Age-related macular degeneration

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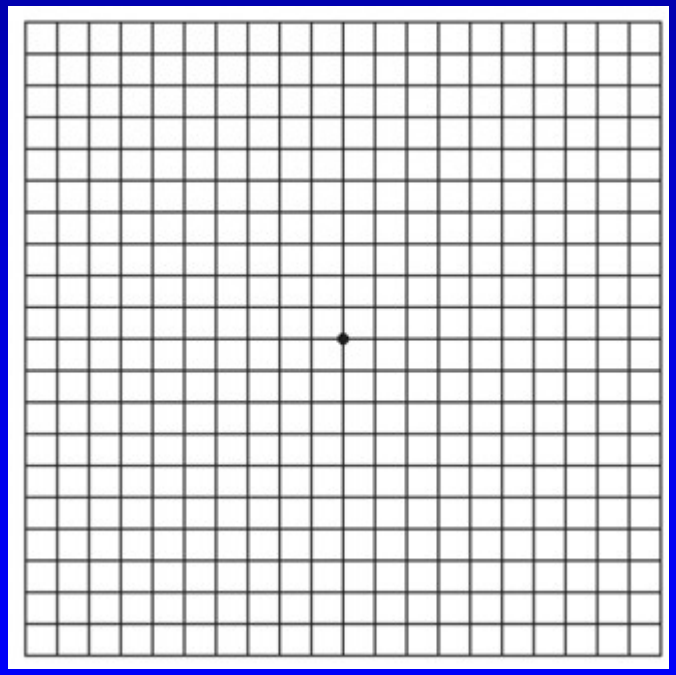
Age-related macular degeneration (AMD)

- The most common cause of blindness in developped countries

Age-related macular degeneration (AMD)

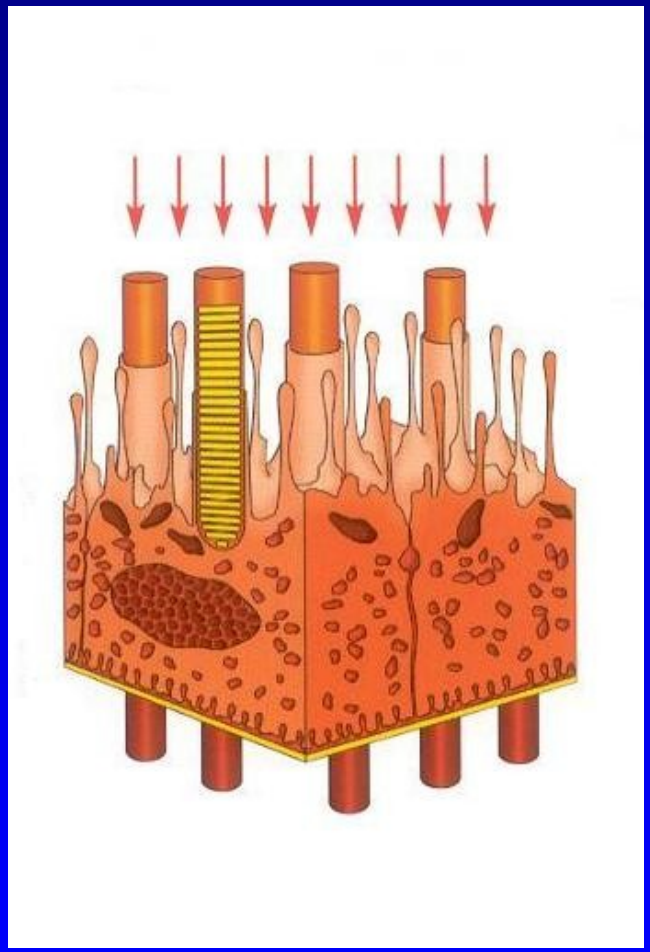
- AMD is multifactorial disease caused by combination of predisponing genes and influences of external environment

