30 Years of Clinical Challenges

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Case RM

- 62 yowm
- PMH: HTN
- POH unremarkable
- -FOH
- c/o eyes are scratchy, uses OTC zaditor
- BVA 20/20 OD 20/30 OS (due to cataract OS)
- EOM full
- CF FTFC OU
- PERRLA –APD
- SL: see photo
- TA 22, 24*, 22 OD 24, 29*, 27
    - * afternoon reading
- CCT 579/574
- Slit Lamp/Gonioscopy

How Strongly Do You Feel That This Patient Has Glaucoma?

- 1. 0-20 %
- 2. 20-40 %
- 3. 40-60 %
- 4. 60-80 %
- 5. 80-100 %

How Strongly Do You Feel This Patient is at Risk for Becoming Visually Impaired from Glaucoma?

- 1. No risk
- 2. Very little risk
- 3. Low risk
- 4. Moderate risk
- 5. High risk

You obtain three IOP readings:
22, 24*, 20 OD 24, 29*, 27
*** afternoon reading**

What is your management plan?

- 1. Treat right eye only
- 2. Treat left eye only
- 3. Treat both eyes
- 4. Order MRI of head and orbits
- 5. Follow without treatment with serial visual fields

What is your target IOP for each eye?

- 1. < 24
- 2. <21
- 3. < 18
- 5. < 15
- 6. < 12

What is it going to take to achieve this target pressure?

- 1. One med
- 2. Two meds
- 3. Three meds
- 4. Two meds and ALT/SLT
- 5. Three meds and ALT/SLT
- 6. Filter

What's It Going to Take?

- 20-30% reduction - 1 or 2 meds
- 30-40% reduction - 2 meds +/- ALT/SLT
- 40-50% reduction - 2-3 meds + ALT/SLT +/- filter

Case RM

- Initial TP set < 18
- Patient on latanoprost and cosopt with IOPs 13-17 OD 15-18 OS during four years of follow up
- Patient comes in for afternoon IOP reading and TA 18 OD 20 OS
- What should you do?

Is the Patient Stable or Progressing?

- Stable OU
- Stable OD Progressing OS
- Progressing OD Stable OS
- Progressing OU

What is your Management Plan?

- No change in tx (Change TP < 20)
- Add Alphagan BID OS only
- Add Alphagan BID OU
- SLT OS only
- SLT OU
- Filter OS only
- Filter OU
- Cataract Surgery OS
- Cataract Surgery OS with MIGS

CASE MK

46 y.o. BF
PMH
HTN
c/o reduced vision in left eye x 1 year
VA
OD 20/20
OS 20/40
CF FTFC OD misses sup nasal OS
+L APD

Diagnosis and Treatment?
She's BACK
Sudden loss of vision in right eye
VA 20/200 OD 20/40 OS
CF FTFC OD misses superior nasal OS
Still Left APD

Hey Doc Why is my Eye Red?

59 yobm
Walk-in
c/o my left eye is always red
VA 20/20 OD 20/20 OS
EOM full
CF FTFC OU
PERRLA – APD

Case BA

BVA 20/200 OD 20/20 OS
EOM full without diplopia
CF dense superior defect OD and dense inferior defect OS
Pupils were equal, round and respond to light with no APD
Slit lamp pigmented corneal whirls OU
TA 15/15

Diagnosis?
Bilateral AION vs Papilledema
Management
-Lab work:
ESR: normal
CRP: normal
SPEP: no spike seen, normal pattern
HIV: non-reactive
- MRI: possible slight asymmetry of left optic nerve larger than right, Otherwise, normal scan of orbits/brain
-CSF: normal opening pressure and CSF composition
- Thought to be bilateral non-arteritic anterior ischemic optic neuropathy 2^ to amiodarone use. After consult with cardiology, amiodarone was discontinued. VA remained 20/200 OD and 20/20 OS with superior visual loss in right eye and inferior visual field loss in left eye.

