المؤتمر السنوي الدولي للجمعية الرمدية المصرية
INTERNATIONAL CONGRESS OF THE
EGYPTIAN OPHTHALMOLOGICAL SOCIETY
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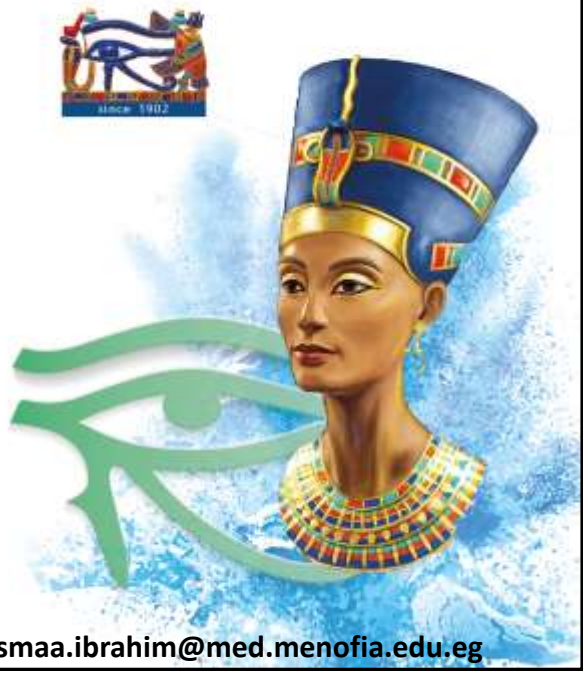

Optical Coherence Tomography versus Fundus Fluorescein Angiography in Diagnosis of Age-Related Macular Degeneration

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- Classification of AMD can be helpful to determine a risk stratification of each patient. AMD is routinely divided into 2 forms:

1. Non-neovascular (atrophic, dry)
2. Neovascular (exudative, wet)

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- Dry AMD include the presence of drusen, retinal pigment epithelium (RPE) clumping, areas of RPE hypopigmentation, and, in the more advanced stage, geographic atrophy (GA)

- Wet AMD is characterized by the presence of choroidal neovascularization (CNV) in the macula, which may lead to hemorrhage, fluid and/or exudate accumulation, and disciform scarring in the late stage.

Dry AMD

1- RPE changes
2- Hard Drusen
3- Soft Drusen
4- Reticular Drusen
5- Cuticular Drusen
6- Calcified regressing or refractile drusen
7- Ghost drusen

- In patients with dry AMD, characteristics identified on examination can help predict the risk of progression of AMD.

- **A higher risk of progression is associated with**

1- A larger number of drusen (> 5)

2- larger-sized drusen (> 63 µm)

3- Soft, indistinct, and/or confluent drusen

4- Pigment abnormalities; and/or the presence of advanced AMD (GA or CNV) in the fellow eye.

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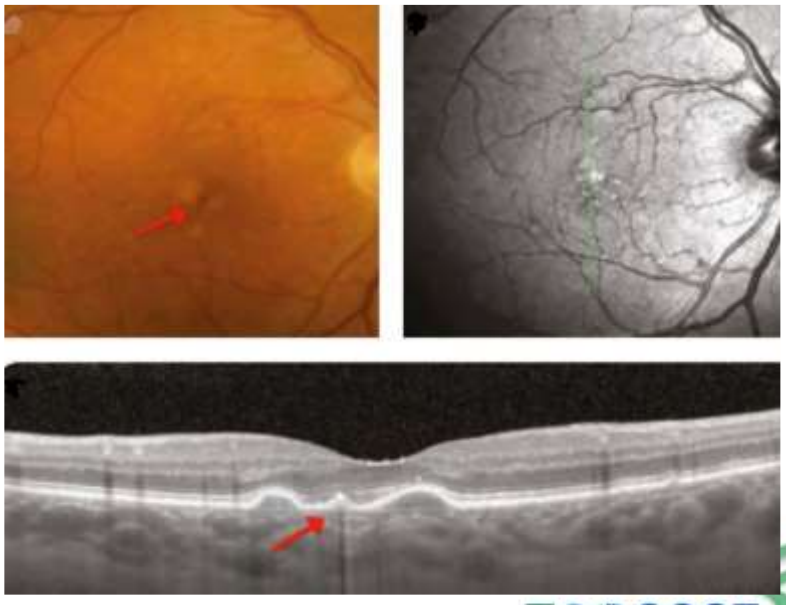
RPE changes



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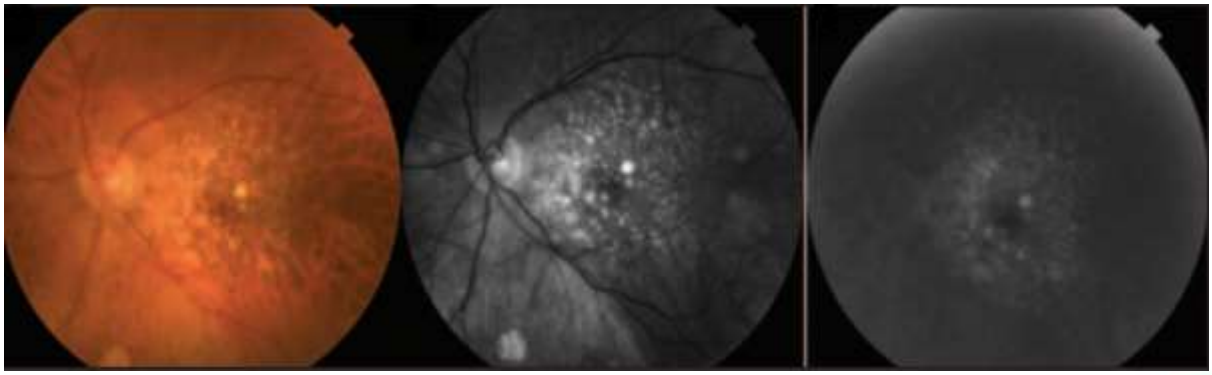
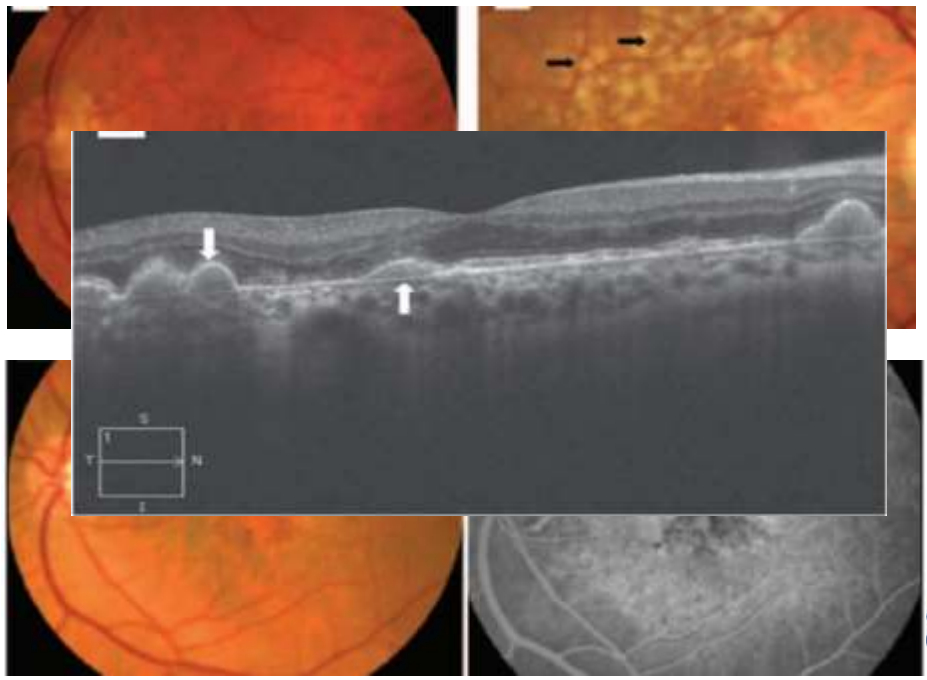
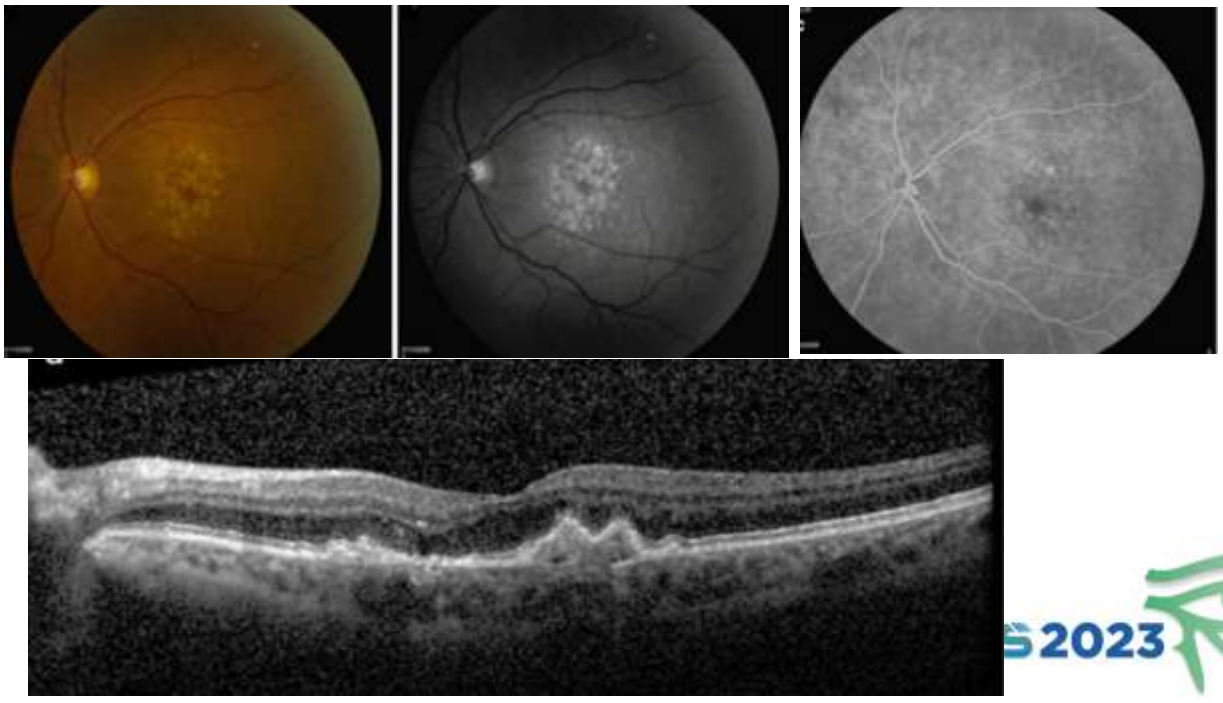
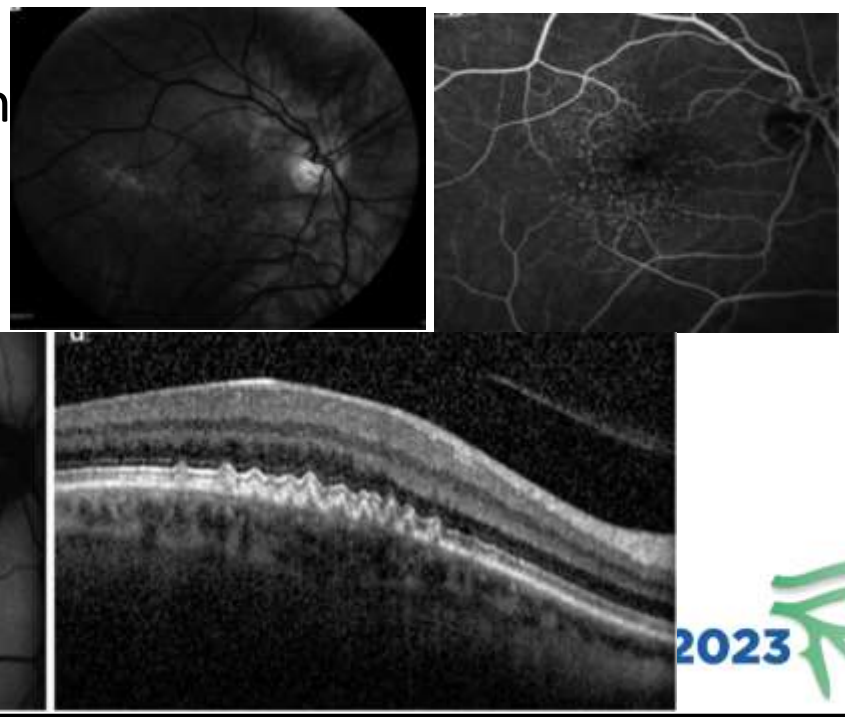
Drusen



