Say what???
<table>
<thead>
<tr>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>S/p CE</td>
</tr>
<tr>
<td>PPV</td>
</tr>
<tr>
<td>ARMD</td>
</tr>
<tr>
<td>FA</td>
</tr>
<tr>
<td>NPDR</td>
</tr>
<tr>
<td>PDR</td>
</tr>
</tbody>
</table>

Additional notes:
- Status post Cataract Extraction
- Pars Plana Vitrectomy
- Age related Macula degeneration
- Fluorescein angiography
- Non-proliferative diabetic retinopathy
- Proliferative diabetic retinopathy
Primary Open angle glaucoma
Narrow angle Glaucoma
Laser we use to remove scar tissue behind the lens after cataract surgery
Laser we use to treat diabetes
Intravitreal injection (Avastin)
PCO
PCO s/p Yag
Proliferative retinopathy
BRVO
Papilledema
Which of the following is not a risk factor for idiopathic intracranial hypertension?

A. Essential hypertension
B. Obesity
C. Obstructive sleep apnea
D. Doxycycline and similar medications
E. Vitamin A ingestion
Idiopathic Intracranial Hypertension or Pseudotumor cerebri syndrome

- Definition: Raised intracranial pressure in the absence of an identifiable etiology
- Children and adults <50 years of age
- Boys = girl (pre puberty), Female > male (post puberty)
- Classic patient, obese female of childbearing age
- Unknown etiology (Theories of etiology)

1. CSF homeostasis: Inadequate CSF resorption or increased production
2. Venous outflow obstruction: Venous sinus stenosis (Controversial regarding whether this is a causal...
Cause or effect?

- Increased intracranial pressure
- Intracranial hypertension
- Compression of the collapsible transverse sinus
- Venous outflow obstruction
- Venous hypertension
- Decreases CSF reabsorption
- Increased intracranial pressure → Intracranial hypertension
Secondary causes associated with pseudotumor cerebri:

• 1. Cerebral venous sinus thrombosis
• 2. Jugular vein obstruction
• 3. Previous history of intracranial infection or SAH → reduce CSF absorption
• 4. Medical condition: SLE, endocrine disorder, anemia, renal failure, down and turner syndrome, sleep apnea
• 5. Medication: Vitamin A and retinoid, withdrawal from steroid, thyroxine, tetracycline, fluoroquinolones, OC pills, anabolic steroid
Presentation

- Headaches most common (80-90%)
- Phenotype can be migraine, probable migraine, tension or probable tension type
- Migraine related symptoms were common like photophobia/phonophobia, nausea/vomiting
- It may cause nocturnal awakening, worsen in high altitude or in recumbence.
- Visual loss (60-70%) - Related to transient ischemia of the optic nerve from the increased CSF pressure in optic nerve sheath
- Transient vision loss (can be one or both eye, bending over, seconds to few minutes, many times in a day)
- Constant vision loss, Tunnel vision
- Diplopia - binocular related to 6th N palsy

Tinnitus – pulsatile in (50-60%), non pulsatile (20-25%)
Hearing loss, dizziness, back pain (5-10%)
Presentation

10-15% patients have only papilledema and no other symptoms.

Pediatric patients: decline in school performance, behavioral change, light avoidance, inability to see well, decrease appetite or vomiting

Papilledema – often seen in routine or symptomatic visual testing, it may be asymmetric and it sometimes difficult to discern with direct ophthalmoscopy.

Prolonged elevated ICP:

1. Bony erosion at skull base causes empty sella and CSF rhinorrhea or otorrhea (OP is minimally elevated and no papilledema)

2. Rupture of spinal diverticula → low pressure headache
Chalazion

Warm
Compress BID

Erythromycin
ointment BID
UPPER EYELID: POSTERIOR ANATOMY

- Conjunctiva
- Meibomian gland (tarsal plate)
- Mucocutaneous junction
- Meibomian gland orifices
Blepharitis

Warm Compress BID

Erythromycin Ointment
Warm compress
Warm Mask
Tears
Erythromycin ung
PO doxycycline 20mg BID
Trichiasis
Symblepharon

Adhesion between the bulbar and palpebral conjunctiva

Inflammation / Trauma / Surgery
SJS / Ocular cicatrical pemphigoid
Ocular Cicatrical Pemphigoid

Disease of older people (women)

Linear deposition of IgA/IgG along BM

Can be drug induced

GI and respiratory issues
Basal Cell Cancer

Loss of lashes = loss of life
When are lid lesions bad?

