

EGYPTIAN OPTHALMOLOGICAL SOCIETY
EOS

CLASSIFICATION AND STAGING OF ROP

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2023

SCAN ME

M. Tarek Moustafa

International Committee for Classification of Retinopathy of Prematurity ICROP

Vascular characteristics in the posterior pole



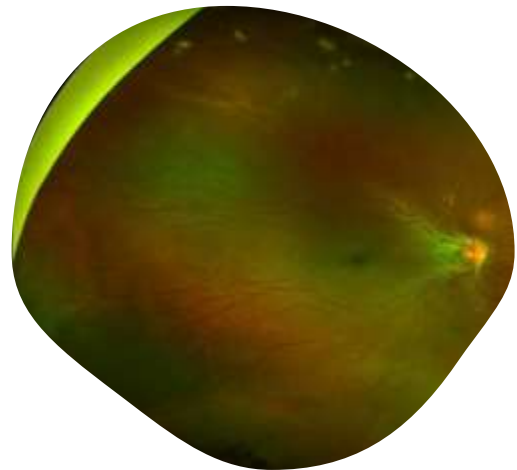
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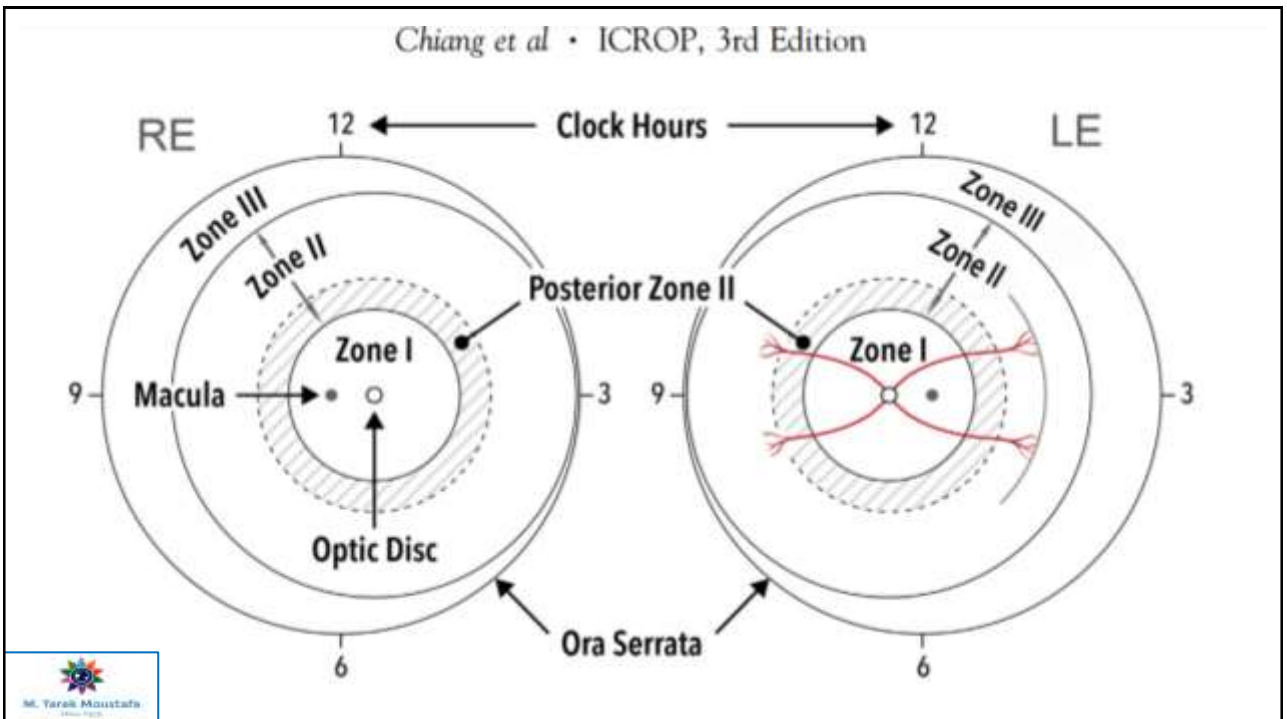
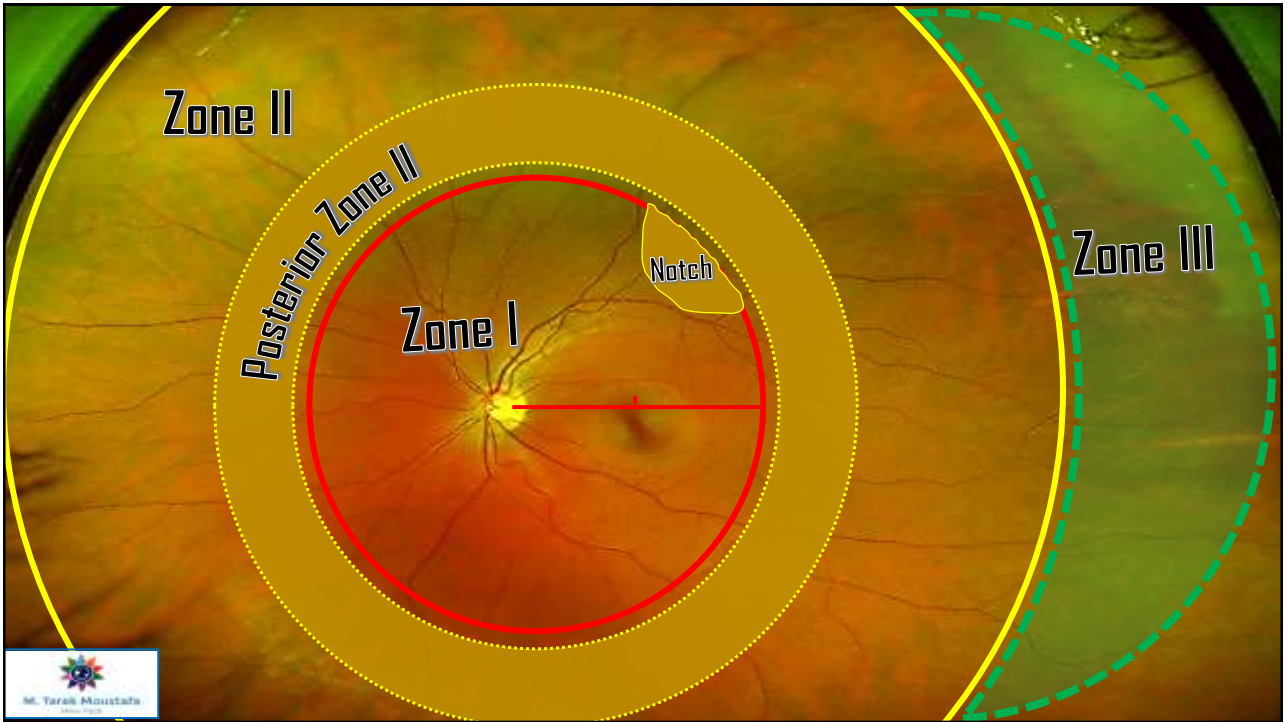


