

Glaucoma Challenges: Real Cases, Real Decisions

2 hours

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Description:

This case-based course explores the complexities of diagnosing and managing challenging clinical scenarios in glaucoma care. Participants will delve into the intricacies of secondary glaucomas, strategies for detecting disease progression, and the effective integration of advanced ancillary technologies to optimize patient outcomes.

Learning objectives:

At the conclusion of this course, attendees will be able to:

- 1) Evaluate risk factors for the development of glaucoma and risk factors for progression
- 2) Appreciate the individualized approach to the evaluation and management of individuals with glaucoma
- 3) Apply medical evidence through recent notable publications into clinical care
- 4) Appraise artifacts and pitfalls of ancillary tests

Outline:

CASE #1 –

- 56 year old Hispanic male
 - History of suspicion of POAG based on left optic disc appearance
 - Family history-grandfather with monocular vision loss
 - IOP 21/19mmHg
 - CCT
 - Optic disc appearance
 - RNFL and GCIPL imaging
 - Does the imaging reflect typical patterns observed in early glaucomatous optic neuropathy
 - Visual field prediction-normal
 - Differences in testing patterns
 - How quickly should therapy be initiated?
 - Risk of imminent vision loss
 - Risk of possible overtreatment
 - Ideally 3 IOP measurements gathered prior to initiation of therapy
- Therapeutic of choice
 - SLT
 - Laser in glaucoma and ocular hypertension (LiGHT) trial
 - 6 year data

- Why aren't quality of life measures greater in the SLT group?
 - COAST trial
 - Optimizing therapy

CASE #2 –

- 61 year old male
 - Referred for evaluation of glaucoma-elevated IOP and severe optic disc damage determined at comprehensive eye examination
 - Untreated intraocular pressure
 - Level of optic disc damage
 - What data is most relevant at initial evaluation?
 - What data will change the way that the case is managed?
 - Target IOP
 - Best guess based on background risk factors, patient age (life expectancy), past progression
 - 50% reduction? More aggressive target pressure
 - Adding multiple medications at the same visit
 - Challenges to assessment of clinical efficacy
 - Risk of undertreatment and stepwise approach to target pressure
 - Maximally tolerated medical therapy
 - Low vision consultation
 - Most effective early in the course of disease
- Newly diagnosed POAG case; >30% reduction from baseline peak untreated IOP on a prostaglandin analog
 - How often do we perform:
 - Automated visual fields
 - 6 visual fields within the first 2 years
 - OCT RNFL and GCC
 - RNFL measures 100% of RGC axons
 - Optic disc photos
 - Gonioscopy
 - Every 1-2 years
 - Pachymetry
 - Alter the frequency based on risk for future progression

CASE #3 –

- 63 year old male with a history of “narrow angles” and bilateral LPI
 - “About 25 years ago” (1999-at the age of 38)
 - Latanoprost QHS OU with reported peak untreated IOP of high 20s
 - Hypertension and anxiety
 - Lisinopril and clonazepam

- Impact of clonazepam?
 - No events of significant blurred vision, haloes around lights, significant nausea or headache
- BCVA 20/20 OD and OS
 - Refractive error approximately +2.00 OD and OS
- Patent LPI 1:00 OD and OS
 - Role of LPI in prevention of primary angle closure
 - ZAP (Zhongshan Angle-Closure Prevention Study)
 - 14 year outcome of angle closure prevention in ZAP study
- Moderately deep central anterior chamber and quiet anterior chamber
 - Gonioscopy: open to anterior trabecular meshwork 360 OD; 270 degrees OD
 - Convex iris approach, no PAS, AR, NVA
 - 1+ PTM pigment with compression
 - Anterior chamber OCT
 - Most effective to determine whether the angle is open or closed- not a replacement for gonioscopy
- Is this consistent with primary angle closure?
 - Optic disc appearance
 - RNFL and GCIPL imaging
- Discontinue latanoprost
 - IOP 18mmHg OD and 17mmHg OS at follow up
 - Advocate for “early” cataract surgery
 - Would this patient meet EAGLE inclusion criteria?
- Is dilation safe?
 - What is the purpose of LPI?
 - Prevent or overcome pupil block
 - Does LPI widen the anterior chamber angle?
 - Parajuli et al. 2023; impact of placement of PI on anterior chamber angle depth

CASE #4 –

- June 2024-telephone call from primary care optometrist
 - IOP in office is 30mmHg OD and 32mmHg OS-now what?
 - Mechanism of elevated intraocular pressure
 - Primary angle closure
 - Spectrum of disease
 - Treatment options?
 - Early cataract surgery

- Expectation
- Direct SLT (not as a sole therapy)?
 - Ongoing ex-USA study investigating direct SLT in angle closure patients
- Patient declines cataract surgery at this time
 - Now what?
 - Medical therapy-not disease modifying, not curative
 - Adjustment to systemic benzodiazepine?

CASE #5 –

- 79 year old male with 10+ year history of POAG OU
 - Currently treated with latanoprost 0.005% QHS OU (teal cap) and dorzolamide-timolol BID OU (dark blue cap)
 - BCVA OD: LP, OS: 20/40
 - “Complication after cataract surgery” led to vision loss in the right eye
 - IOP 28mmHg OD, 8mmHg OS
 - Optic disc appearance
 - Does this patient have glaucoma?
 - Plan? Discontinue one bottle of medication following third visit (dorzolamide-timolol): IOP 11mmHg OS; discontinue the second bottle of medication following the fourth visit: IOP 14mmHg OS
 - 3 month recall

Considerations: –

- **Streamlining medical therapy**
 - 51 year old male with diagnosed pigmentary glaucoma presents for a second opinion on therapy
 - He is cautious about pursuit of SLT but wishes to reduce medical therapy
 - Latanoprost QHS OU, dorzolamide-timolol BID OU, brimonidine BID OS
 - IOP 17mmHg OD, 21mmHg OS
 - What other options exist
 - MORE phase 4 trial
 - 48 year old female with approximate 15 year history of POAG OU
 - Diagnosed in Haiti
 - Currently treated with latanoprost QHS OU
 - Optic disc appearance
 - RNFL and GCIPL imaging
 - Gonioscopy
 - Is this POAG?
 - Discontinuation of medication
 - Untreated IOP 28mmHg OD OS
 - Ocular hypertension
 - Risk assessment

- **Sometimes the best action is seemingly “inaction”**
 - Taking the time needed to evaluate a treatment, repeat a test, or observe an individual over time will clarify unexpected or equivocal findings

Q&A / Discussion –