Optical coherence tomography interpretation: A CASE-Based Approach

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OCT Principles

- Introduced in 1991 - David Huang et al
- Commercially available in 1996
- Echo time delay of light (IR) captured by interferometry
- Reflectance: backscatter or reflection from ocular tissue
Case

- 84 years old Caucasian female presents for new distortion OS
TYPES OF DRUSEN
Types of PED
Types of CNVM
9/26/2014, OD
IR&OCT 30° ART [HS] ART(26) Q: 25
65 yoM with h/o “AMD”
Case

- 64 yoHF presents for a diabetic eye exam. Last A1c unknown. Vision “foggy for awhile” OU.
Case

• 36 yoWF referred for unilateral visual disturbance OD

• “Sun spots”, “after image”, lasting 20-30 min

• Ocular discomfort

• Noted to have AV nicking
OD 20/25, OS 20/20
A week Later
Case

- 42 yoWM presents for new “haze” OS, above central vision
Case

- 63 yoWF presents for "dim vision" OU x 6 months
- Room is lit with a 25W bulb rather than 60W
VA OD 20/30, OS 20/40
Case

- 55 yo WM, h/o HIV referred for bilateral uveitis
- HIV x 20 yrs, on HAART, CD4 650, VL undetectable
- 1 mo h/o blurred vision OU, worse x 4 days
- “lava lamp effect”, “black and white pain swirled together”
Exam

- VA cc OD 20/50, OS 20/30
- OD AC 4+ cell, AV 2+ cell w/ mild vitreous debris
- OS AC 1+ cell, AV 4+ cell w/ 2+ vitritis
11/12/2015, OD
IR&OCT 30° ART [HS] ART(25) Q: 23