“My Doctor told me I needed an eye exam because……..

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UEI

Drugs can blind you (the patient)

- Cataract
- Glaucoma
- Uveitis
- Dry eye
- Macular disease
- Optic neuropathies
- Stroke (ischemic disease)
- Ocular heme-alcohol + tylenol
KNOW THY PATIENT

- Individuals ARE different
- HISTORY, HISTORY HISTORY@@@
  - Medical
  - Eye
  - Allergy
  - Medications
  - Family
  - Social
  - Demographics

GET FOCUSED

- WHY ARE YOU HERE?
- Take a thorough HISTORIES
- What are you taking
- What are you using it for
- What are your SX
- Know your protocols
CASE #1: The latent hyperope/macular hole/diabetic macular edema patient

“My doctor told me to get my vision checked”

• 29 Y/O Asian female presents with CC: “My vision isn’t right”- “IT’S BLURRY”
• Feels like its getting worse for the last 3 months
• My Doctor told me to have my eyes checked because of my medications
Medical HX
Doctor #1

- “Lung infection” TX X 6 months
- No other significant HX
- MEDS: rifampin, ethambutol, clarithromycin
- Allergies: None
- Fm HX: Type II DM-F
- Social HX: NEG
- Fm Oc HX: NEG

The exam
10/2011

- BVA: 20/25-2 OU
- Current RX; (+) 0.50 OU
- OD: 20/20-2 OS 20/25-1
- Refrac. +0.75-0.25 X 165 20/20-2
- +0.75-0.25 X 10 20/25 -1
- Pupils: PERRLA (-) APD, IOP 12 OU
- DFE: WNL  C/D: 0.3/0.3 OU
- DX: HYPEROPE-told everthing is OK
- Gave new RX
DR. #2
4/2012

• HX and complaint: see Dr. #1: My vision is getting worse and my doctor told me to get an eye exam
• Acuity with RX: 20/25-2 OU
• Refraction: (+) 150- 0.50 X 10 20/25
• (+) 150 – 0.25 X 160 20/25
A/P: Hyperope/ made new RX

2 weeks later: Doctor #3

• MY new glasses don’t work-they make me blurrier
• HX: Dr. #3 has records from #2
• BVA: Best with original RX
• OD 20/30
• OS 20/30
• Amsler grid: (central blur OU)
• A/P: “Bilateral macular holes”: “see an ophthalmologist”-no appt made for patient
2 weeks later: Back to Dr. #1

- Same complaint with HX of other visits
- **BVA:** OD 20/50
- OS 20/80
- Macular OCT performed
- Result: NML
- **A/P:** Diabetic macular edema
- Consult to a PCP for undiagnosed diabetes

1 week later: PCP report:

- **NO DIABETES**
- Repeats OCT; NML
- Refers to RETINA: Appt made-non-emergent referral
10 days later: Retina evaluation

• BVA: OD 20/200
• OS 20/400
• Color vision: Missed (3) plates OD and (all) plates OS
• (-) APD
• Temporal pallor of OS disc
• VF’s: Paracentral defects OU, OS > OD
• A/P...........?

WHAT DO YOU THINK?

• 1. LATENT HYPEROPIA
• 2. AMD
• 3. TOBACCO/ALCOHOL AMBLYOPIA
• 4. ETHAMAMBUTOL TOXICITY
• 5. BILATERAL MACULAR HOLES
• 6. LOW TENSION GLAUCOMA
• 7. MS/ optic neuritis
WHAT DO YOU DO?

• 1. Lower IOP at least 30%
• 2. Get MS consult
• 3. Advise pulmonologist to DC ethambutol
• 4. Advise patient to start drinking and smoking
• 5. Start ARED’s vitamins
• 6. Increase her plus at near and start VT

FIRST: LISTEN TO YOUR PATIENT

• MY DOCTOR TOLD ME TO HAVE MY EYES CHECKED BECAUSE OF THE MEDICATIONS THAT I AM USING
• MY VISION IS NOT RIGHT
KNOW YOUR PROTOCOLS
THE BLINDING DRUGS

- HYDROXYCHLOROQUINE
- VIAGRA
- CORTICOSTEROIDS
- AMIODARONE
- TAMOXIFEN
- ETHAMBUTOL

WHAT DO YOU DO?