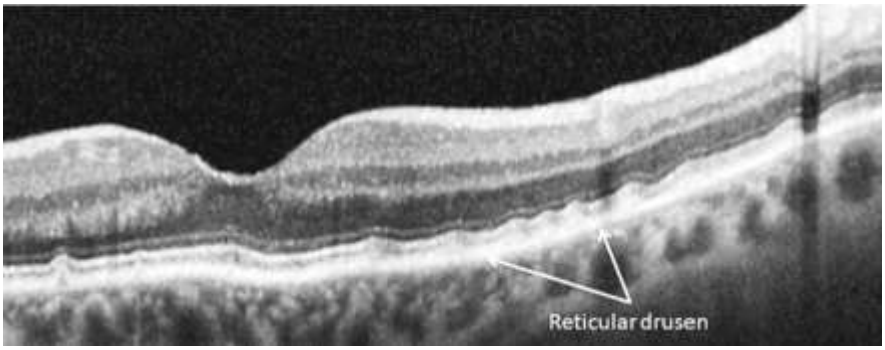


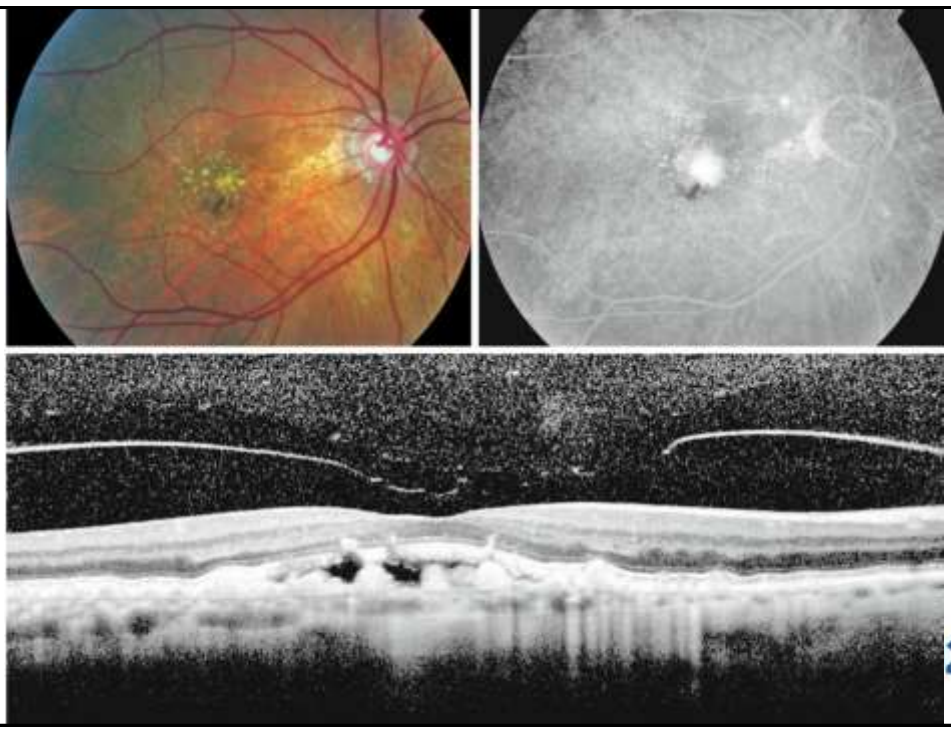


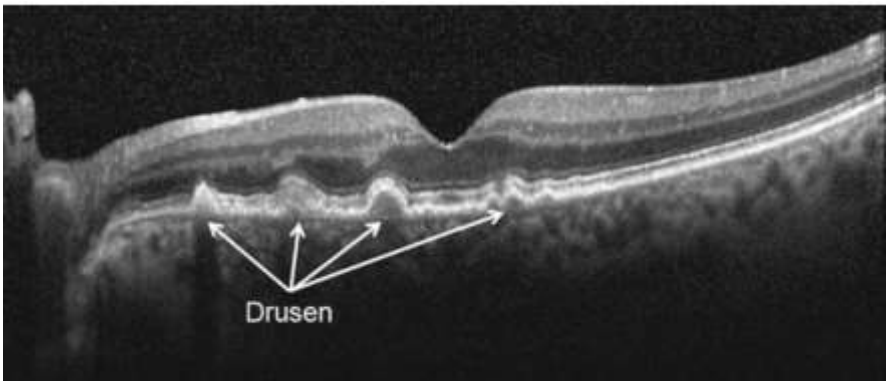
Cuticular Drusen

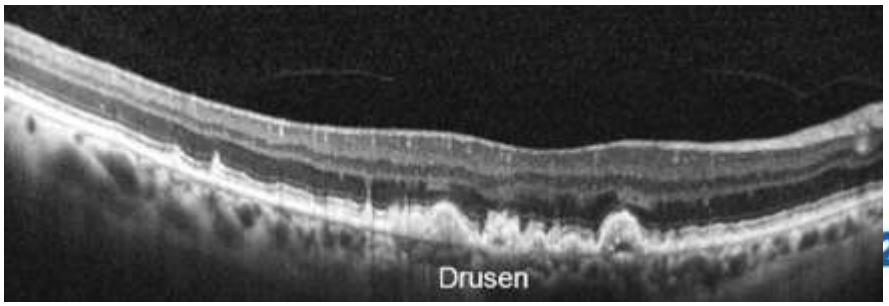


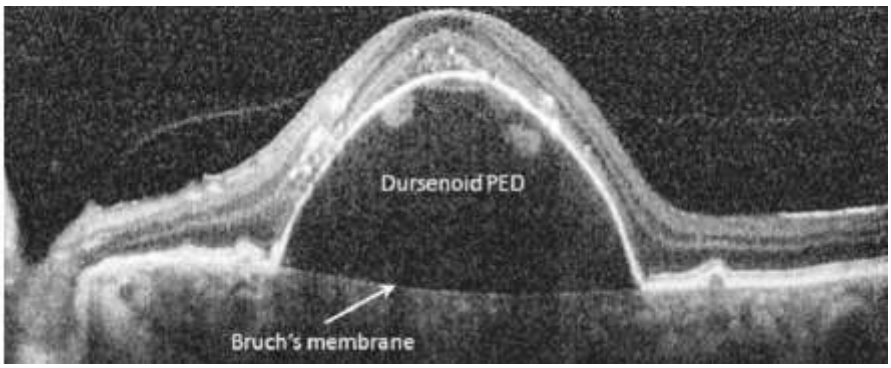
Reticular Drusen



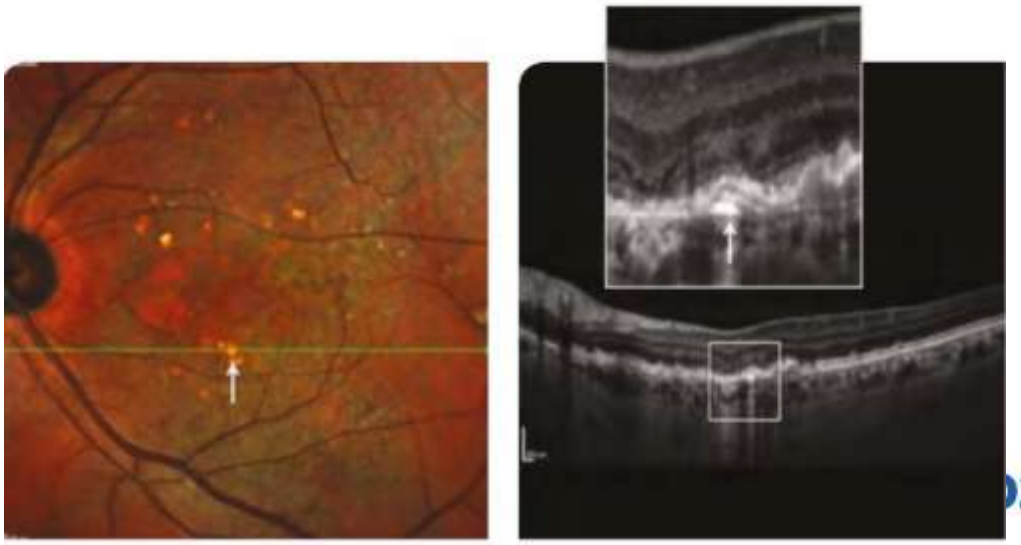



Drusen


Drusen


Dursenoid PED
Bruch's membrane

Calcified regressing or refractile drusen

