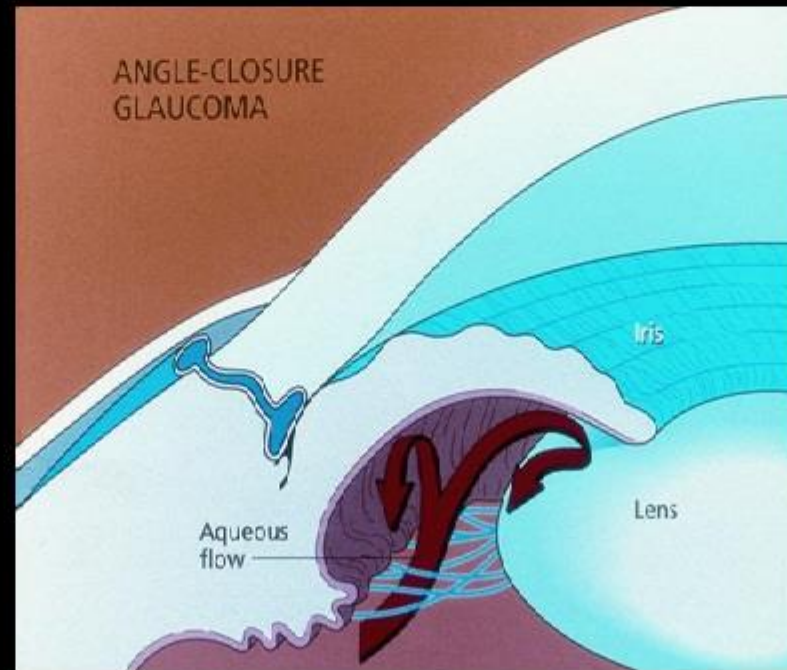


Anatomically

Open angle glaucoma



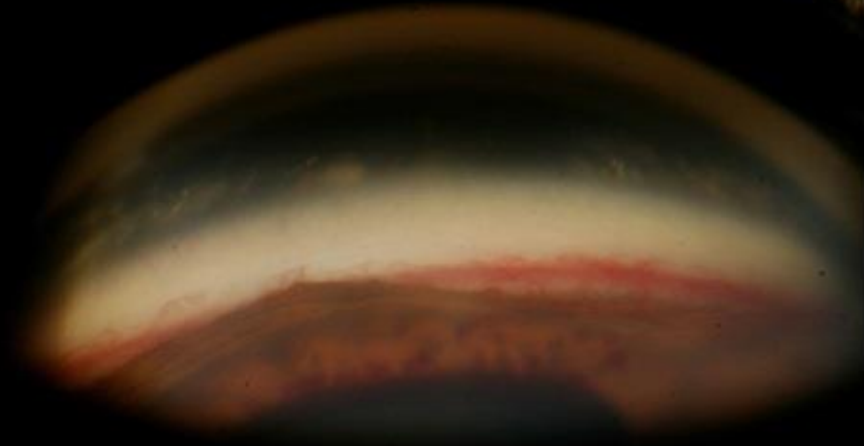
Closed angle glaucoma



The cause is known

Secondary

(glaucoma due to another eye or whole body condition)

