



Optic nerve head in advanced glaucoma suspect

Moustafa Kamal Nassar

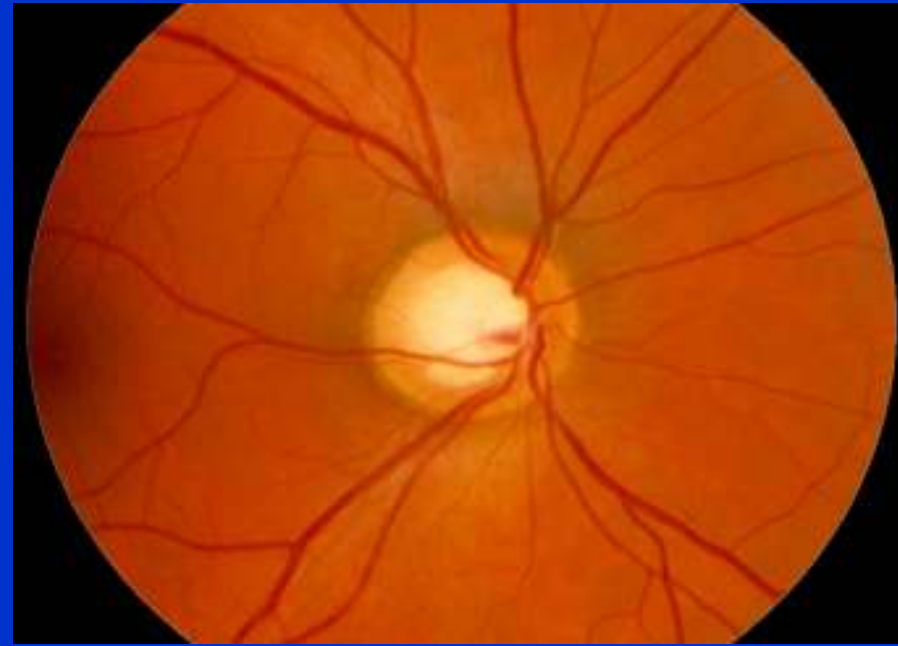
Prof, of Ophthalmology Menoufia University
2025

Rule of the thumb in Glaucoma

- To miss the diagnosis of Glaucoma is a mistake
- BUT
- To give anti glaucoma treatment to a normal subject is a crime

