

## Chapter 61. Glaucoma Self-Assessment Questions

1. The preferred treatment option for a 67-year-old man with primary open-angle glaucoma (POAG), no significant past medical history (PMH), and allergy to benzalkonium chloride is:

- A. Tafluprost
- B. Latanoprost
- C. Brinzolamide
- D. Carbachol
- E. Levobunolol

2. An appropriate counseling statement for timolol is:

- A. This medication has no significant systemic effects.
- B. This medication may cause mydriasis.
- C. Do not use this medication if you are allergic to sulfonamides.
- D. This medication may cause an increase in iris pigmentation.
- E. This medication may cause bradycardia.

3. All of the following characteristics would increase a patient's risk of developing primary angle-closure glaucoma *except*:

- A. Myopia
- B. Female gender
- C. Shallow anterior chamber
- D. Central corneal thickness of 560  $\mu\text{m}$
- E. Asian descent

4. The following drug would be contraindicated in a patient with primary open-angle glaucoma (POAG) and allergy to sulfonamides:

- A. Travoprost
- B. Betaxolol
- C. Brinzolamide
- D. Pilocarpine

5. The following drug has little clinically significant systemic adverse effects:

- A. Bimatoprost
- B. Brimonidine
- C. Carteolol
- D. Acetazolamide
- E. Apraclonidine

6. The following drug may darken pigmentation of the iris:

- A. Tafluprost
- B. Carteolol
- C. Brinzolamide

- D. Pilocarpine
- E. Levobunolol

7. The following medications are likely to increase IOP in a patient with primary angle-closure glaucoma (PACG) except:

- A. Diphenhydramine
- B. Amitriptyline
- C. Pseudoephedrine
- D. Lisinopril
- E. Topiramate

8. Latanoprost decreases intraocular pressure by which of the following mechanisms?

- A. Increases aqueous humor outflow through the trabecular meshwork
- B. Decreases uveoscleral outflow
- C. Increase aqueous humor production
- D. Decreases aqueous humor production
- E. Increases uveoscleral outflow

9. EW is 60-year-old African American woman. PMH is significant for asthma, HTN, and gastroesophageal reflux disease (GERD). She is diagnosed today with primary open-angle glaucoma (POAG). Her medications include Lisinopril, fluticasone HFA MDI, albuterol HFA MDI and, omeprazole 20 mg by mouth daily. All of the following medications are a reasonable choice for initial of her POAG except:

- A. Bimatoprost
- B. Brimonidine
- C. Betaxolol
- D. Travoprost
- E. Latanoprost

10. Aqueous humor that exits the eye via the trabecular meshwork leaves through which structure?

- A. Ciliary muscles
- B. Uveoscleral pathway
- C. Schlemm canal
- D. Pupil
- E. Cornea

11. Betaxolol decreases intraocular pressure by which of the following mechanisms?

- A. Increases aqueous humor outflow through the trabecular meshwork
- B. Decreases uveoscleral outflow
- C. Increases aqueous humor production

- D. Decreases aqueous humor production
- E. Increases uveoscleral outflow

12. OP is a 75-year-old man who presents to the emergency department with complaints of blurred vision and eye pain in his right eye. He also reports nausea. Upon examination, the patient's right eye has a cloudy cornea and conjunctival hyperemia. The right pupil is semidilated and fixed to light. Gonioscopy reveals closed anterior angle of the right eye. IOP of the right eye is 60 mm Hg (8.0 kPa). The patient is diagnosed with closed-angle glaucoma. Which of the following statements is *false* regarding the treatment of acute angle-closure crisis?

- A. The patient needs immediate lowering of the IOP to preserve vision in the right eye.
- B. Timolol would be an appropriate agent to initially lower the patient's IOP.
- C. Pilocarpine therapy should be added once IOP has been lowered to less than 50 mm Hg (6.7 kPa).
- D. Laser iridotomy or surgical iridectomy are only needed in cases in which the IOP is refractory to pharmacotherapy.
- E. Acetazolamide is carbonic anhydrase inhibitor that can be given orally for patients with closed-angle glaucoma to lower their IOP.

13. Which of the following characteristics would increase a patient's risk of developing primary open glaucoma?

- A. Hyperopia
- B. Hispanic descent
- C. Shallow anterior chamber
- D. Central corneal thickness of 560  $\mu\text{m}$
- E. Asian descent

14. CC is a 72-year-old woman that is diagnosed with primary open-angle glaucoma (POAG). Ophthalmic evaluation reveals the following: tonometry measured an IOP of 26 mm Hg (3.5 kPa) in the right eye and 27 mm Hg (3.6 kPa) in the left eye. Ophthalmoscopy revealed cupping of the optic discs both eyes, and visual field examination revealed a nerve fiber bundle defect. Pachymetry reveals a central corneal thickness of 510  $\mu\text{m}$ . Pupils were normal in both eyes and gonioscopy indicated that anterior chamber angles were open bilaterally. The patient has PMH significant for rheumatoid arthritis and allergic rhinitis. Which of the following medications should this patient *avoid* to prevent a medication induced increase in IOP?

- A. Diphenhydramine
- B. Amitriptyline
- C. Promethazine
- D. Phenylephrine
- E. None of the above

15. Brinzolamide decreases intraocular pressure by:
- A. Increasing aqueous humor outflow through the trabecular meshwork
  - B. Decreasing uveoscleral outflow
  - C. Increasing aqueous humor production
  - D. Decreasing aqueous humor production
  - E. Increasing uveoscleral outflow

## Answers

1. A

2. E

3. A

4. C

5. A

6. A

7. D

8. E

9. C

10. C

11. D

12. D

13. C

14. E

15. D