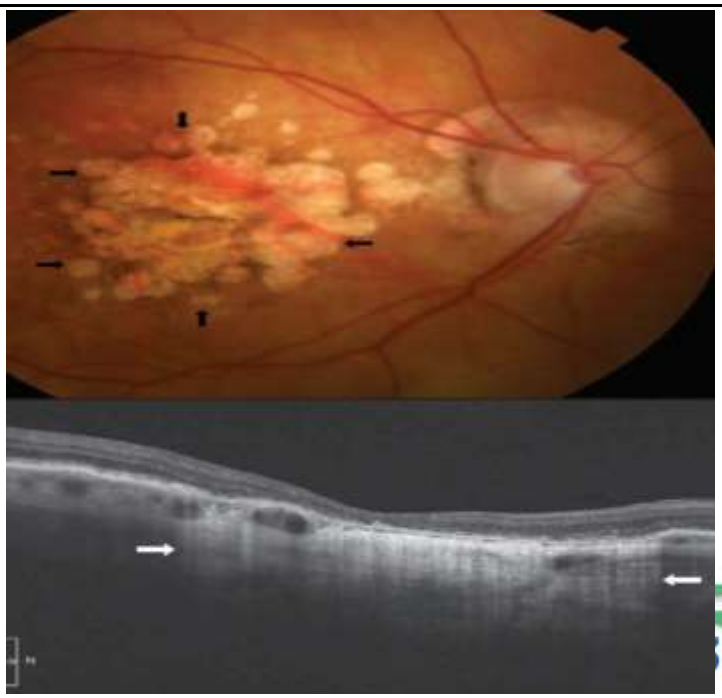


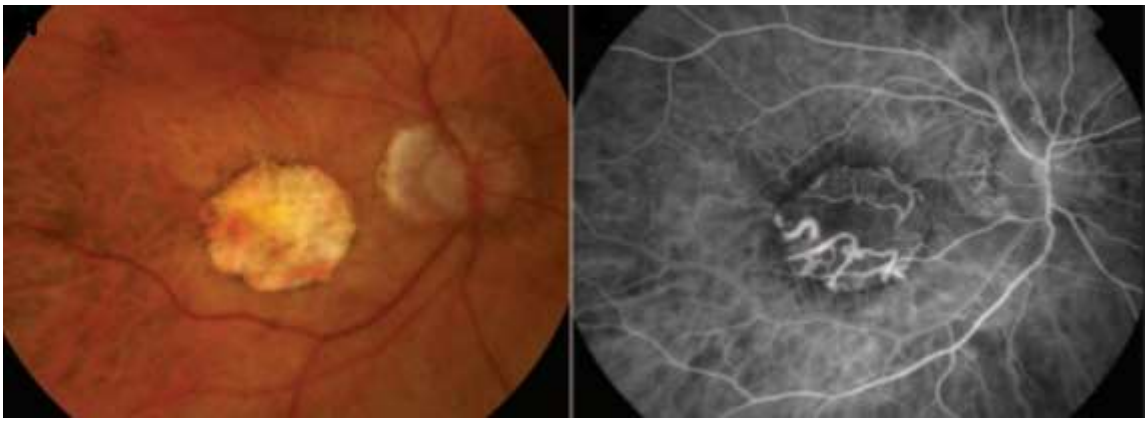
Geographic atrophy

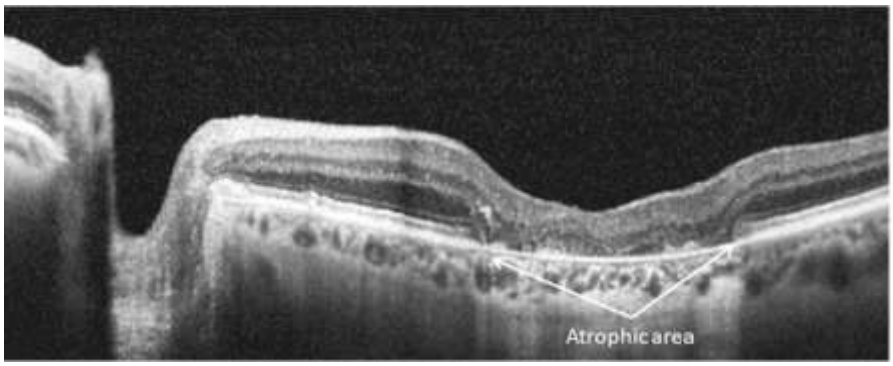
A new classification based on the OCT findings:

c-RORA (complete RPE and Outer Retinal Atrophy)
i-RORA (incomplete RPE and Outer Retinal Atrophy)
c-ORA (complete Outer Retinal Atrophy)
i-ORA (incomplete Outer Retinal Atrophy).

