Age Related Macular degeneration

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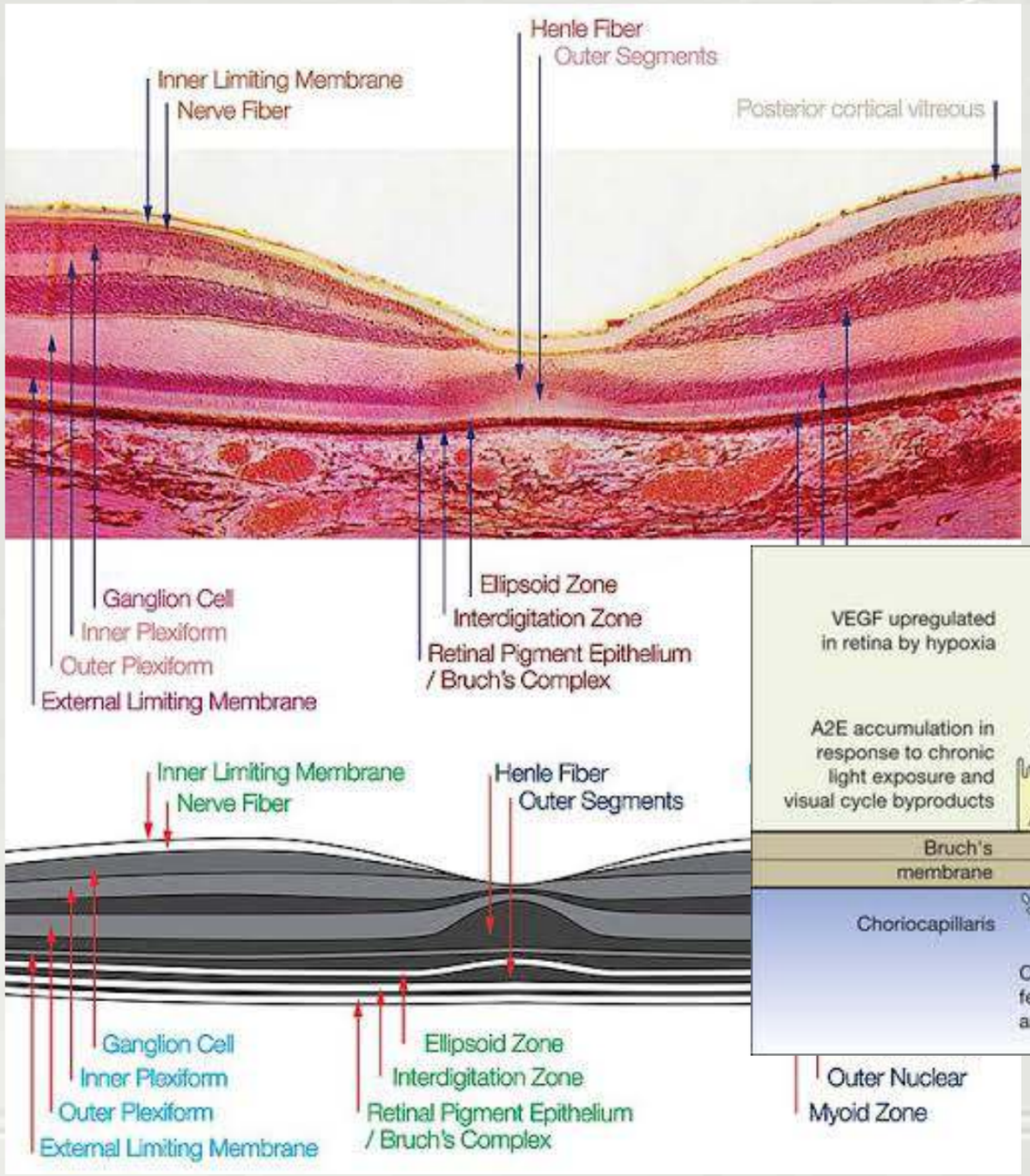
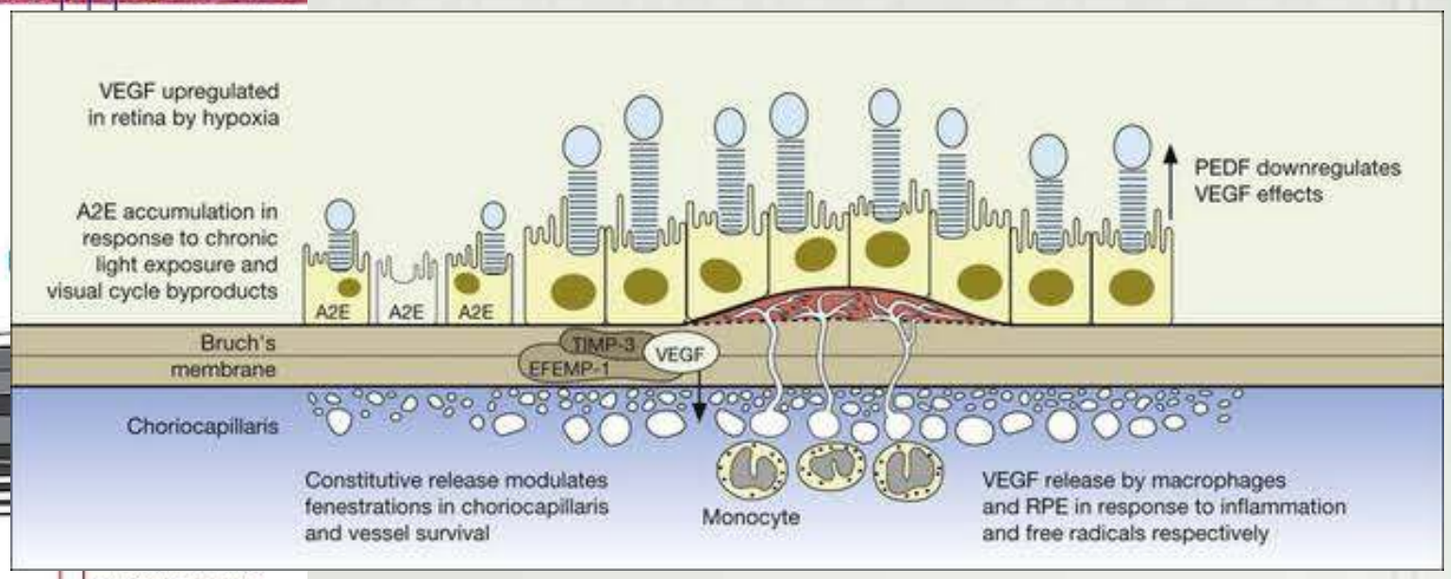
North Queensland Eye Clinic