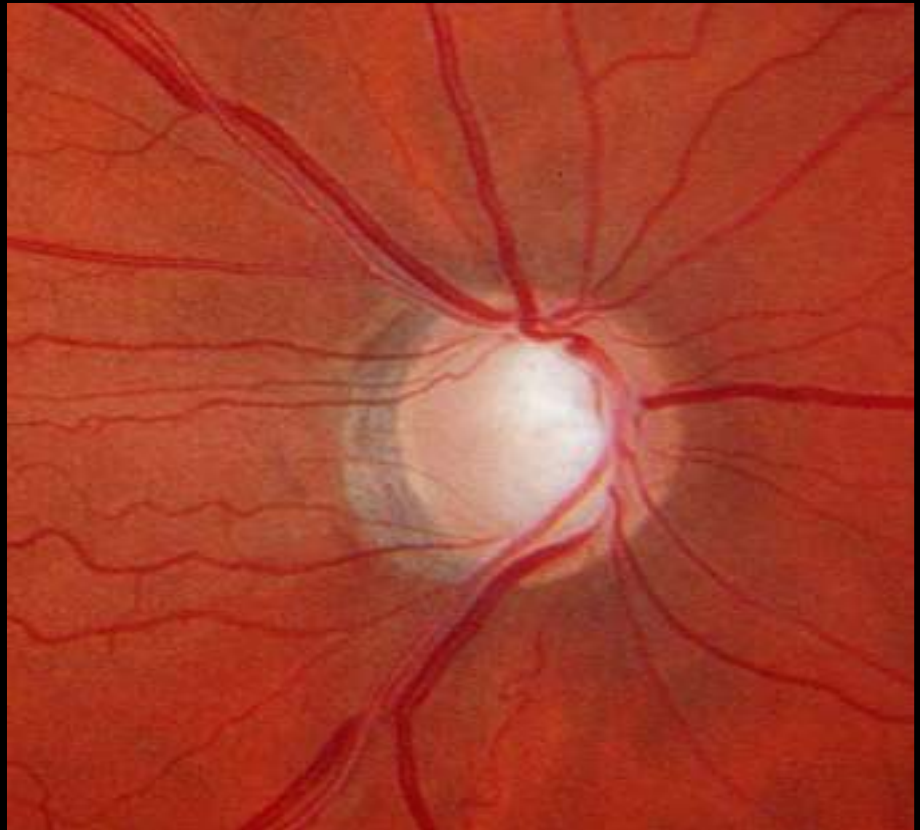


Two ODs which of them is
glaucomatous



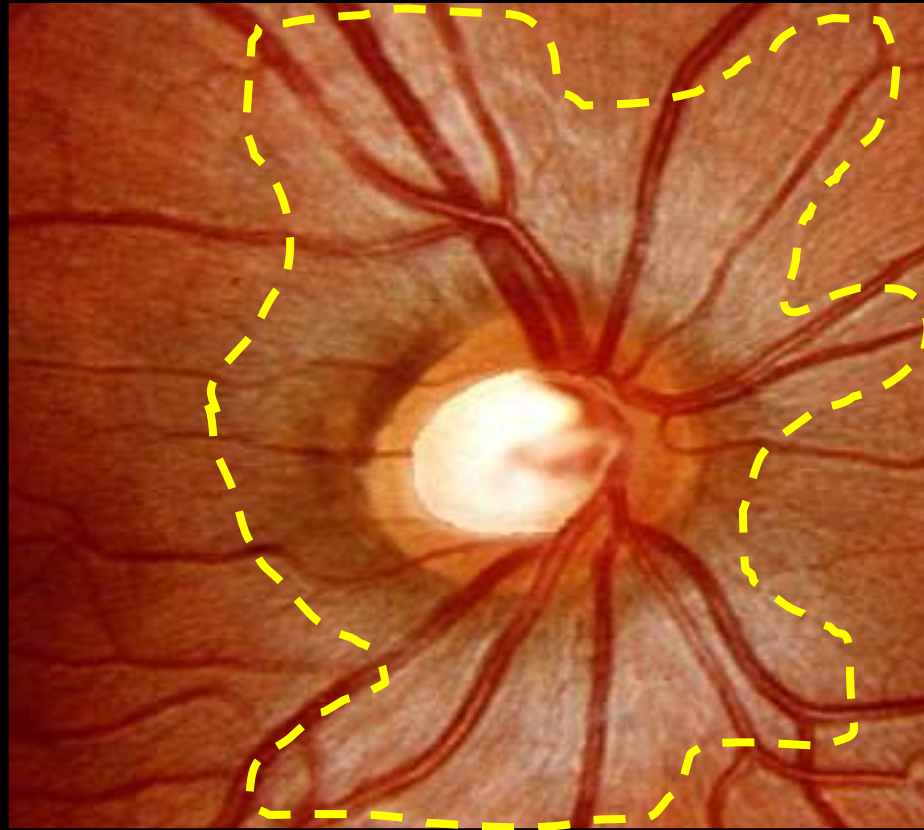


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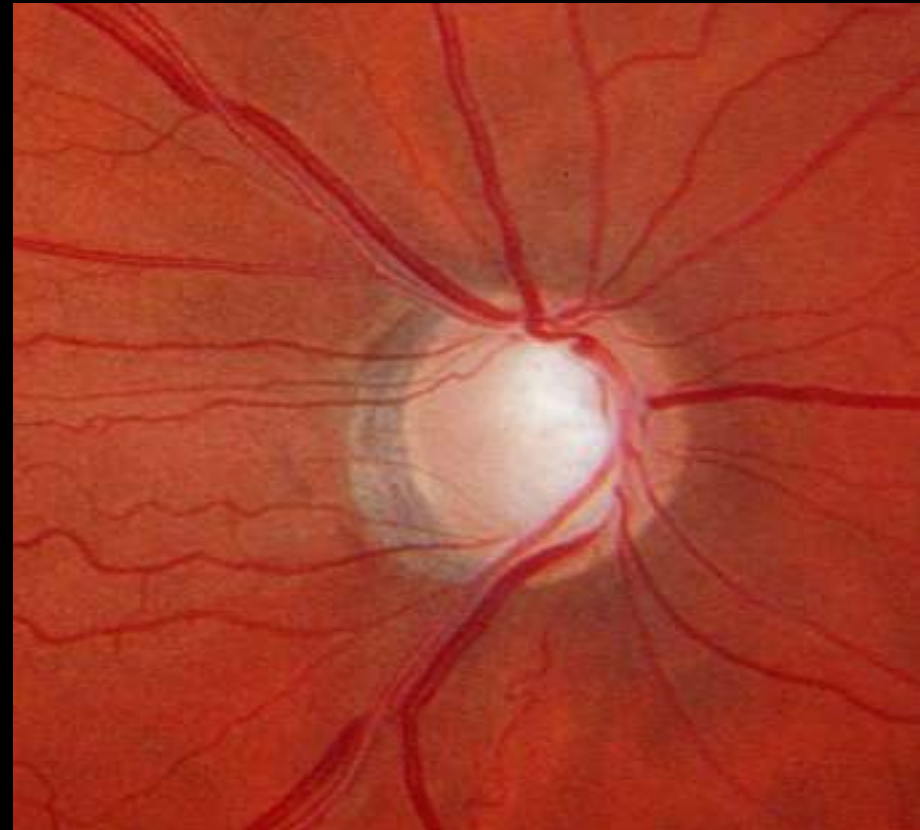