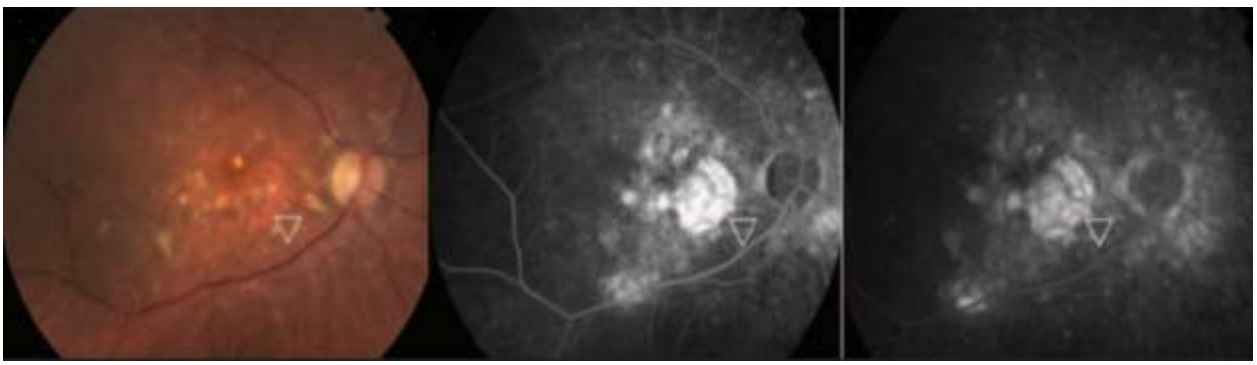
Atrophic AMD with GA

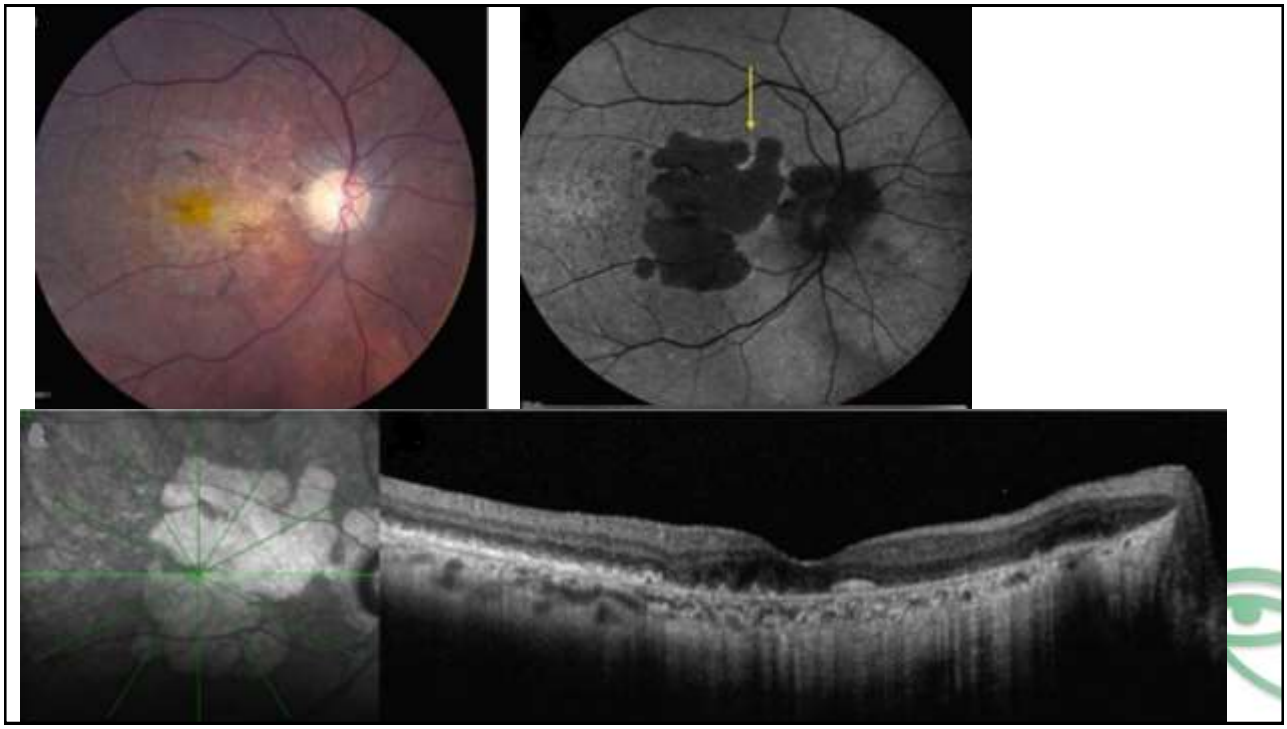


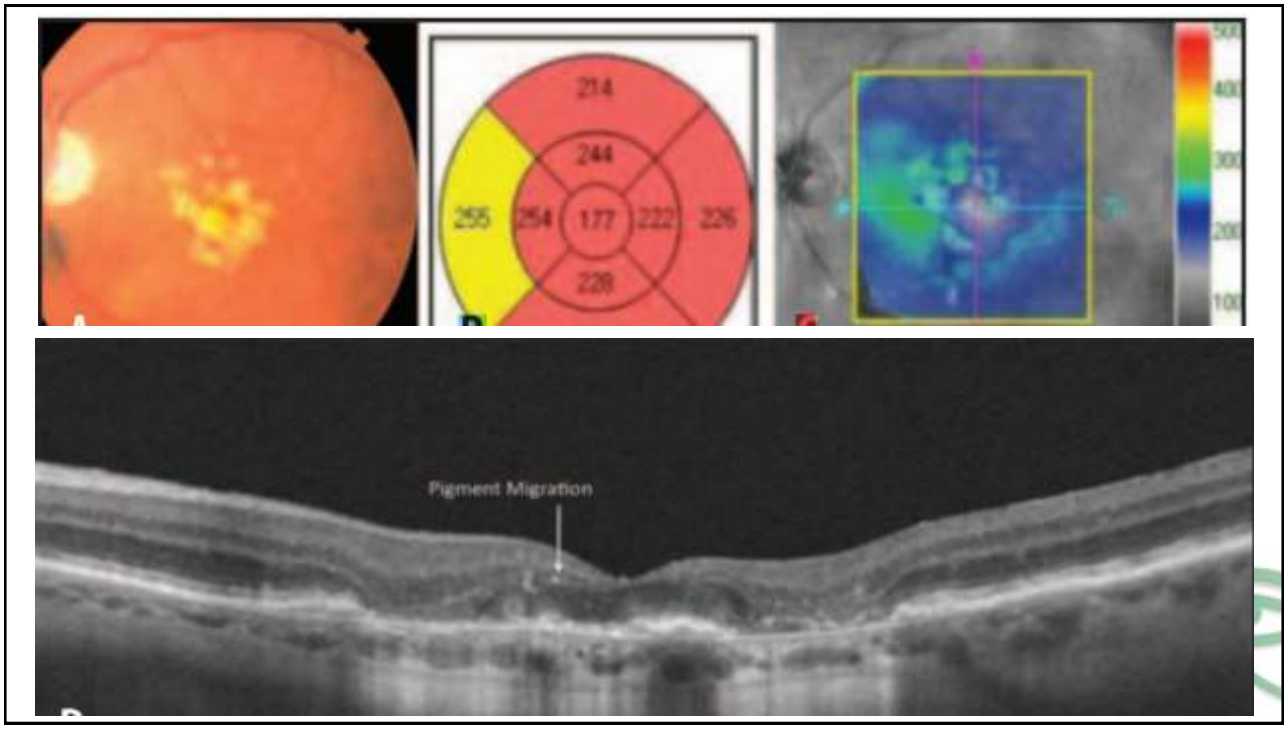




Multifocal GA



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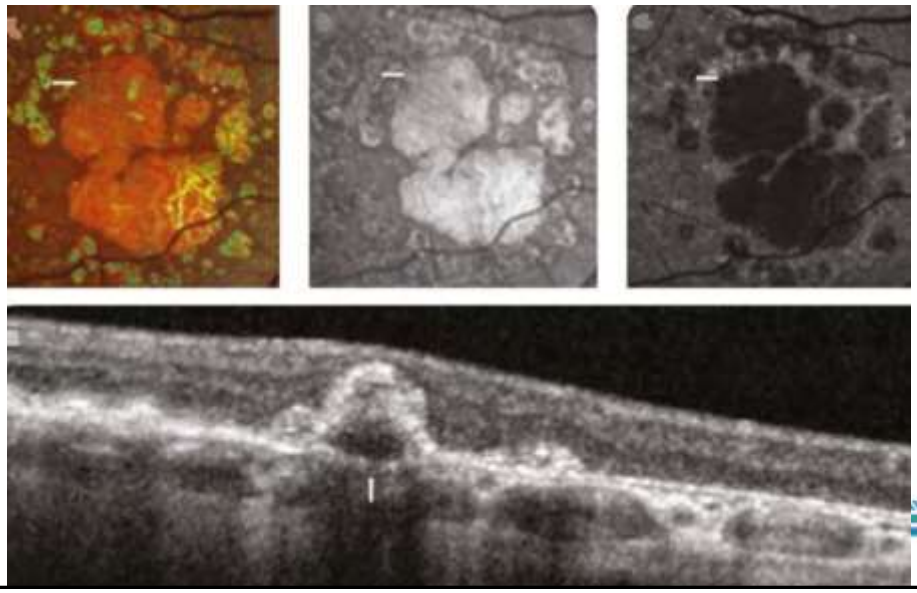
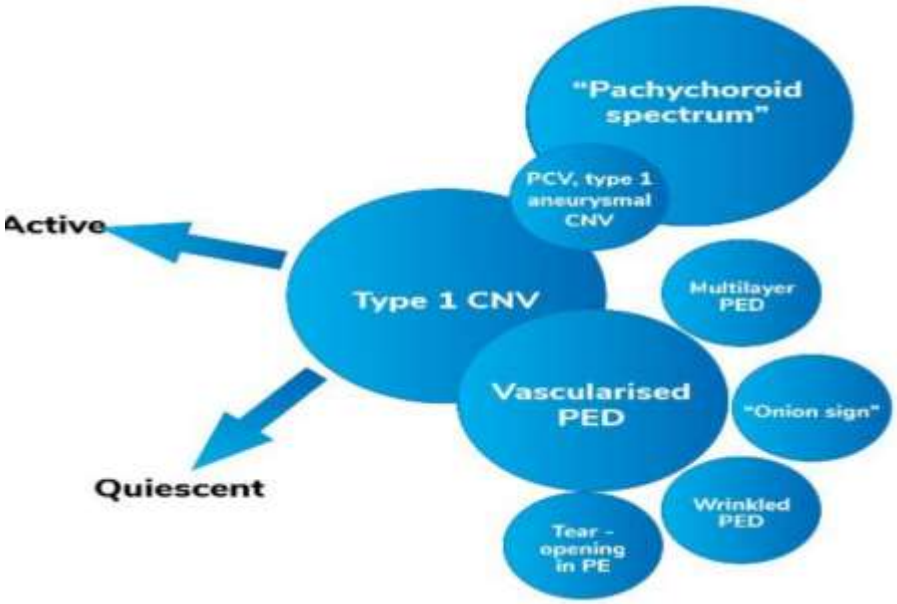
Pigment Migration