- BVA
- COLOR VISION (D15)
- VF’S: 24-2
- EDUCATE
- NOTE ANY DISTURBANCE OF VISION
- ADVISE DC OF ETHAMBUTOL IMMEDIATELY
- CV MOST RELIABLE PREDICTOR
Hey Doc—Everything looks blue!

- 71 Y/O male for general exam complains of occasional color disturbance associated with “migraine-like” HA
- Occurs X 2 months—”at night”
- No prior HX of vascular HA
- No decrease or loss in vision
- No hx TIA

Viagra—The Good

- Affects nitric oxide receptors and may affect ocular blood flow—Useful in open angle glaucoma?
- In a recent study 100 male glaucoma patients take Viagra for one year
RESULTS??

• At the end of one year they still have glaucoma
• BUT THEY DON’T CARE!!
• Seriously—Studies of blood flow effects may help in management of optic nerve perfusion and explain Viagra’s side-effects

Viagra-The Bad

• Has produced anterior ischemic neuropathy
• Has produced pupil-sparing third nerve palsy
• Associated with ocular vascular events
• Vascular adverse effects increase dramatically when used with nitrates@@@@
The mechanism, the protocol

- Local loss of perfusion/hypotensive event
- STOP THE DRUG
- ASSESS THE DAMAGE
- DO A VF
- Monitor nerve palsies
- Look for multiple neuro deficits
- Bad things get worse

Anti-anginal Agents

- Nitrates
- Coronary artery dilators
**The Breast Cancer Wonder Drug**

- Reduces incidence of breast cancer by up to 75%
- Originally used in elderly, post-menopausal women to prevent recurrence of cancer
- Now in young women for prophylaxis
- Produces vision loss?

**Tamoxifen Maculopathy@@@**

- Occurs in 6% of patients within 6 months of low dose therapy (20mg/D)
- Reversible early, not reversible later
- White crystalline macular deposits
- Nobody knows about this
Patient Management

- Pre-TX baseline evaluation with emphasis on macular function and appearance
- Evaluate every 6 months thereafter or prn decrease in central acuity
- Also monitor for cataract

Plaquesnil: NEW GUIDELINES: KNOW YOUR NO’S

- NO COLOR
- NO PHOTO
- NO AMSLER
- NO WAIT FOR VA LOSS
- VA LOSS STOPS AFTER DRUG DISCONTINUED - NOOOOOOOOOO
NEW GUIDELINES:
KNOW YOUR YES’S

• BASELINE EVALUATION
• ANNUAL EXAMS UNLESS HIGH RISK
• CUMULATIVE DOSE CALCULATION
• ASSESS PATIENTS RISK FACTORS
• VF-10-2
• OCT-SPECTRAL DOMAIN-PIL
• COUNCIL PATIENT
• COMMUNICATE WITH PRESCRIBER

RISK FACTORS

• > 5 YEARS TX
• RENAL OR HEPATIC DISEASE
• RETINAL DISEASE
• HIGH BMI
• OVER 60
• CUMULATIVE DOSE OF 1000 GMS

EXAMPLE: 10 YEARS TX AT 400MG/D =
CD = 10 X 365 X 0.4GM =
1,460 GMS CD

CHECK EVERY 6 MONTHS
THE LIST

- Hypertension: BRVO/CRVO
- Diabetes
- Toxoplasmosis
- CMV retinitis
- Drug induced

It’s all about the HX

- Social HX
- HIV (sentinal disorders)
- Drugs
- MANAGEMENT?
SAMPLE CASE - THE RED EYE KID