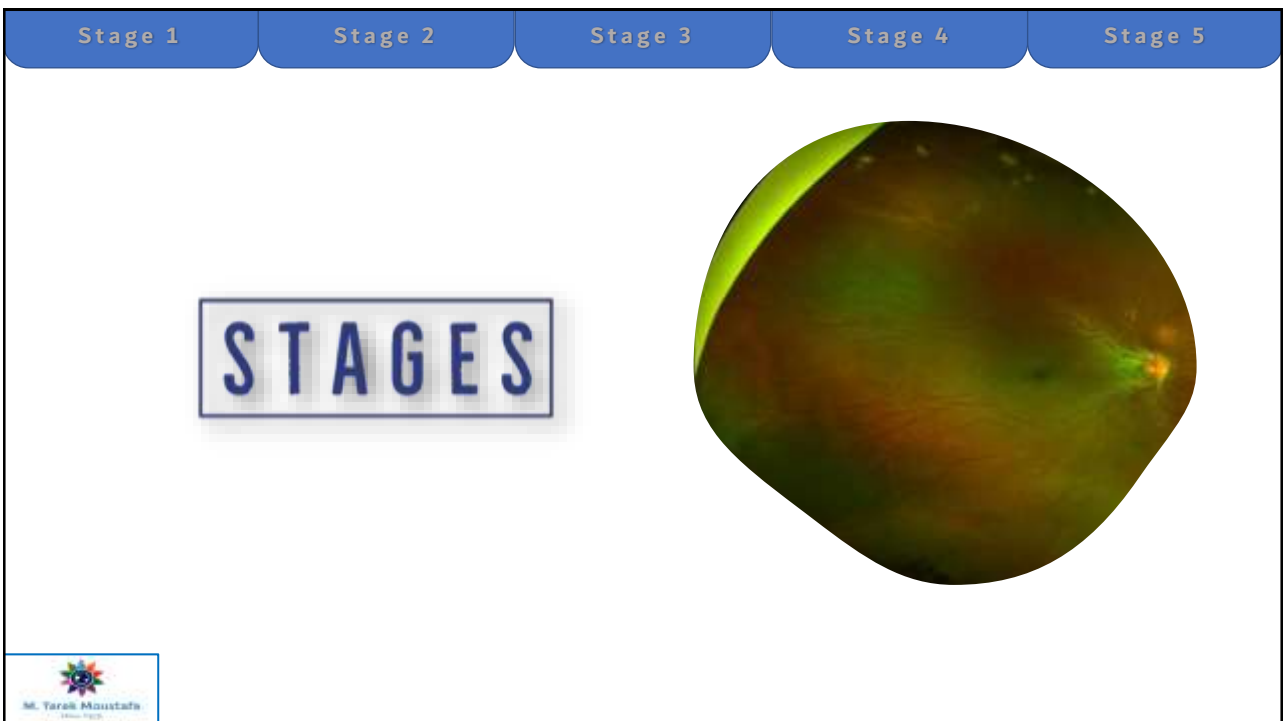
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