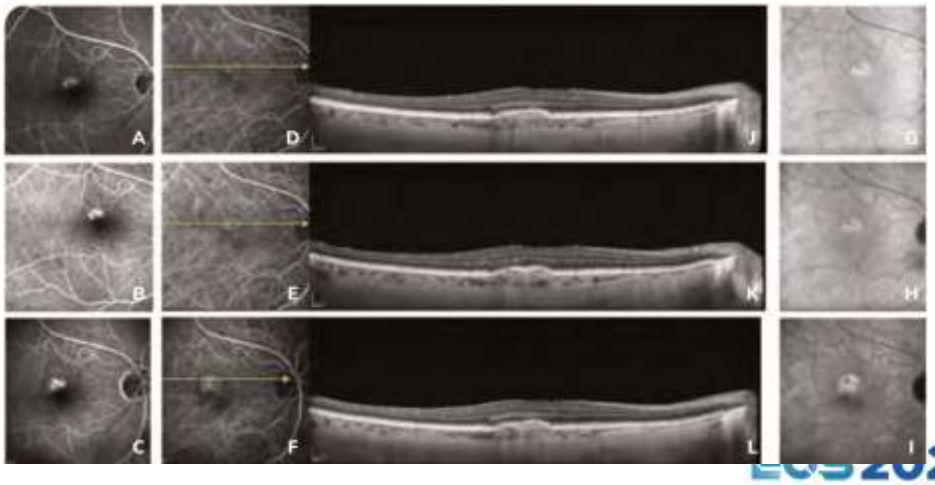
Ghost Drusen



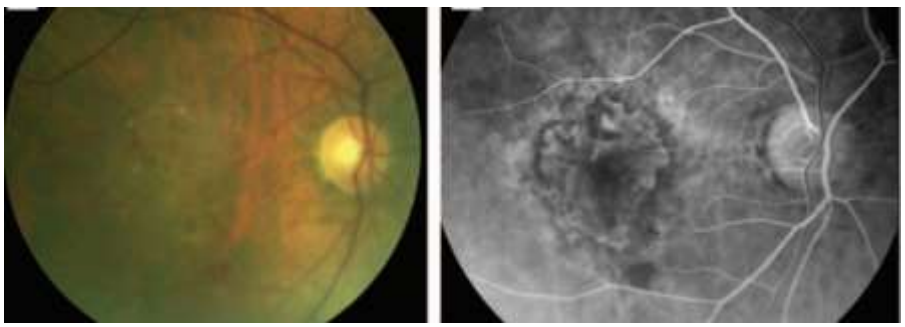
Exudative AMD: Type I CNV

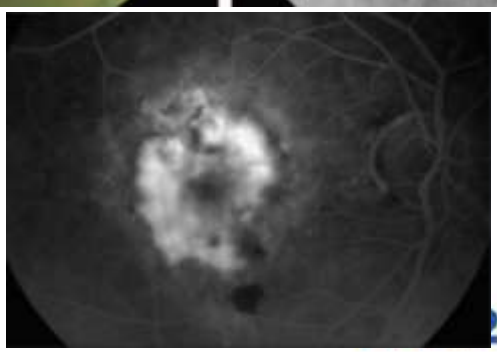


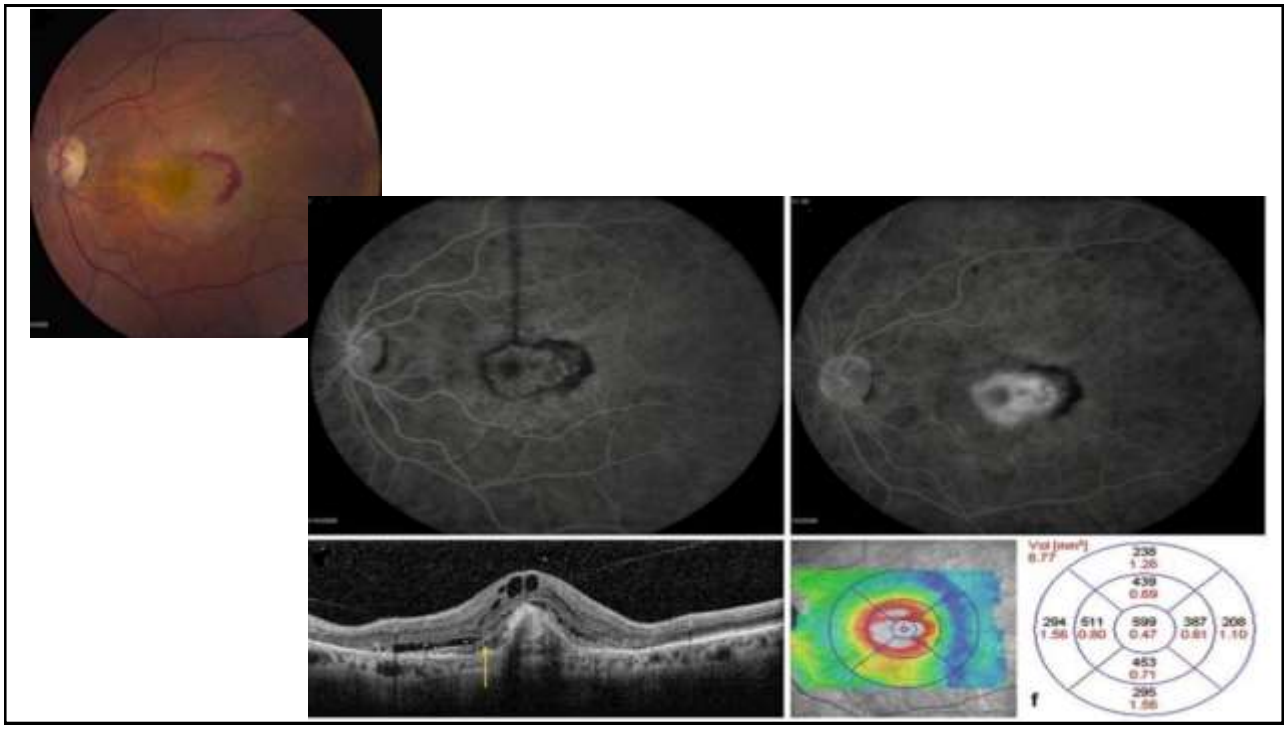
Quiescent: Type 1 choroidal neovascularisation