- 10 Y/O PRESENTS WITH ACUTE RED EYE PAIN
- EYE ACHES X 24 HOURS
- 7/10 PAIN RATING
- NAUSEA/VOMITING X 24 HOURS
- 1ST EPISODE
- OS VS decreasing X 1 wk
- VA 20/20 PLANO OD
- -3.00 SPH 20/60 OS
- MED HX: EPILEPSY
- ER DX: Pink eye/Gentamycin drops/now worse

TESTS

- PUPILS: 5MM/6MM
  +3RX/+1RX (-) APD
- (+) 2-3 CELL AND FLARE
- (+) 1-2 CORNEAL EDEMA
Differential DX?

1. Iritis
2. Angle closure glaucoma
3. “Pink eye”
4. Cataract
5. Bacterial endo-ophthalmitis
6. Need more information

What would you like to know?

- IOP: 16 OD  68 OS
- Shallow chambers OS >> > OD
- DON’T DILATE THIS EYE
Meds: @@@@@

- Topomax
- DX: Choridal effusion OS
- Acute myopia/
secondary angle closure gle within 1
month of start of TX

Case #2:
The “atypical, I think we need a corneal consult” conjunctivitis case—or “take (2) drops of this artificial tear and call me in the morning— if you’re still alive” case
Visit #1: AT COMMUNITY CLINIC
5/25

- 60 Y/O HF
- CC: “MY EYES ARE RED, I SEE DOUBLE AND I HAVE HAD DAILY SEVERE HEADACHES FOR THE LAST (5) MONTHS

Doctor #1: I think you have……..

- ATYPICAL CONJUNCTIVITIS
- DIPLOPIA: UNKNOWN ETIOLOGY
- TX: PRED FORTE BID OU
- REFER TO UEI FOR EVALUATION
Visit #2: UEI

6/6

• CC: Referred from community clinic for red eye X 5 months and diplopia X 1 month
• Using pred forte BID X 2 weeks-no help
• Med HX: Type II DM X 4 yrs and hypertensive
• Hospitalized 2 months earlier for BP

Visit #2 (cont’d)

• Meds: Olmesartan (BP) and metformin (DM)
• NKDA
• FM HX: (-)
• Social HX: (-)
• BVA: 20/20 – OD/OS Hyperopic/astig
• BP: 136/77
Visit #2 (cont’d)

- IOP: 17/16
- CF’s and pupils: Normal
- SLE: (+) 4 conjunctival hyperemia OU
- (+) 1-2 chemosis OU
- (-) C or F
- Cornea clear
- EOM’s” Mild? Restriction in (L) gaze
- Lids: Ptosis OS

HVF-30-2:

- OD Scattered defects, judged unreliable
- OS: Scattered defects, judged reliable

DR# 2: I THINK YOU HAVE:

- DX: Unspecified conjunctivitis/
- (L) 6th nerve palsy secondary to BP/DM

PLAN: DC PRED, start artificial tears
- Wear eye patch for diplopia/RTC if worsens
- Refer to cornea specialist for red eye (3) weeks
Visit #3 UEI  
6/26

- Reason for visit: Recheck red eyes
- CC: “HA’s, red eyes and diplopia are worse”
- SLE: Corkscrew vessels OU
- IOP: 32/24
- EOM: Bilateral 6th N palsy
- CF/Pupils: normal
- DFE: Venous congestion OU

Assessment and Plan (take your pick)

- 1. Really bad conjunctivitis / Restart Pred forte
- 2. Episcleritis / Restart pred forte
- 3. Scleritis / restart Pred forte
- 4. Angle closure GLC/ Diamox, oral glycerin, and topical brimonidine STAT
- 5. Immediate referral to corneal specialist STAT
- 6. Needs MRI/MRA/MRV STAT
THE CASE OF THE CLOUDED CORNEA

