

# Preventive lifestyle measures

- In early AMD, advise daily 250-400 g vegetables, 2-3x/d fruits, 1-2x/week (fat) fish to reduce risk of progression to advanced AMD
- No smoking
- Exercise

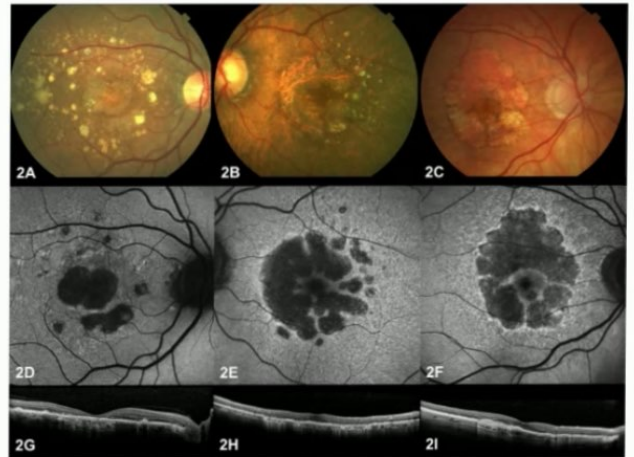
→ at least 50% risk reduction of progression to advanced AMD

# AREDS2 supplementation

- 500 mg Vit. C, 400 IU Vit. E, 10 mg luteine, 2 mg zeaxanthine, 25 (or 80) mg zinc oxide, 2 mg copper oxide
- Taking AREDS or AREDS2 supplements reduces the risk of progression from intermediate to advanced AMD (in bilateral intermediate AMD or unilateral advanced AMD) by up to 25%
- Current and former smokers should take the AREDS2 formula (so: no beta-carotene)
- Omega-3 supplementation may also be useful, but evidence a bit less hard