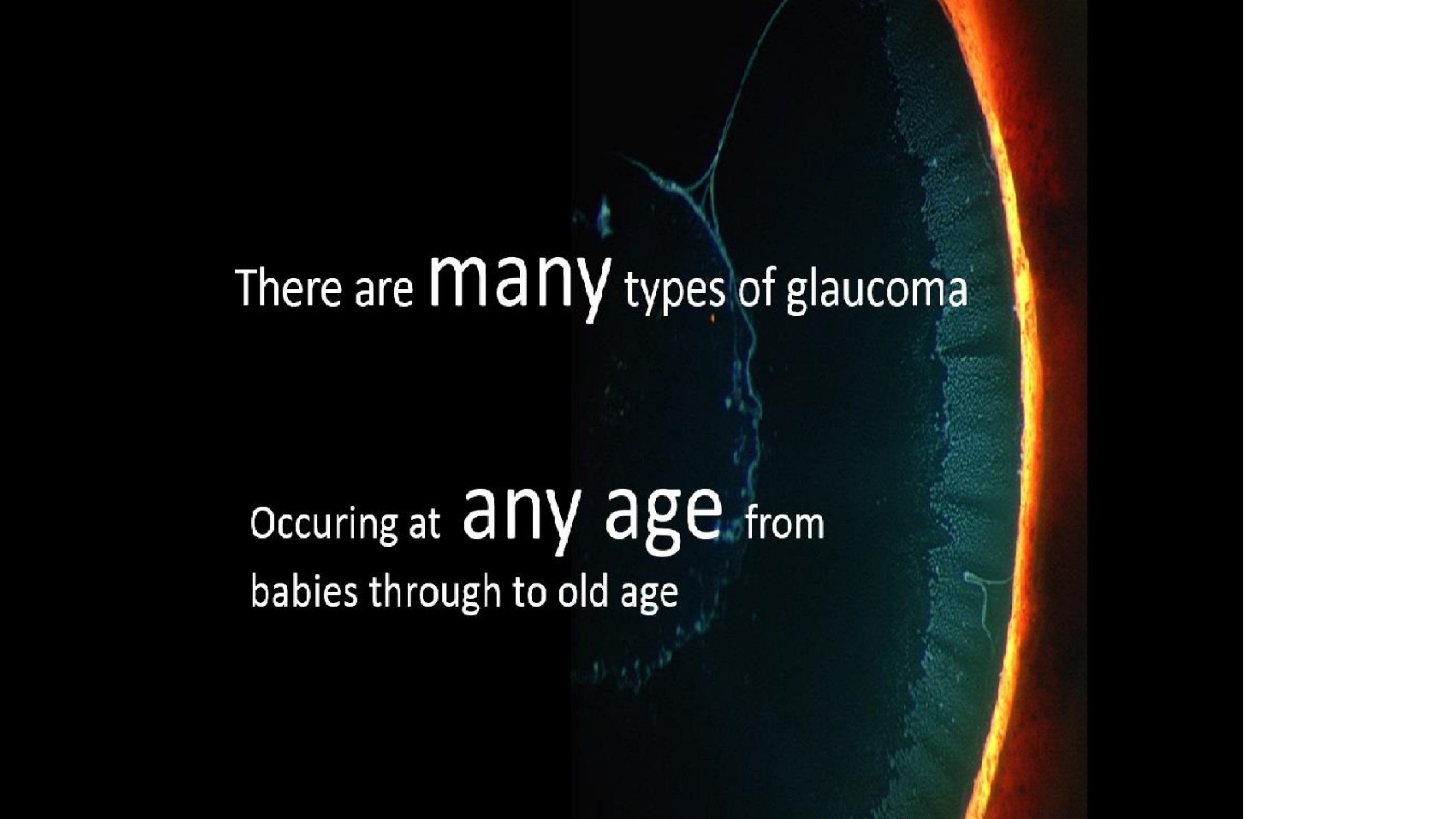


or not

Primary

(cause is unknown)

