

Clinical Pearls for the Modern Optometric Practice

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Objectives

- To understand the practical applications of optical coherence tomography in an ophthalmological practice.
- To know when to refer based on symptoms and retinal findings.
- To review differential diagnosis of major retinal disorders.
- To review the latest treatment options for the most common retinal disease

Introduction

- Optical coherence tomography has been the leading screening test for retinal disorders.
- Common disorders identified
 - Epiretinal membrane
 - Macular edema
 - Retinal vascular disorders
 - Macular degeneration
 - Status of vitreoretinal interface
- OCT and OPTOS Fluorescein Angiography and clinical examination clarify the differential diagnosis of retinal disorders.

Referrals should be made based on the following:

- Non-urgent
 - Epiretinal membranes - without symptoms
 - Eye floaters – 6 months in duration, without associated symptoms (No Visual field loss)
 - Family history of macular degeneration – with or without drusen – asymptomatic
- Urgent
 - Blurred vision with retinal hemorrhages
 - Sees Flashes and floaters within 1 week
 - Any flashes and floaters of any duration with associated symptoms (Visual field loss)
 - Pain and redness
 - Uveitis
 - Asymptomatic mass
- Emergent

- Pain or blurred vision after cataract surgery
- New onset Visual field loss or blurred vision
- Trauma involving foreign body

CASE 1

- Asymptomatic → Symptomatic ____
 - 57 yr old, Female, hx of Atrial Fibrillation
 - Presented with an asymptomatic _____ OS. Denied AG distortions. Over a period of 4 years, VA decreased and distortions increased.
 - VA
 - OD: 20/20
 - OS: 20/20

CASE 2

- _____
 - 58 yr old, Female, Hx of back and neck sx
 - Referred for RD, patient reported a dark veil and VA loss OD x 2 days, stable VA OS
 - VA
 - OD: CF @ 1ft, PH NI
 - OS: 20/20

CASE 3

- _____
 - 92 yr old Female, hx of HTN, _____, and prior anti-VEGF injections
 - Patient arrived and c/o continued distortions OS after receiving Avastin injections q 2-3 months.
 - VA
 - OD: 20/30 PH 20/25
 - OS: 20/25, PH 20/20

CASE 4

- _____
 - 66 yr, Female. H/o htn.
 - Experienced VA loss OS, OD was stable. Pt stated she had a "dark cloud" right down the center of OS.
 - VA
 - OD 20/30, PH NI
 - OS 20/70, PH NI

CASE 5

- _____
 - 53 yr, Male, H/o DM Type II, Htn
 - Experienced sudden vision loss 2 months prior to the visit in the right eye.
 - VA
 - OD 20/400 PH 20/200
 - OS 20/40 PH 20/20

CASE 6

- _____

- 68 yr, Male, H/o hypercholesterolemia, htn
- Experienced vision loss OD, and saw “colorful lights.” Reported high stress.
- VA
 - OD HM PH NI
 - OS 20/30 PH 20/25

CASE 7

- _____
 - 46 yr, Male, h/o chest pain few years prior to visit, fhx of melanoma
 - The patient noted a superior patchy vision loss in the left eye after fasting for 4 days intaking water alone. Dizziness.
 - VA 20/20 OU

CASE 8

- _____
 - 56 yr, Male, H/o DM Type II, htn,
 - Patient experienced decreasing VA OS>OD, and red floaters OS
 - VA
 - OD 20/20
 - OS 20/60 PH NI

CASE 9

- _____
 - 57 yr, Male, h/o htn, methamphetamine use - chronicity not reported.
 - The patient noted vision loss in the right eye, hours to a day, after using methamphetamine.
 - VA
 - OD CF @3ft OD PH NI,
 - OS 20/20

CASE 10

- _____
 - 36 yr, Male, no significant prior medical hx reported
 - Experienced blurred central VA in OD, in which he sees a circle and everything in it is blurry. "Everything outside of the circle is clear and there is a color difference between OD and OS now." Sustained blunt trauma from wood chip same day as symptoms presented.
 - VA
 - OD 20/40 PH NI
 - OS 20/20

CASE 11

- _____
 - 54 yr, Male, no PMH reported
 - Past ocular history of, Panuveitis, Papilledema, _____, ME, POAG, Steroid induced glaucoma
 - BCVA has been stable around 20/25 OU.

CASE 12

- _____
 - 65 yr, Female, DM II

- Following her for retinal hemangioma in the left eye.
- VA
 - OD 20/40 PH NI
 - OS 20/200

CASE 13

- _____ (On Diamox)
 - 17 yr, Male, No significant prior medical hx reported.
 - Referred for poor VA and lack of improvement over the last 5+ years.
 - VA
 - OD 20/200 PH 20/60
 - OS 20/80 PH 20/70

CASE 14

- _____ with Acute Lymphoid Leukemia
 - 16 yr, Female
 - H/o Acute lymphoid leukemia. In remission. Currently on IV chemotherapy.
 - Patient reported decrease in vision a few months prior to visit.
 - VA
 - OD 20/50 PH NI
 - OS 20/20