My Favorite Cases

● Anthony B. Litwak,OD, FAAO
● VA Medical Center
● Baltimore, Maryland

Dr. Litwak is on the speaker bureau and advisory panel for Alcon and Zeiss Meditek

Case LA

62 yobf
+HTN, + DM
POH told she had elevated IOP since age 17
Followed since 1995 (age 46)
VA 20/20 OD, 20/20 OS
EOM full
CF FTFC OU
PERRLA –APD
SL unremarkable
IOP s meds 21, 19, 28, 24, 21, 26, 24, 25 OD
IOP s meds 23, 19, 30, 27, 23, 27, 29, 26 OS
CCT 580/580
Gonio: 3+ open with multiple iris processes OU

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

Should we treat or observe?

1. Does the patient have nerve damage?

If yes then in most cases – TREAT

If no, then access risk factors to determine the benefits of treatment vs observation

Level of IOP

CCT

Age

FOH

Race

POAG Endpoints by Central Corneal Thickness and Baseline IOP (mmHg) in Observation Group*

Does a Normal Visual Field Exclude the Diagnosis of Glaucoma?

Case LA

Patient started on Travatan in 1997
IOP 16, 19, 22, 18 OD, 18, 21, 24, 20 OS
Would you add a 2nd medication?

Case LA (2002-2010)

IOP on single med 16-24 OD, 18-24 OS
IOP on multiple meds 14-20 OD, 15-21 OS
h/o poor compliance with meds and f/u
Has taken extended vacations from eyedrops and follow ups (some lasting 3 yrs)
s/p ALT OS, s/p SLT OS
No DR OU

Patient is on MMT OS
IOP ranges from 14-17 OS
Should this patient be filtered???

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. Dermatochalsis
- 8. Dacyroadenitis

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
- Anhydrosis:
  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 aneursym, thyroid neoplasm
-

Horner's Syndrome: Etiology

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

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

Apraclonidine .5% or 1%

» direct-acting alpha receptor agonist with primarily alpha-2 (but weak alpha-1) activity.

» Apraclonidine has little to no effect on a normal pupil.
» In Horner Syndrome, the alpha-1 receptors upregulate and become supersensitive to stimulation, thus the Horner pupil dilates to apraclonidine.

Horner's eye
– The pupil in the affected eye dilates in response to apraclonidine. Lid goes up too.
– Reversal of anisocoria occurs after bilateral instillation of apraclonidine.

Advantages over cocaine:
– Inexpensive
– Readily available
– Not a controlled substance
Disadvantage:
– Lag time for supersensitivity to develop
• May result in false negative

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 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 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 LH

71 yowm
POH MVA 1997
PMH: HTN
cc: reduced vision in his left eye
BVA 20/20 OD 20/40 OS
Left APD
SLE Iridodialysis OS
TA 16 OD 18 OS

Gonio: Two clock hrs angle recession OS
See optic nerve and visual fields
What is your diagnosis?

What is your management plan?

- 1. Start anti-glaucoma treatment
- 2. Do diurnal curve
- 3. Order MRI of brain and orbits
- 4. Take disc photos and observe

Elevated IOP and Something Else Syndrome

Tend to treat elevated IOP in any patient with a non glaucomatous optic neuropathy (AION, optic neuritis, optic disc drusen, anomalous discs, optic atrophy) or any retinal condition that causes visual field loss that makes it difficult to follow patients for glaucomatous progression.