

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ**  
**Харківський національний медичний університет**

**KROK-2 of ophthalmology**  
**for the practical work for students for topic**  
**“Diseases of cornea and lens”**

***Manual for individual work for English speaking***  
***foreign students***

**КРОК-2 з офтальмології**  
**для практичної роботи за темою**  
**«Захворювання рогівки та кришталика»**

***Методичні вказівки***  
***для індивідуальної підготовки студентів-іноземців***  
***з англійською мовою навчання***

Затверджено  
вченою радою ХНМУ.  
Протокол № 4 від 16.04.2015

**Харків**  
**ХНМУ**  
**2015**

Krok-2 of ophthalmology for the practical work for students for topic «Diseases of cornea and lens»: manual for individual work for English speaking foreign students / compliers: P. A. Bezditko, O. P. Muzhychuk, Y. M. Ilyina et al. – Kharkiv : KNMU, 2015. – 16 p.

Compliers            P. A. Bezditko  
                             O. P. Muzhychuk  
                             Y. M. Ilyina

Крок-2 з офтальмології для практичної роботи за темою «Захворювання рогівки та кришталика»: метод.вказ. для індивідуальної підготовки студентів-іноземців з англійською мовою навчання / упор. П. А. Бездітко, О. П. Мужичук, Є. М. Ільїна та ін. – Харків : ХНМУ, 2015. – 16 с.

Упорядники        П. А. Бездітко  
                             О. П. Мужичук  
                             Є. М. Ільїна

1. A patient 60 years old has progressive pterygium on the left eye. It's had reach the center of the cornea, the pupil zone, that decreased visual acuity. What is the treatment?

- A. *Corticosteroids instillation*
- B. *Artificial tears instillation, vessels constrictors*
- C. *Protections surface of the eyes (sunglasses etc.)*
- D. *Surgical treatment*
- E. *Contact lenses*

2. 62 years old patient suffer from redness of the left eye, foreign body sensation and moderate eyelids edema. Objective dates – decrease sensation of the cornea, moderate pericorneal injection. Slit lamp examination – defects of corneal epithelium with gray color borders. Diagnosis?

- A. *Neurotrophic keratitis*
- B. *Fликтенal keratitis*
- C. *Bullous keratopathy*
- D. *Ulcer of the cornea*
- E. *Dense corneal scar*

3. 56 years old patient suffer from growth of scar tissue that accompanied with redness of the inner part of eyeball. Slit lamp examination of right eye – scar tissue with blood vessels that start from the inner angle of the eye and reach the center of the cornea. Diagnosis?

- A. *Pinguecula*
- B. *Symblepharon*
- C. *Pterygium*
- D. *Keratitis superficial*
- E. *Keratitis*

4. A woman of 61 years old complaint for the low vision of the left eye. Slit lamp examination – in the inner angle of the eye is conjunctival tissue triangular form, red color, raised and highly vascular. Head of this formation fixed to the cornea and reach its center. Treatment?

- A. *Instillation of eye drops with antibiotics*
- B. *Surgical treatment*
- C. *Hydrocortisone ointment on to conjunctiva*
- D. *Plastic surgery of conjunctiva*
- E. *Instillation of Tetrahydrozoline HCl 0.05% 1 drop 4 times daily 5 days*

5. A man of 35 years old suffer from blurred vision, a red and painful eye that does not improve when contact lenses are removed and on antibiotic treatment, increased sensitivity to light, and excessive tearing from left eye. The corneal lesion have a white/gray infiltrate with feathery borders. This condition starts after trauma 1 month ago. Microbiology examination shows fungal infection. Treatment?

- A. *Corticosteroids eye drops*
- B. *Sterile wound dressing on the left eye*
- C. *Natamycin ophthalmic suspension*

