Urgency vs. Emergency

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Hines - Sight/Burcham Eye

Disclosures

Ocular Therapeutix
Glaukos
Horizon
Quidel
Eyevance
Ivantis
Orasis
RVL
Oyster Point
Dompe
Thea
Tarsus
Kala

Levels

Emergencies

- Should come to office to be seen immediately, or to nearest emergency eye care facility
- Urgent
- 24 Hour
- 1 week
- Routine
- Emergency referral from another physician

Urgencies

- Persistent loss of vision with gradual evolution over few days
- Sudden onset of diplopia
- Recent onset of flashes and floaters
- Acute red eye
- Blunt trauma with no pain or loss of vision
- Photophobia
- Increasing pain
- Acute swelling of eyelids with pain or discharge

Routine

- Discomfort after prolonged use of eyes
- Difficulty with near work
- Mild itching, burning, irritation
- Tearing
- Lid twitching
- Mucous discharge
- Mild redness without other symptoms
- Unchanged floaters

The 5 W's

- Who
- What
- When
- Where
- Why

Assess and classify patients' signs and symptoms according to their severity and urgency.

Patient

- "My eyes are itchy and watery..."
Redness

- When did this start?
- Which eye is it?
- Do you have seasonal allergies?
- Who in your home or friends has had "pink eye" recently?
- Did you get anything in your eye?
- Are you light sensitive?
- Have you tried putting any drops in it?

Red Eye

- Urgent
  - Foreign body
  - Light sensitivity
  - Recent trauma
  - Actual foreign body
- Emergent
  - Bacterial Conjunctivitis
  - Yellow/green discharge
  - Crusting
  - May itch
- Urgent
  - Viral Conjunctivitis
  - Weepy watery
  - Crust
  - Lid edema
- Semi-Urgent
  - Allergies
  - Usually itchy
  - Seasonal allergies
- Not Urgent
  - Irritation/Dryness
  - Try to use AT Q2H and call if worsens
- Semi-Urgent
  - Allergies

Adenovirus

- Caused by a virus
- 6 subgenera and 53 serotypes
- Symptoms: redness, itching, photophobia, tearing, aching, foreign body sensation, blurred vision
- Fever, headache, fatigue (flu-like symptoms)
- Signs: chemosis, follicles, swollen lymph nodes, discharge, sub epithelial infiltrates, pseudomembranes
- Highly contagious.
- Incubation: 8-14 days before symptoms
- Incubation of 7 days prior to signs and symptoms
- Contagious for 7 days prior to signs and symptoms
- Contagious for 7 days after signs and symptoms
- Contagious for 21 days after onset of symptoms
- Adenoplus:
- Tests for most common serotypes 3,4,8,11,19,37
- Rule of 7's
- Contagious for 7 days prior to signs and symptoms
- Contagious for 7-14 days after signs and symptoms
- Signs and symptoms will persist for 21 days after they start
Treatment
- In office
  - Betadine wash
  - Removal of pseudomembranes
  - Tap water wash
  - Decrease viral load?
  - Topical NSAID
  - Topical Steroid
  - Prolong viral shedding?
  - Lubrication with artificial tears

Patient
- I actually think I got sand in my eye!

Foreign Body Sensation
- What are you feeling?
  - What hurts it?
  - What do you notice it, how often?
  - How did it get there?
  - Have you recently gotten anything in your eye?
  - Dry eye? Inflammation to the external eye?

Foreign Body
- Urgent
  - Same Day if Possible
  - Triage:
    - Environment?
    - Metal/Metal?
    - Protective Eyewear?
    - Grinding?
  - Bandage CL/Antibiotic drops

Foreign Body
- Ok to flush
  - Don't try to remove if visible
    - Removal
      - Sterile Q-Tip
      - Spatula
      - Bent 25 G needle
      - Alger brush for rust ring
      - Bandage CL/Antibiotic drops
Foreign Body Sensation

Actual foreign body seen that day

No chance for foreign body increased artificial tears seen within a week.

Patient

“I was cleaning and I splashed a chemical in my eye.”

