

Stay Calm and Pediatric on:
Pediatric Ocular Emergencies
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Course Description

How do you triage the pediatric patient in comparison with the adult patient? What do you do in the case of a pediatric foreign body? What is important to garnish in the chief complaint and history when dealing with pediatric ocular emergencies?

These questions and more will be addressed in this informative lecture addressing the unique role that the assistant plays in pediatric eye emergencies. Proper administration of drops, use of pediatric equipment, and unique psychology in dealing with pediatrics will be addressed. Video demonstrations, case reports, and skills assessments will be included in this informative course.

Course Objectives:

1. To Equip Doctors to triage pediatric ocular emergencies
2. To differentiate Headaches: A. Migraine Variant B. Refraction, treatment of glasses and contact lenses C. Non-ocular headaches D. Food trigger
3. To learn technique on foreign body removal
4. To explore when to treat or not to treat a chalazion
5. To explore information on amblyopia and patching techniques
6. To obtain clinical pearls in eyedrop instillation
7. To know what to refer and what to keep in pupil testing and other neurological condition
8. To obtain clinical pearls in dealing with parents on ocular emergencies

I. Phone triage

- A. Expediency of appointment
- B. Assurance to patient
- C. Timely referral
- D. Phone advice(lavage chemical burn & foreign body)

II. Types of ocular emergencies

- A. Chemical burn
- B. Ocular trauma
- C. Lacerations
 - 1. Treatment options, superglue, derma bond
 - 2. Suture
 - 3. General anesthesia

III. Chalazion-Stye

- A. Treatment
- B. Hygiene
- C. Omega-3, fish oil or flaxseed oil pills
- D. Surgery, Kenalog Injection
- E. Opt for no treatment, resolution usually occurs within months

IV. Sports injury

- A. Commotio Retinae(bruising)
- B. Soccerball
- C. Racquetball or tennis ball
- D. Eye Protection

V. Polycarbonate lenses

- A. Purpose
- B. Medical legal aspect
- C. Legislative battle for funding

VI. Red Eye

- A. Viral, bacterial, allergic
- B. Contact lens complication

C. Episcleritis, iritis

VII. Foreign body

A. In office versus surgical removal

B. Instruments, Weck cel surgical sponge, foreign body spud, cotton tip , finger

C. Instruct parent to lavage with bottled water before coming into the office, and give patient Tylenol before coming to the office

D. Cyclopentolate, patch, pain management, arm slings

VIII. Retinoblastoma

A. White pupil

B. Strabismus, Exotropia, Esotropia

C. Phone app, cradle

IX. Blow out fracture

A. Diplopia

B. Blunt injury

C. Inability to look up

D. Warn patient not to blow nose

X. Blepharitis

A. Lid hygiene: Oasis lid and lash

B. Staphylococcus bacteria, not MRSA

C. Styes

XI. Corneal ulcer

A. Marginal staphylococcus, most common

B. Acanthamoeba, pseudomonas, more serious

C. Contact lens related

D. Fungal, after an abrasion with a tree limb, stick, fingernail, or other vegetative matter

XII. Optic nerve drusen

A. Differential diagnosis, papilledema

B. Calcific deposit of optic nerve

- C. Visual field, 30–2 Humphries
- D. Ultrasound, B-scan

XIII. Papilledema

- A. True swelling of optic nerve bilaterally
- B. Rule out space occupying lesion of brain or meninges
- C. MRI
- D. Effects of MRI on children

XIV. Diplopia

- A. Sudden onset double vision
- B. Pupils, visual field, and other neurological symptoms
- C. Comanage with pediatric neurology

XV. Nasolacrimal duct obstruction

- A. Watery, mucousy, discharge with white quiet eye
- B. Most common at birth to two years
- C. In office treatment versus surgical treatment with stent or balloon therapy

XVI. Extra ocular muscle surgery

- A. EXO tropia, ESO tropia, hypertropia
- B. IOOA inferior oblique over action
- C. Brown's syndrome and Duane's syndrome

XVII. Convergence insufficiency

- A. Non-surgical approach, CITT study
- B. Vision therapy, pencil push-ups, convergence computer at home training

XVIII. Pupil testing

- A. Penlight, iPhone, transilluminator.
- B. Marcus Gunn swinging flashlight test
- C. Neurological testing

XIX. Muscle testing

- A. Extra ocular muscles, review of anatomy
- B. Demonstration video
- C. Rectus muscles, oblique muscles
- D. Hands on testing, use fixation toys for children

XX. Eye drop instillation

- A. Tips, iPhone, distraction questions
- B. Proparacaine

XXI. Case reports

- A. Trampoline injury
- B. Go by clinical evidence not patient history

XXII. Amblyopia (Lazy eye)

- A. 3 to 5% of the population, affects millions of children
- B. Occlusion therapy, blur contact lens, patch, patching glasses
- C. Cyclopentolate or atropine in the good eye, side effects of atropine
- D. Patch hard, patch long
- E. Ortopad, slip on patch
- F. Equipment, PD ruler, retinoscope, B I O
- G. Obama care, grassroot legislative efforts, be politically active

XXIII. Child-abuse cases

- A. Shaken baby syndrome, bilateral retinal hemorrhage and retinal detachment

XXIV. Retinal detachment

- A. Signs and symptoms, flashes and floaters
- B. Black or gray curtain over vision

XXV. Learning disabilities

- A. ADHD
- B. Juvenile delinquent study
- C. Non-ocular learning difficulties, refer

XXVI. Headache

- A. Migraine Variant
- B. Refraction, treatment of glasses and contact lenses
- C. Non-ocular headaches
- D. Food trigger sheet for migraine(also make sure child is hydrated)
- E. Pediatric neurology

Conclusion

Question and answers