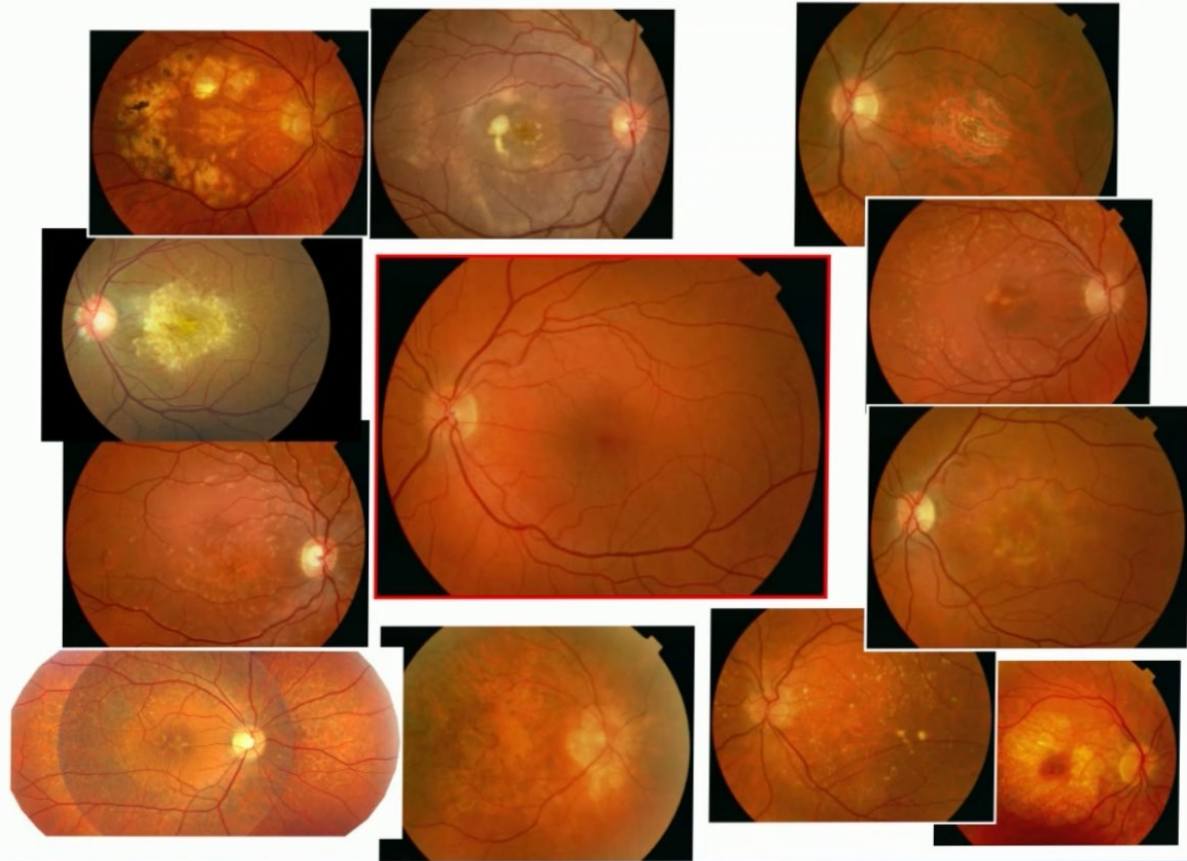
# Geographic atrophy

- Definition: sharply circumscribed area(s) of RPE loss through which the choroidal vessels become visible
- Natural history
- Different subtype on FAF (e.g. diffuse trickling)
- iRORA/cRORA



# Geographic atrophy

- Definition: sharply circumscribed area(s) of RPE loss through which the choroidal vessels become visible
- Natural history
- Different subtype on FAF (e.g. diffuse trickling)
- iRORA/cRORA
- Ethnic differences:
  - Asian patients:
    - male dominance and relatively thicker choroid
    - subgroup of GA without drusen but with pachychoroid features
    - progression rate relatively lower



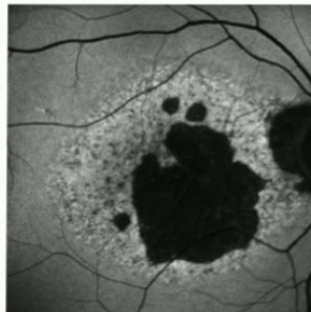
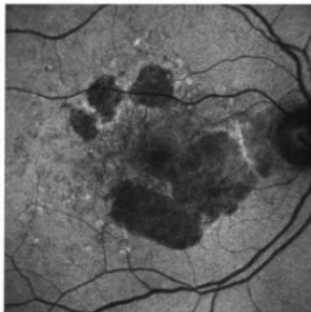
# Differential diagnosis: start with basics

- Medical history (age, systemic features)
- Fundoscopy
- Fundus autofluorescence

# Fundus autofluorescence

- “hereditary aspect”

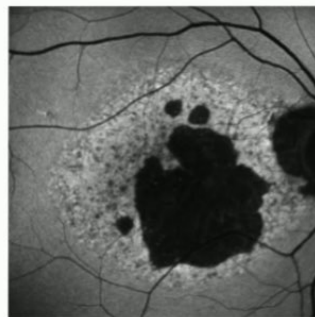
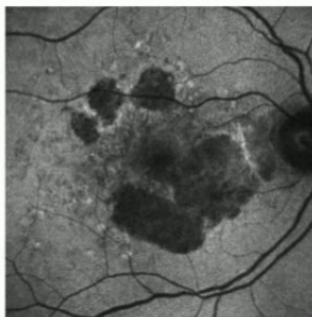
*Intensity  
&  
demarcation*



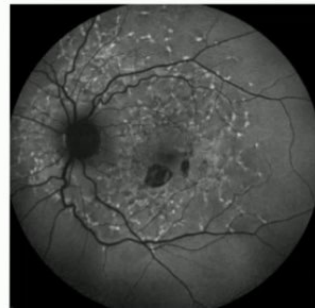
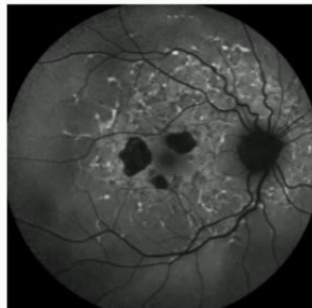
# Fundus autofluorescence

- “hereditary aspect”

*Intensity  
&  
demarcation*



*symmetry*



# Complement inhibition in geographic atrophy

Macular Degeneration Research

## **FDA Approves First and Only Treatment for Geographic Atrophy, an Advanced Form of Age-Related Macular Degeneration**

First-Ever Drug Approved to Slow Vision Loss Progression from Geographic Atrophy, a Leading Cause of Blindness