Histology


Henle Fiber
Outer Segments
Inner Limiting Membrane
Nerve Fiber
Posterior cortical vitreous
Ganglion Cell
Inner Plexiform
Outer Plexiform
External Limiting Membrane
Ellipsoid Zone
Interdigitation Zone
Retinal Pigment Epithelium
/ Bruch's Complex
Inner Limiting Membrane
Nerve Fiber
Henle Fiber
Outer Segments
Ganglion Cell
Inner Plexiform
Outer Plexiform
External Limiting Membrane
Ellipsoid Zone
Interdigitation Zone
Retinal Pigment Epithelium
/ Bruch's Complex
Outer Nuclear
Myoid Zone


VEGF upregulated
in retina by hypoxia
A2E accumulation in
response to chronic
light exposure and
visual cycle byproducts
PEDF downregulates
VEGF effects
A2E
A2E
A2E
Bruch's
membrane
TIMP-3
EFEMP-1
VEGF
Choriocapillaris
Constitutive release modulates
fenestrations in choriocapillaris
and vessel survival
Monocyte
VEGF release by macrophages
and RPE in response to inflammation
and free radicals respectively

Normal Macula

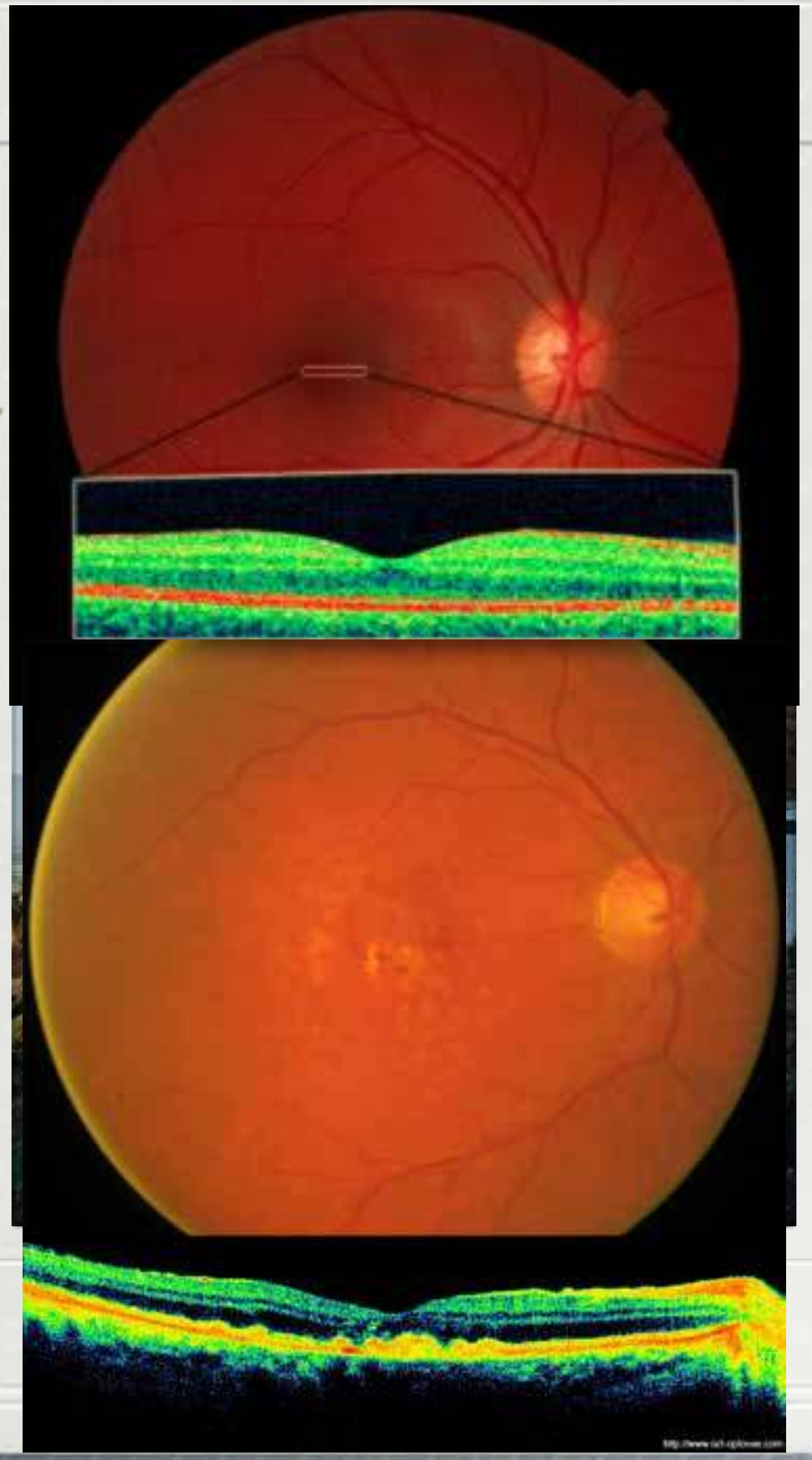
Vs

ARMD

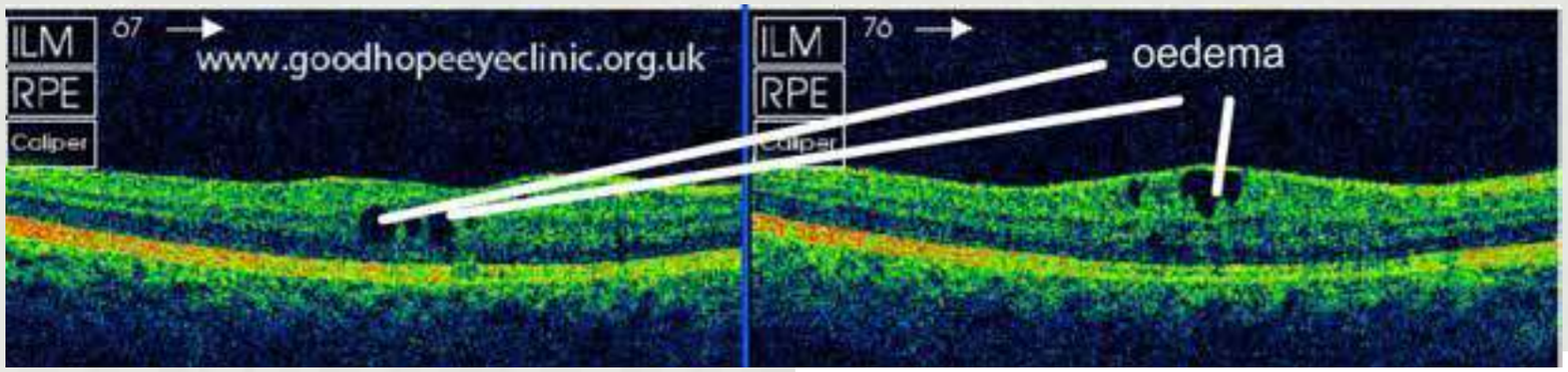
Fundas photograph of a patient with age related macular degeneration.