- 64 y/o male without complaints
- BVA: 20/25 OU
- Meds: Cholestyramine resin-Lipids Niacin-Lipids Cordarone-Arrhythmia Lasix-Hypertension
- SLE: “Strange corneal deposits”

Watch for the anti-arrhythmic Agents@@@@

- All can produce reversible decrease in acuity
- Optic neuritis has occurred
- Permanent loss of vision with amiodarone
THE CASE OF THE SWOLLEN NERVE

- 16 y/o female general and CL exam
- severe HA’s X 6-8 weeks-is it her glasses
- Med HX: Acne
  - Asthma
  - Obesity

Medication HX

- Tetracycline 250mg TID
- Topical Benzoyl peroxide
- Accutane tablets daily

BVA: 20/20
DFE: Bilateral papilledema

NEURO CONSULT?? MRI??
Is she gonna die!!
The Hallucinating Senior Citizen

- 72 y/o male - Visual disturbance “Lights look like covered in snow with halos”
- Vision getting blurry X 2 months
- Told by primary care doc to get new glasses

THE CASE OF THE CLOUDED CORNEA

- 64 y/o male without complaints
- BVA: 20/25 OU
- Meds: Cholestyramine resin-Lipids Niacin-Lipids Cordarone-Arrhythmia Lasix-Hypertension
- SLE: “Strange corneal deposits”
Watch for the anti-arrhythmic Agents

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Adverse Effects

- Mydriasis
- Blurred Vision
- Night Blindness
- Decreased Color Vision
- Optic Neuritis
- Diplopia
- Verticillata
Bilateral uveitis—it’s in the bones?

- 55 year old female referred by her internist for red eyes due to her osteoporosis meds

- Started alendronate (Fosamax) 10 days earlier, within the last day she developed a red, painful OD and this AM, the OS also became involved—CONJUNCTIVITIS??

The exam

- BVA 20/25 OD  20/40 OS
- Conj: Diffuse bulbar hyperemia OU
- Cornea: KP OD
- IOP: 12/18
- OD: (+) 3 C & F
- OS: (+) C & F
- Pupils (+) 2 RX RD (-) APD
- DFE: NML
Biphosphonates and ocular inflammation

- Most common with the amino-biphophonates
- Can produce:
  - Uveitis
  - Scleritis
  - Episcleritis
- Triggers the immune response
- Must TX aggressively and DC drug

The Bespecled Bleeder

- 66 y/o white male
- Bloody OD discovered this AM
- Daily nose bleeds
- Bruises on arms X 2 weeks
- His eye doctor says that this is normal
If they like to drink, skip the Tylenol

- Acetaminophen contraindicated in alcoholics
- Cannot exceed 4gm/day in normal adults
- Liver failure produces excessive bleeding

Clotting Tests

- APTT: Activated partial thromboplastin time-Monitor heparin and warfarin
- PT: Prothrombin time-Monitor Warfarin
- INR: Combination of both
The EX-flight instructor

- 48 Y/O female with CC of recurrent red eye OS
- Mild ache
- BVA 20/20 OU
- Sectoral injection OS
- (+) FM HX GLC M and F and GM (M)
- IOP’s: 15 OU

DX: Episcleritis

- TX : FML 0.1% QID X 7 D
- Min. benefit
- IOP: 17/16
- Switch to Pred forte QID, recheck 5D:
- Marked improvement, IOP: 18/18
- Start 5D taper and recheck in 1 week
The 1 week recheck

- Pred forte BID
- 90% resolved
- IOP 29/28
- DC: Pred/ start loteprednol 0.5%
- Rebound of episcleritis (+) phenylephrine test
- Sent for rheumatoid eval (-)

Refer to OD/MD

- Fellowship at UCSF: Ocular inflammation for evaluation and TX
- Advised patient was a steroid responder
Hey it’s good to see you again—I wish you could see me

- IOP 40’s OU
- VF: advanced GLC
- Steroid induced