- D. Tobramycine eye drops*
  - E. Keratoplastic*
6. A man 48 years old has dendritic keratitis of the left eye. Treatment?
- A. Acyclovir and interferon local using*
  - B. Acyclovir and interferon systemic using*
  - C. Antibiotics and corticosteroids eye drops*
  - D. Antibiotics ointment*
  - E. Antihistamines and antiseptics eye drops*
7. A man of 37 years old has pain, foreign-body sensation, light sensitivity, redness and blurred vision. Slit lamp examination - a linear branching corneal ulcer. During eye exam the defect is examined after staining with fluorescein dye. The underlying cornea has minimal inflammation. Diagnosis?
- A. Pterygium*
  - B. Stromal keratitis*
  - C. Epithelial keratitis*
  - D. Erosion of the cornea*
  - E. Blepharoconjunctivitis*
8. 17 years old patient has progressive keratoconus. During last 2 month his vision decreased, small grey color spots are in the central part of the cornea. Treatment?
- A. Gas permeable contact lenses*
  - B. Cylindrical glasses*
  - C. Corneal cross-linking*
  - D. Antibiotics and corticosteroids eye drops*
  - E. Corneal transplant*
9. 17 years old patient has progressive keratoconus. During last 2 month his vision decreased, small grey color spots are in the central part of the cornea. Diagnostics tests?
- A. Optical coherent tomography*
  - B. Perimetry*
  - C. Ophthalmoscopy*
  - D. Tonometry*
  - E. Corneal topography*
10. Child 12 years old suffer from redness, tearing, photophobia, foreign body sensation in his left eye, asthenia, increased sweating. Slit lamp examination – grey color raised spot in 3 mm from the limbus in upper layers of the cornea, from this spot there are deep and superficial new vessels. Diagnosis?
- A. Pterygium*
  - B. Keratoconjunctivitis Sicca*
  - C. Herpes Simplex Keratitis*
  - D. Bullous Keratopathy*
  - E. Phlyctenular Keratoconjunctivitis*

**11.** Child 12 years old suffer from redness, tearing, photophobia, foreign body sensation in his left eye, asthenia, increased sweating. Slit lamp examination – grey color raised spot in 3 mm from the limbus in upper layers of the cornea, from this spot there are deep and superficial new vessels. Treatment?

- A. *Acyclovir locally*
- B. *NSAID*
- C. *Eye drops with combination of antibiotics and corticosteroid*
- D. *Natamycin ophthalmic suspension*
- E. *Antihistamines and antiseptics eye drops*

**12.** During prophylactic examination in 67 years old patient was founded grey color perilimbal opacity zone of the cornea. Visual functions are normal, no considerable circumcorneal conjunctival hyperemia. Diagnosis?

- A. *Allergic keratitis*
- B. *Corneal Ulcer*
- C. *Arcus senilis*
- D. *Keratoconus*
- E. *Cogan Syndrome*

**13.** After the adenoviral conjunctivitis 21 years old patients has multifocal subepithelial corneal infiltrates. He complains of tearing, light sensitivity, foreign body sensation. Examination?

- A. *Slit lamp examination*
- B. *Keratotopography*
- C. *Ophthalmometry*
- D. *Tonometry*
- E. *Optical coherent tomography*

**14.** After the adenoviral conjunctivitis 21 years old patients has multifocal subepithelial corneal infiltrates. He complains of tearing, light sensitivity, foreign body sensation. Complications?

- A. *Dry eye syndrome*
- B. *Conjunctival scarring*
- C. *Symblepharon formation*
- D. *All above*
- E. *Nothing from above*

**15.** 45 years old patient complain of tearing, light sensitivity, foreign body sensation, photophobia, redness of the eye. Disease starts in 2 days after long period on the cold air. On the cornea opacity zone. Examination?

- A. *Slit lamp examination*
- B. *Tonometry*
- C. *Refractometry*
- D. *Keratotopography*
- E. *Optical coherent tomography*

**16.** A woman 38 years old complains of tearing, light sensitivity, foreign body sensation, photophobia, redness of the eye. Slit lamp examination – a small approximately circular area of infiltration at or near the center of the cornea, accompanied by irregularity of the epithelium covering the infiltrated area, and partial or complete loss of sensation over that area. Examination?

- A. *Slit lamp examination*
- B. *Tonometry*
- C. *Refractometry*
- D. *Keratotopography*
- E. *Optical coherent tomography*

**17.** A woman 38 years old complains of tearing, light sensitivity, foreign body sensation, photophobia, redness of the eye. Slit lamp examination – a small approximately circular area of infiltration at or near the center of the cornea, accompanied by irregularity of the epithelium covering the infiltrated area, and partial or complete loss of sensation over that area. Diagnosis?