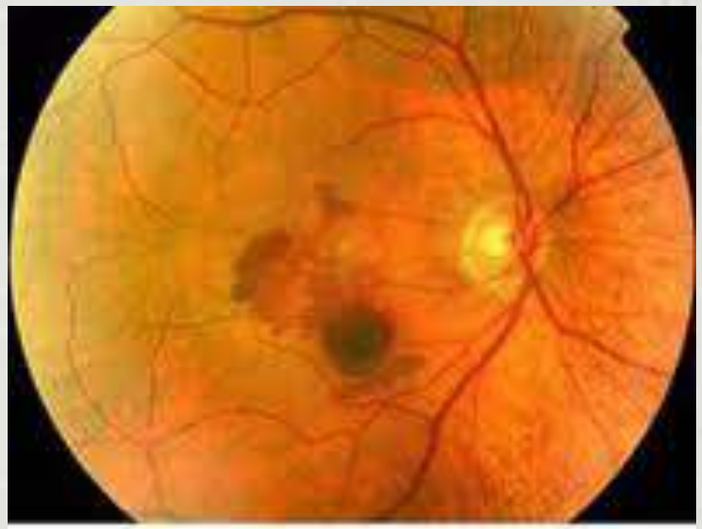
Normal macula

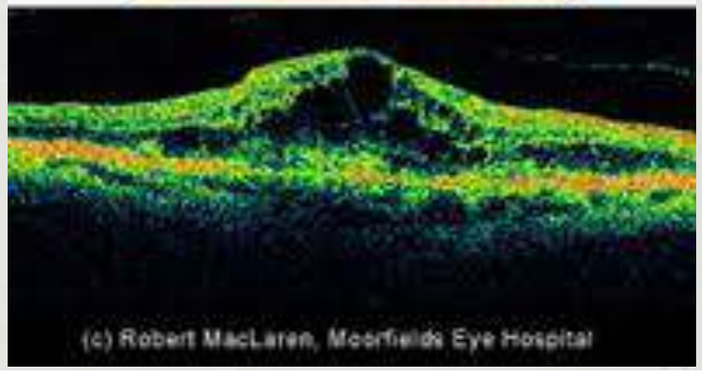