Amiodarone
Most commonly prescribed medication for artial fibrillation and other heart arrhythmias
Systemic toxicity results in 50% discontinuation
Toxicity includes lungs, thyroid, skin nervous system, liver and eyes
>90% of patients develop corneal deposits without significant ocular complications

Amiodarone and AION
2% of patients on Amiodarone
Mean duration of therapy was 9 months
More common in males (74-84%) than females
Vision loss is more insidious than acute
2/3 of cases are bilateral
No preference for disc size

Amiodarone and AION
1/3 of patients were asymptomatic
VA range 20/15 to LP
Median VA 20/30
21% of patients had 20/200 or worse vision in one eye
VA improved in 58% of cases where amiodarone was discontinued
Recommend DFE 6 mo, 9 mo and 12 mo after starting amiodarone and q6mo thereafter

Case JJ

25 yowm
History of corneal abrasion August 1994 OS
Recurrent red left eye that resolves on own

Scarring and blood vessel growth noted from previous doctor in Navy
c/o of red eye with pain and photophobia x 3 days
VA 20/20 OD 20/40 OS
PERRLA -APD
SLE: See photos. Tr cells in right eye

What is your diagnosis?
1. Bacterial keratitis
2. Herpes Simplex keratitis
3. Recurrent corneal erosion
4. Staph hypersensitivity
5. Acanthamoeba keratitis
6. Corneal phlyctenule
7. Rosacea keratitis
8. Retained corneal foreign body

How would you treat the patient?
1. Do corneal cultures and treat based on culture results
2. Start Vigamox or Zymar q1h
3. Start fortified cephazolin and tobramycin alternating every half hour
4. Start oral doxycycline 100 mg bid
5. Start topical steroid
6. Start Viroptic q2h or Zirgan 5x a day
7. Start Viroptic/Zirgan qid and Pred Forte qid
8. Start oral anti-viral

What is your long term management for this patient?
1. Insert Punctal plugs
2. Oral Acyclovir 400 mg bid
3. Oral Doxycycline
4. Do laser photocoagulation to corneal blood vessels
5. Educate and control of lid hygiene
6. Bacitracin ointment qhs
7. Lotamax qid
8. Artificial tears during day and tear ointment at bedtime
9. Oral Acyclovir 800 mg qd and Lotamax qd

Case of the
Friday Afternoon Red Eye

- **5pm on a Friday afternoon**
- **ER calls**
- **65 yowm comes in with a red eye**
- **Can you take a quick look?**
- **Before he hangs up**
- **He might also have some pain and blurred vision**
-

History
- **65yom**
- **PMH: + HTN, recently diagnosed with irritable bowel syndrome**

●Taking Lopressor and Zantac
●Neg past ocular history, afebrile
●LEE 6 months ago, got new glasses
●Sudden onset of left eye pain, eye redness and blurred vision
●He reports jaw ache, nausea and vomiting
●He denies any prior episodes

Clinical Findings
●VA with correction 20/20 OD and 20/60 OS
●With a -1.50 sphere over his habitual Rx, his vision improves to 20/20 OS
●EOM are full without pain on rotation or diplopia
●Confrontation fields are full to finger counting
●Pupils are PERRA with no APD
●Color vision is 15/15 OU pseudo-chromatic plates
●Exophthalmometry 18 mm OU base 100

Slit Lamp Findings
•Right eye
•Conjunctiva - white and quiet
•Cornea - clear with no edema
•Anterior Chamber - VH II, no cells or flare
•Iris - unremarkable
•Left eye
•Conjunctiva - 2 + hyperemia
•Cornea - clear with no edema
•Anterior chamber - shallow with trace cells
•Iris - mobile without synedhia
•Tonometry 20mm OD 35 mm OS
•1+ NS Cataracts OU
Gonioscopy
●Right Eye
●TM seen 360 degrees
●Grade II
●No PAS
●Left Eye
●Bare anterior TM was seen with lens tilt
●Grade I
●No PAS with pressure
●
Diagnois and Management
●Pt diagnosed with sub-acute angle closure
●Timolol .5% OS, Pilocarpine 2% OS and Diamox 500 mg po
●Patient had same day YAG PI OS
●Post IOP = 14/20 mm Hg
●Happy hour is delayed but not missed

Monday morning - He's BACK!
●The patient returns on Monday morning with complaint of further eye pain, redness and reduced vision in the left eye
●He still has jaw ache, nausea and vomiting