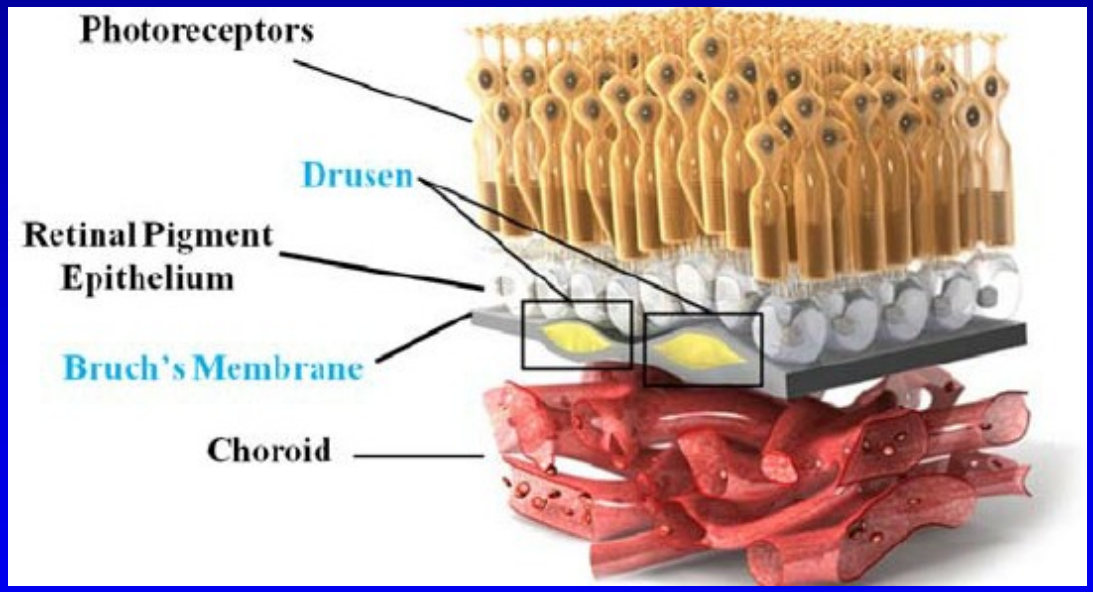
Metamorphopsia



Amsler grid

112
BURG




Photoreceptors
Drusen
Retinal Pigment Epithelium
Bruch's Membrane
Choroid

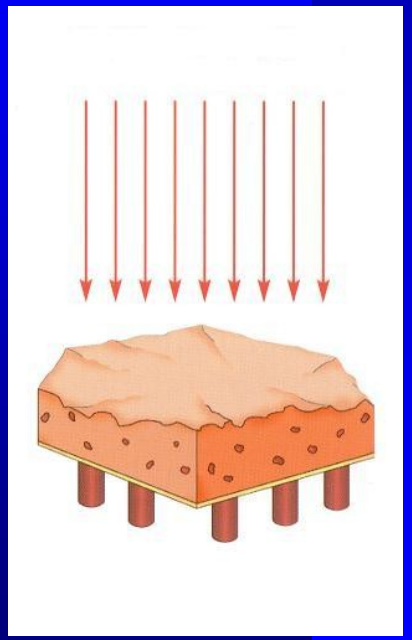
Ethiopathogenesis of AMD

↓RPE cells with age (apoptosis, necrosis)