- A. *Disciform keratitis*
- B. *Keratoconjunctivitis Sicca*
- C. *Herpes Simplex Keratitis*
- D. *Bullous Keratopathy*
- E. *Phlyctenular Keratoconjunctivitis*

**18.** A woman 38 years old complains of tearing, light sensitivity, foreign body sensation, photophobia, redness of the eye. Slit lamp examination – a small approximately circular area of infiltration at or near the center of the cornea, accompanied by irregularity of the epithelium covering the infiltrated area, and partial or complete loss of sensation over that area. Treatment?

- A. *Oral acyclovir 400 mg - 5 times daily for 10 days*
- B. *Ganciclovir ophthalmic gel 0.15% - 5 times daily*
- C. *Diclofenak 0,75 mg 1-2 times daily 5-10 days*
- D. *Cycloplegic agent*
- E. *All of the above*

**19.** In slit lamp examination of a man 78 years old is grey opaque ring in the corneal margin (peripheral corneal opacity). His visual acuity 20/20, IOP 18 mm, anterior chamber and lens without changes. Diagnosis?

- A. *Spheroidal degeneration of the cornea*
- B. *Fleischer ring*
- C. *Coats white ring*
- D. *Arcus senilis*
- E. *Polymorphic amyloid degeneration*

**20.** During examination of newborn was founded sizes of cornea vertical 15mm, horizontal 14mm, cornea is clear, spherical, limbus is normal size, all layers of cornea are normal, IOP normal. Diagnosis?

- A. *Corneal edema*
- B. *Congenital glaucoma*

- C. *Microcornea*
- D. *Megalocornea*
- E. *Keratoconus*

**21.** 41 years old man complains of tearing, light sensitivity, foreign body sensation, photophobia, redness of the eye. In the central part of the cornea is corneal ulcer. What is the reason of this condition?

- A. *Foreign bodies in the eye*
- B. *Severe allergic eye disease*
- C. *Severely dry eyes*
- D. *Nothing of all above*
- E. *All of the above*

**22.** 41 years old man complains of tearing, light sensitivity, foreign body sensation, photophobia, redness of the eye. In the central part of the cornea is corneal ulcer. Treatment?

- A. *Antibiotic drops that work against many kinds of bacteria*
- B. *Corticosteroid eye drops*
- C. *Antihistamines eye drops*
- D. *NSAIDS eye drops*
- E. *All of the above*

**23.** 41 years old man complains of tearing, light sensitivity, foreign body sensation, photophobia, redness of the eye. In the central part of the cornea is corneal ulcer. Diagnostic tests?

- A. *Examination of scrapings from the ulcer*
- B. *Fluorescein stain of the cornea*
- C. *Corrects are A, B*
- D. *Perimetry*
- E. *Tonometry*

**24.** Patient of 32 years old has keratoconus I stage. Visus is 20/30 without correction. Condition is stable. What are recommendations for the patient?

- A. *Regular consultation in ophthalmologist*
- B. *Soft contact lens*
- C. *Corneal cross-linking*
- D. *Surgical treatment*
- E. *Vitamins*

**25.** During examination of 3 years boy was founded sizes of cornea vertical 9mm, horizontal 8mm, cornea is clear, spherical, limbus is normal size, all layers of cornea are normal, IOP normal, refraction - hyperopia. Diagnosis?

- A. *Corneal edema*
- B. *Microcornea*
- C. *Congenital glaucoma*
- D. *Megalocornea*
- E. *Keratoconus*

**26.** Women of 39 years old 3 days ago damage the left eye on the beach. During 2 years suffer from chronicle dactyocystitis without treatment. Now she has tearing, light sensivity, foreing body sensation, photophobia, redness of the eye. In the central part of the cornea defect with infiltrative borders. Visual acuity is 20/200 without correction. In anterior chamber – hypopion. Edema of the cornea. Other layers close with opaque cornea. Diagnosis?

- A. *Allergic keratitis*
- B. *Corneal Ulcer*
- C. *Keratoconus*
- D. *Chronicle bacterial dactyocystitis*
- E. *Cogan Syndrome*

**27.** Women of 39 years old 3 days ago damage the left eye on the beach. During 2 years suffer from chronicle dactyocystitis without treatment. Now she has tearing, light sensivity, foreing body sensation, photophobia, redness of the eye. In the central part of the cornea defect with infiltrative borders. Visual acuity is 20/200 without correction. In anterior chamber – hypopion. Edema of the cornea. Other layers close with opaque cornea. Examinations?