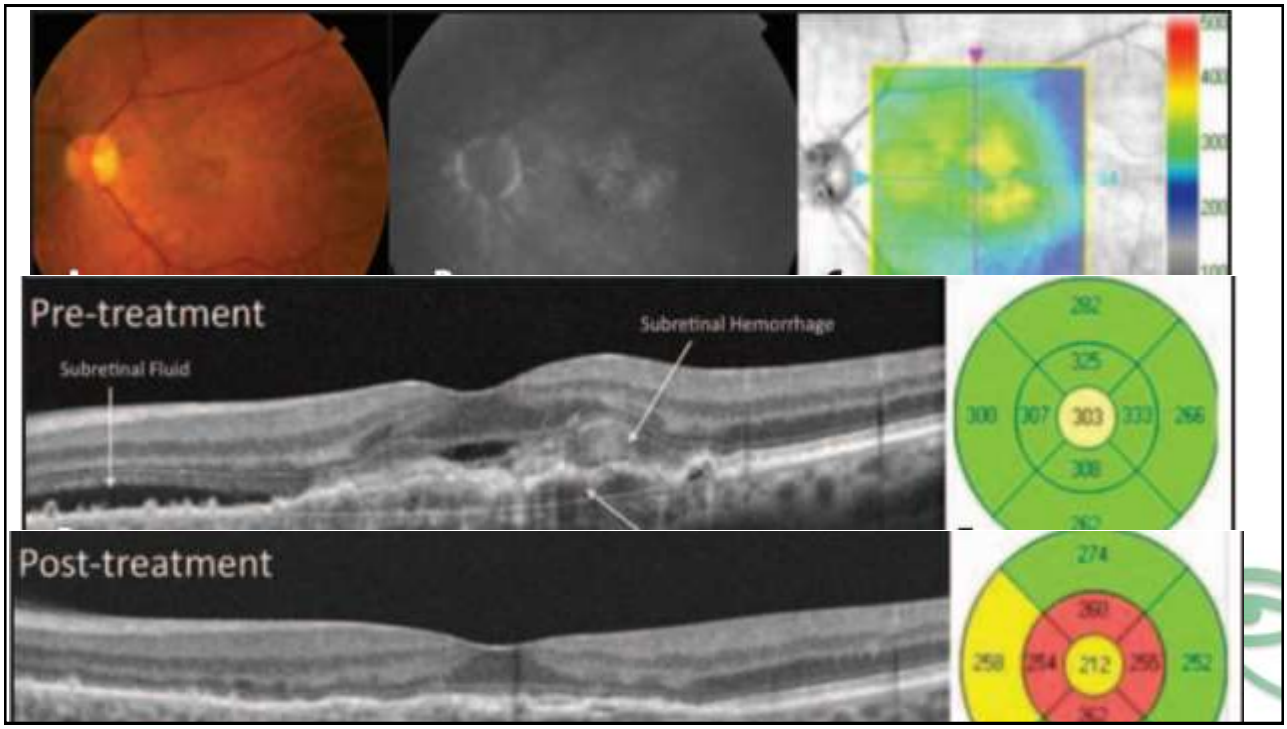


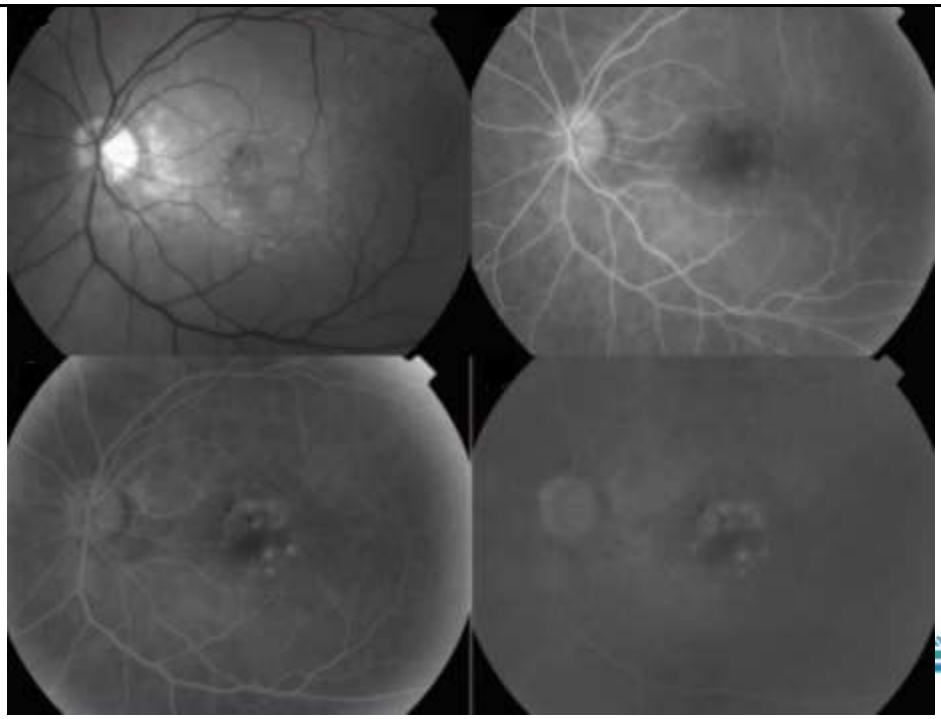
Classic choroidal neovascular membrane.