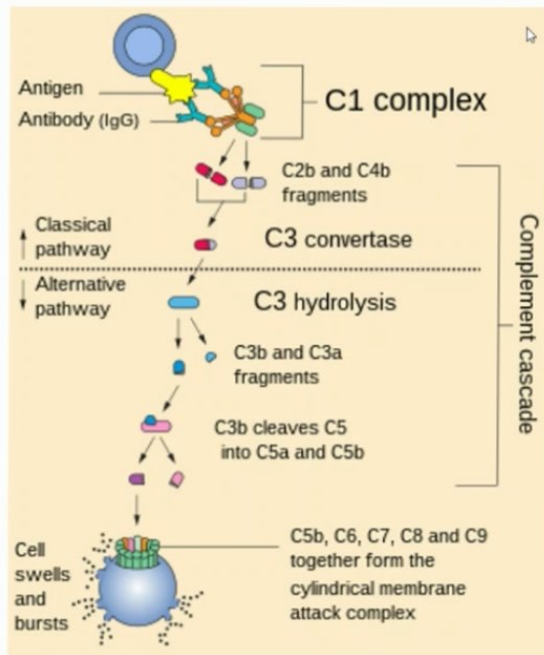


Macular  
Degeneration  
Research

## **Second Geographic Atrophy Treatment Receives FDA Approval**

Izervay was shown to slow progression of geographic atrophy, a leading cause of irreversible blindness.

# Complement inhibition in geographic atrophy



**Pegcetacoplan**  
complement C3 inhibitor

**Avacincaptad pegol**  
complement C5 inhibitor

Jaffe et al. *Ophthalmology* 2021  
Liao et al. *Ophthalmology* 2020

# Complement inhibition in geographic atrophy

## Pegcetacoplan

- 2/2023 Approved as a meaningful therapy in an accelerated FDA process for treatments of serious or life-threatening illnesses
- But:
  - Reduction of rate of atrophic lesion growth by 36%
  - Monthly injection required (no effect when every-other-month dosing)
  - Costs: around \$2,316 for a supply of 0.1 milliliters
  - No benefit in visual function at 12 and 24 months
  - Increased risk of macular neovascularisation

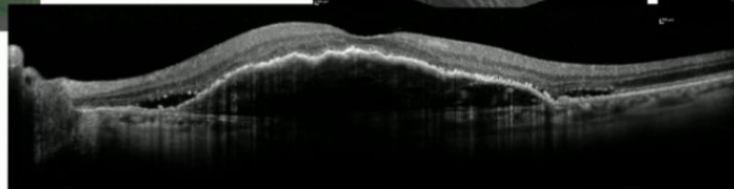
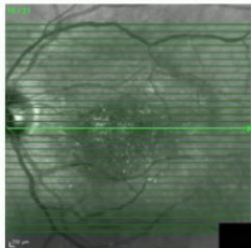
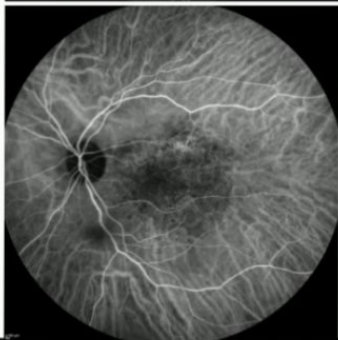
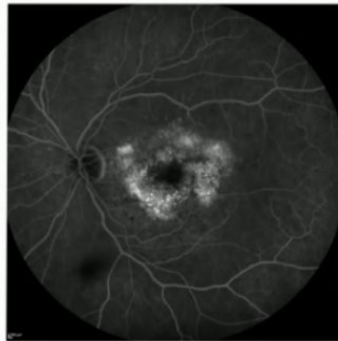
# Complement inhibition in geographic atrophy

## Avacincaptad pegol

- Second accepted complement inhibitor for treating geographic atrophy
- But (also):
  - Reduction of rate of atrophic lesion growth by 27%
  - Monthly injection required (no clear effect when every-other-month dosing)
  - Costs: around \$2,100 for a supply of 0.1 milliliters
  - No benefit in visual function at 12 and 24 months
  - Increased risk of macular neovascularisation

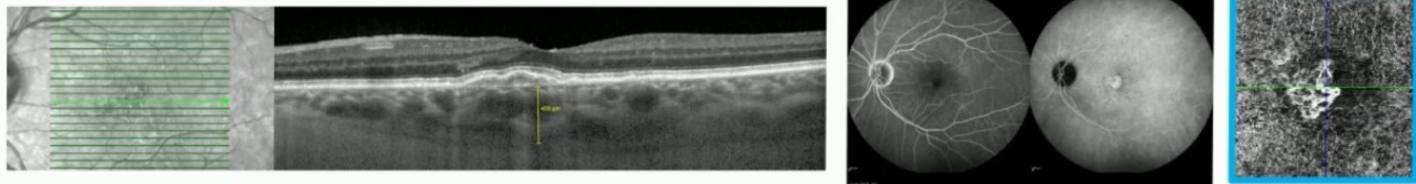
# Neovascular AMD

# Type 1 ('occult')



# Type 1 MNV: special cases

- Nonexudative / quiescent MNV (risk of progression to exudation 30% in 2 years)