- A. *Refractomerty*
- B. *Keratotopography*
- C. *Optical coherent tomography*
- D. *Examination of scrapings from the ulcer and Fluorescein stain of the cornea*
- E. *Tonometry*

**28.** Women of 39 years old 3 days ago damage the left eye on the beach. During 2 years suffer from chronicle dactyocystitis without treatment. Now she has tearing, light sensivity, foreing body sensation, photophobia, redness of the eye, blepharospasmus . In the central part of the cornea defect with infiltrative borders. Visual acuity is 20/200 without correction. In anterior chamber – hypopion. Edema of the cornea. Other layers close with opaque cornea. Treatment?

- A. *Ganciclovir ophthalmic gel 0.15% - 5 times daily*
- B. *Surgical treatment of the cornea*
- C. *Dacryocystorhynostomie*
- D. *Antibacterial, antiinflamatory, cycloplegical*
- E. *Antihistamines and antiseptics eye drops*

**29.** 28 years old patient had perforated corneal trauma of the left eye. After the treatment he has visus of right eye 20/20, visus of left eye 1/∞pr. Certa. In the central part of the cornea he has zone opacity white-grey color that covers  $\frac{3}{4}$  surface of the cornea. Other layers close with opaque cornea. What is the next step of treatment?

- A. *Antibacterial, antiinflamatory, cycloplegical*
- B. *Antihistamines and antiseptics eye drops*
- C. *Corneal cross-linking*
- D. *Vitamins*
- E. *Keratoplastic surgery*



**30.** 28 years old patient had perforated corneal trauma of the left eye. After the treatment he has visus of right eye 20/20, visus of left eye 1/∞pr. Certa. In the central part of the cornea he has zone opacity white-grey color that covers  $\frac{3}{4}$  surface of the cornea. Other layers close with opaque cornea. Examination?

- A. *Optical coherent tomography*
- B. *Ultrasound examination*
- C. *Keratotopography*
- D. *Refractometry*
- E. *Ophthalmoscopy*

**31.** Patient of 37 years old suffer from pain in the right eye and low vision. He has had trauma of the eye 3 days ago when he repair his car. Objective – left eye normal. Vision of the right eye 1/∞pr. Certa. Edema of the eyelids, mixed injection of the eye, on the cornea – injure 7 mm length localized in 4 mm from limbus, through this zone IRIS impingement, in anterior chamber hypopion 3 mm. Other layers close with opaque cornea. Examination?

- A. *Optical coherent tomography*
- B. *X-ray examination with Baltin prosthesis*
- C. *Keratotopography*
- D. *Refractometry*
- E. *Ophthalmoscopy*

**32.** Patient of 37 years old suffer from pain in the right eye and low vision. He has had trauma of the eye 3 days ago when he repair his car. Objective – left eye normal. Vision of the right eye 1/∞pr. Certa. Edema of the eyelids, mixed injection of the eye, on the cornea – injure 7 mm length localized in 4 mm from limbus, through this zone IRIS impingement, in anterior chamber hypopion 3 mm. Ciliary pain. Other layers close with opaque cornea. Diagnosis?

- A. *Posttraumatic uveitis*
- B. *Retinal detachment*
- C. *Hemophthalmus*
- D. *Perforated corneal trauma with foreign body*
- E. *Cataract*

**33.** Patient of 37 years old suffer from pain in the right eye and low vision. He has had trauma of the eye 3 days ago when he repair his car. Objective – left eye normal. Vision of the right eye 1/∞pr. Certa. Edema of the eyelids, mixed injection of the eye, on the cornea – injure 7 mm length localized in 4 mm from limbus, through this zone IRIS impingement, in anterior chamber hypopion 3 mm. Other layers close with opaque cornea. Treatment?

- A. *Cataract extraction*
- B. *Vitrear surgery with sterile silicon oil*
- C. *Vitreoretinal surgery with extraction of foreign body*
- D. *None of above*
- E. *All of the above*

**34.** Patient of 37 years old suffer from pain in the right eye and low vision. He has had trauma of the eye 3 days ago when he repair his car. Objective – left eye normal. Vision of the right eye  $1/\infty$  pr. Certa. Edema of the eyelids, mixed injection of the eye, on the cornea – injure 7 mm length localized in 4 mm from limbus, through this zone IRIS impingement, in anterior chamber hypopion 3 mm. Other layers close with opaque cornea. From the list of possible complication, choose something that can not be found?

