



Course Summary

Traumatic Glaucoma

COPE # # 35723-GL

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Course Description

The goal of this course is to educate primary care optometrists on the diagnosis and management of glaucoma induced by trauma. This course will present multiple cases in a grand rounds type format with interactive discussion.

Course Learning Objectives

- To analyze the cases presented, formulate a differential diagnosis, evaluate the stage of advancement of glaucoma and to develop a management plan that is appropriate for each case.

Course Outline

1. Case 1: The Truck Wrench Guy
 - a. Primary Exam
 - i. Demographics
 1. 49 year old black male
 2. Assaulted with a truck wrench 1990
 3. Orbital blow out fracture with reconstruction
 4. Affected mainly OS
 - ii. Case History and Chief Complaint - Pain on down and left gaze
 - iii. Exam findings and analysis
 1. V/A OD 20/15 OS 20/20
 2. IOP OD 12 mmHg OS 21 mmHg
 3. External Photographs - Asymmetry in pupil appearance
 4. Gonioscopy
 - a. Inferior angle recession

- b. May make angles look more open than they really are
 - 5. Visual Fields
 - 6. OCT
 - b. Decision making/Diagnosis
 - i. Does he have glaucoma?
 - ii. Diurnal curve?
 - iii. Pressure spikes?
 - iv. How much nerve fiber layer loss can we tolerate?
 - v. Cost?
 - vi. Compliance?
 - vii. Quality of life?
 - c. Assessment of Glaucoma - Early/moderate/Advanced
 - d. Treatment and Management
 - i. Does angle recession glaucoma respond to topical medication?
 - ii. Lumigan prophylaxis, alternate days
 - iii. First Follow up visit
 - 1. Doing well
 - 2. IOP 8 mmHg OD and 8 mmHg OS
 - iv. Second Follow up visit
 - 1. Seen by a colleague
 - 2. Stops Lumigan and treatment
 - v. Third Follow up Visit
 - 1. 3 weeks after ceasing Lumigan
 - 2. Patient unhappy with current level of non-treatment
 - 3. IOP in OD unchanged, OS 21mmHg
 - 4. Wants a cheaper alternative
 - 5. Beta blocker generic prescribed
 - e. Follow up and outcome
 - i. Patient continues with betablocker
 - ii. Doing well
2. Case 2: JS The Multiple Shiners
- a. Primary Exam
 - i. Demographics - 54 year old white male
 - ii. Case History and Chief complaint
 - 1. Routine Eye exam, needs new glasses
 - 2. Remembers several "shiners" Smoker since age 14
 - 3. General health and family health history non-contributory
 - iii. Exam Findings and Analysis
 - 1. V/A 20/20 OD and 20/20 OS
 - 2. Gonioscopic images - Recessed angle
 - 3. IOP: 29 mmHg OD and 14 mmHg OS
 - 4. Posterior pole image
 - a. CD ratio
 - b. Inferior temporal notch with NFL dropout

- c. Superior nasal notch
 - d. Peripapillary atrophy
 - 5. Visual field - Superior nasal visual field defect
 - 6. GDX image - Significant NFL thinning OD
- b. Decision making/diagnosis
 - i. Unilateral increase in IOP
 - ii. Angle recession + traumatic cleft to ciliary body
 - iii. Damage to the TM from scarring or sclerosis
 - iv. Impeded aqueous filtration
 - v. IOP may spike weeks/months/years later
 - vi. Correspondence of the nerve appearance and NFL changes
- c. Assessment of Glaucoma - Early/Moderate/Advanced
- d. Treatment and management
 - i. Usually fair to poor response to topical medication
 - ii. Which drugs (if any) to choose until surgery?
 - iii. Filtering surgery often endgame
- e. Additional cases/ images of trauma with angle recession