ARMD- Dry



ARMD-Wet

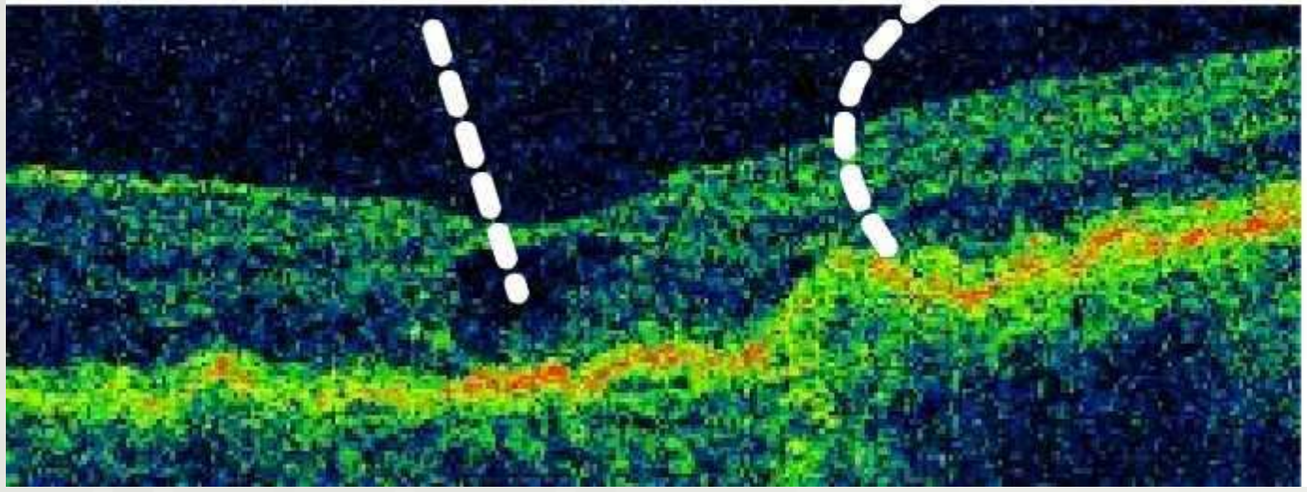