- A. *Secondary glaucoma*
- B. *Posttraumatic cataract*
- C. *Scar of the cornea*
- D. *Retinal detachment*
- E. *Halazion*

**35.** 4 month baby has big beautiful eyes. He sleep bad, afraid of light, cry almost all the time. Size of the cornea  $12 \times 13$  mm. Anterior chamber is deep. Choose normal size of the cornea.

- A.  $9 \times 10$
- B.  $12 \times 13$
- C.  $15 \times 16$
- D.  $7 \times 8$
- E.  $11 \times 13$

#### CODES OF THE CORRECT ANSWERS

№	code	№	code	№	code	№	code	№	code
<b>1</b>	D	<b>8</b>	C	<b>15</b>	A	<b>22</b>	E	<b>29</b>	E
<b>2</b>	D	<b>9</b>	E	<b>16</b>	A	<b>23</b>	C	<b>30</b>	B
<b>3</b>	A	<b>10</b>	E	<b>17</b>	A	<b>24</b>	C	<b>31</b>	B
<b>4</b>	C	<b>11</b>	B	<b>18</b>	E	<b>25</b>	B	<b>32</b>	D
<b>5</b>	B	<b>12</b>	C	<b>19</b>	D	<b>26</b>	B	<b>33</b>	C
<b>6</b>	C	<b>13</b>	A	<b>20</b>	D	<b>27</b>	D	<b>34</b>	E
<b>7</b>	A	<b>14</b>	D	<b>21</b>	E	<b>28</b>	D	<b>35</b>	A

#### LENS DISEASES

**1.** Normal sizes of the lens in newborn

- A.  $4 \times 6$  mm
- B.  $5 \times 8$  mm
- C.  $10 \times 15$  mm
- D.  $6 \times 10$  mm
- E.  $5,5 \times 9,8$  mm

**2.** The main nutrition during gestation period lens gets from

- A. *Artery of the vitreous body*
- B. *Anterior ciliary arteries*
- C. *Central retinal vein*
- D. *Choriocapillare layer of choroid*
- E. *Posterior ciliary arteries*

3. In what terms the foetal is lens tab?
- A. 5–8 weeks
  - B. 9–12 weeks
  - C. 13–15 weeks
  - D. 16–18 weeks
  - E. 3–4 weeks
4. The normal aging human crystalline lens
- A. develops an increasingly curved shape, resulting in more refractive power
  - B. develops an increasingly flatter shape, resulting in less refractive power
  - C. undergoes an increase in index of refraction as a result of decreasing presence of insoluble protein particles
  - D. undergoes a decrease in index of refraction as a result of decreasing presence of insoluble protein particles
  - E. a and c are correct
5. Terminal differentiation is the process whereby
- A. lens epithelial cells elongate into lens fibers
  - B. the mass of cellular proteins is decreased
  - C. glycolysis assumes a lesser role in metabolism
  - D. cell organelles increase their metabolic activity
  - E. correct all except c
6. A lens coloboma
- A. is usually associated with previous lens trauma
  - B. is typically located superiorly
  - C. occurs as an isolated anomaly or is secondary to the lack of ciliary body or zonular development
  - D. is often associated with cortical lens opacification
  - E. is needed in emergency surgical correction
7. The epidemiology of cataracts suggests that
- A. they are more prevalent in those under 65 years of age
  - B. they are more prevalent in women
  - C. they occur only as a consequence of age
  - D. they rarely lead to blindness
  - E. they are more prevalent in men
8. Risk factor(s) for nuclear opacification identified by epidemiologic studies include
- A. current smoking
  - B. white race
  - C. lower education
  - D. all of the above
  - E. none of the above