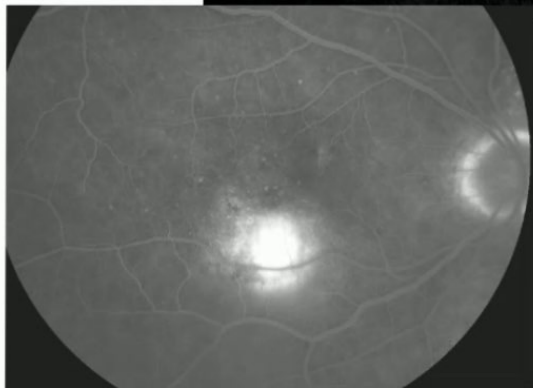
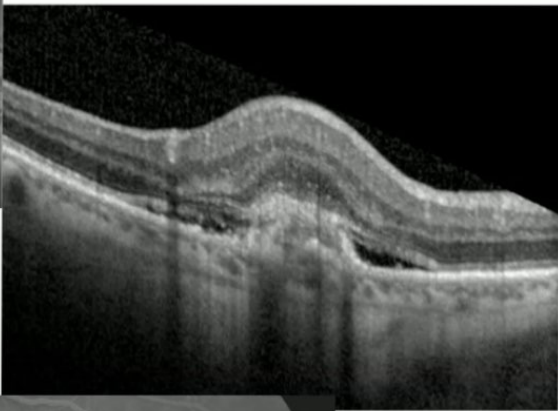
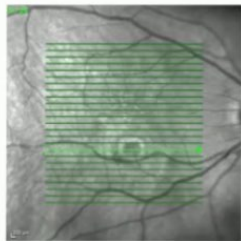