●VA 20/20 OD and 20/200 OS
●EOM - full with pain on eye rotation
●CF - shows a superior and temporal defect OS
●Pupils show a left APD
●
Slit Lamp Findings
●Right Eye
●Unchanged
●Left Eye
●3+ deep scleral injection
●Anterior Chamber is shallow with 1+ cells
●Iris bowed forward
●PI is patent
●Lens is bowed forward touching the posterior surface of the iris
●TA 14 OD and 35 OS
●
Dilated Fundus Examination
●Right Eye
●Unremarkable
●Left Eye
●See Photo

WHAT IS THIS?
●1. Retinal Detachment
●2. Choroidal Melanoma
●3. Choroidal Rupture
●4. Choroidal Fold
●5. Choroidal Detachment
●6. Choroidal Infection
●7. Central Serous Chorioretinopathy
●8. None of the above
●
WHAT DIAGNOSITIC TEST WOULD YOU LIKE TO PERFORM?
●1. Fluorescein Angiography
●2. Visual Field
●3. Ultrasound
●4. CT/MRI of Head
●5. Observe
●6. None of the above
●
Diagnosis Please ?
●1. Malignant Glaucoma
●2. Harada's Syndrome
●3. Posterior Scleritis
●4. Central Serous Chorioretinopathy
●5. Choroidal Tumor
●6. Choroidal Infection
●7. Retinal Detachment
●8. Endophthalmitis

The patient is treated with aqueous suppressants and which of the following medications?
- **1. Pred Forte q1h**
- **2. Pred Forte q1h, Oral Steroids**
- **3. Homatropine qid, Acular qid**
- **4. Homatropine qid, Pred Forte q1h**
- **5. Homatropine qid, Pred Forte q1h, Oral NSAID**
- **6. Homatropine qid, Pred Forte q1h, Oral Steroid**
- **7. None of the above**

Management
- **Patient is started on 100 mg of oral prednisone**
- **Homatropine 5% bid and Pred Forte q1h OS**
- **Medicine consult to rule out an underlying systemic etiology**
- **Ordered CBC, ESR, serum uric acid, RPR, ANA, RF, plasma proteins and electrophoresis, CXR, PPD, X-ray of the sacroiliac joints**

One Month Later
- **Patient reports less eye pain and redness. No longer experiences jaw pain, nausea or vomiting**
- **VA improved to 20/40 OS**
- **CF - full**
- **No APD**
- **Anterior chamber deeper and quiet**
- **Gonioscopy reveals full TM**
- **TA 20 mm HG OU**
- **Resolving choroidal detachment**

Two Months Later
- **Patient reports much improvement**
- **VA 20/20 with habitual Rx**
- **Hyperemia resolved**
- **Anterior chamber deep and quiet TA 18 OU**
- **Retina flat with high water marks representing the extent of the previous detachment**

One Year Later
- **Patient asymptomatic**
- **Completely off prednisone**
- **No underlying systemic disease found**

Posterior Scleritis
- **Granulomatous inflammation either within the scleral tissue or in relation to the vascular networks adjacent to it**
- **Scleritis is most common anterior to the equator because of the richer blood supply**
- **Sclera is normally .3 to 1 mm in thickness. In scleritis the sclera can become 6 mm thick**
- **Posterior scleritis accounts for less than 10% of all scleral disease**

Ocular Manifestations of Posterior Scleritis
- **Ocular Pain**
- **Associated Anterior Scleritis**
- **Blurred vision**
- **Acute refractive error changes**
- **Proptosis**

●Ophthalmoplegia
●Diplopia
●Angle closure glaucoma
●Choroidal folds or detachments
●Macular edema
●Disc Edema

Ciliochoroidal Effusion
●Ciliary body swelling leads to a forward displacement of the lens resulting in an increase in dioptric power
●Iris is pushed forward shallowing the anterior chamber and causing an angle closure glaucoma
●Scleral inflammation causes colloidal leakage from the choroid leading to a exudative choroidal detachment
●
Tests Used to Differentiate
Management
●High dose oral steroids
●Cycloplegics to relax the ciliary muscle and deepen the anterior chamber
●Topical steroids to reduce anterior chamber inflammation and congestion
●Primary care consult to rule out and underlying systemic etiology
●Check systemic medications that can cause choroidal effusion (ie topiramate)