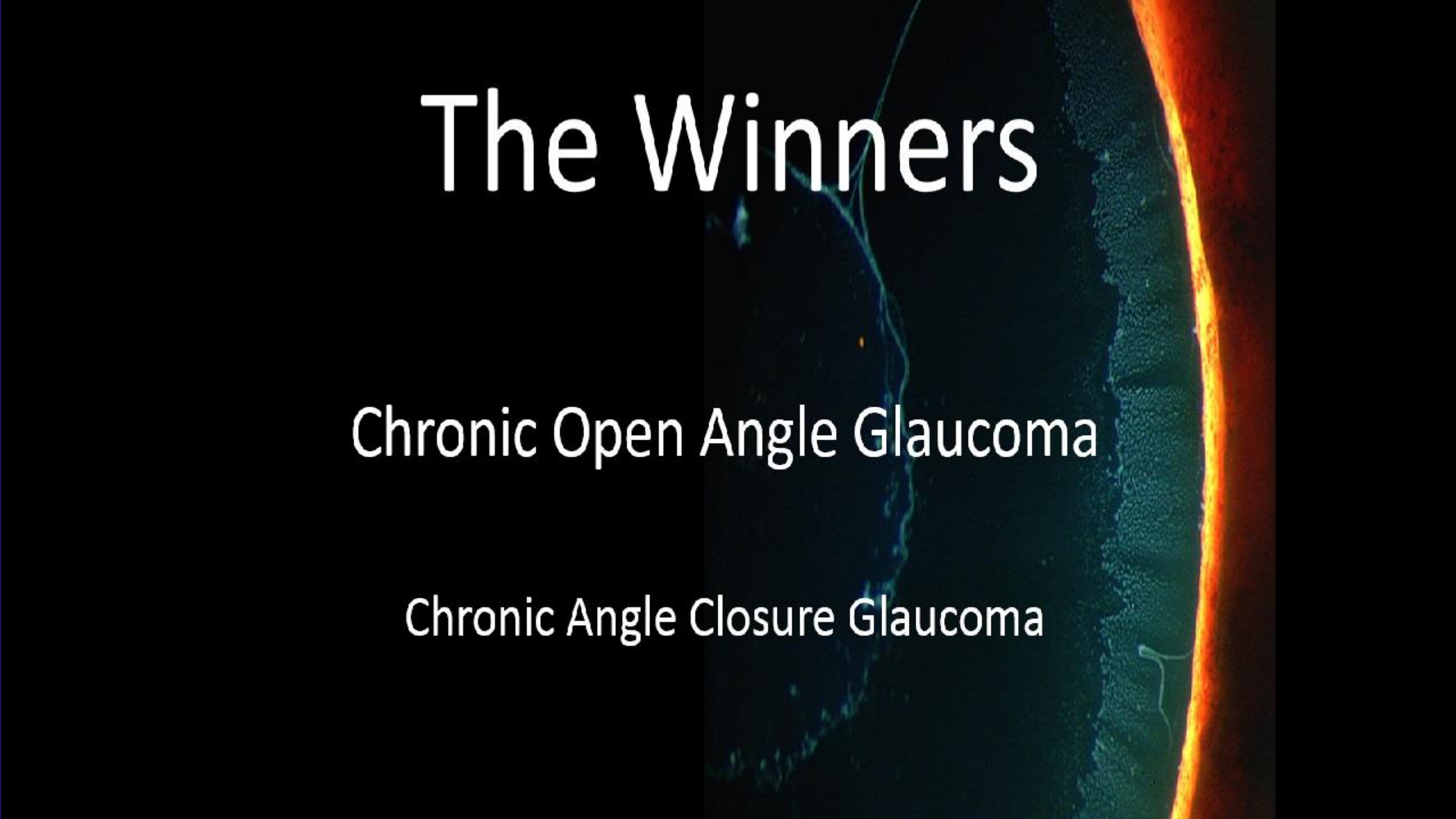




There are **many** types of glaucoma

Occuring at **any age** from
babies through to old age

The Winners

A stylized, abstract image of a human eye, rendered in vibrant colors like orange, yellow, and green, with a dark, textured background.