↓ melanosoms

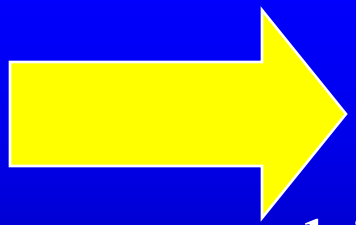
↑ lipofuscin accumulation

apoptosis



Classification of AMD

- Dry form of AMD



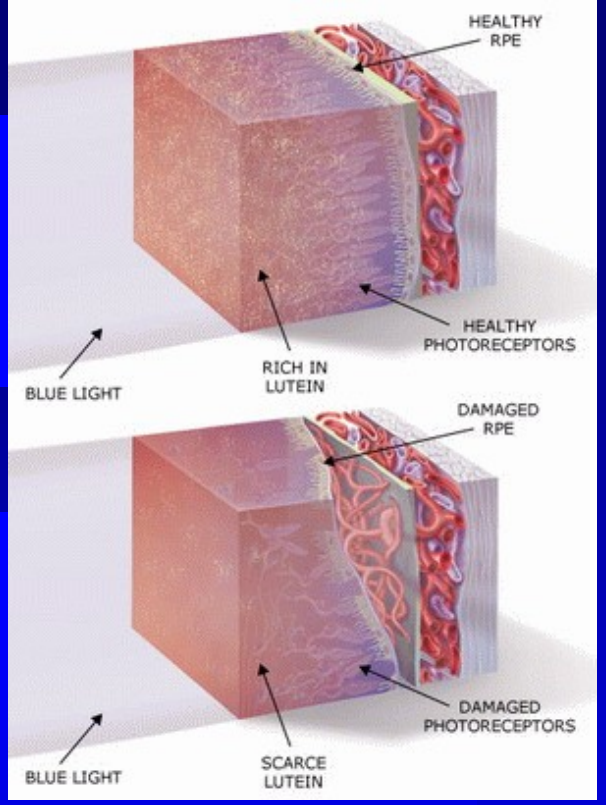
drusen, RPE changes, geographic atrophy of RPE