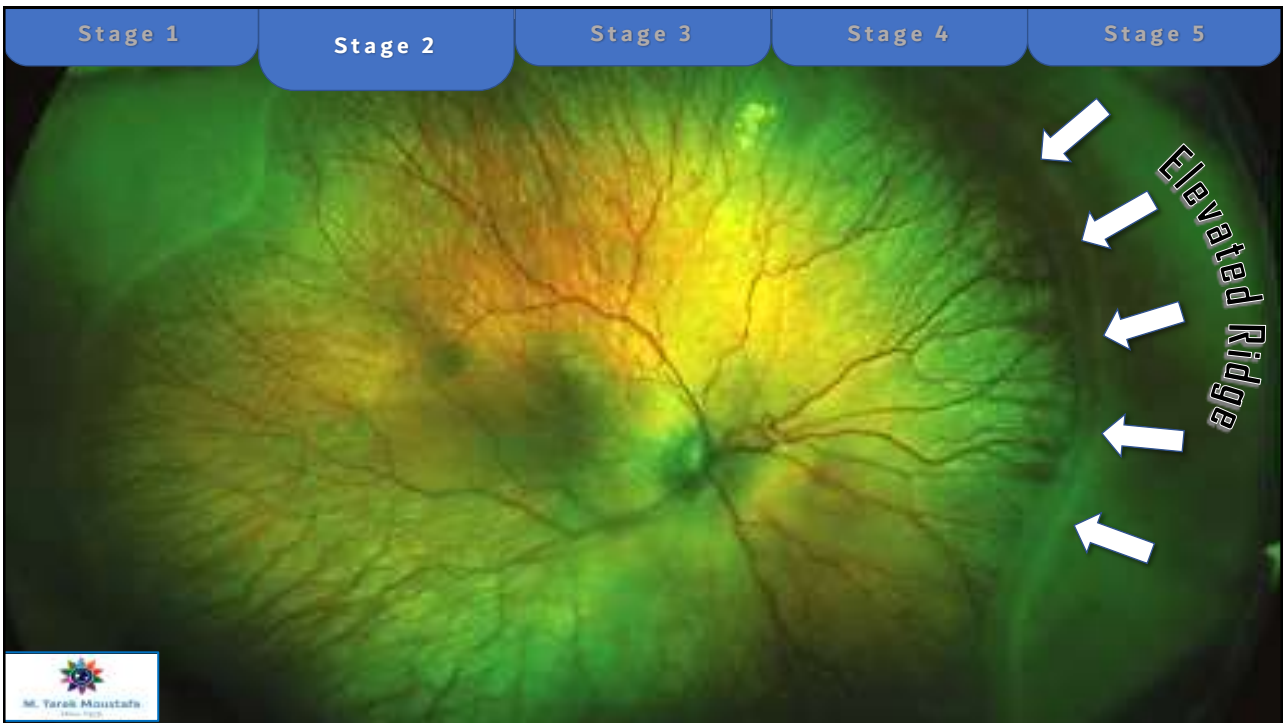
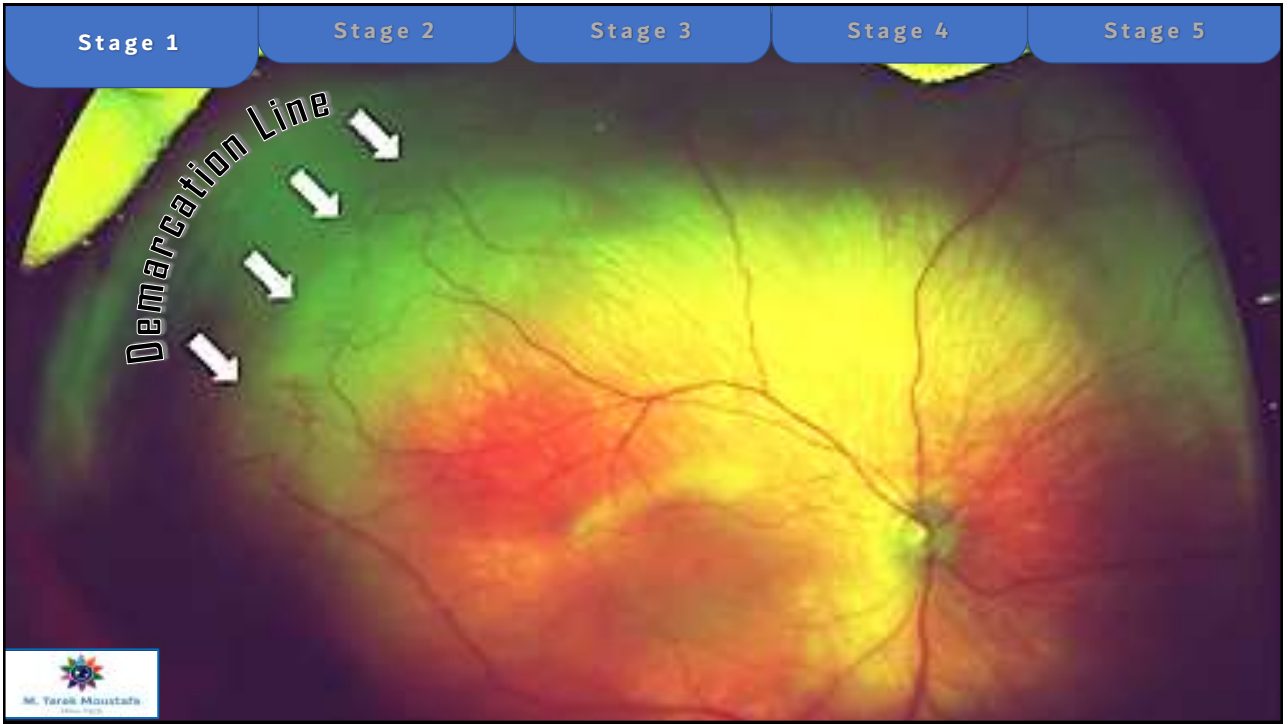