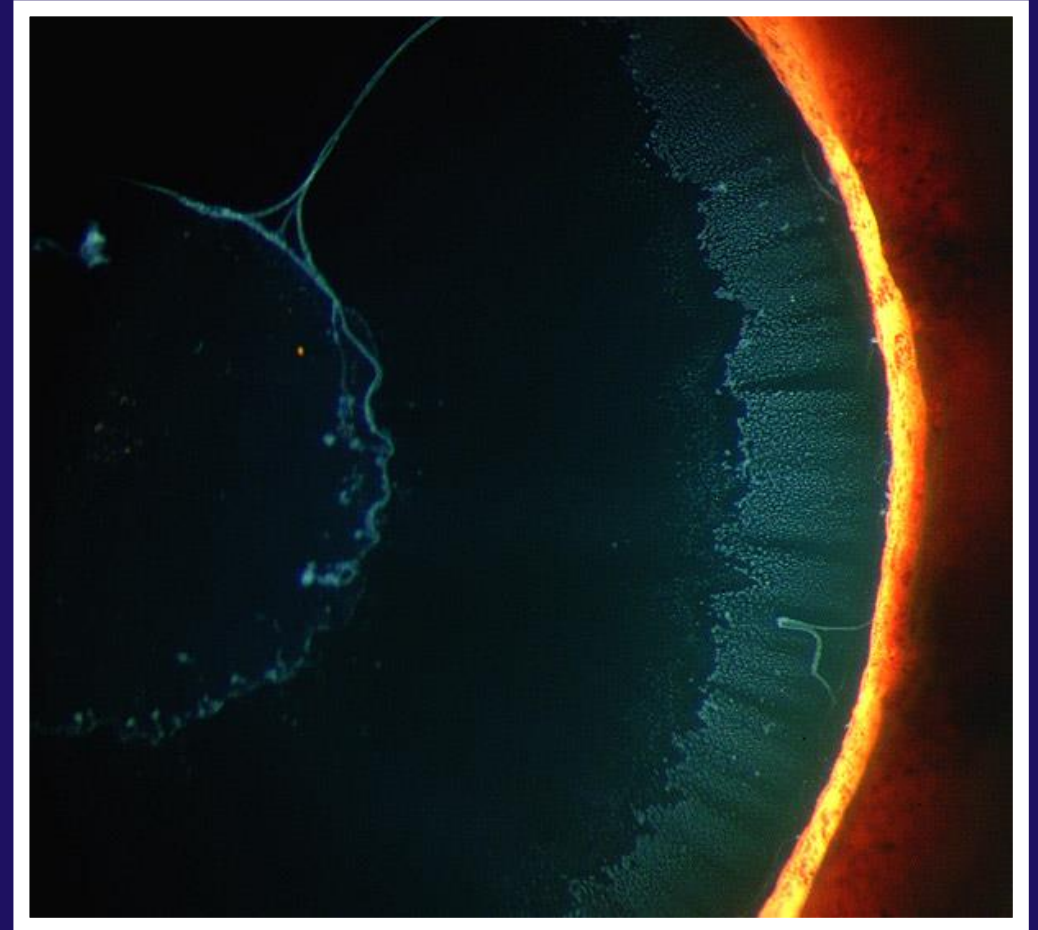
Chronic Open Angle Glaucoma

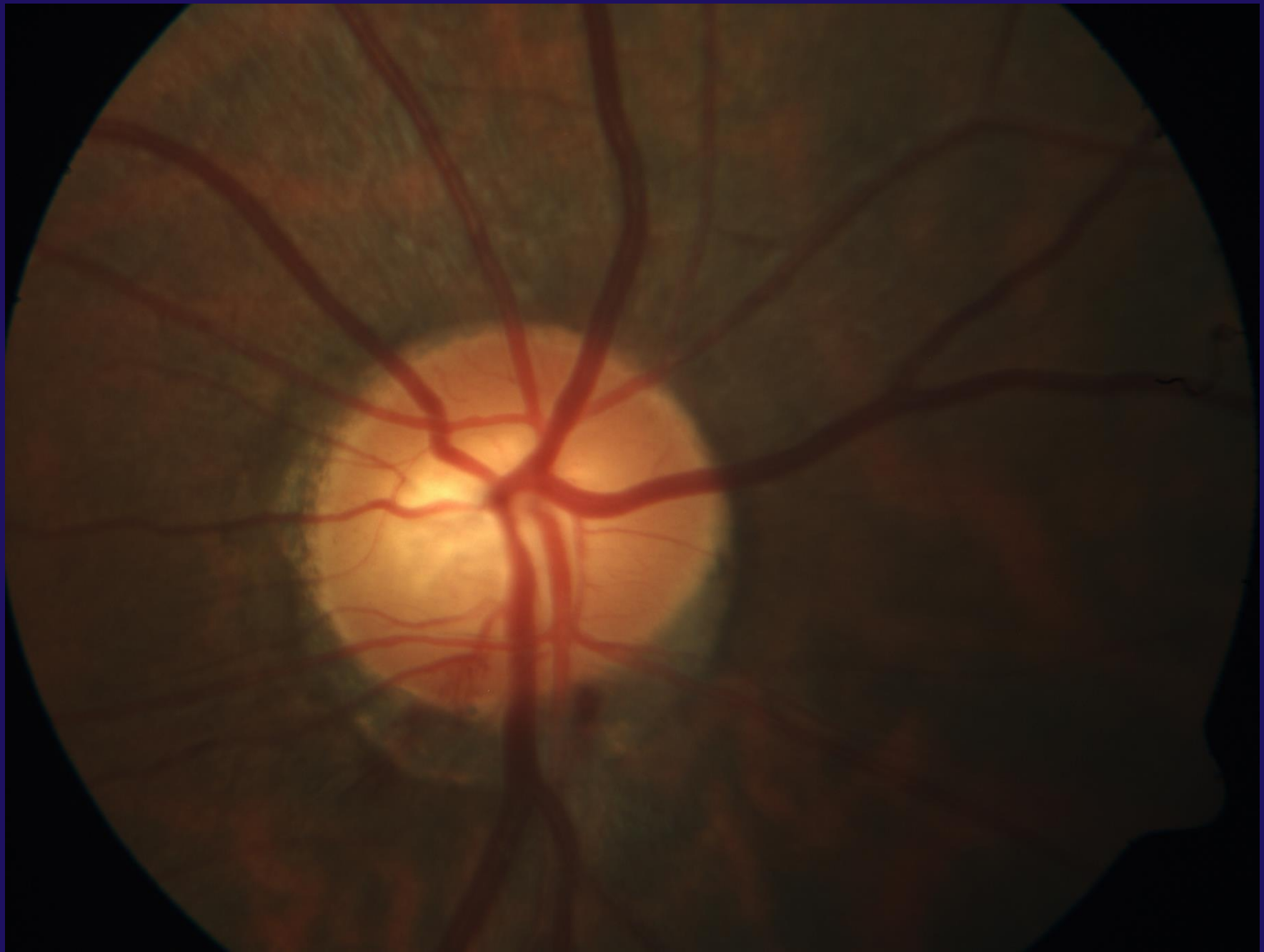
Chronic Angle Closure Glaucoma

Some types of Chronic Open Angle Glaucoma