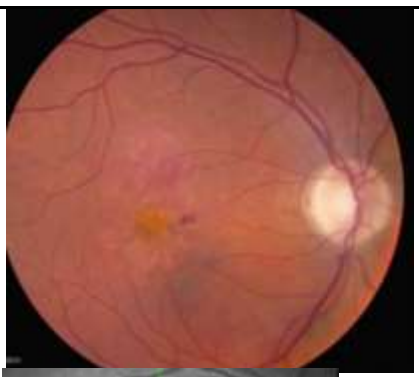


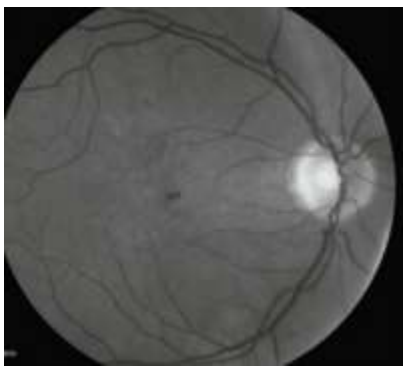


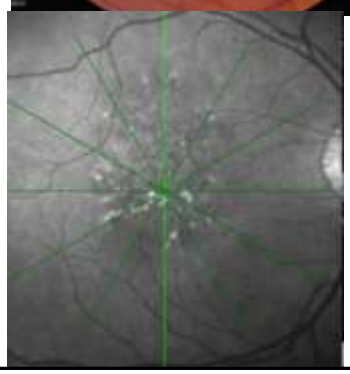


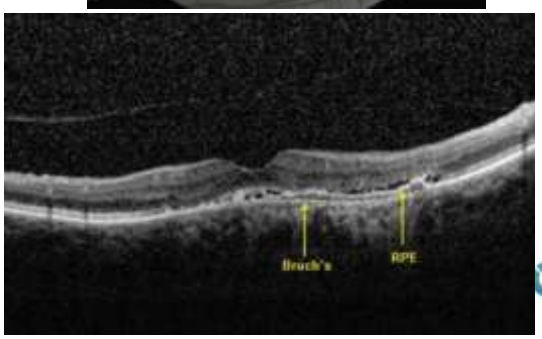

Pre-treatment
Subretinal Fluid
Subretinal Hemorrhage
Post-treatment

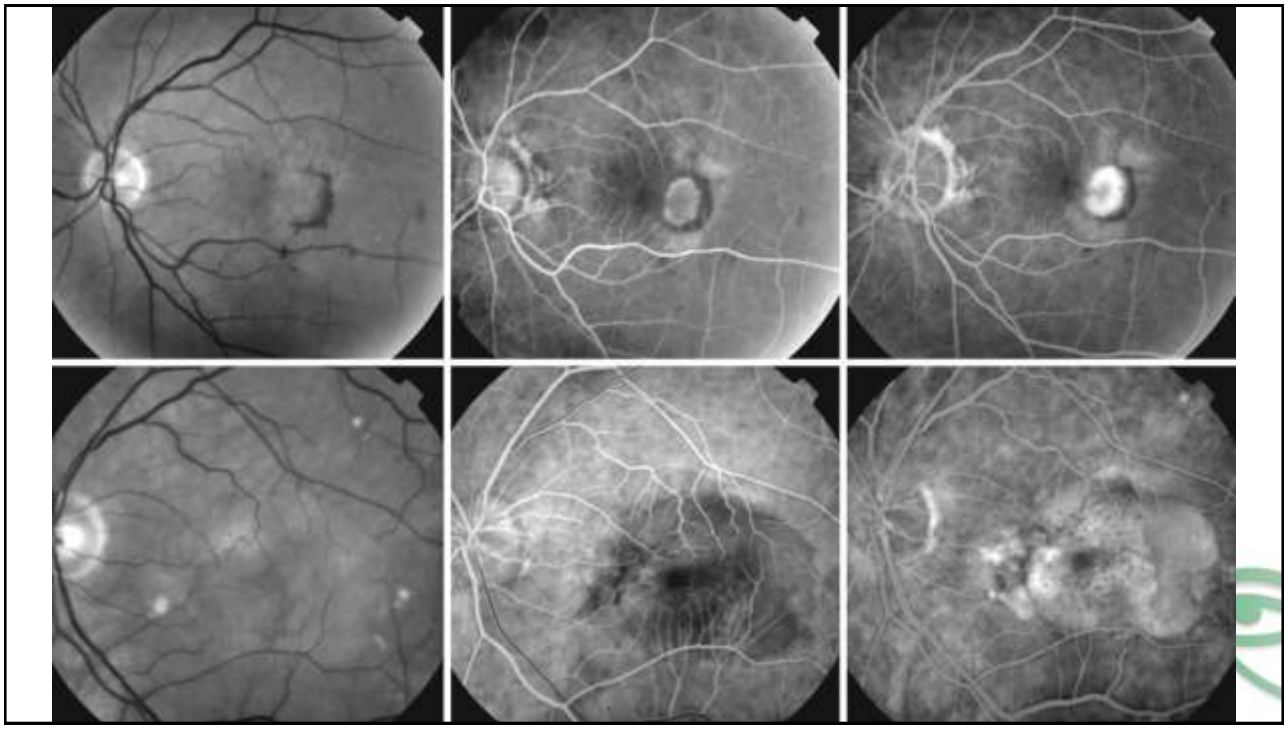


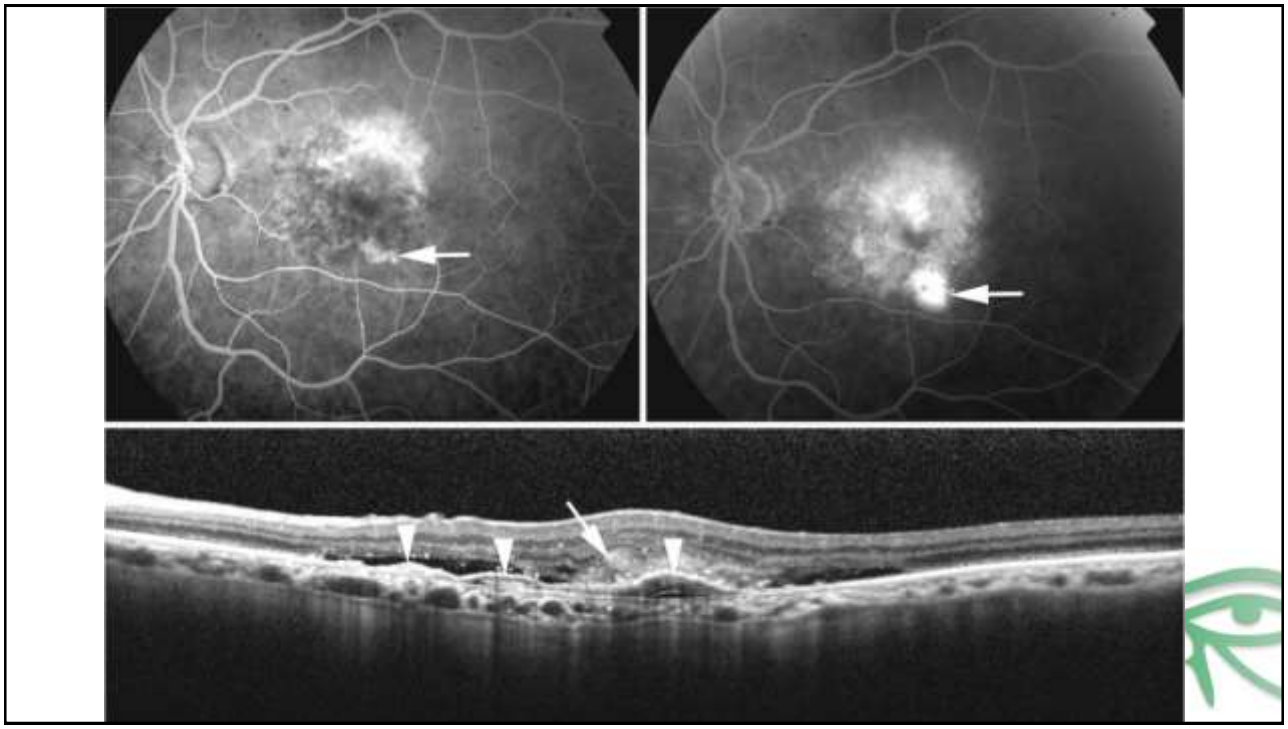







Bruch's
RPE





Retinal pigment epithelial tears

- In 2010, David Sarraf et al. proposed a new four-level grading system for RPE tears:

Grade 1: RPE tear of less than 200 µm

Grade 2: Tear of between 200 µm and 1 disc diameter

Grade 3: Tear greater than 1 disc diameter

Grade 4: Grade 3 involving the fovea.

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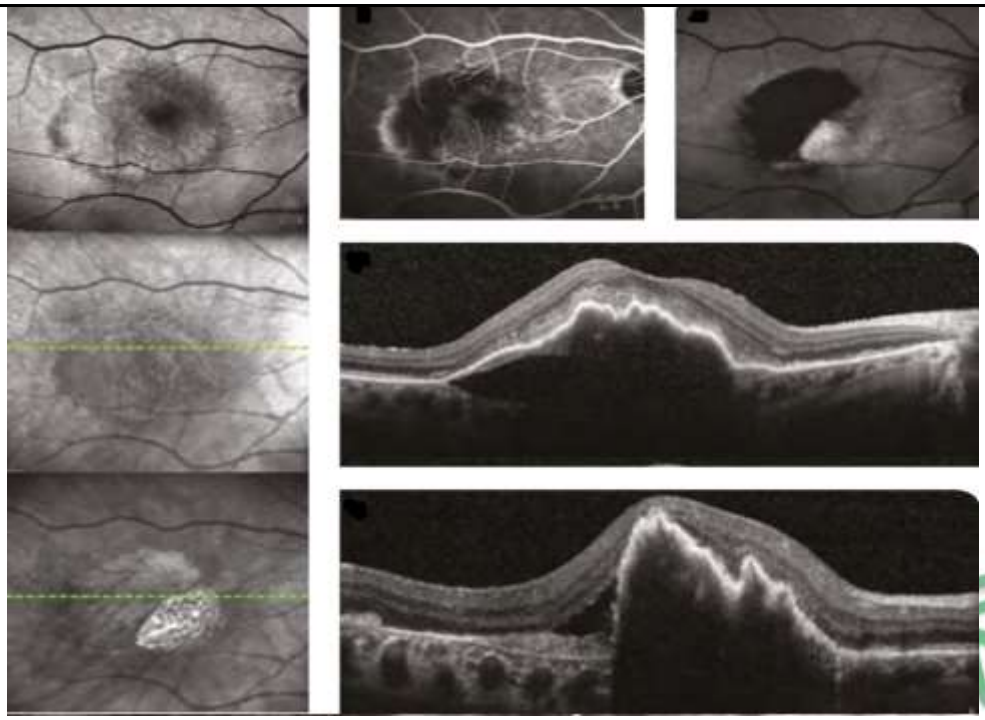
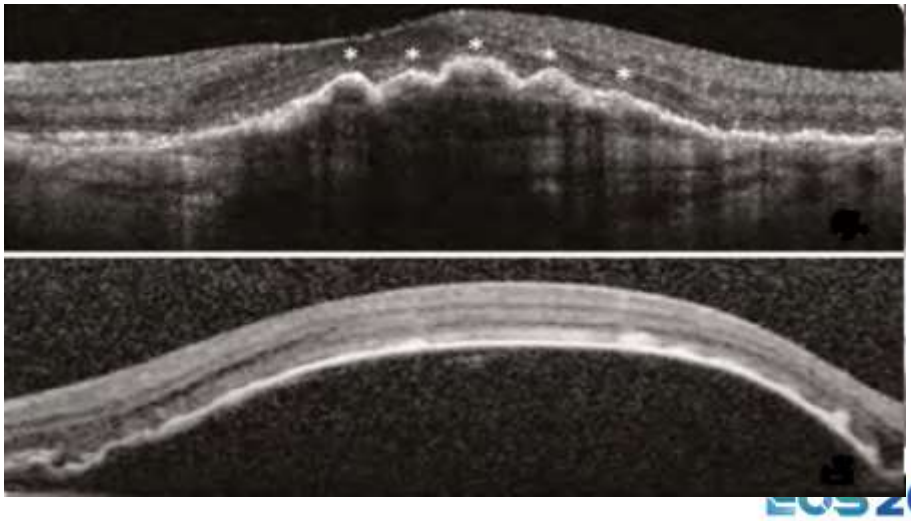
RPE tear