2

Normal RNFL

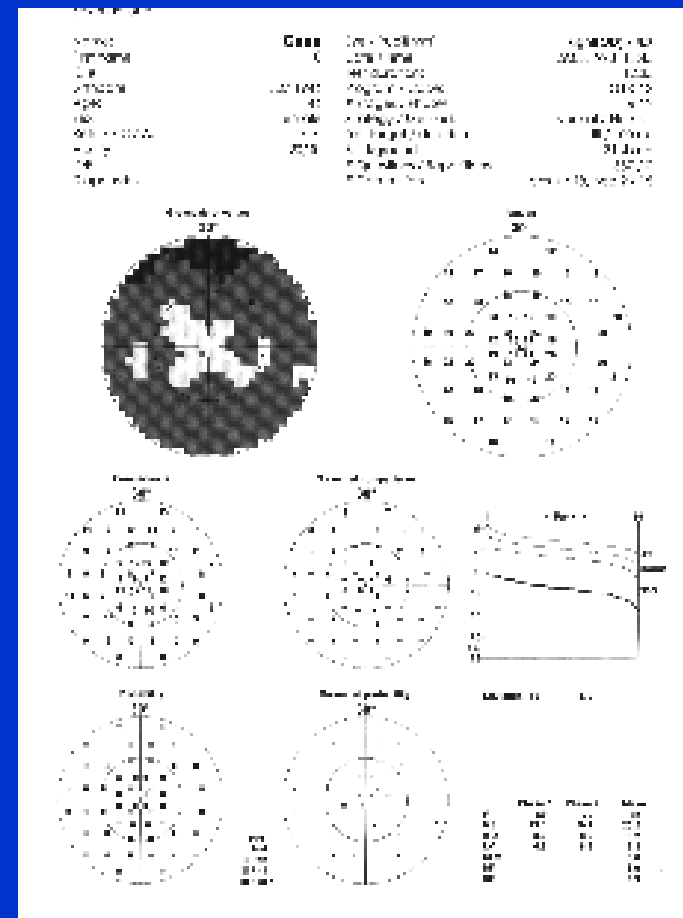
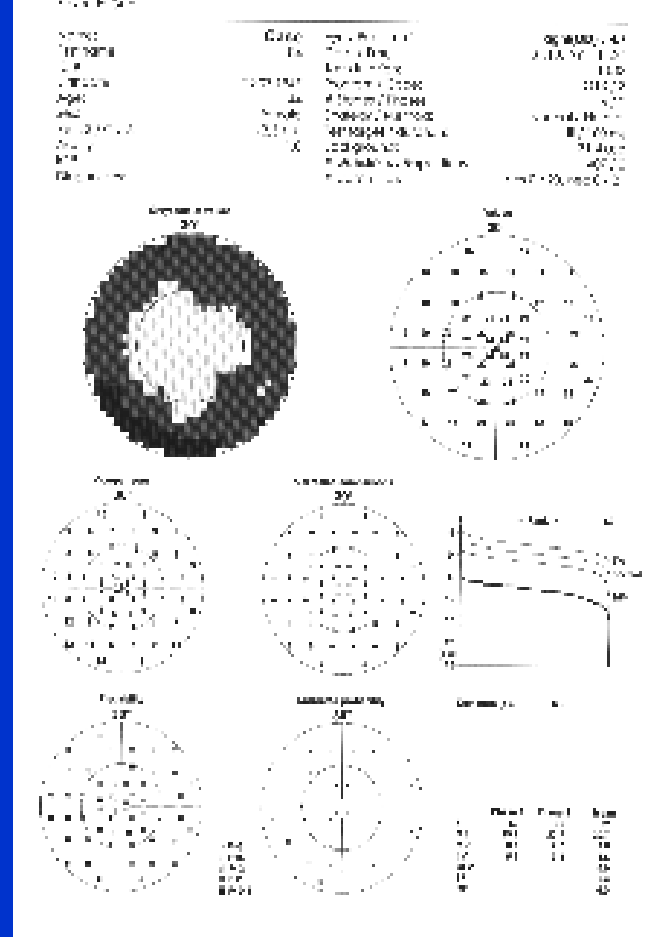


Diffuse RNFL Loss



Striations - brightness

Visibility of peripapillary retinal vessels



Glaucoma is a disease of the optic nerve
(glaucomatous optic neuropathy), that is
caused by death of the RGCs and
consequently NFL damage.

In Glaucoma the RGCs may be

Powerful RGCs



Big Rami

Ocular hypertension

Normal RGCs



Normal person

↑ IOP

POAG

Only IOP dependent

IOP dependent +
neuroprotection

Weak RGCs



Weak person

NTG

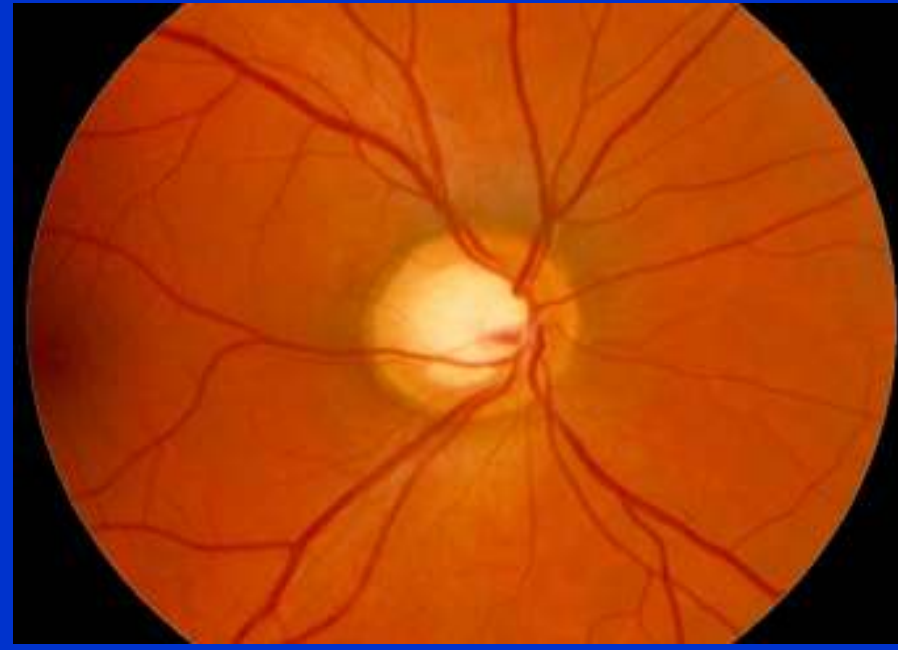
We need to increase the power &
resistance of the RGCs

