

AMD: Update
1 hour

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I. Age Related Macular Degeneration

a. Acquired, degenerative disease of the retina

i. Two types

1. Dry or non-exudative

a. Early, intermediate stages

b. Advanced form: Geographic Atrophy

2. Wet or exudative

a. Advanced form: Choroidal neovascular membrane

i. Occult: Neovascularization below the RPE

ii. Classic: Neovascularization above the RPE

ii. Prevalence

1. Leading cause of severe, irreversible vision loss in adults >50

2. 1-3% of worldwide population have AMD

a. 5 million have Geographic Atrophy (GA)

b. >75 years old- 1 in 29 patients have GA

c. >90 years old- 1 in 4 have GA

b. Classification (Beckman scale)

i. No disease: no pigmentary abnormalities are observed and no or only few drupelets ($\leq 63 \mu\text{m}$ drusen) are detected

ii. Normal Aging: Only small drusen (≤ 63 microns) are present, No AMD pigmentary abnormalities are present

iii. Early AMD: No pigmentary changes are present; drusen are between $63 \mu\text{m}$ and $125 \mu\text{m}$ in size.

iv. Intermediate AMD: Large drusen ≥ 125 microns and/or any AMD pigmentary abnormalities are present

v. Advanced: Neovascular AMD (wet) and/or geographic atrophy (dry)

1. Neovascular: Occult and Classic

2. Non-exudative occult neovascular membranes

c. Risk factors

- i. Age
- ii. Race/ethnicity
- iii. Family history
- iv. Genetics
- v. Gender
- vi. Cigarette smoking
- vii. Poor nutritional intake
- viii. HTN, hypercholesterolemia
- ix. Cardiovascular disease
- x. Obesity

II. OCT

Basic Clinical Retinal Anatomy: Where it is tells you what it is!

a. Histopathological cross-section/ SD-OCT normative scan

- i. Inner Retina
 1. Inner Limiting Membrane through Inner Nuclear Layer
- ii. Outer Retina
 1. Outer Plexiform Layer through Outer Limiting Membrane
- iii. Photoreceptor Integrity Line/Retinal Pigment Epithelium
 1. Role of PIL in visual prognosis
- iv. Choroid