Gonioscopy Pearls and Management of the Anterior Chamber Angle

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Developing an Anterior Chamber Angle Skill Set

- Better detect glaucoma
- Better diagnose the type of glaucoma
- Better treat glaucoma, especially with the increase in angle procedures
- Clinic and Operating Room EFFICIENCY
Gonioscopy skill set

- Select correct Gonioprism type for clinical scenario
- Indentation gonioscopy is a must learn skill
- Best conditions for exam, Room light/ slit lamp; dark may be better than ambient light.
- Learn Normal from abnormal.
- Angle grading system
This alphanumeric system has the capacity to be the universal language of the angle

Spaeth Gonioscopic System:

3 considerations

1. Where does the iris insert? A,B,C,D,E
2. Angular approach to recess? 0 - 40°
3. Peripheral iris configuration? b,c,f,p

These three aspects define the angle creating a three dimensional image
Where does the iris insert onto the inner wall of the eye?
What is the angular approach of the iris?
Peripheral iris configuration: b, c, f, p
Spaeth Gonioscopic System: Putting it all together in alphanumeric form

30°

lens

C )D 30 b 2+
Spaeth Gonioscopic System: 3 considerations

1. Where does the iris insert?  D
2. Angular approach to recess?  40°
3. Peripheral iris configuration?  f

Typical Caucasian angle D40f
Charting Gonioscopy

► Prove Medical necessity
► record type of gonioprism
► document your findings
► gonioscopic classification system
► if narrow angle, indentation
► if positive finding - act on it!
► 92020, code it, bilateral code
Koeppe goniolens
When can you perform gonioscopy?

- With E and M codes?
- With eye codes?
- Anytime?
- Global fee period?
17 year old female with history of attention deficit disorder and OCD, history of daily headaches

- On lithium drug for ADD, learning differences
- Lithium drug discontinued and Topomax started to “tone her mood”
- Eight days later she woke up in middle of night “screaming” due to eye pain
- Sudden onset of blurred vision, HA, nausea
- IOP 30 mm Hg O.U
- Shallow AC, Diagnosed NAG O.U.
Diagnosed Acute Angle Closure Glaucoma

- Cosopt and D/C Topamax (topiramate)
- Pilocarpine given
- After Pilocarpine, IOP 40 mm Hg O.U.
- Added Alphagan
- YAG PI, same day
- Following day, IOP 18 mm Hg O.U., but AC still very shallow, REFER for Consult
Narrow angle

- Taught angle closure glaucoma is treated classically with pilocarpine, meds and laser iridotomy.
- Treated with pilocarpine, meds
- Bilateral laser iridotomies
- “unusual case”
Clinical pearl: angle closure glaucoma is not always pupil block

- Only pupil block is treated with PI
- Forward rotation of the iris lens diaphragm due to swelling of the ciliary body is the second most common cause of “angle closure glaucoma”, PI not indicated
- How do you tell the difference??
- Treatment is different depending on the mechanism
Pupil block as seen in primary angle closure glaucoma

Build up of aqueous in Posterior chamber

A20b
Bidirectional free flow of aqueous between the PC and AC

D40f
Difference?? Lens is rotated forward in secondary cases, seen at slit lamp.

Ciliolenticular block as seen in secondary angle closure glaucoma.

Posterior diversion of aqueous, new code AMS 365.83.

Posterior chamber is obliterated.
Treatment of forward rotation of the iris lens diaphragm-cycloplegic

differentiate between primary and secondary angle closure
Causes of shallow AC due to spontaneous forward rotation of the iris lens diaphragm

- **SPONTANEOUS**
  - Drug induced
  - HIV
  - CRVO
  - Scleritis/uveitis

- **Surgically induced**
  - Trabeculectomy
  - Glaucoma Implants
  - Cataract surgery
  - Scleral buckle
Ciliolenticular block as seen in secondary angle closure glaucoma

TREATMENT of secondary ACG

- Stop offending drug
- Cycloplegic, relax ciliary body
- Corticosteroids decrease inflammation
- Decrease aqueous production
- No miotics

Posterior diversion of aqueous, new code AMS 365.83

Forward rotation of iris lens diaphragm
Indentation

gonioscopy
Indentation gonioscopy
Indentation gonioscopy
(A)C20b

Charting Gonioscopy, put it all together

C40f
No problem grading this angle.
Two potential inaccuracies with describing one angle variable

1. the iris normally has a variable insertion on to the inner wall of the eye, so even though the iridocorneal angle is the same, the iris insertion is unknown. (Schaffer assumes a similar iris insertion for everyone)
Iridocorneal angle is a grade IV, wide open, all structures seen.
Example of problem no. 1. Iridocorneal angle appears to be a Grade III, “open” but the angle truly has PAS and is closed.
How would you grade this angle? The approach doesn’t look too bad, but the problem is the peripheral bow of the iris.
Grade this angle.
The second problem is the Schaffer system doesn’t describe the peripheral iris or lend itself to indentation gonioscopy.
Précis

- Identify the population of the world at risk for narrow angle glaucoma through the widespread use of gonioscopy. The ultimate goal of this charge is to preserve or improve vision through the systematic evaluation and management of the anterior chamber angle.

- www.gonioscopy.org
learn normal from abnormal
www.gonioscopy.org

► Living atlas of gonioscopy videos
► Thanks to Lee Alward MD for his innovative work on this web site
► Update your Chamber Angle Skills
Gonioscopy: it’s not just glaucoma.
Diagnosis?

- History of ocular trauma