Gonioscopy - How To Interpret What You Are Seeing
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Course Description: A successful gonioscopic procedure actually involves three basic components. The first component is the placing of the lens on the eye and the aligning of the slitlamp in order to see the angle. The second component is the interpretation of the angle view, i.e., being able to identify and confirm the structures being viewed. The third component is diagnosing anomalies of the angle.

This presentation will cover these three areas with the goal of assuring gonioscopic success for the busy practitioner. Tips and techniques for getting a good gonio view and identifying the angle structures will be highlighted. Clinical variations and anomalies of the angle will be reviewed.

Learning Objectives: Upon completion of this course the attendee will be expected to be able to:

1) identify the angle anatomic structures
2) appreciate the variable presentation of these features in different patients
3) describe techniques used for confirming the identification of the angle structures
4) describe the methods for recording the essential gonioscopic findings
5) diagnose anomalies of the angle

I) Gonioscopy Component I - "Getting the View"

A. Instructing and counseling the patient
   - always explain the "why" and "how" of procedure
   -"why" gonio being done: "use a contact lens to view a portion of your eye which is not otherwise visible"
     - clinical examples:
       - glaucoma evaluation
       - peripheral anterior synechia
       - pigmentation
       - angle recession
   -"how" gonio will be done:
     - discuss with patient: no pain, pressure (demo for patient), liquid on cheek, and head forward

B. Preparing lens and insertion technique

C. Types of goniolenses and cushioning agents
D. Slit-lamp setup
   - lens on, rotate to position, position light on mirror, then go to oculars

II) Gonioscopy Component II - "Interpreting the View"

A. Appreciation of the entire anterior chamber
   - assessment prior to lens insertion

B. Iris conformation

C. Iris insertion

D. Illuminating the angle

E. Optical "corneal wedge" - wedge points to Schwalbe's line

F. Angle anatomy - how to identify the structures on anyone
   - each of the angle structures will be discussed in detail with emphasis on the variations in appearance in different patients

   1) ciliary body (band)
   2) scleral spur
   3) trabecular meshwork (Schlemm's canal)
   4) Schwalbe's line

G. Identifying the angle structures - two basic techniques
   1) posterior to anterior approach
   2) anterior (optical wedge) to posterior approach

H. Recording your findings
   - St. Andrew's cross - quadrant results
   - essential findings to record
     1) most posterior anatomical feature of angle seen
     2) rating of the angle conformation, i.e., the angular "openness"
     3) other significant findings - ex. pigment deposition, iris adhesions, etc

I. Effect of tilting lens on perceived size of structures

J. Removing Lens
K. Dark gonioscopy

III) Gonioscopy Component III - "Diagnosing Clinical Variations and Anomalies of the Angle"

A) Blood in Schlemm's canal
B) Iris processes
C) Peripheral anterior synechiae
D) Posterior embryotoxin
E) Axenfeld's anomaly
F) Pigment dispersion syndrome
G) Closed angle
H) Foreign body
I) Angle recession

IV) Gonioscopy Videos