Chemical burn

- Immediate attention
- How did it happen?
- Which eye?
- Describe any redness or irritation when you ran or do you have contact lenses.
- Start first aid

Patient

“I was cleaning and I splashed a chemical in my eye.”

Chemical splash

- alkali 7.1 or greater
- lye (oven cleaner)
- lime (concrete)
- ammonia (fertilizer/cleaners)
- acid 7.0 or less
- car batteries
- household bleach

Chemical splash

- severe damage rapidly
- bring agent splashed

Patient

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Chemical splash

- severe damage rapidly
- bring agent splashed
- patient will arrive, irrigate with sterile saline
- check pH until between 7-8

ALKALI BURN - 30 minutes of irrigation

Most severe/Penetrate causing deep tissue death

Irrigate!!

Guide patient to a chair which reclines
- anesthetize with topical drops
- lid speculum may be used
- flush with sterile eye wash or saline
- everting lid may be necessary for cement or particles

Irrigation

- Guide Patient to a chair which reclines
- always with topical drops
- Lid speculum may be used
- Flush with sterile eye wash or saline
- Everting lid may be necessary for cement or particles
Chemical Splash Treatment
- Always irrigate first
- Cover the lesion
- Topical antibiotics
- Oral steroids
- Oral cycloplegics
- Optional measures: goggles, eyewash, etc.

Patient
- "I've noticed over the last few days I keep seeing double."

Double Vision
- When did you start to notice this?
- Has there been any recent trauma?
- When do you notice the double vision, is it constant?
- When you cover one eye is it still double or does it go away?

Astigmatism
- Produces shadows
- Not 2 fully separate images
- Will still be present if closes one eye
- Improves with refraction

Monocular Diplopia "pseudo-diplopia"
- External surface
- Amblyopia
- Retinal etiology
- Astigmatism

True Diplopia
- 2 separate images that can be side to side, up and down, or at an angle
- Usually goes away when one eye is closed
- Improves and measured with prisms

Binocular Diplopia
- Amblyopia
- Retinal etiology
- Refractive error
- Glasses

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**Cranial Nerve 3 Palsy**

- **Eye is turned “down and out”**
- **Abducens and superior oblique still function**
- **Lid is shut**
- **Sensory palpebral the lid retractor is paralyzed**
- **Possible pupil involvement**
- **Pupil sparing (normal reaction)**
- **Non-pupil sparing (affected pupil is not reactive to light shine in either eye)**

**CN 3 Palsy Causes**

- **Urgent stenting**
- **Diabetes**
- **HTN**
- **Diabetes**
- **Cranial Aneurysm**

**CN 4 Palsy**

- **CN 4 Controls a superior oblique muscle**
- **Upward deviation of affected eye**
- **Cyclotorsion of the eye, tilt head away from lesion**
- **Diplopia**
- **Trochlear nerve is the longest and skinniest, susceptible to injury**
- **Most common causes**
  - **Trauma**
  - **Congenital**
  - **Ischemic**
  - **Tumor**

**CN 6 Palsy**

- **CN 6 Controls a lateral rectus muscle**
- **Loss of abduction**
- **May have head tilt**
- **Double vision**
- **Most common etiologies**
  - **Congenital**
  - **Increased intracranial pressure**
  - **IIH**
  - **Meningitis**
  - **Head injury**
  - **Tumor**
  - **Ischemic (HTN, DM)**

**Internal Carotid Aneurysm**

- **Urgent stenting**
Patient

*Hey so I started to notice these weird spots* in my vision, should I come in?*

*Insert squiggly lines, floaters, cobwebs, blobs, gnats, worms, etc.*

Flashes and Floaters

- What are you noticing?
- Are you seeing flashes?
- When? How often?
- Is there a curtain or veil?
- Which eye?
- When did they start?
- When was the most recent flash?
- Any recent head trauma or accident?

Flashes or Floaters

- No
- Curtain/veil
- Should be seen within 24 hours
- Yes
- Curtain/veil
- Has been over a month
- Should be seen that day
- Started within the last few weeks
- Consider immediate referral

Questions?

Thank you!