- Polypoidal choroidal vasculopathy / aneurysmal type 1 MNV

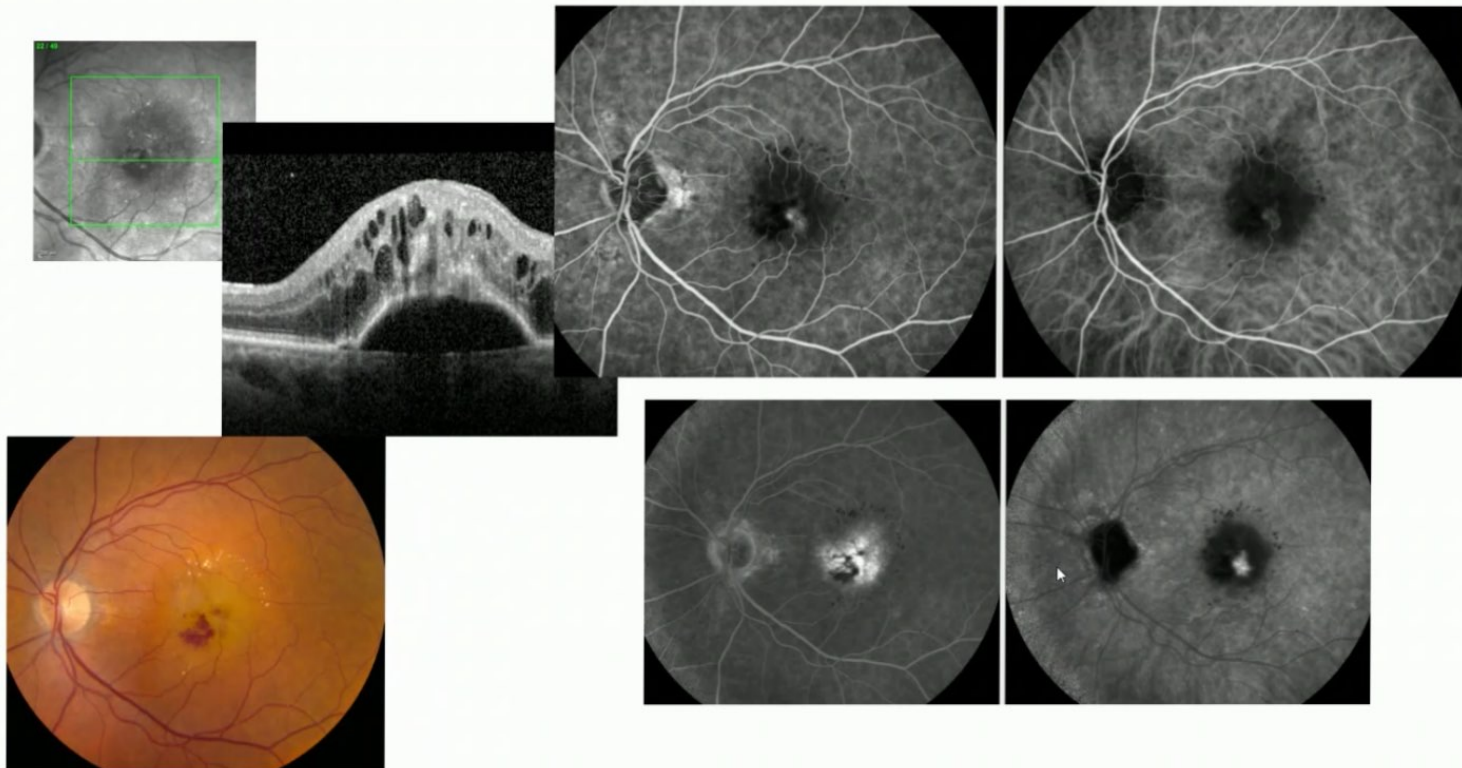


Cheung et al. Ophthalmology 2020  
Van Dijk et al. Graefes Arch Clin Exp Ophthalmol 2021  
Sacconi et al. Prog Ret Eye Res 2023  
Nissen et al. Am J Ophthalmol 2023

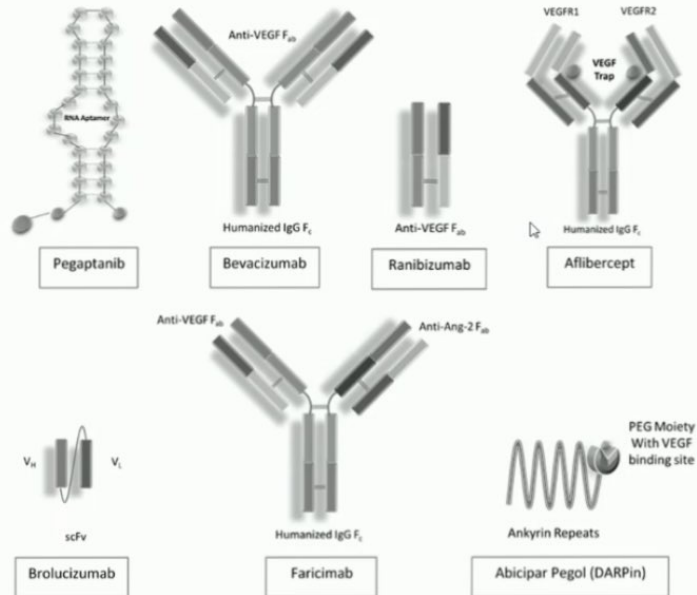
## Type 2 ('classic')



# Type 3 (retinal angiomatous proliferation / RAP)

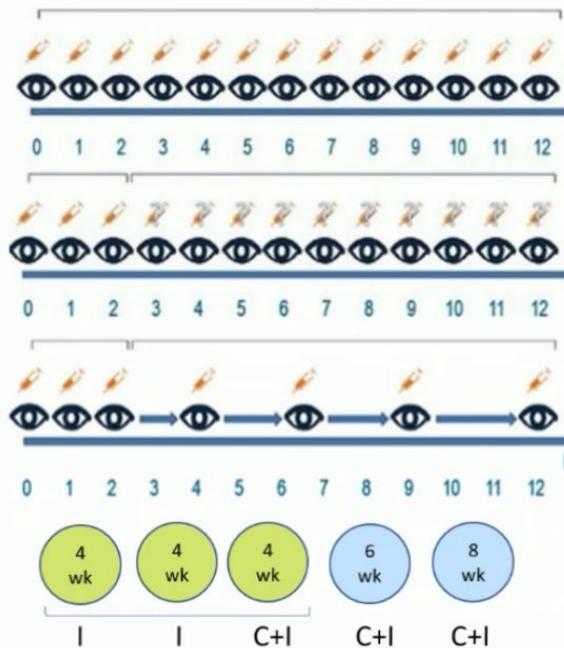


# Intravitreal anti-VEGF treatment



# Anti-VEGF treatment regimens

- Fixed dosing (4-weekly / 8-weekly)
- Pro re nata (PRN)
- Treat & extend



# Fellow eye involvement in neovascular AMD

- Annual incidence of new fellow eye neovascular AMD is 3-20%
- Annual incidence decreased over time, after diagnosis of neovascular AMD in first eye
- No difference between white and Asian patients