9. The risk of cataract development may be decreased by food rich in
- vitamin A*
  - vitamin C*
  - beta carotene*
  - lutein*
  - vitamin B1*
10. The following are true about cataract:
- it is the most common cause of blindness in the world*
  - nuclear sclerosis reduces the distant vision more than near*
  - posterior subcapsular cataract is more likely to cause problem with distant vision than near one*
  - more females than males have cataract surgery outdoor workers are more likely to develop cataract than indoor workers*
  - correct a, c*
11. What consideration would be the least important in the decision to perform cataract surgery?
- difficulties with activities of daily living*
  - dense nuclear sclerosis*
  - withdrawal from interactions with others*
  - failure to pass a vision test at the driver's license bureau*
  - correct are a, c, d*
12. Which of the following questions is(are) important to answer prior to scheduling a patient for cataract surgery?
- Does the lens opacity correspond to the level of visual loss?*
  - Does the patient have a medical condition that would preclude surgery?*
  - Is the patient or a person responsible for the patient able to cooperate with the postoperative regimen and return for follow-up care?*
  - Will the patient's activities of daily living improve after successful surgery?*
  - all of the above*
13. Which functions are changed in cataract
- Visual acuity*
  - Visual field*
  - Visual acuity and contrast sensitivity*
  - Color vision*
  - Contrast sensitivity*
14. Management of congenital cataract
- Observing*
  - Medical treatment*
  - Surgery*
  - observing or surgery depends on visual functions*
  - vitamins*

- 15.** The following are true about microspherophakia:
- A. *it is associated with myopia and it is associated with short stature and stiff joints*
  - B. *it can be an autosomal recessive disorder*
  - C. *it can cause pupillary block glaucoma which should be treated with mydriatic*
  - D. *anterior dislocation is a known complication*
  - E. *none of the above*
- 16.** The following metabolic disorders are associated with cataract:
- A. *Hyperlysinemia*
  - B. *Hypercalcemia*
  - C. *Hypocalcemia*
  - D. *Hyperglycaemia*
  - E. *Uraemia*
- 17.** Drug-induced cataract include:
- A. *phenothiazine*
  - B. *echothiopate*
  - C. *aspirin*
  - D. *lovastatin*
  - E. *systemic beta-blockers*
- 18.** The following are true about blunt trauma on the lens:
- A. *Vossius ring is caused by the imprint of the pupillary pigment on the lens*
  - B. *Vossius ring causes decreased vision in the majority of patients*
  - C. *Vossius ring is a permanent sign*
  - D. *contusion cataract is usually rosette-shaped*
  - E. *contusion cataract typically involves the anterior cortex*
- 19.** In congenital cataract:
- A. *patients with severe bilateral cataract should have the cataracts removed before three months of age, intraocular lens should be used*
  - B. *visual prognosis is poor in patients who develop nystagmus*
  - C. *the posterior capsule is usually left intact*
  - D. *post-operative visual acuity is usually better in patients with unilateral cataract than bilateral cataract*
  - E. *correct a, b*
- 20.** Regarding eye drops used in cataract surgery:
- A. *flurbiprofen is used to dilate pupil*
  - B. *flurbiprofen prevents post-operative inflammation, cyclopentolate acts on the constrictor muscle of the iris*
  - C. *phenylephrine stimulates the alpha receptors, phenylephrine should be avoided in patients on monoamine oxidase inhibitors*
  - D. *All of the above*
  - E. *None of the above*

21. In a 6 month old baby with bilateral cataract, urine test is useful in:
- A. *homocystinuria*
  - B. *galactosemia, Lowe's syndrome*
  - C. *abetalipoproteinemia*
  - D. *cystinosis*
  - E. *Fuchs syndrome*
22. Factors that can increase intravitreal pressure during phacoemulsification include:
- A. *excessive peribulbar anaesthesia*
  - B. *patient taking deep breath*
  - C. *pressure from the speculum*
  - D. *choroidal haemorrhage*
  - E. *a high bottle height*
23. Pseudoexfoliation syndrome:
- A. *is commonly seen in glass blowers, is associated with poor pupillary dilatation*
  - B. *is most commonly in the fifth decade of life*
  - C. *causes mid-periphery transillumination*
  - D. *causes iridodonesis*
  - E. *all of the above*
24. Which of the following preoperative measures has proven most effective in reducing the risk of endophthalmitis?
- A. *administering oral amoxicillin beginning 3 days before surgery*
  - B. *prescribing topical antibiotics for 2 weeks following surgery*
  - C. *decreasing the duration of surgery , injecting vancomycin into the infusion/irrigating solution*
  - D. *administering topical 5% povidone-iodine solution at the time of surgery*
  - E. *none of the above*
25. All of the following are risk factors for cystoid macular edema after cataract surgery except:
- A. *diabetes mellitus*
  - B. *flexible open-loop anterior chamber IOL implantation*
  - C. *ruptured posterior capsule*
  - D. *marked postoperative inflammation*
  - E. *vitreous loss*
26. A 3-year-old with a dense developmental cataract in the left eye demonstrates poor fixation OS and a left esotropia. The right eye appears normal. Which of the following statements is true?
- A. *IOL implantation surgery should not be performed in children*
  - B. *The left esotropia should be repaired surgically prior to cataract surgery*
  - C. *Amblyopia therapy should begin prior to cataract surgery*
  - D. *Posterior capsulotomy should not be performed at the time of surgery because of the risk of retinal detachment*
  - E. *Cataract surgery with IOL implantation is a reasonable approach toward visual rehabilitation in this case*