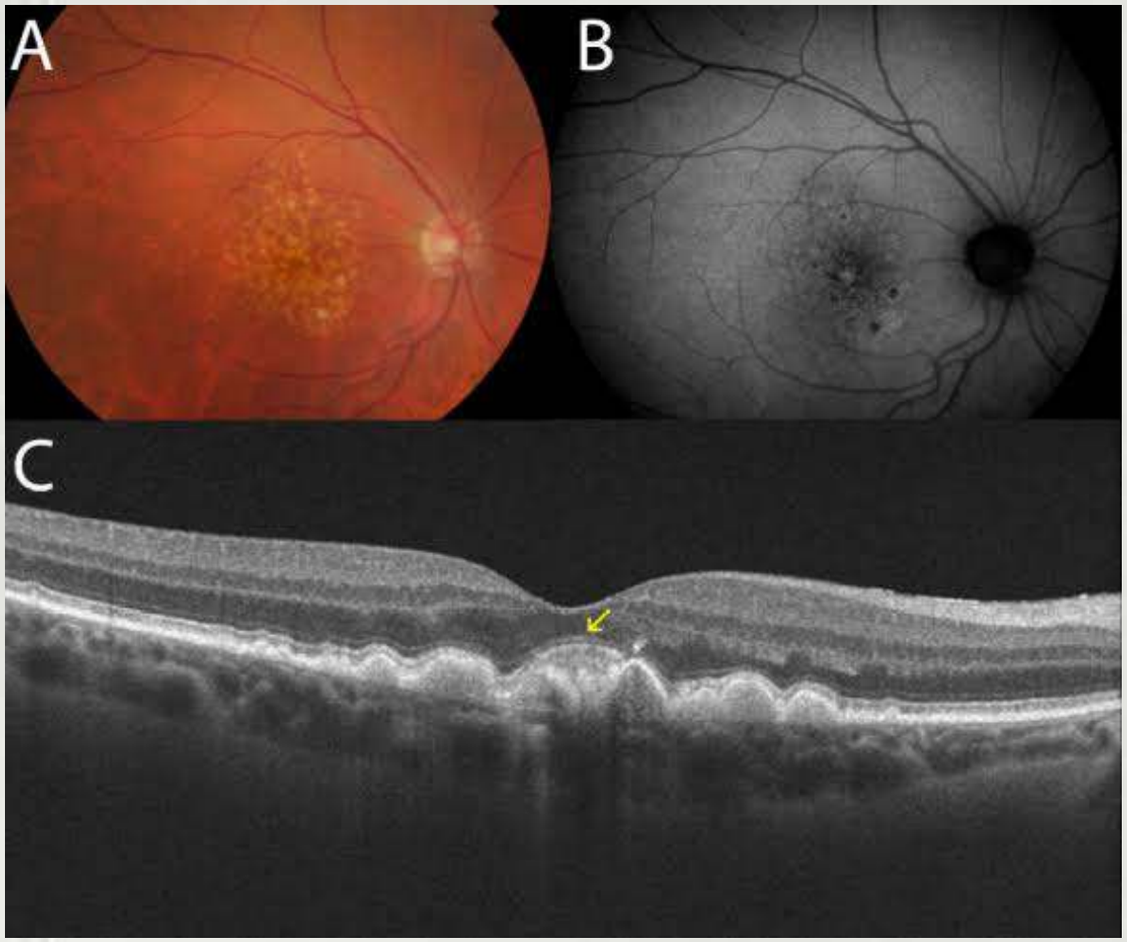


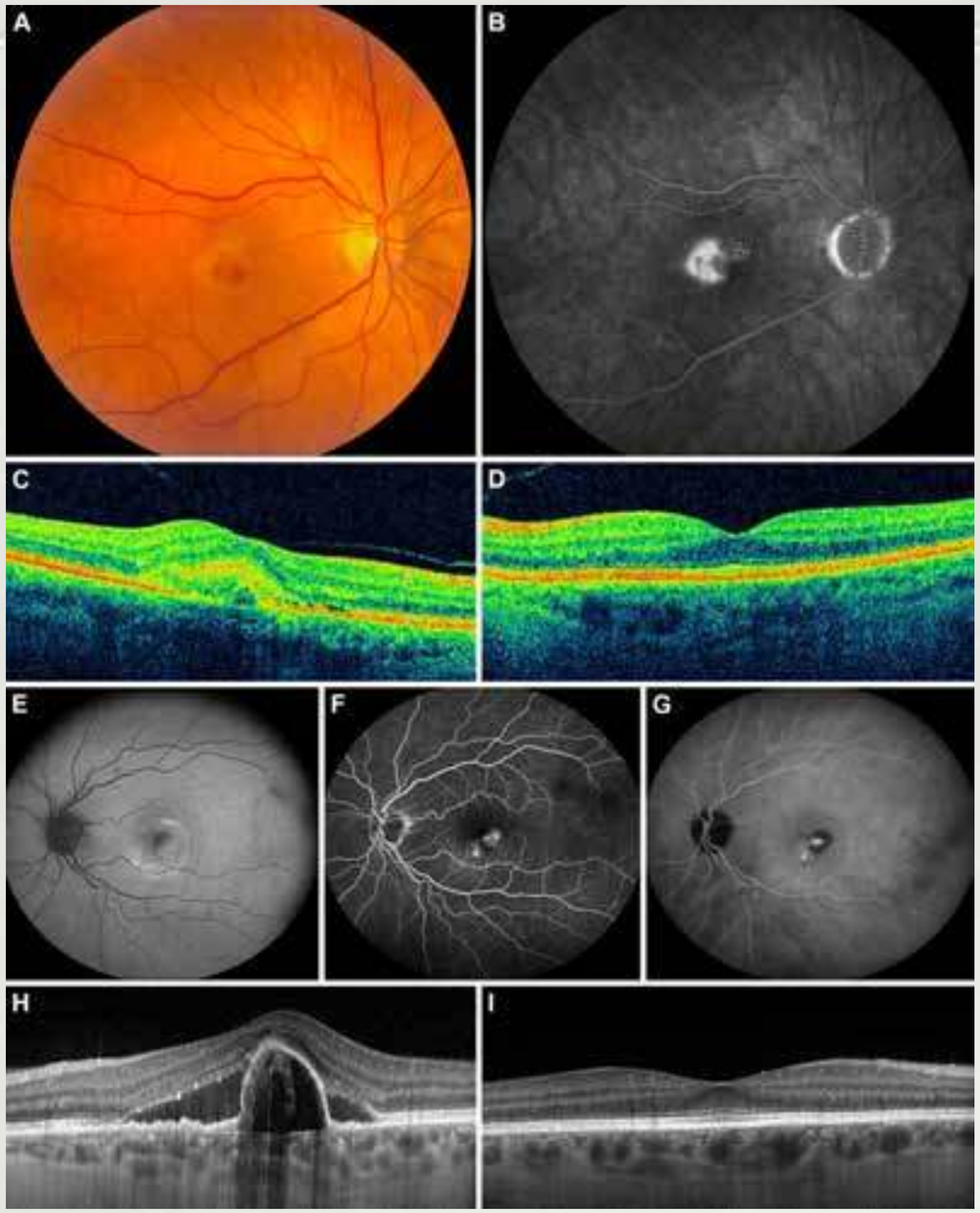
intraretinal fluid?