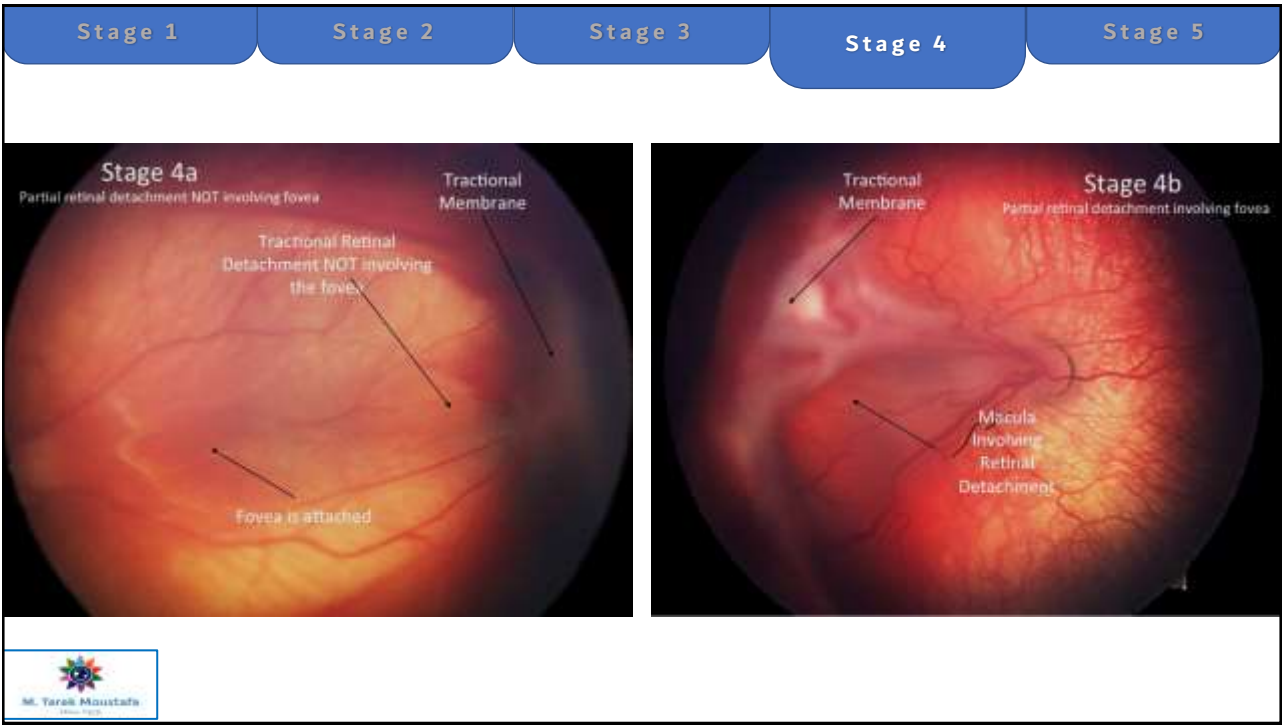
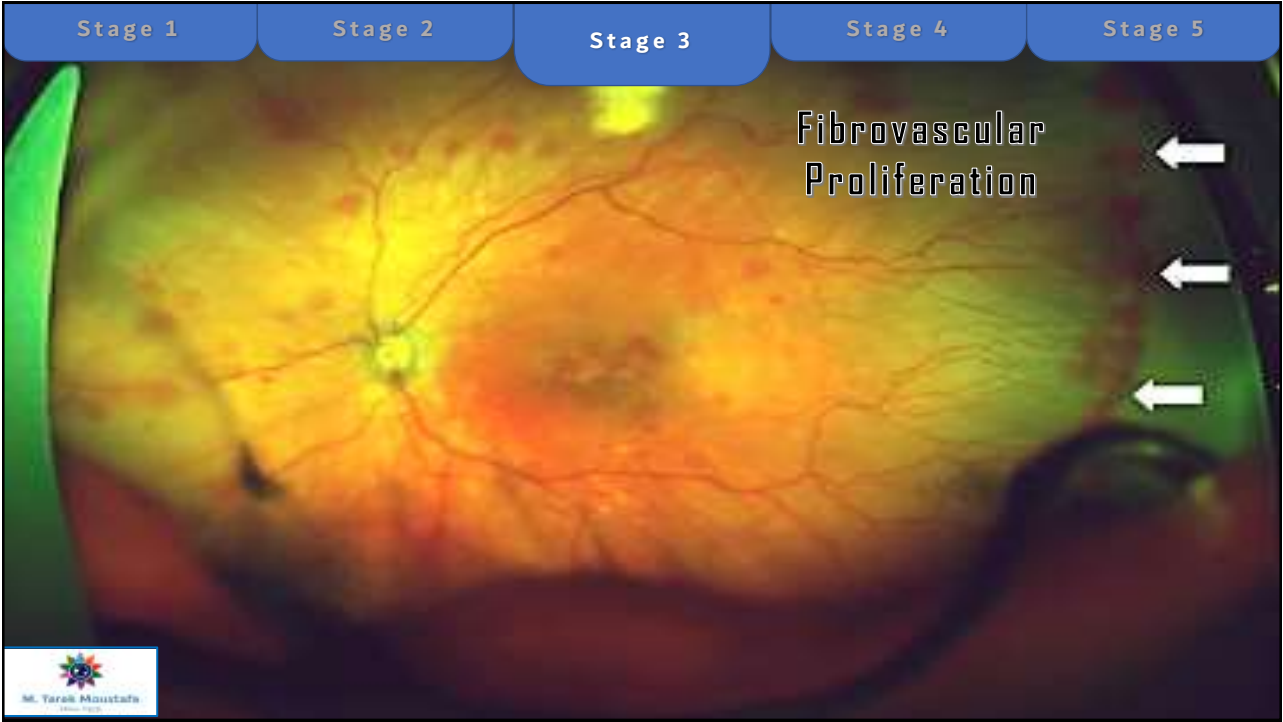
ZONES