Drusen

RPE changes

Geographic atrophy of RPE cells

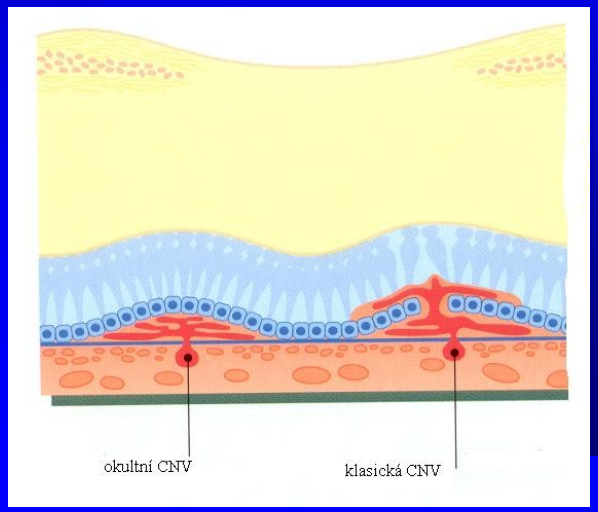
Classification of AMD



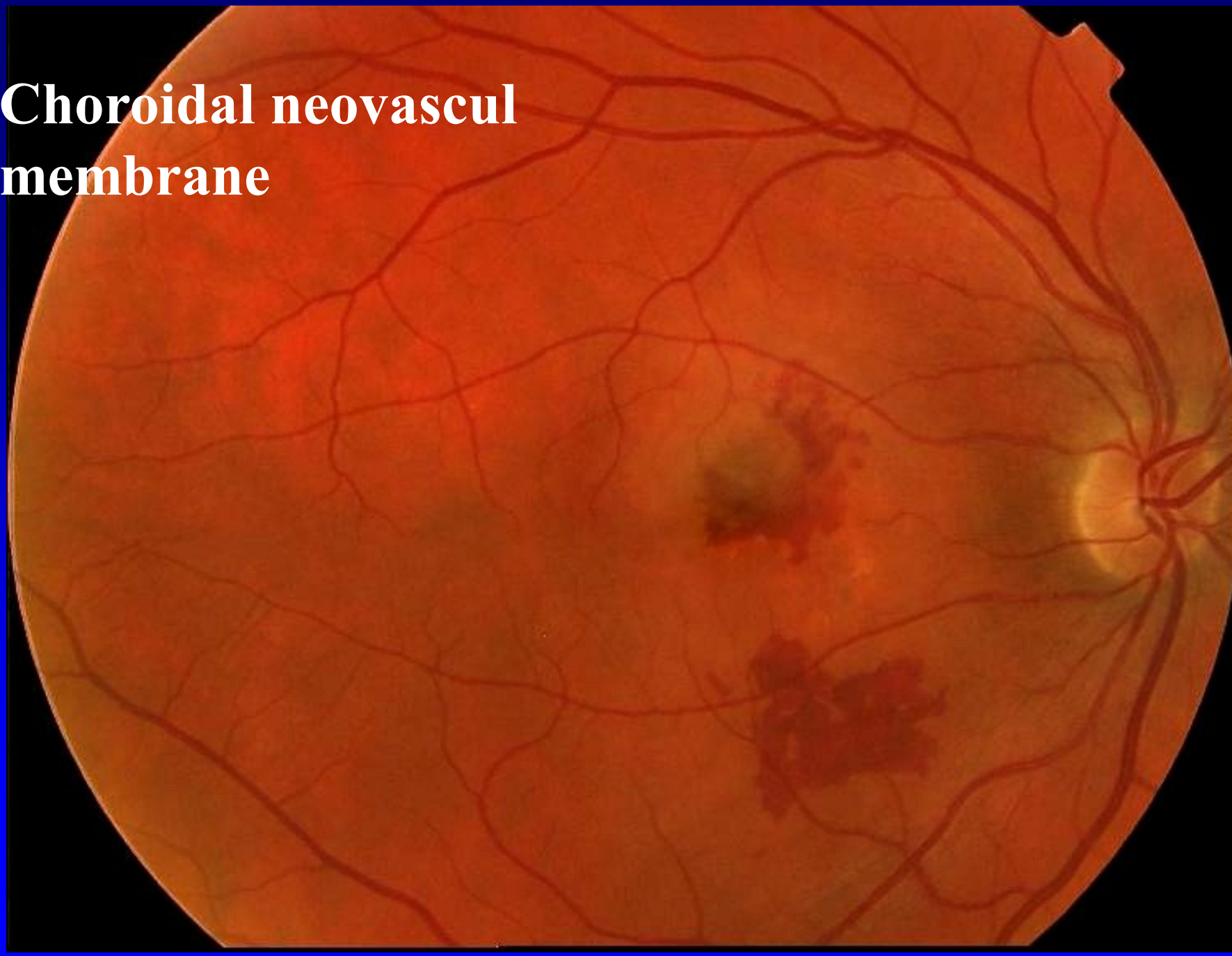
Wet form of AMD → Choroidal neovascularisation