Neuroprotection is a way of
treatment
to simulate normal or big Rami RGCs

In Diagnosis of Glaucoma

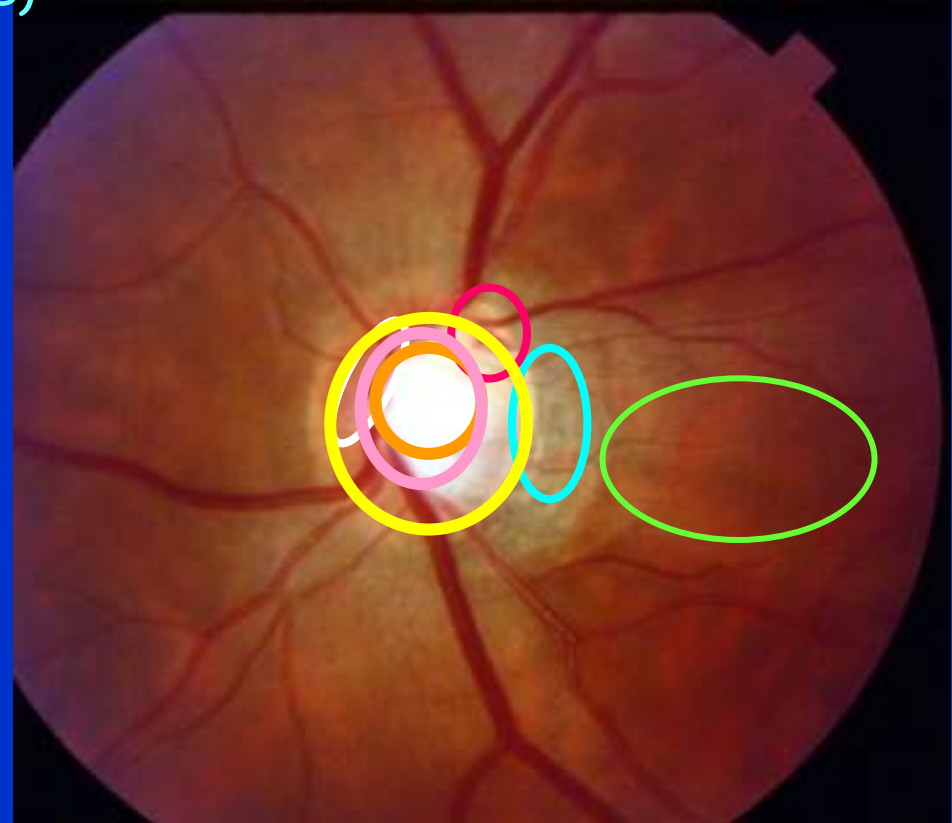
- First ,consider the **size** of the optic disc (large , normal or small)
- Look carefully to the direction of the **long axis** of the optic cup is it vertical or horizontal.
- Look to the **pallor cup ratio** to exclude neurological and anaemic patient
- Look to the **colour** of the retinal blood vesseles (pink or dark red)
- Then start to follow the **golden 10 rules** for assesment of the ONH.

Two ODs which of them is
glaucomatous



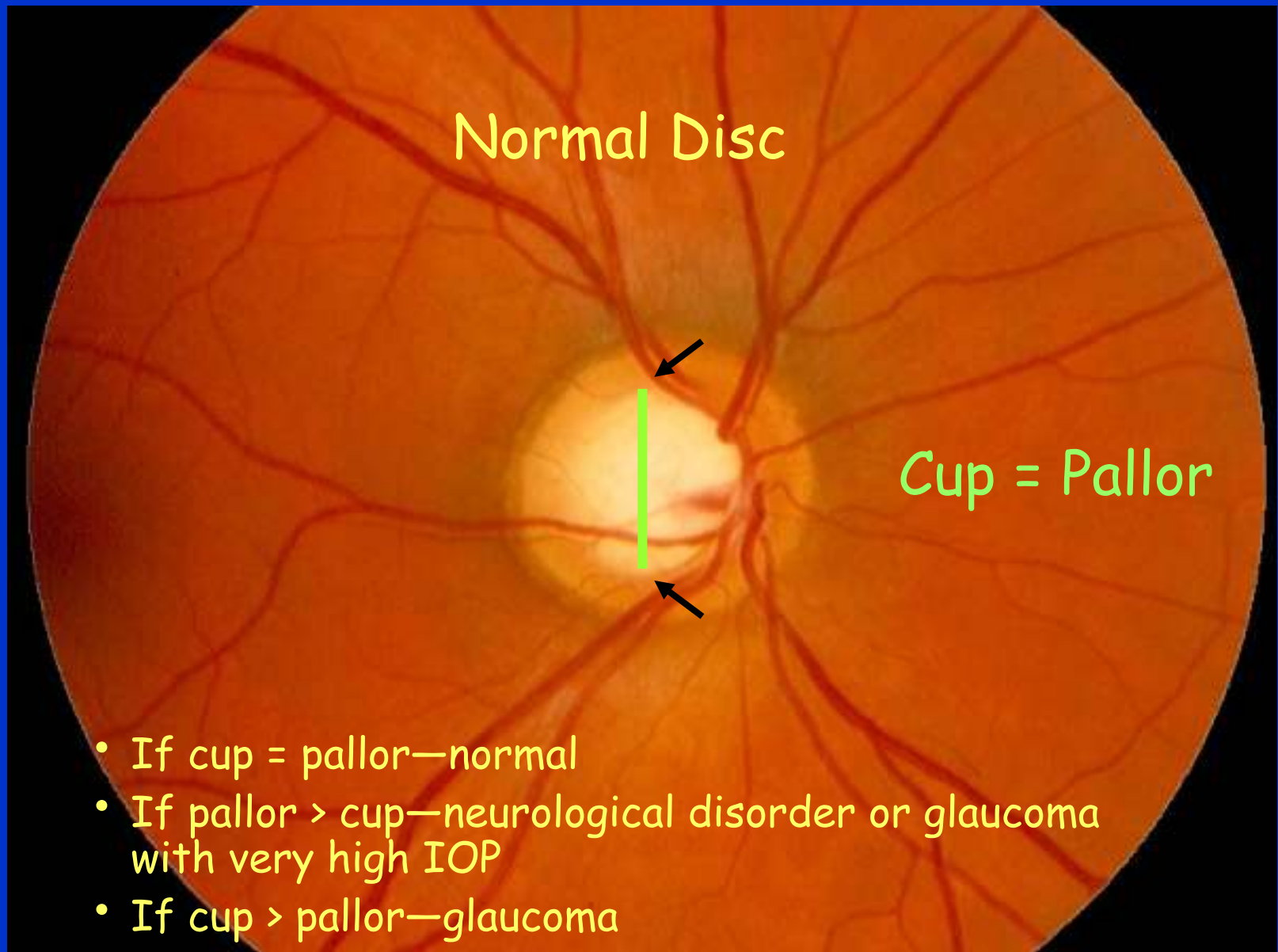
Ten Rules for the Assessment of the Optic Nerve Head in Glaucoma