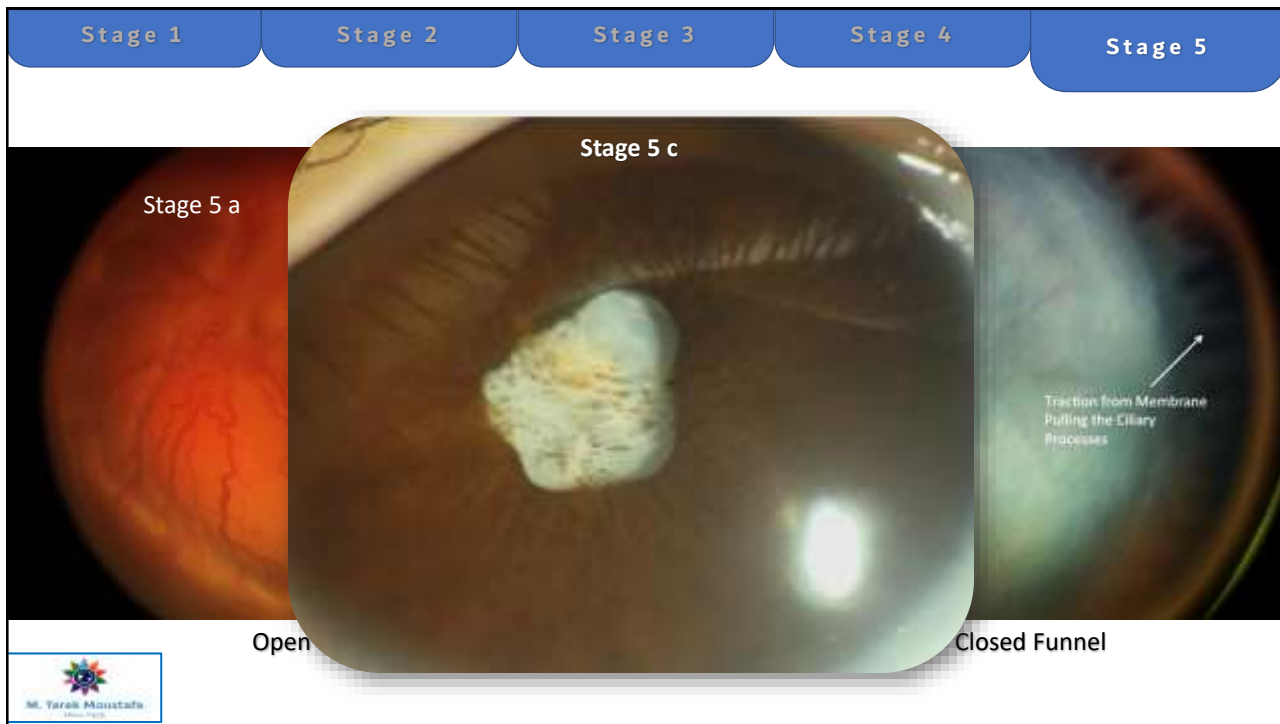




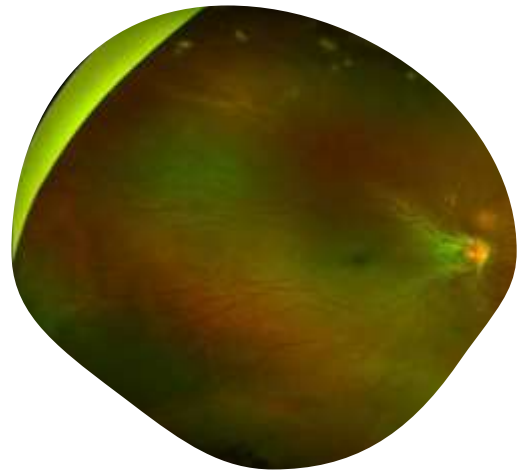




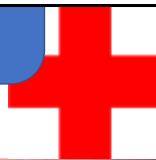




VESSELS IN POSTERIOR POLE




PLUS DISEASE