Wrinkled pigment epithelial detachment

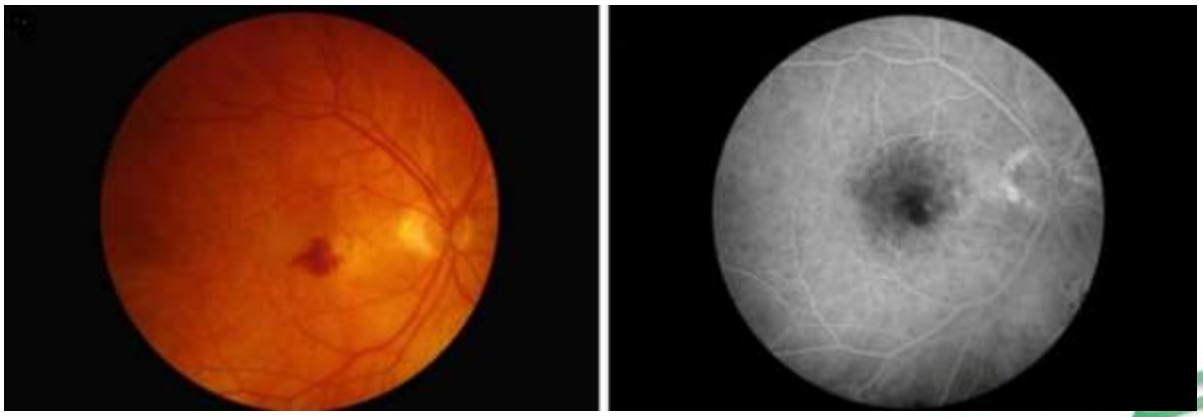


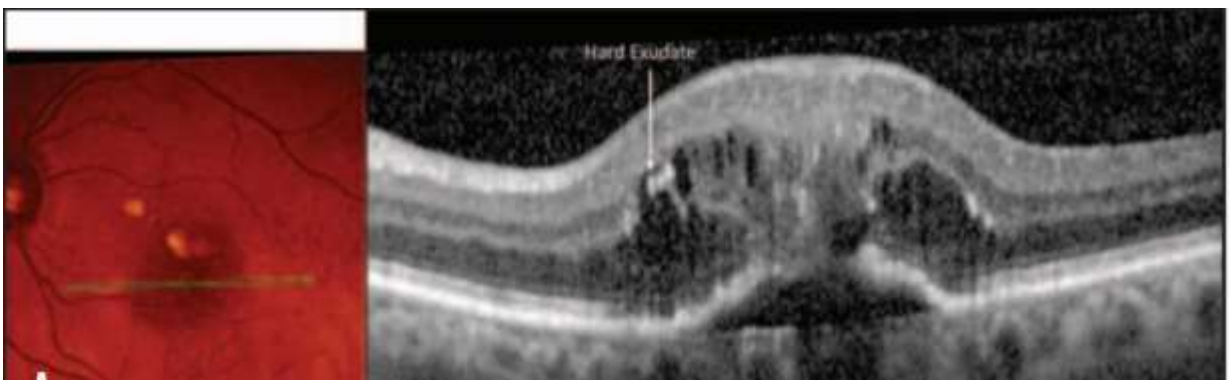
Type 3 neovascularization

- Type 3 neovascularisation is a clinical form of neovascular AMD that preferentially affects the neurosensory retina and causes a compensatory telangiectatic neovascular response, associated with intraretinal proliferation

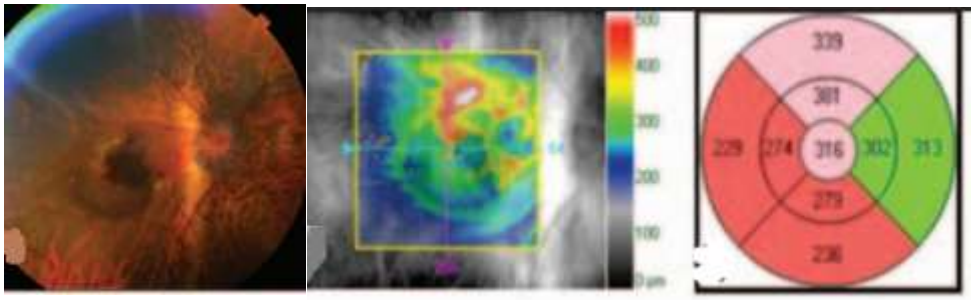
- OCTA has confirmed the intraretinal origin of this neovascular lesion, which differs from type 1 and type 2 neovascularisation in that it originates in the deep capillary plexus

Retinal Angiomatous Proliferation





PVC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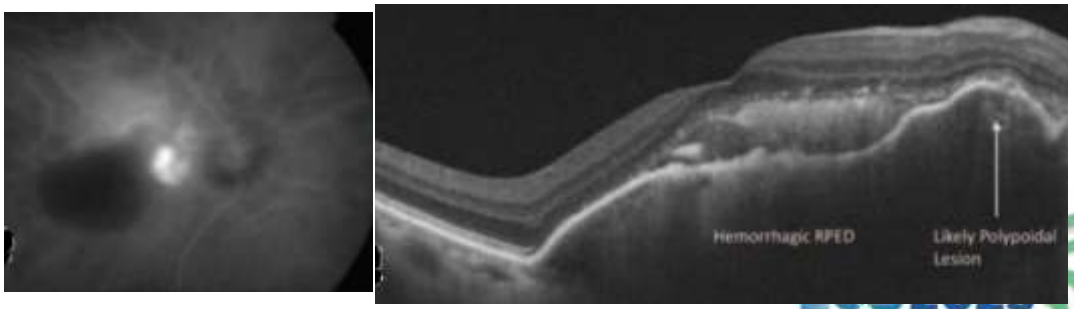
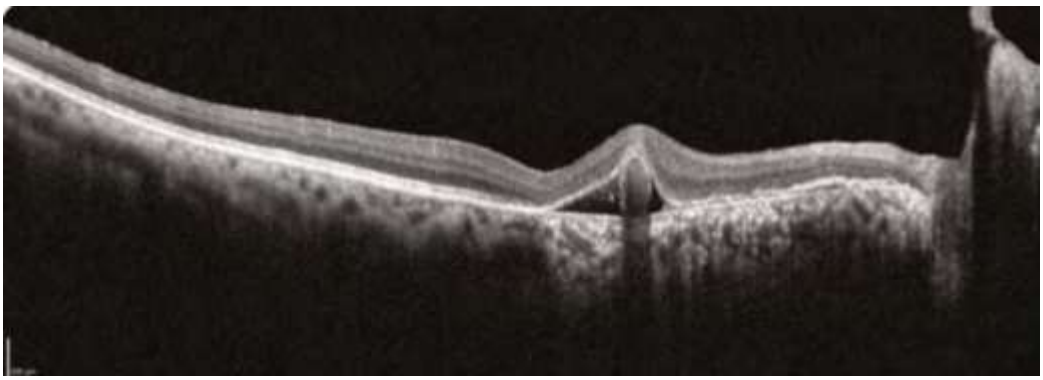

Hemorrhagic RPED
Likely Polypoidal Lesion



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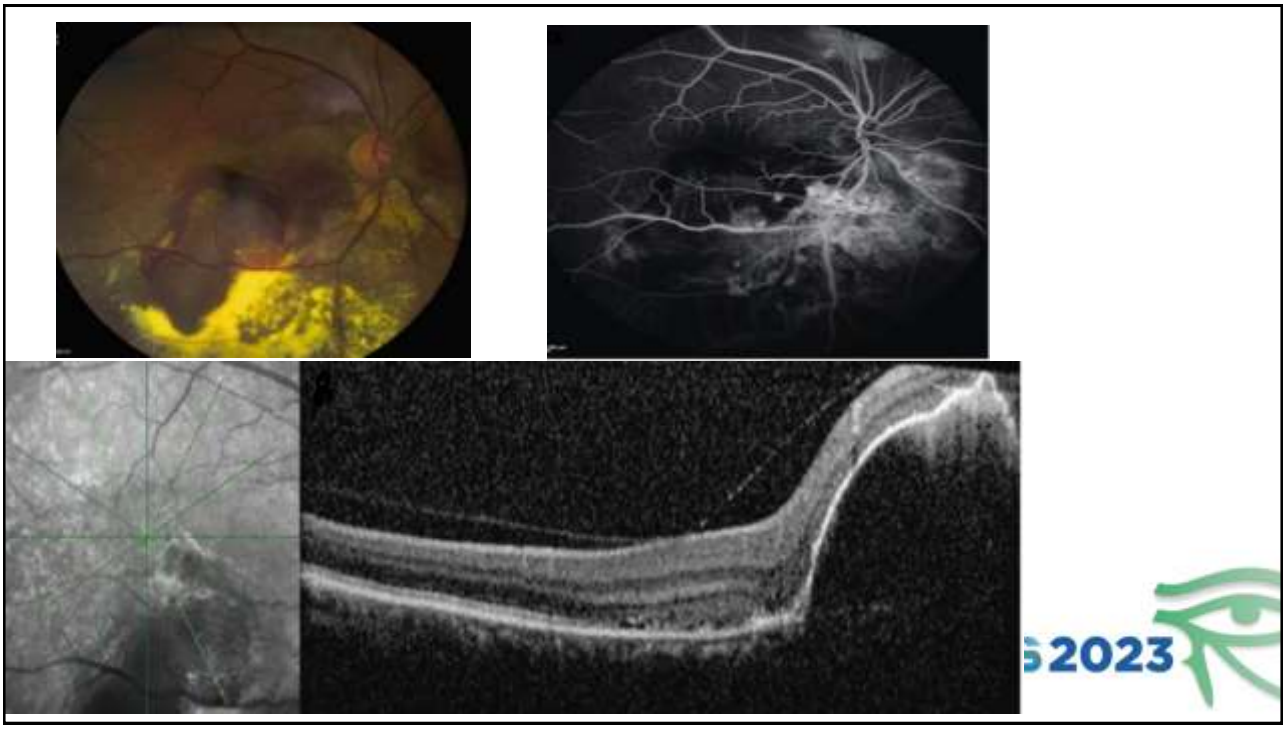

Conclusion

- Screening for Dry AMD is an essential part of any eye examination in patients aged **55 years and over**, based on dilated fundus examination or color fundus photography.
- There are **several types of drusen** that carry a risk of progression to **late AMD**.
- The risk of neovascular complication is very **low** with **hard drusen**. However, **soft** drusen are **more likely to develop into choroidal neovascularization**.
- OCT is an essential examination for confirming a diagnosis of AMD and ruling out neovascular activity.
- If progression to exudative AMD is suspected, FA becomes less useful, as OCTA can be carried out to provide valuable information on the whether neovascularization is present

Thank You