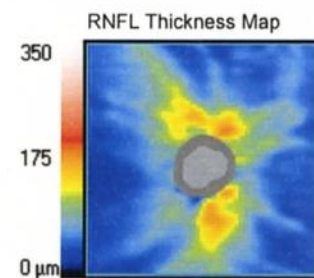
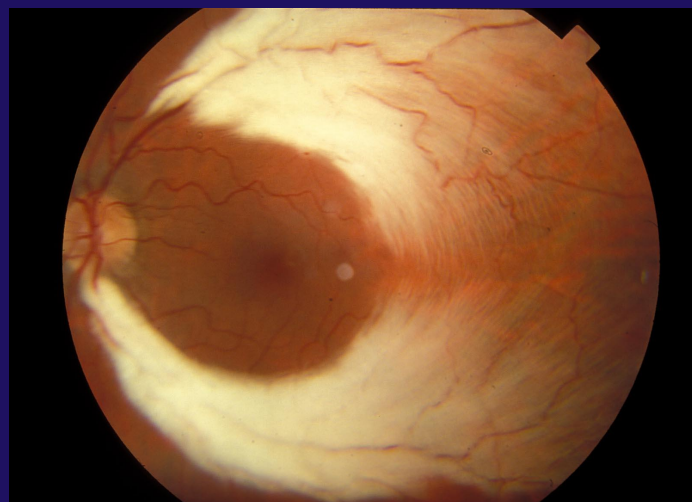
- Primary Open Angle Glaucoma (POAG)
- Low Pressure Glaucoma (LTG)
- Pseudoexfoliation Glaucoma