1. Rim (ISNT rule)
2. peripapillary region (α and β zone)
3. RNFL (localized or diffuse)
4. disc hge
5. lamina cribrosa
6. cup : - vertical elongation
- nasal cupping

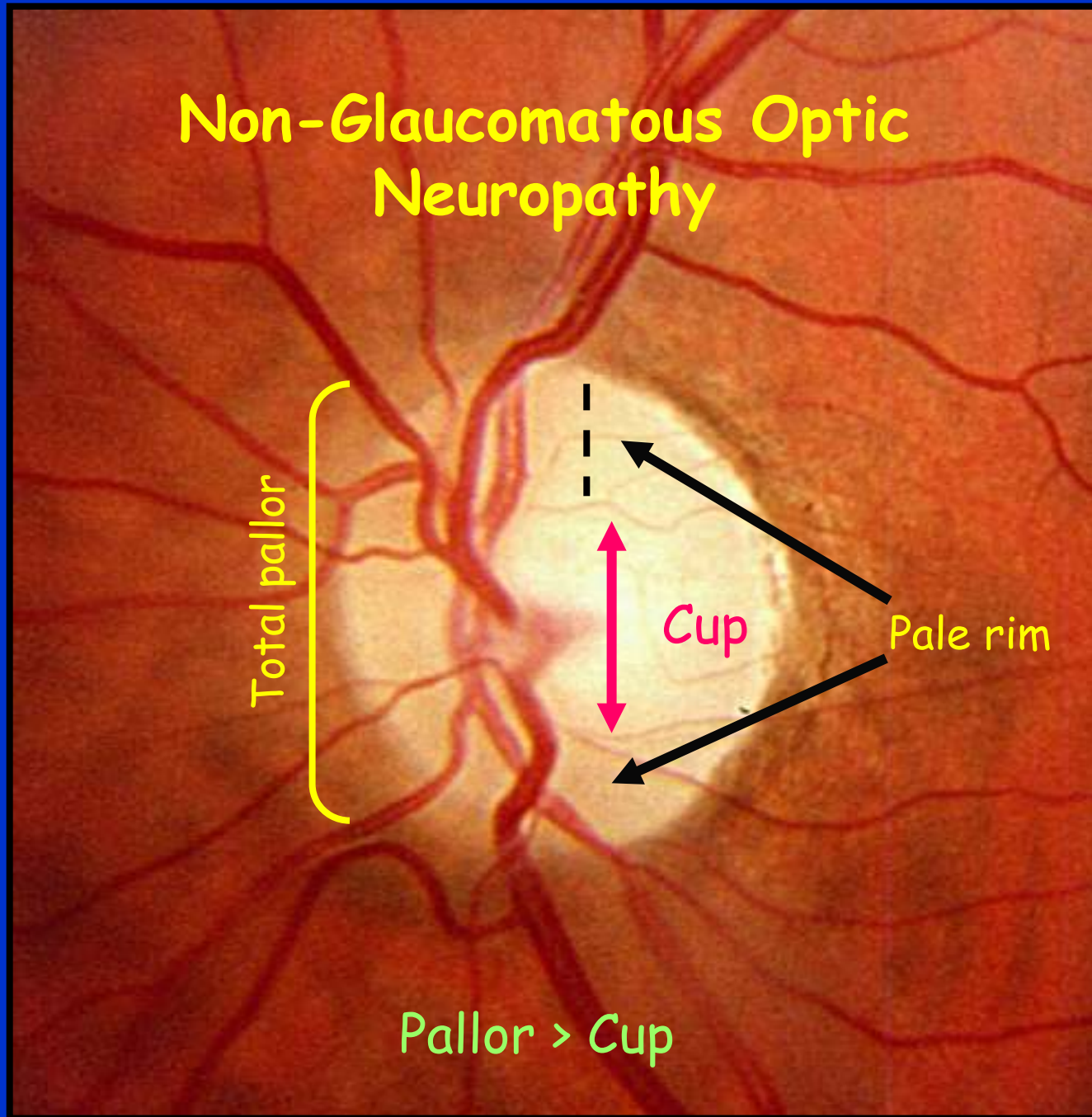


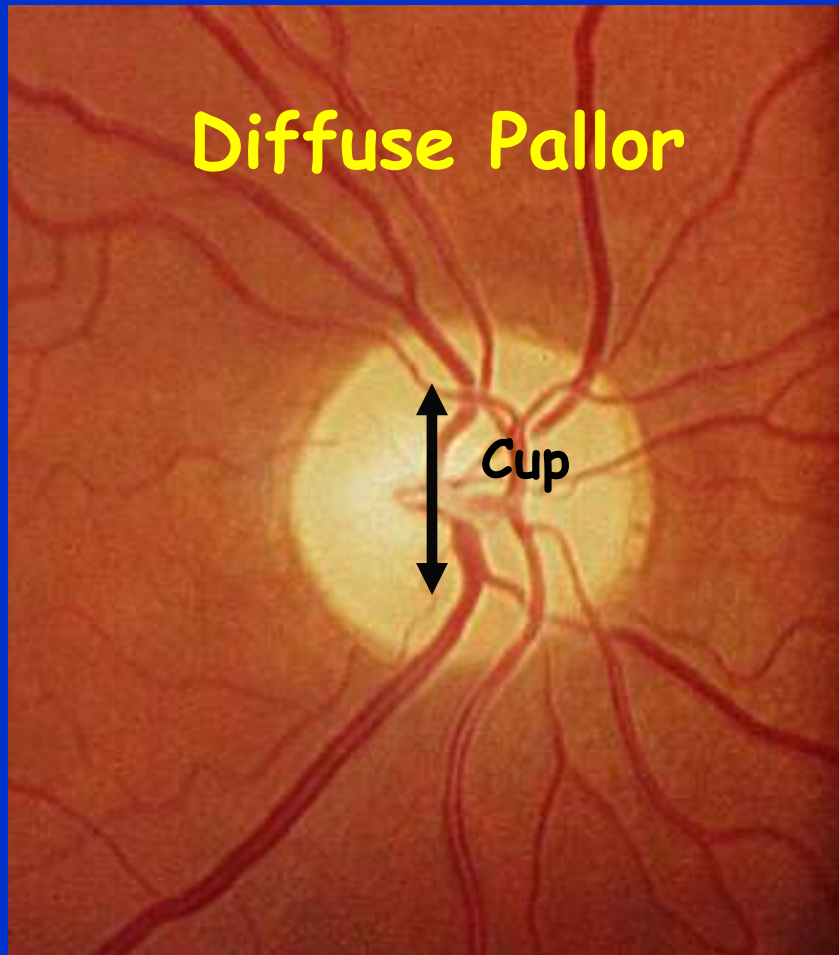
Rule # 7

Pallor/cup ratio