Classification of AMD

- **CNV**
  - classical
  - occult
  - minimally classic

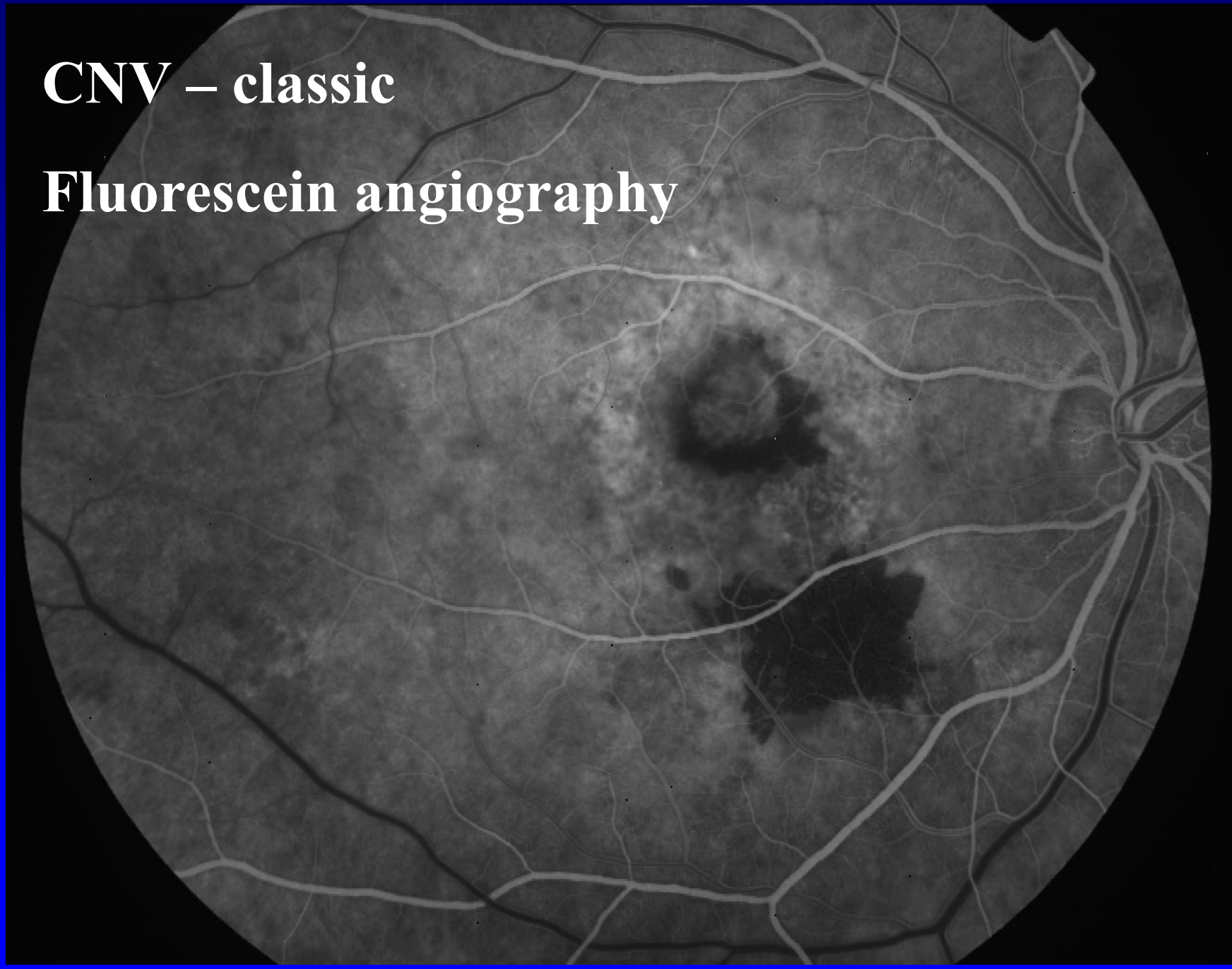


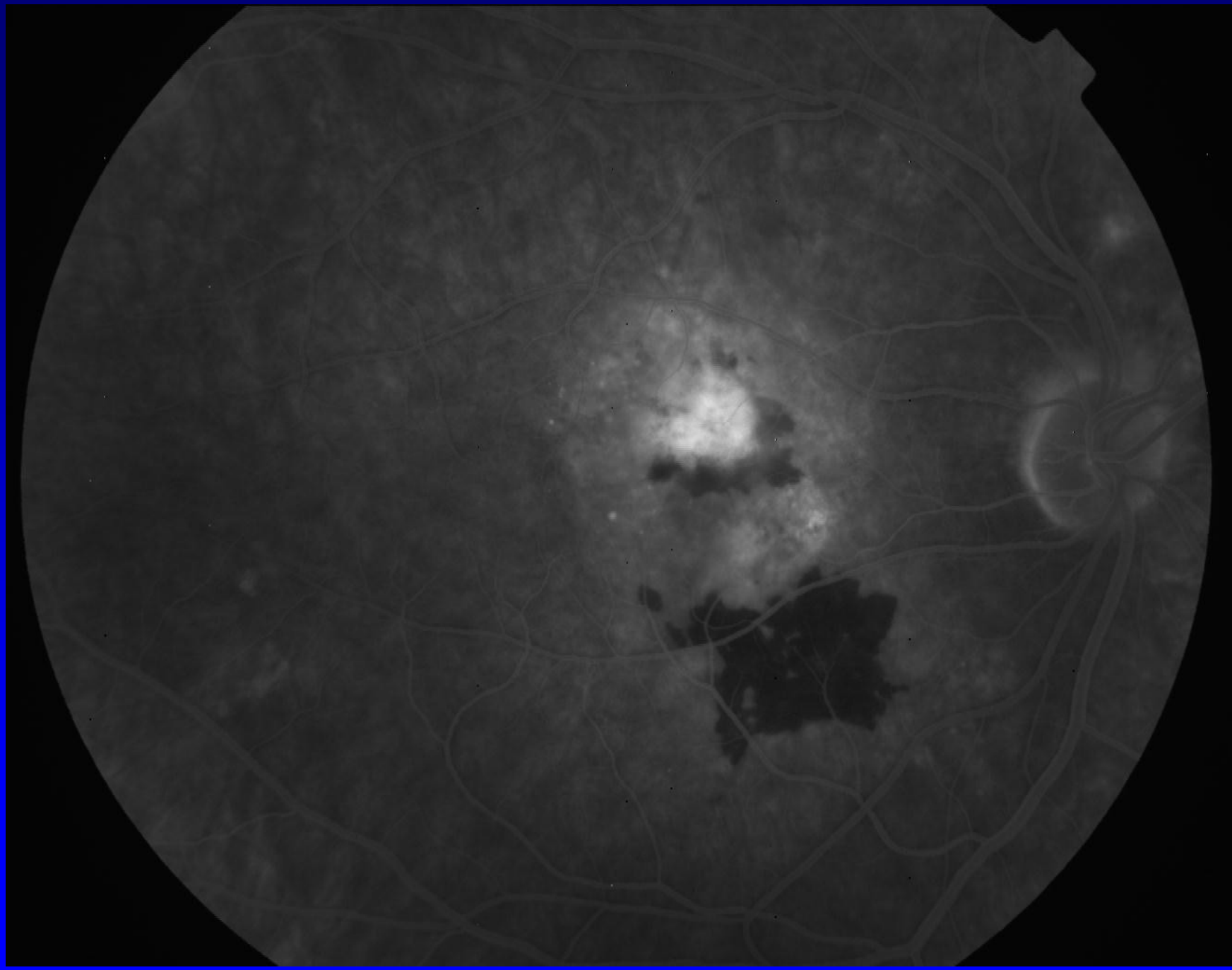
Choroidal neovascul membrane