drusen

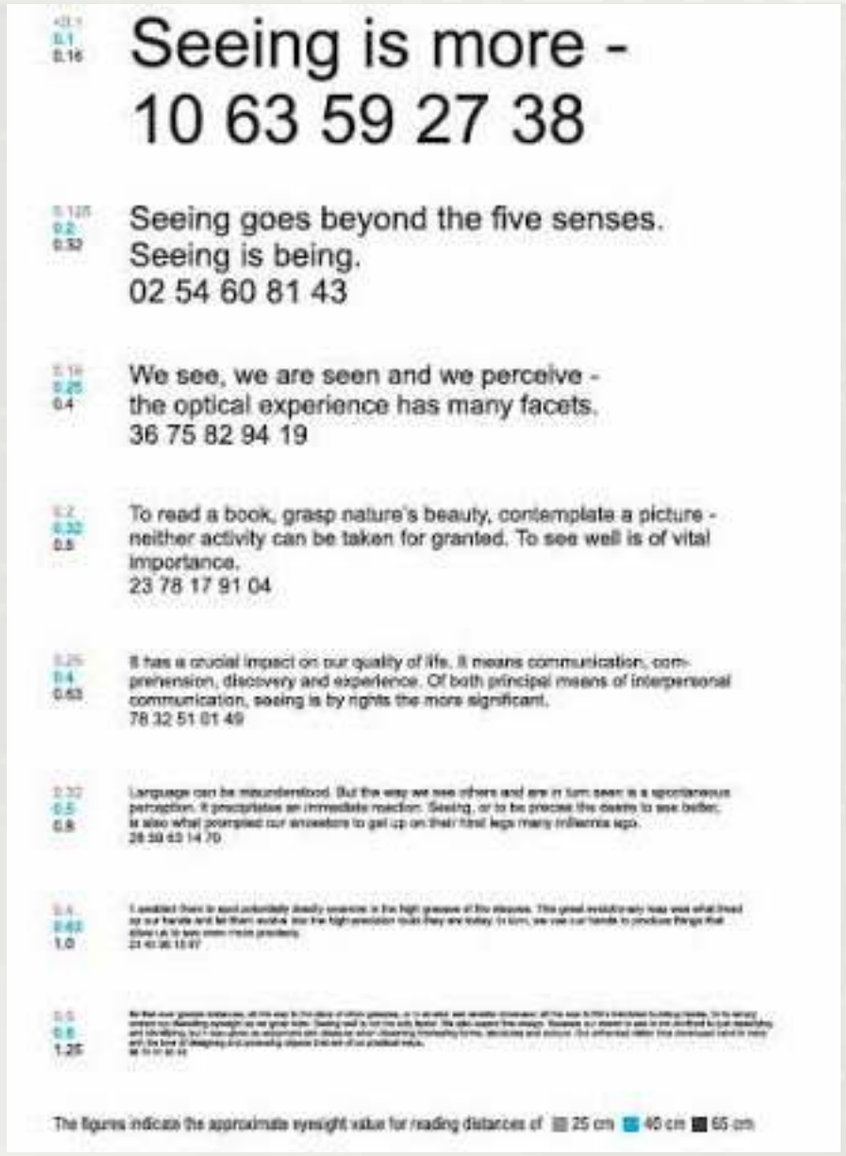


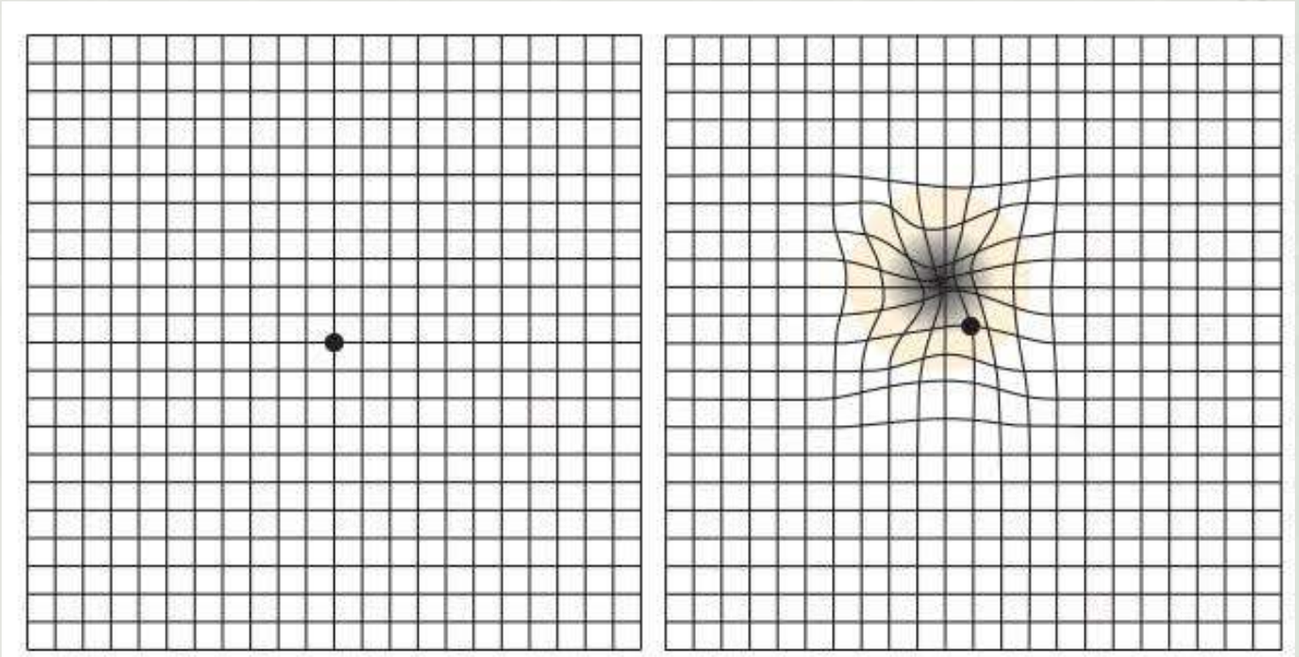
Dry vs Wet ARMD





Diagnosis





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Treatments

- *Dry ARMD: no cure, but supplements of vitamins ACE may slow vision loss*

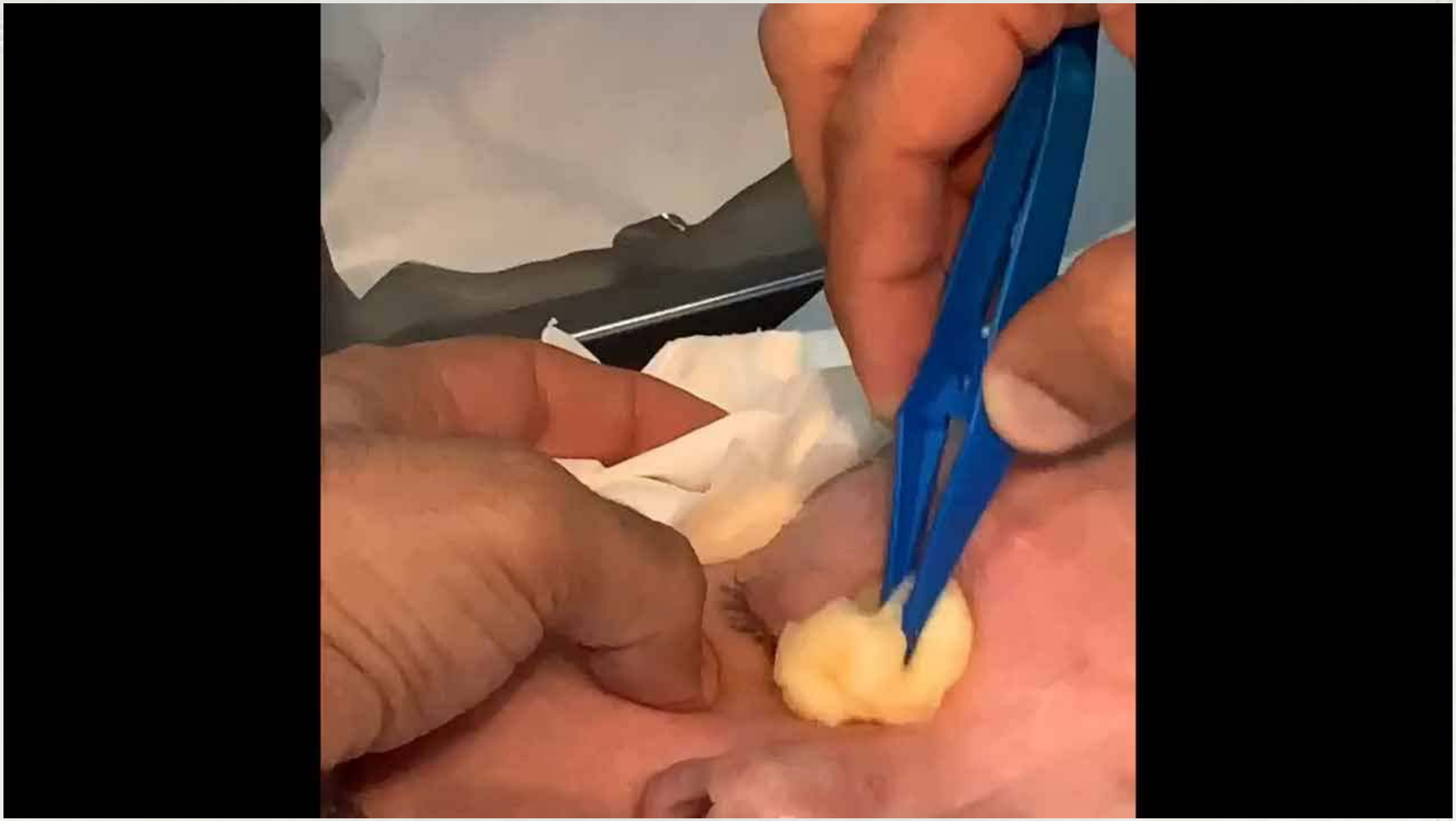
- *Wet ARMD:*
  Anti-VEGF injections,
  Photodynamic Therapy (PDT), Laser photocoagulation.

Question:
My mom was treated for macular degeneration with injections in her eyes. They said that she wouldn't have any pain after, but every time she went home, she was in excruciating pain afterwards. We are not sure if she was having an allergic reaction to the eye drops they used to cleanse her eyes before the procedure. Is there a medication that can be given to counteract the extreme burning that happened each night after her treatments?

Answer:
It is unusual to experience pain after the injections. It is possible that she is having adverse reactions to some of the medications being administered. It is critical that she share this problem with her specialist. She may need to have different eye drops, or it may be alleviated by the nurse aggressively irrigating the eye after the procedure to wash out any residual antiseptic solution.

Treatment

Painless intraocular injections



Yesterday I received my 37th eye injection for wet macula degeneration, however no 1 from your clinic. For the very first time ever I have had NO post operative symptoms whatsoever and it is though I did not have the injection. No soreness, no ulcers, just wonderful. Dr Zadeh, thank you for your very effective procedure delivered with great courtesy and professionalism. Also congratulations for the total professionalism and empathy from all of your staff and team. Certainly to be commended. From now on I will not be dreading future injections. Kindest regards, Stephen