Non-Glaucomatous Optic Neuropathy



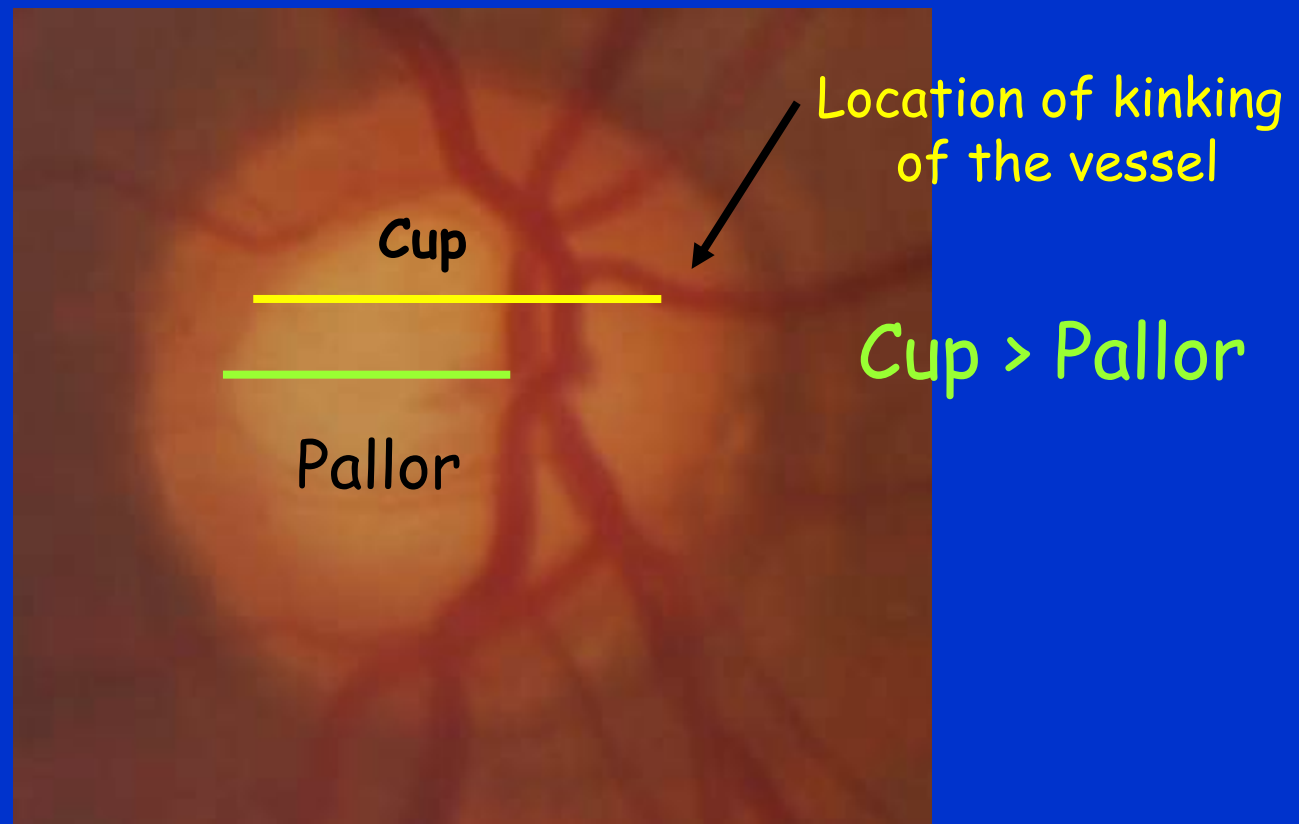


Pallor > Cup



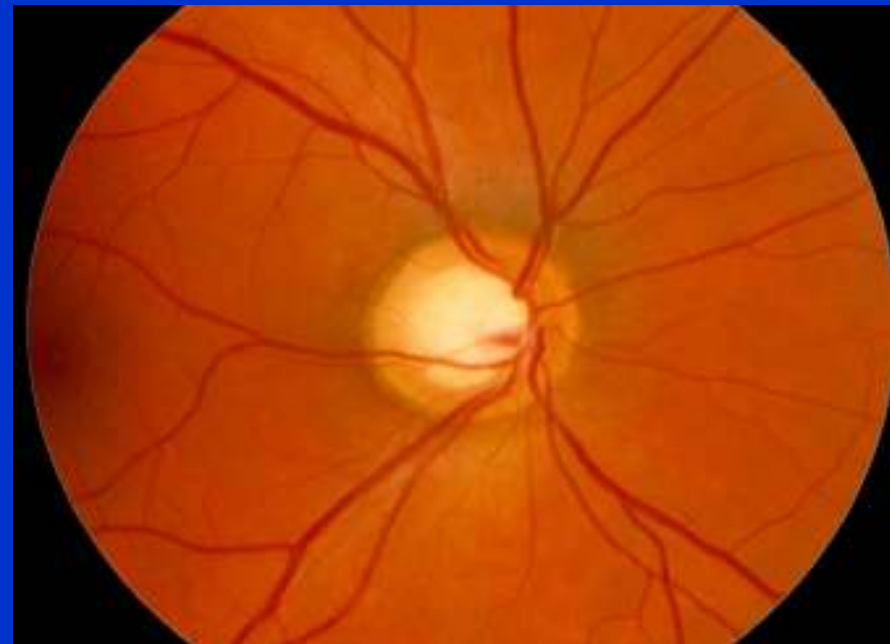
Non-Glaucomatous
Neuropathy

Glaucoma



8-9-10

- 8. size of the disc
- 9. long axis of the cup
- 10. colour of the retinal bl vs.



