

Interactive Grand Rounds

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Case of my why is my eye swollen shut?

- 56 yobm
- C4-C5 anterior cervical disc fusion for cervical myelopathy (Feb 2007)
- Re-op April 2007 for loosened hardware
- Woke up post-op with swollen left eye shut which has not improved x 1 week
- c/o blurred vision in left eye
- Slight pain 4 out of 10.
- Mild photophobia, Eye feels hot.
- Med history of lung CA c mets to brain

Case CS

- VA 20/20 OD 20/20- OS
- EOM full OU
- CF FTFC OU
- No APD
- External exam See photos
- TA 16/16
- DFE c/d .5 OU, M, V, P wnl OU

Diagnosis

- 1. Pre-septal cellulitis
- 2. Orbital cellulitis
- 3. Orbital pseudotumor
- 4. Horner's syndrome
- 5. 3rd Nerve Palsy
- 6. Metastatic lesion to orbit

- 7. Dermatochalasis
- 8. Dacryoadenitis

Horner's Syndrome: Ocular Signs

- Anisocoria with smaller pupil abnormal, increasing in dim light; otherwise normal light and near pupillary responses
- Mild upper and lower lid ptosis on same side as miotic pupil

Horner's Syndrome: Ocular Signs

- Iris heterochromia in congenital cases
- Anhidrosis:
ipsilateral side of body if 1st order neuron, ipsilateral face if 2nd order neuron, only forehead or none if 3rd order neuron

Horner's Syndrome: Etiology

- First order neuron (preganglionic) disorder:
CNS lesions, infarction, tumor, demyelination

Horner's Syndrome: Etiology

- Second order neuron (preganglionic) disorder:
apical lung (Pancoast's) tumor, metastasis, trauma to the brachial plexus, thoracic aortic aneurysm, thyroid neoplasm
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Horner's Syndrome: Etiology

- Third order neuron (postganglionic) disorder:
 - cluster headache
 - migraine
 - herpes zoster

- carotid artery dissection

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Horner's Syndrome: Diagnosis

- To confirm Horner's:
1 drop 10% cocaine OU x 2; if both pupils dilate after 30 minutes the anisocoria is physiologic; if the smaller pupil fails to dilate Horner's is present

Horner's Syndrome: Diagnosis

- To locate the lesion:
1 drop 1% hydroxyamphetamine into involved eye (>48 hrs later);
if pupil dilates after 45 minutes the lesion is preganglionic;
if pupil does not dilate the lesion is postganglionic

Horner's Syndrome: Management

Preganglionic lesion:

- rule out previous trauma/surgery
- chest imaging
- neurological consultation

Horner's Syndrome: Management

Postganglionic lesion:

- usually benign
- rule out dissecting carotid artery

Case WP

- 55 yobm
- PMH: HTN, Chron's Disease
- POH: h/o recurrent red eye with mild eye pain OD
- Cc: Right eye red x 7 days, associated with pain and photophobia, using Visine which does not improve redness. Denies trauma

Case WP

- BVA 20/30 OD 20/20 OS
- CF FTFC OU
- Pupils: 3 mm OD 4 mm OS ERRLA – APD
- SL: cornea with some fine KP OD
- AC 3+ cell/flare OD deep and quiet OS
- Iris: unremarkable
- TA 20 OD 24 OS

Case WP

What is your next step?

Gonioscopy shows

- 3-4+ open angle OU, however note asymmetry in angle appearance

What is your next step?

- The patient is started on Pred Forte q1h OD and Homatropine 5% bid OD

Case WP

- The patient returns 1 week later with less redness and pain
- VA 20/25 OD 20/20 OS
- Conjunctiva shows less injection
- KP are improved
- AC shows 1+ c/f
- TA 18 OD 19 OS

How should you manage?

- Pred Forte is tapered to qid and homatropine is

discontinued OD

Case WP

- The patient returns one week later with mild eye pain and photophobia
- VA 20/25 OD 20/20 OS
- AC shows 2+ cells OD
- TA 28 OD 20 OS

What do you do now?

- IOP is elevated and the inflammation is increased
- Pred Forte is increased to q2h and HA5 is restarted bid
- Should you add an anti-glaucoma med?

Case WP

- The patient returns in one week with resolution of eye pain
- VA 20/20- od 20/20 os
- AC shows 1+ cells/flare od
- TA 19 OD and 16 OS

Now what?

- IOP is lower and the inflammation is reduced
- The Pred Forte is tapered, but on a slower schedule, q4h x 1 week and qid x 1 week, homatropine is d/c

Case WP

The patient returns in two weeks with no complaints
AC rare cell od
TA 32 OD 18 OS

Suggestions?

- Inflammation is reduced, however IOP is increased

- Probably steroid response
- Should we taper Pred Forte or switched to Vexol?
- Should we add an anti-glaucoma med?

Case WP

- The patient returns in one week
- Pred Forte bid od and cosopt bid od
- VA 20/20 od 20/20 os
- AC deep and quiet od
- TA 24 OD 20 OS

Now what?

- Continue taper of Pred Forte to once a day
- Continue Cosopt bid OD

Long term management

- Patient has h/o recurrent iritis OD
- Evidence of angle scarring OD
- Evidence of glaucomatous damage to the optic nerve OD
- Patient should be treated for glaucoma OD with TP 30-40% reduction from baseline high IOP
- May consider treatment for OS with TP 20-30% reduction

Clinical Pearls

- Uveitic glaucoma is like war and peace
- May need to treat aggressively with steroids to get the IOP down
- May need to taper off the steroids to get the IOP down
- Taper steroids too quickly and you will likely get a rebound inflammation
- Watch for secondary complications such as PAS, posterior synechia and cataract

Clinical Pearls

- Avoid prostaglandins in uveitic glaucoma if possible
- ALT is less effectively and may induce inflammation
- ? SLT
- Often requires filtering procedure (MMC or seton) if IOP cannot be controlled
- Keep close F/U even when eye is quiescent

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

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 q1h
- 3. Start Ciloxin q1h
- 4. Start fortified cephalosporin and tobramycin alternating every half hour
- 5. Start Viroptic q2h
- 6. Start oral doxycycline 100 mg bid
- 7. Start Pred Forte qid
- 8. Start Viroptic qid and Pred Forte qid
- 9. Start oral Acyclovir 400mg bid

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