NO PLUS



PLUS DISEASE +

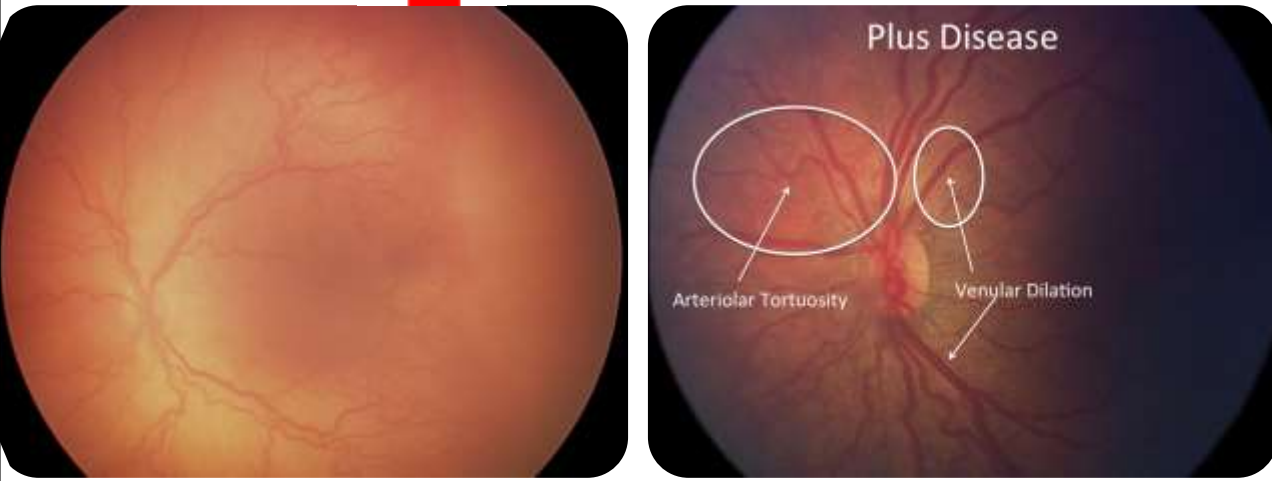


Pre-Plus
Mild vessel tortuosity and venous dilation that does not meet criteria for plus disease




