

What Do I Do Now ?

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During the class – you will see appear on the screen. Answer the question on your sheet... and then sit back and see what happens. Make sure you look both ways before you leap ☺

Telephone Call

22 year-old male calling with diplopia x (3) days.

What (3) questions are you going to ask the patient and your logic for each ?

What do you think is wrong with the patient?

Blow Out Fracture With Inferior Rectus Entrapment

The patient is now in your room. He is a SDA.

What are you going to do for your case ?

What (3) "blows" are you going to pay close attention for ?

1

- Hyphema
- Abrasion/Laceration
- Elevated IOP

A blow-out fracture may result in cases of trauma to the eye by any object >5cm in size. The force of blunt trauma is reflected back, compressing the eye and creating a tremendous increase in pressure within the orbit. Blow-out fractures are not considered an emergency, but correct and prompt diagnosis and management is crucial !

Most commonly, the orbital floor (the superior aspect of the maxillary bone) sustains the damage. In cases of floor fractures, the eye muscle may partially drop down into the maxillary sinus, causing enophthalmos and entrapment of the inferior rectus or inferior oblique muscle.

Tests The Doctor Will Do Or Order

- Computed tomography (CT scan) is the procedure of choice because it's better at imaging bone structures of the orbit than plain skull films (X-ray) or MRI.
- Both axial and coronal scans should be ordered.
- One test that is helpful in differentiating muscle entrapment from orbital fracture from other muscle or nerve complications is the forced duction test. Trapped muscles will resist forced movements with a forceps.

Telephone Call

Kathy is a 58 y.o. w/ double vision upon awakening. She feels weak and her heart feels like it is racing.

What (3) questions are you going to ask her and your logic for each?

What is the time frame you want her to come to your office ?

Will you question her differently than the man in the last example ? Why ?

2

She Is Now In Your Office

What are you going to pay close attention to during your exam? Will you dilate her? Will you have the doctor check her first?

Diabetic 3rd Nerve Palsy

Diplopia can be monocular. The double vision continues even if the other eye is covered or you look in another direction. Binocular diplopia is caused by a misalignment of the eyes, and disappears when one eye is covered.

- Third nerve palsy is a condition involving the 3rd cranial nerve (oculomotor nerve).

Pain, Proptosis and Ptosis

Patients can have severe pain with their diplopia. The affected eye tends to move down and out, due to an unequal muscle function. The eye in most cases, cannot move up, down, or in.

Check the pupil to see if it is dilated and no reaction.

Patients that have no pupil involvement, and whose 3rd nerve palsy is due to complications of diabetes or high blood pressure, may see their symptoms actually resolve within (3) to (6) months of onset.

Telephone Call

68 y.o. male calls in complaining that he has a sudden loss of vision. After talking with him, he states it has been more like 2 - 3 wks. His OS only. Sees good out of the OD.

What could this be ?


Any other questions could you ask to get a better grip on the problem?

3

Assumption: Mature Cataract

What are you going to do for the exam?

- 1.
- 2.
3. **Pop Quiz**
- 4.
- 5.




Walk In

Harold was out playing golf and noticed that he had a sudden loss of vision in his OD.

Do you need to see him today...he wants to get home before traffic gets bad. What exam will you do?

Pop Quiz




What exam are you going to do to get him ready?


- a.
- b. **Pop Quiz**
- c.
- d.
- e.
- f. ** maybe do this :

Sudden Loss Of Vision: CRVO


Central retinal vein occlusion is a blockage of the central retinal vein by a thrombus. Usually occurs in elderly patients. Symptoms are sudden, painless vision loss.




Glaucoma, diabetes, hypertension, and increased blood viscosity can be predisposing factors. The occlusion may also be idiopathic. Very uncommon in young people.



Painless visual loss can be sudden or gradual (over a period of days to weeks). Retinal veins appear distended and tortuous. Fundus appears congested and edematous. Numerous retinal hemorrhages appear.



When normal retinal perfusion is re-established, normal vision may return. The time to vision improvement varies. Patients with poor perfusion are more likely to develop complications and suffer severe vision loss. Visual acuity of presentation is a good indicator of final vision. If visual acuity is at least 20/40, visual acuity will likely remain good. If visual acuity is worse than 20/200, 80% of patients will not improve or will deteriorate.




Walk In

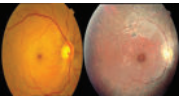
Stella was out playing golf and noticed that she had a sudden loss of vision in her OD. She is complaining that her hair hurts on the right side.

Anything different we do with Stella versus Harold?