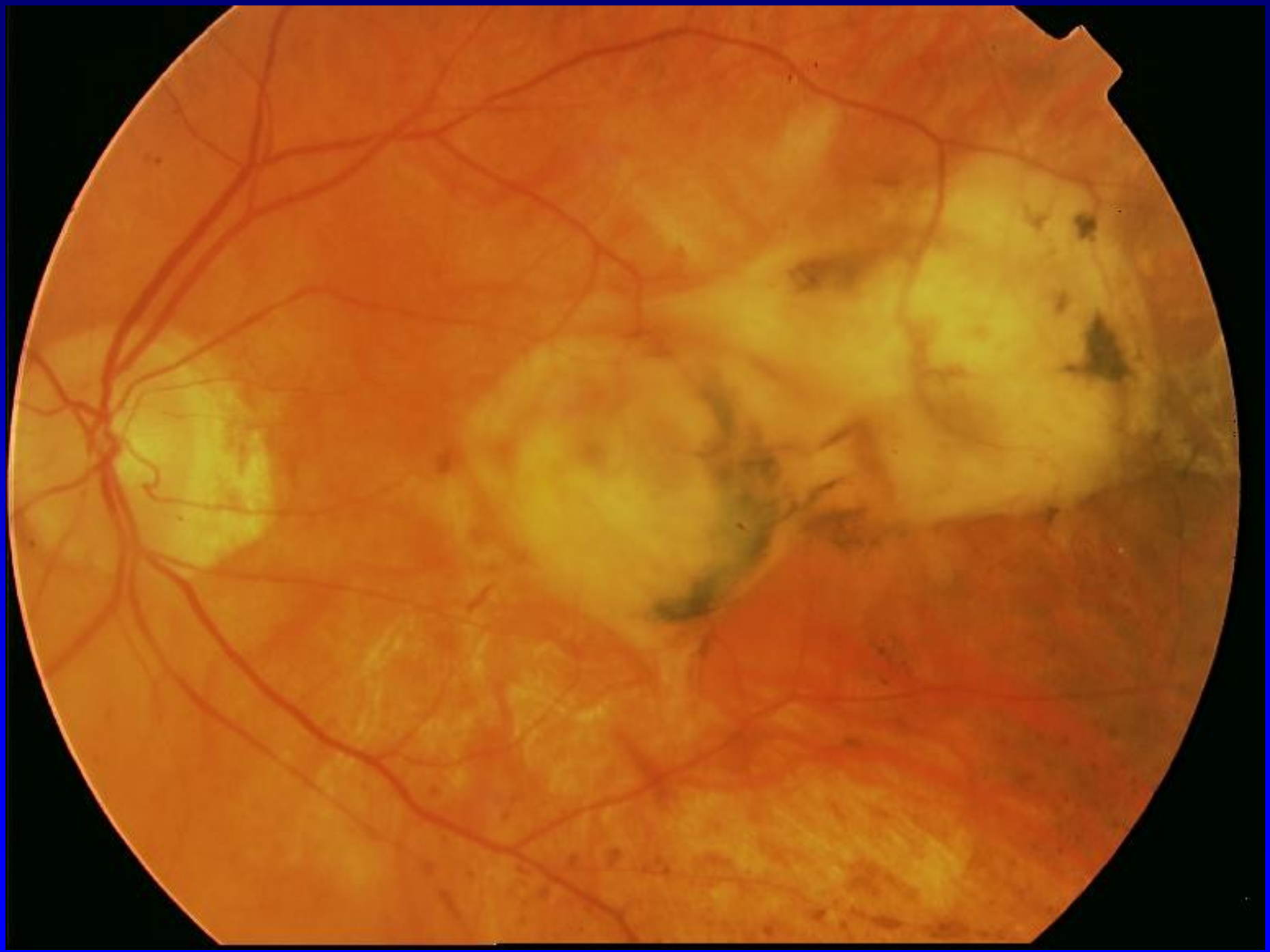


CNV – classic

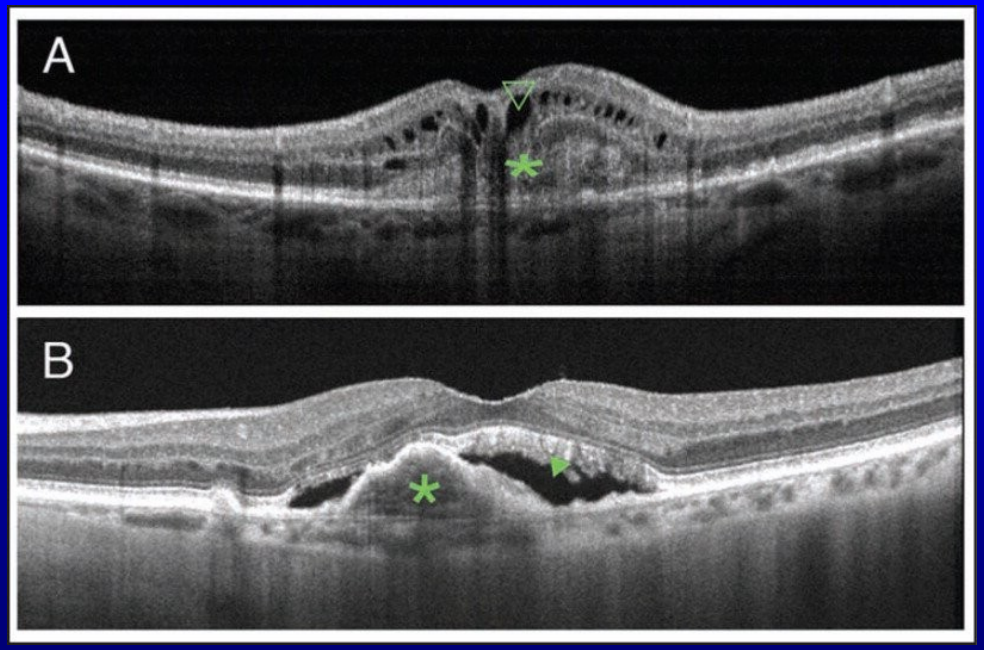
Fluorescein angiography







Optical coherence tomography



Risc factors of AMD

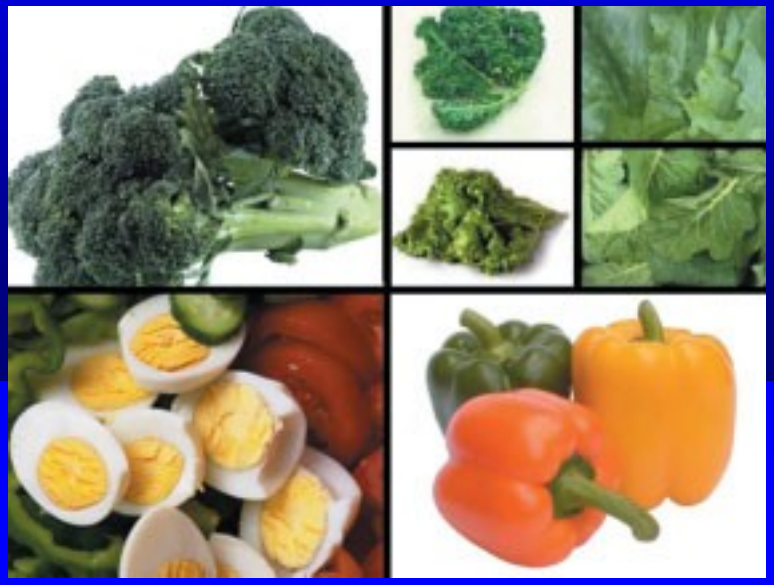