all very common

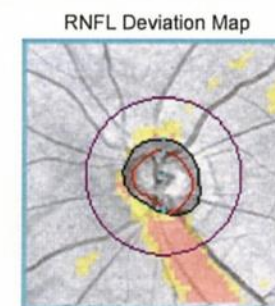
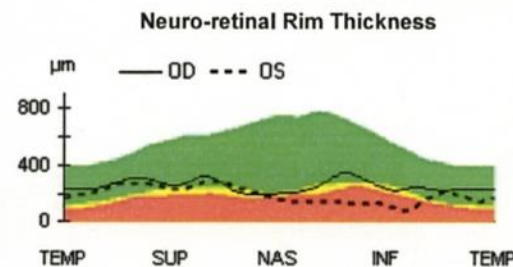
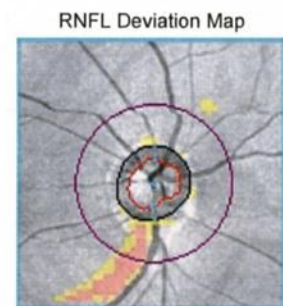
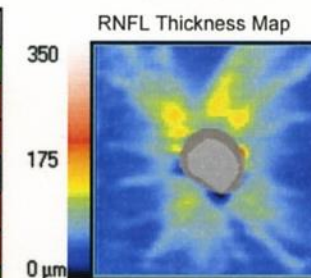




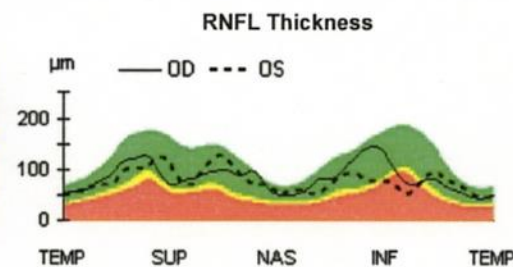
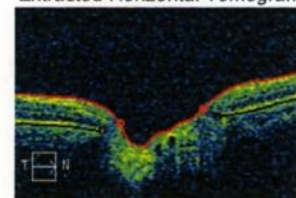




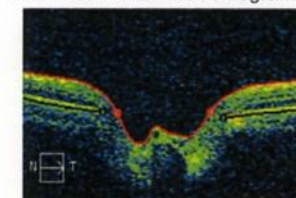
	OD	OS
Average RNFL Thickness	86 μm	80 μm
RNFL Symmetry	58%	
Rim Area	1.10 mm ²	0.90 mm ²
Disc Area	2.09 mm ²	2.19 mm ²
Average C/D Ratio	0.67	0.76
Vertical C/D Ratio	0.65	0.76
Cup Volume	0.243 mm ³	0.423 mm ³



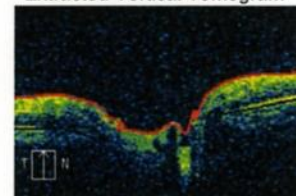
Disc Center(0.03,-0.15)mm
Extracted Horizontal Tomogram



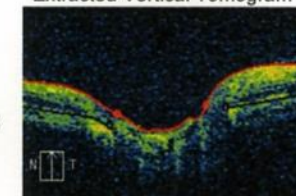
Disc Center(0.09,0.03)mm
Extracted Horizontal Tomogram



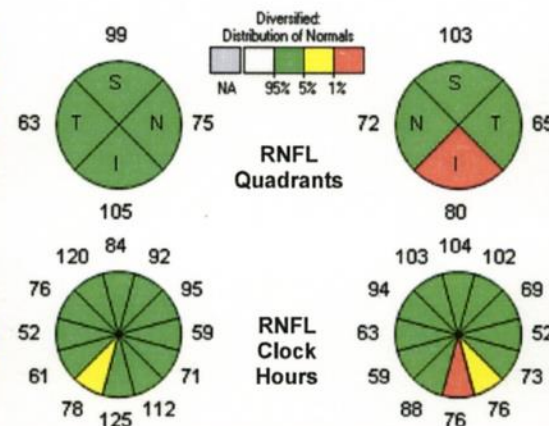
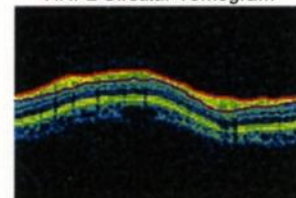
Extracted Vertical Tomogram



Extracted Vertical Tomogram



RNFL Circular Tomogram



RNFL Circular Tomogram