Pop Quiz



Central Retinal Artery Occlusion




Central retinal artery occlusion occurs when there is blockage of the CRA usually by an embolism. Symptoms: sudden, painless, unilateral blindness. Diagnosis: is by history and dilated exam. Decreasing intraocular pressure is attempted within the first 24 hrs of occlusion.




The emboli can be caused by:

- * atherosclerosis
- * endocarditis
- * fat emboli
- *** Temporal Arteritis (Giant Cell Arteritis) needs to be ruled out



GCA causes inflammation of the large or mid-sized arteries, especially in the temple area, resulting in narrowing or blockage. Diagnosis is by taking a temporal artery biopsy to check to see if inflammatory blood cells have invaded artery walls. Also: check an ESR.



Findings


- The pupil may respond poorly to direct light but constricts briskly on consensual check.
- Fundus shows a pale, opaque fundus with a red fovea (cherry-red spot). Arteries are attenuated and appear bloodless.
- An emboli may be seen.

Pop Quiz

Erythrocyte Sed Rate: Biernacki Reaction

An easy, inexpensive, nonspecific test to help diagnose conditions associated with acute and chronic inflammation. In acute infectious, cardiac, and autoimmune diseases ESR is said to be nonspecific because increases do not tell the doctor about the inflammation in your body or what is causing it, and also because it can take 6-12 days after the condition begins to manifest. Because of this, ESR is typically used in conjunction with a biopsy. Helpful in diagnosing two specific inflammatory diseases: Rheumatoid Arthritis and polymyalgia Rheumatica.

The rate at which red blood cells precipitate in 1 hour. To perform the test, anticoagulated blood is placed in an upright Westergren tube. The rate at which the red blood cells fall is measured and reported.



The widely used rule for calculating normal maximum ESR values in adults (95% confidence interval) is given by a formula devised in 1983.


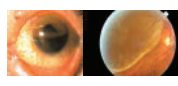
• $ESR = \frac{Age (years) + 10 (if female)}{2}$

Call In

19 y.o. college student right in the middle of finals has suddenly lost her vision.

What do you think it could be? Give me (2) questions you might ask.

Pop Quiz


Walk In :Something Is In My Eye



Walk In : Foreign Body Sensation

Conjunctivitis has a number of different causes, including:

- Viruses
- Bacteria (gonorrhea or chlamydia)
- Irritants: shampoo, smoke and pool chlorine
- Allergic: "pink eye"

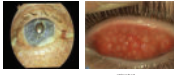


Symptoms

- Conjunctiva injection
- Increased tearing.
- Thick, yellow discharge that crusts over the eyelashes, especially after sleep.
- Green or white discharge from the eye.
- Itchy eyes.
- Burning eyes.
- Blurred vision.
- Photophobia.

Bacterial


- Caused by bacteria, including STBs
- Treated with antibiotics (drops, ointments, or pills).



Chlamydia


Chlamydial (inclusion) conjunctivitis typically affects sexually active teens and young adults. It is the most frequent infectious cause of neonatal conjunctivitis in the U.S.

The Centers for Disease Control (CDC) sees chlamydia as one of the major sexually transmitted pathogens - estimating approximately three million new cases per year.




Women seem to be more susceptible than men. The incidence of infection seems to be directly related to sexual activity and geography (urban populations)

The incidence in pregnant women overall is 4 to 10 percent.



Signs & Symptoms


- Eye infection persisting over three weeks despite treatment with topical antibiotics
- conjunctival injection
- superficial punctate keratitis
- superior corneal pannus
- peripheral subepithelial infiltrates
- vernal
- follicles (most dense in the inferior cul-de-sac)
- mucopurulent, stringy or mucous discharge
- palpable preauricular node



Virus

This type of conjunctivitis often results from the viruses that cause a common cold.



It will run its course usually lasts from 4 to 7 days.



Irritants

Irrigate the substance from the eye for (5) minutes. Eyes should begin to improve within (4) hours of ter irrigating.


If the irritant is acid, alkaline material, bleach...needs to be seen ASAP

Call In


Nursing home call stating that a patient is complaining of something in their eye. She has a rash on her face as well. Not feeling well.

Do we see her today or 2-3d ?
What might this be?
Is she contagious?



Herpes Zoster

- Affects trigeminal nerve (V)
- Shingles (viral disease) Painful skin rash with blisters
- The usual culprit is varicella zoster virus (VZV), chicken pox virus. Once an episode of chickenpox has resolved, the virus is not eliminated from the body. It stays dormant, and will re-emerge as shingles.



Things are not what they seem to be... make sure to with every patient because there is no crystal ball to look into to see what the patient really needs - or has!

