Ocular Urgencies and Emergencies

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Course Outline

1. Historical data

A. Acute or chronic condition
  1). If chronic
    a. Details of past presentation
    b. What made it better?
  2) If acute
    a. What are the circumstance associated with the onset.

B. Mechanism of incident
  1). Specific event
  2). May not be able to "isolate" am incident.

C. Details of symptoms – frequency, onset, location, duration, associated symptoms, relief

2. Assessment and treatment tools

A. Lid retractors
B. Foreign body removal tools
  1). Discussion of stand-of-care when removing foreign bodies
C. Diagnostic lenses – goniolenses
D. Pressure patch, bandage contact lens, eye shield
E. Morgan lens irrigation system

3. Diagnostic testing

A. In clinic tools
  1). Photography
  2). Optical coherence tomography (OCT)
  3). B-scan
  4). Perimetry
  5). Corneal topography
B. Laboratory studies
  1). May be required to coordinate with PCP
C. Diagnostic imaging
D. Best not to order what you are not able to interpret.
  1). Communication with other providers (PCP, radiologist, others)

4. Medications – specific to manage urgencies and emergencies

A. Mechanism of action
B. Indication for use
  1). Awareness of standards of care, acceptable off-label use
C. Dosages
  1). Adult, pediatric dose recommendations
D. Route of delivery – topical (solution, suspension), oral (pill, liquid)
E. Limitations in use, contraindications (ophthalmic and systemic)
F. Medication classification
  1). Anti-infectious agents (topical and oral)

a. Tetracyclines
b. Macrolides
c. Penicillin/penicillin-like preparations
d. Cephalosporins
e. Fluoroquinolones
f. Sulfonamides

2). Antiviral medications
3). Antifungal medications
4). Steroids – control of inflammation
5). Nonsteroidal anti-inflammatory drugs (NSAIDs) – control of pain (Rx,OTC)
6). Cycloplegics – awareness of market availability
7). Mast cell stabilizer/antihistamine – management of hypersensitivity response
8). Glaucoma medications for acute intraocular pressure elevation
9). Supportive – ocular lubricants, hypertonics (NaCl)
10). Controlled substances – pain management
a. Awareness of scope of practice
b. Schedule medications should be used with great consideration

5. Anterior segment urgencies and emergencies

A. Adnexa involvement
1). Blunt trauma
a. Soft-tissue involvement
(1). Laceration – consideration of tissue repair
(2). Ecchymosis, edema – supportive care
b. Facial fractures – concern regarding orbital fractures, blow-out fractures
(1). Discussion of mechanism of injury
2). Infections – cellulitis, herpetic lesions
(1). Symptoms of infection – rubor, dolor, calor, tumor
3). Hypersensitivity reactions – contact dermatitis, insect bites, other allergic responses

B. Lacrimal system compromise
1). Dacryoadenitis
2). Dacryocycstitis
3). Trauma involving the lacrimal system.

C. Eye lid involvement
1). Blunt trauma
a. Laceration
b. Ptosis
2) Meibomian gland disorders – chalazion, hordeolum

D. Conjunctiva involvement
1). Subconjunctival hemorrhage (SCH)
a. Awareness of ruptured globe in cases involving blunt force
2). Laceration
3). Various conjunctivitis cases

E. Cornea involvement
1). Cornea defect including defect with and without foreign body.
a. Foreign body removal
b. Debridement

2). Thermal injury
3). Infectious keratitis
a. Viral
b. Bacterial
c Contact lens related
4). Infectious vs. non-infectious corneal ulcer
5). Chemical, photochemical injury

F. Anterior chamber involvement
1). Hyphema
a. Traumatic
b. Non-traumatic (spontaneous) – related to neovascularization.

G. Iris involvement
1). Resulting from foreign body
2). Forces of blunt trauma – iris tear, iris recession

H. Lens involvement
1). Traumatic cataract
2). Displacement of the lens

I. Acute elevation in intraocular pressure
1). Angle recession due to trauma
2). Pupillary block
3). Neovascular glaucoma
4). Uveitis glaucoma

6. Posterior segment urgencies and emergencies

A. Vitreous involvement
1). Acute posterior vitreous detachment
2). Vitreous hemorrhage
a. Associated with vitreous detachment.
b. Associated with other posterior segment findings.
(1). Diabetic eye disease
(2). Retinal tear or detachment

B. Macula presentation
1). Macula edema
a. Following cataract surgery.
b. Associated with diabetes.
c. Associated with macular degeneration.
2). Macula tissue disruption due to forces of blunt trauma
3). Progression of macular degeneration
a. Case of progression of macular degeneration to exudative state

C. Vascular occlusive events
1). Retinal vein occlusion
a. Awareness of associated systemic disease and underlying cause(s)
2). Retinal artery occlusion
a. Awareness of current standards of acute ophthalmic and systemic care

D. Retina disorders
1). Retina hole, tears, detachments
a. Isolation of location

b. Is the macula involved?

c. Determination of urgency of management

7. **Management plan**

A. Timeline for reassessment

1). We rarely get in trouble for the wrong diagnosis, we get in trouble for not reassessing our Recommendations for treatment.

2). Timeline for reassessment

3). When do we refer for specialty care?

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