How to measure the size of the disc

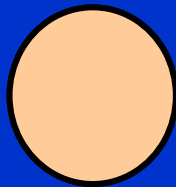
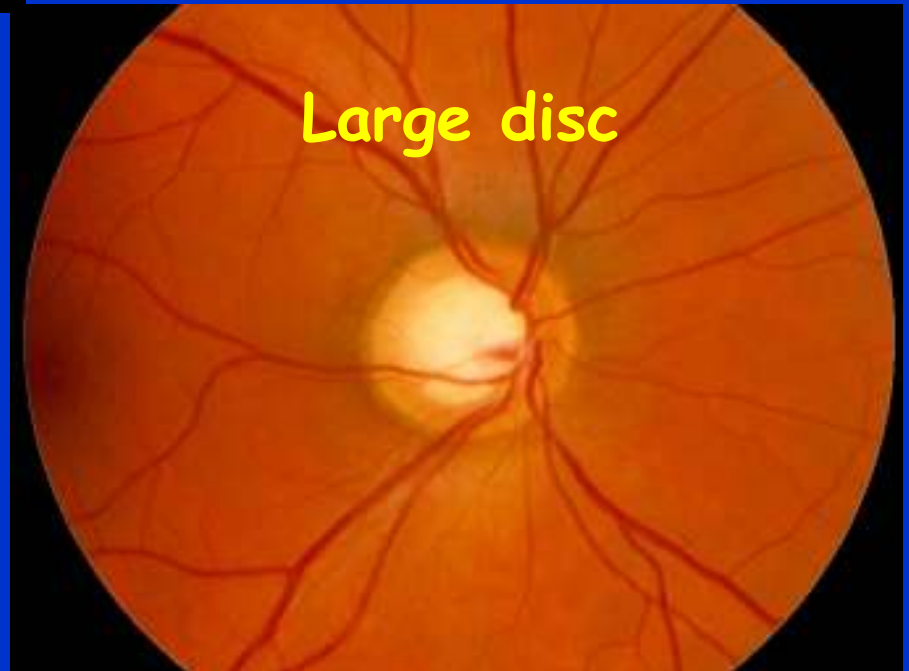
Normal size disc



Small disc



Large disc



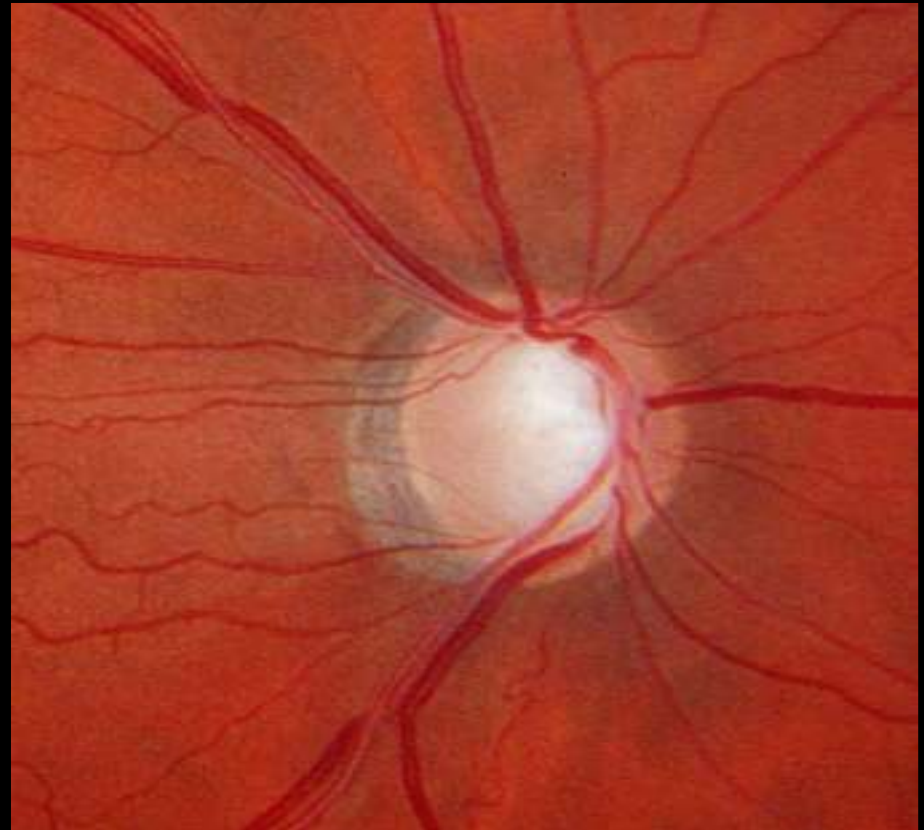
Small aperture (5 degree)
of Welch-Allen direct
ophthalmoscope