When they look bad!!!
  - Bleeding / Ulcerative

When they change the lid architecture!
  - Madarosis (loss of lashes)
  - loss of lid margin contour
Allergic Contact Dermatitis

• In this case to neomycin topical antibiotic
• But consider cosmetics, sunscreens, moisturizers, nickel (lash curlers), eye drops or contact lens solution, goggles, hand/nail products
  • Irritant contact dermatitis can also occur to substances that are trapped in lids, eg if face not rinsed well
• Patch testing is gold standard for diagnosis
• Treat with topical steroid vs remove environmental cause
Xanthelasma

- Plane xanthomas of the eyelids
  - Fairly common
- Lipid abnormalities in about $\frac{1}{2}$ patients
  - Check lipids if young patient or positive family history
- Treatment:
  - Excision
  - Cryotherapy
  - Chemical peels
  - Laser eg CO2
- Tend to recur
Subconjunctival hemorrhage

Benign
Valsalva
Cough
Rubbing
Anticoagulation
Subconjunctival hemorrhage

Boggy Hemorrhagic Chemosis is present

Coumadin / clopidogrel

If h/o trauma consider a ruptured globe!
Scleritis

Needs a work up

Permanent damage

Need oral steroids
Viral Conjunctivitis

- Any age
- Consider recent URI / sick contacts / daycare / teachers
- usually bilateral (eventually)
- watery discharge / FBS / minimal pain / mattering / redness
- injection / watery discharge / boggy conjunctiva / prearicular LAD
- Tx: supportive / Tears / cool compresses / hand hygiene / counsel concerning contagious nature (lasts 2-ish weeks)
Racial Melanosis

Benign

Only seen in Africans
Nevus of Ota

- African-Americans and Asians
- May appear at birth or at puberty
- Blue color due to melanocytes in dermis (Tyndall effect)
- Usually in V1 or V2 distribution
- 2/3 involve ipsilateral sclera
  - Can involve other parts of the eye
- Ocular complications
  - Glaucoma (~10%)
  - Malignant melanoma
Primary Acquired Melanosis

Bad News

Basically precursor to melanoma
Pinguecula

Not of any concern

Irritation:
- UV
- Sand
- Wind
Pterygium

Benign

Slow growing
Pterygium

Benign
Slow growing
Surfer’s eye
Pseudoxanthoma Elasticum

Dirty Neck
Plucked Chicken Skin
h/o GI hemorrhage
Pseudoxanthoma Elasticum

- Autosomal recessive mutations in \textit{ABCC6} gene
- Affects elastic fibers of skin, eyes, and cardiovascular system
- Yellowish papules on neck
  - “plucked chicken” skin
- Angioid streaks
  - Virtually all patients by age 30 years
  - Asymptomatic breaks in Bruch’s membrane
  - Choroidal neovascularization leads to hemorrhage, then scarring and loss of vision
- Arterial calcifications
- GI bleeding
Symptoms of Cataracts

Glare / Halos

Difficulty reading / Driving

Blurry vision

Loss of interest in activities

Depression
Posterior Subcapsular Cataract

- Glare
- Difficulty reading

Causes: Steroids, Inflammation, Radiation, Trauma, Retina surgery
Myotonic Dystrophy
Detachment Symptoms

Flashes of light:
- Present in the DARK

Increase or change in floaters

Loss of vision from the sides (Curtain)

Risk factors:
- High myopia
- Recent eye surgery
- Trauma
Posterior Vitreous Separation

Very Common  85% by age 78

15% are symptomatic

If symptomatic then
- 10% chance of retinal tear (no blood)
- 85% chance of a retinal tear if blood present
Posterior Vitreous Separation
Horseshoe tear
Retinal Detachment
HSV / VZV
What is the maximum dose of hydroxychloroquine recommend by the American Board of Ophthalmology?

A. 4.5 mg/kg/day
B. 5.0 mg/kg/day
C. 5.5 mg/kg/day
D. 6.0 mg/kg/day
Hydroxychloroquine

Dose > 5 mg/kg/day is very concerning
Dose based on actual body weight
Increased risk with Renal or Hepatic disease

Baseline exam within 1 year
Again at 5 years unless high risk

HVF 10-2 / FAF / SD-OCT
Hydroxychloroquine

OUTER RETINAL ATOPHY
Antibiotics:
Consider:
  Ofloxacin - cheap / broad spectrum
  Erythromycin ointment: blepharitis

Avoid:
  Moxifloxacin: $$$ / resistance
  Gentamicin: corneal irritant
Steroids

- Change the matrix of the Trabecular meshwork and can cause IOP rise.
- Low risk in Caucasian w/o dx or family hx
- Higher risk with dx
- Higher risk if African decent
- Onset is anytime but normally doesn’t occur before 2 weeks and generally regresses once stopped.
Steroids

- Topical Eye - High risk
- Topical Eyelid
- Oral / Injected
- Inhaled / Nasal - Low risk
Medicines you may get asked about.

Dry Eye Therapies

- Cyclosporine ophthalmic emulsion 0.05%
- Lifitegrast ophthalmic solution 5%
Questions