PRE PLUS

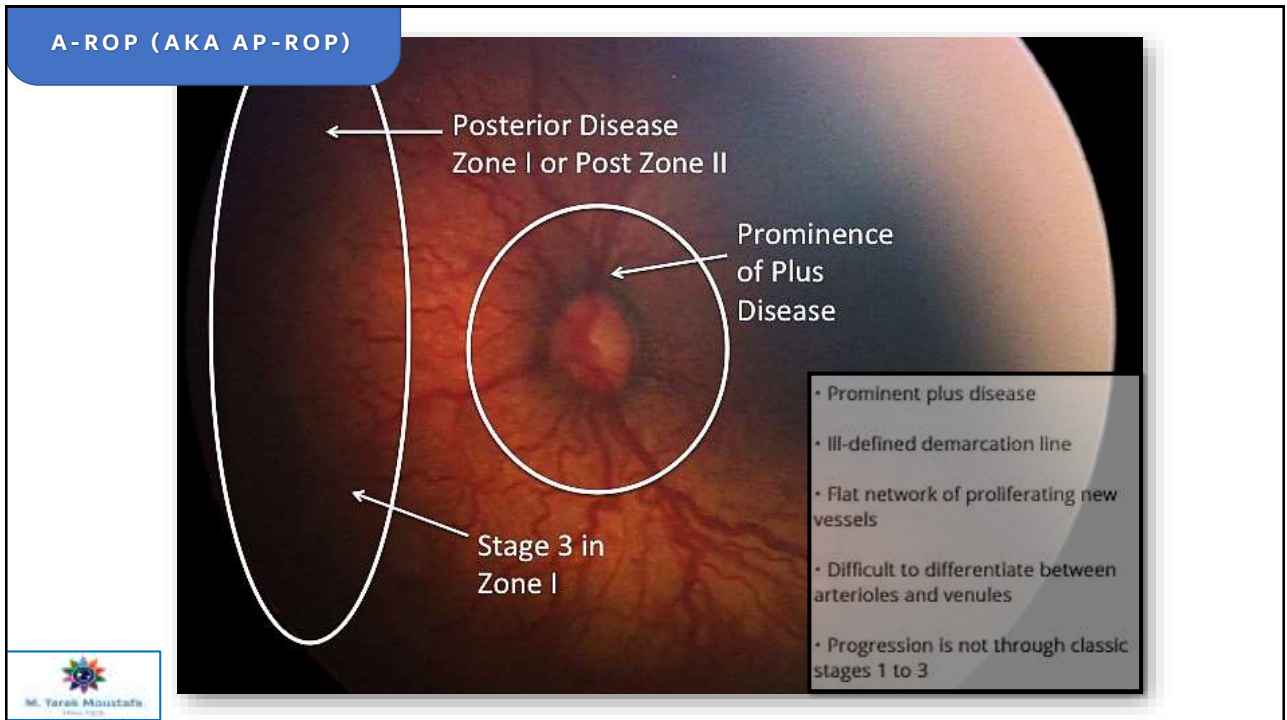
PLUS DISEASE +



Plus Disease
Arteriolar Tortuosity
Venular Dilation



PLUS disease



Threshold ROP

- ❖ Was defined as 5 contiguous or 8 accumulative clock hours of Stage 3 ROP in Zone 1 or Zone 2 with PLUS disease → Cryo therapy
- ❖ **Type 1 ROP** → Laser treatment as soon as possible, at least within 72 hours.
 - ❖ Zone 1: any stage ROP with PLUS
 - ❖ Zone 1: Stage 3 without PLUS
 - ❖ Zone 2: Stage 2 or 3 ROP with PLUS
- ❖ The numbers of clock hours is no longer a determining factor for treatment.

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MD, PhD



Later phases of ROP

With the most recent International Classification of Retinopathy of Prematurity, 3rd edition (ICROP3), the term regression, reactivation and persistent avascular retina (PAR) were introduced:

Regression

Refers to disease involution and resolution.

Reactivation

Refers to recurrence of acute phase features but does not need to be a recurrence of type 1 ROP.

Persistent avascular retina (PAR)

It should be described by its location (e.g., posterior zone II) and extent (e.g., nasal). It occurs even after vascularization into the peripheral avascular retina, a feature more recognized now than before with the use of anti-VEGF therapy.



ZONES (SITE)

Right eye Left eye

PLUS DISEASE

- Signs of "plus" disease:
 - Retinal vessels dilated and tortuous in all four quadrants
 - Iris vascular engorgement (dilated)
 - Poor pupillary dilatation
 - Vitreous haze
- Signs of "pre-plus" disease:
 - Vessels dilated and more tortuous than normal

STAGES

STAGE 1
Demarcation line between vascular and avascular retina

NOTCH
Zone I secondary to notch

STAGE 2
Blood ridge

STAGE 3
Vascularized ridge

STAGE 4
Subtotal retinal detachment:
4a) Macula not detached
4b) Macula detached (as shown)

STAGE 5
Total retinal detachment:
5a) Open funnel
5b) Closed funnel (as shown)

AGGRESSIVE ROP

- Prominent plus disease
- Ill-defined demarcation line
- Flat network of proliferating new vessels
- Difficult to differentiate between arterioles and venules
- Progression is not through classic stages 1 to 3

SUMMARY



Thank you

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