REMEMBER

Normal Large Disc Has
normal Large Cup



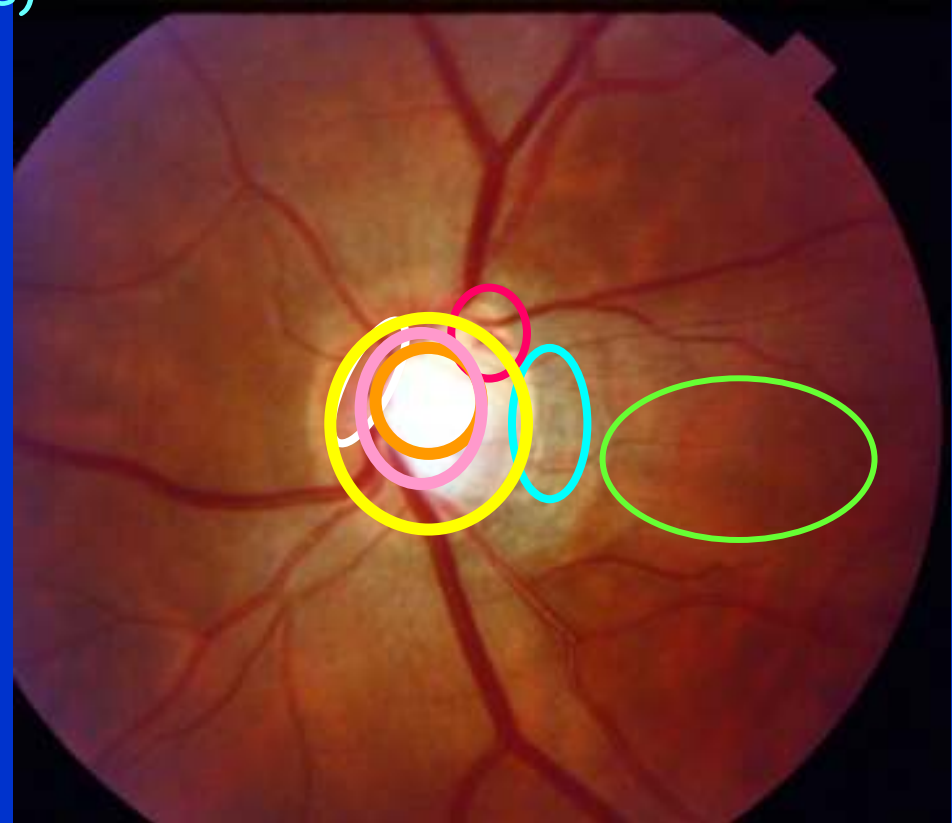
1



2

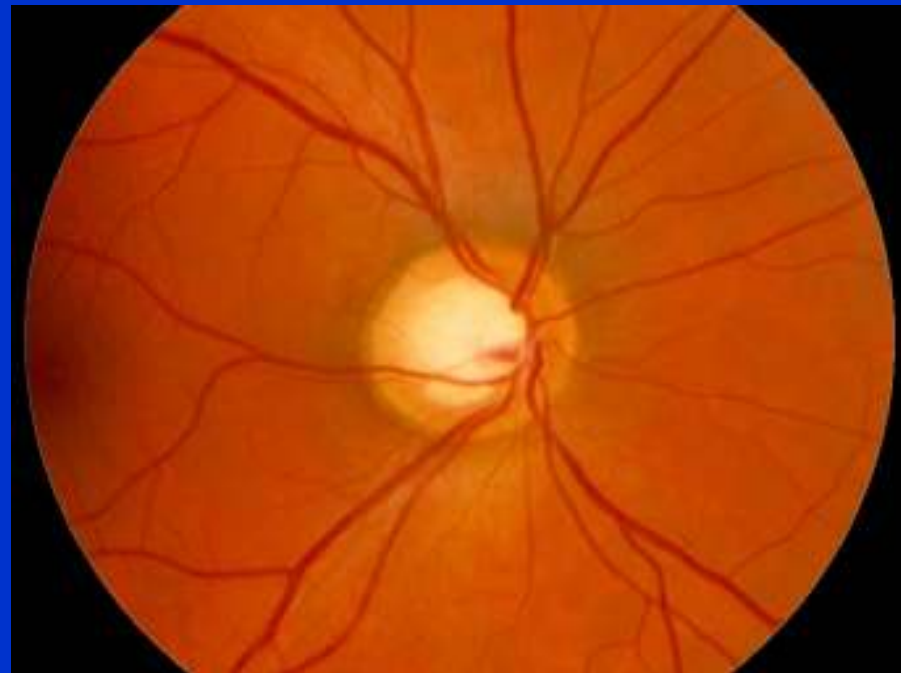
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- nasal cupping
7. pallor (pallor/cup ratio)
8. Size of the disc
9. Long axis of the cup
10. Colour of the retinal Bl Vs



*Before starting anti Glaucoma treatment you should

First exclude any pseudo-glaucomatous optic neuropathy





*Mustafa
Nassar*