- Genetic factors
- Race influences
- Gender and hormonal influences

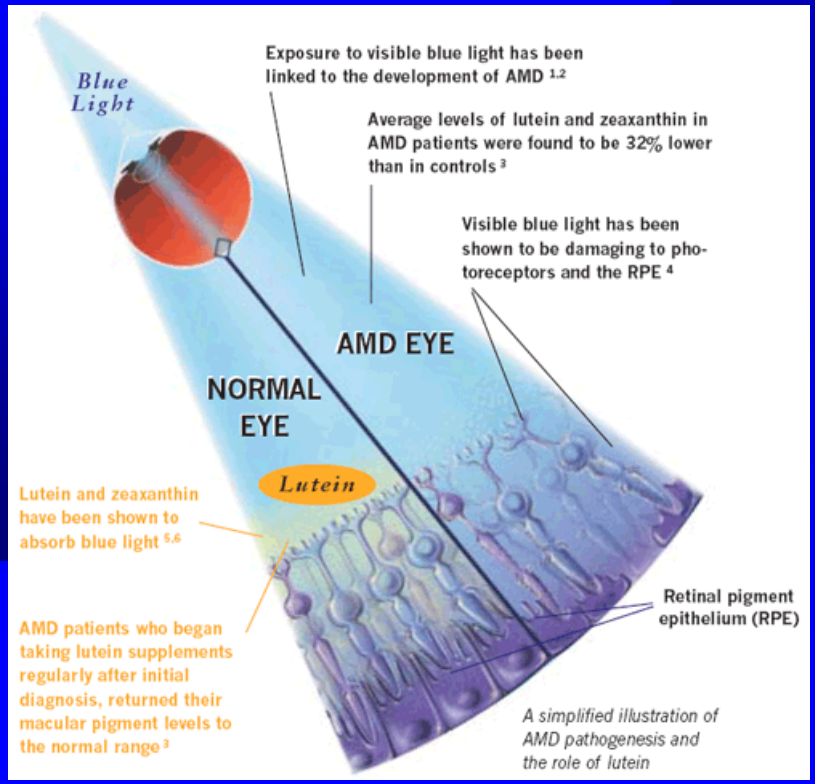
Risc factors of AMD

- Vascular risc factors
- Environmental influences
- Antioxidants level

Antioxidants

- Lutein and zeaxantin (the most important retinal carotenoids)





Therapy of AMD (summary)

- **Dry form - lutein, zeaxantin**
- **Wet form - Anti VEGF – intravitreal aplication**