**27.** A 50-year-old woman with myopia presents with complaints of monocular diplopia and difficulty driving at night. Her best-corrected visual acuity with a 2 D myopic shift is 20/30. On slit-lamp examination, she has minimal nuclear sclerosis. What additional examination is helpful to evaluate her symptoms?

- A. *red reflex*
- B. *corneal topography*
- C. *fluorescein angiography*
- D. *MRI scan*
- E. *retinoscope or the direct ophthalmoscope*

**28.** A 76-year-old man complains of difficulty driving because of reduced vision. His best-corrected visual acuity is 20/70 OD and 20/40 OS. Goldmann visual fields are constricted, more in the OD than in the OS. A moderate nuclear cataract is present OD, and a mild one is seen OS. His IOP is 23 mm Hg OD and 18 mm Hg OS. He uses timolol 1/2% bid OD and dorzolamide tid OD. His cup-disc ratio is 0.8 OD and 0.6 OS. The fundus is otherwise normal. Which of the following statements is true?

- A. *Cataract surgery should not be considered because of the risk of loss of fixation postoperatively*
- B. *Cataract surgery combined with glaucoma filtering surgery is the only approach that should be considered for this patient*
- C. *Medical glaucoma treatment should be maximized before considering cataract surgery*
- D. *The visual field constriction in this case is probably caused by glaucoma*
- E. *The use of latanoprost after cataract surgery may increase the risk of postoperative CME*

**29.** A 65 year old patient presents with a gradual reduction in vision 1 year after vitrectomy to repair a retinal detachment. What is the most likely explanation?

- A. *Redetachment of the retina*
- B. *Posterior subcapsular cataract from intensive steroid therapy*
- C. *Nuclear cataract after vitrectomy to repair the retinal detachment*
- D. *Phacoantigenic uveitis from leakage of lens protein*
- E. *All of the above*

**30.** A patient presents with a mature lens and secondary glaucoma without evidence of pupillary block. What is the most likely diagnosis?

- A. *Phacomorphic glaucoma*
- B. *Phacolytic glaucoma*
- C. *Phacoantigenic uveitis*
- D. *Lens particle glaucoma*
- E. *All of the above*

**31.** Which of the following is a source of potential complications during cataract surgery in a uveitis patient?

- A. Shallow anterior chamber*
- B. Zonular laxity*
- C. Endogenous endophthalmitis*
- D. Phacolytic glaucoma*
- E. None of the above*

**32.** If a patient is found to have a best-corrected visual acuity of 20/40 in each eye but reports that vision is adequate for his needs, which factor would cause the ophthalmologist to consider cataract surgery?

- A. The level of lens opacity equals the level of vision loss*
- B. The patient has no medical problems that would contraindicate surgery*
- C. The ophthalmologist is unable to see the patient's retina well enough to evaluate it*
- D. The patient would be able to perform his activities of daily living more easily with better vision*
- E. Patient want to get vision 20/20*

#### CODES OF CORRECT ANSWERS

№	code	№	code	№	code
<b>1</b>	A	<b>13</b>	C	<b>25</b>	B
<b>2</b>	A	<b>14</b>	D	<b>26</b>	D
<b>3</b>	E	<b>15</b>	A	<b>27</b>	E
<b>4</b>	E	<b>16</b>	C	<b>28</b>	B
<b>5</b>	E	<b>17</b>	D	<b>29</b>	C
<b>6</b>	C	<b>18</b>	D	<b>30</b>	B
<b>7</b>	B	<b>19</b>	E	<b>31</b>	B
<b>8</b>	D	<b>20</b>	B	<b>32</b>	C
<b>9</b>	D	<b>21</b>	B		
<b>10</b>	E	<b>22</b>	B		
<b>11</b>	E	<b>23</b>	A		
<b>12</b>	E	<b>24</b>	C		



*Навчальне видання*

**КРОК-2 з офтальмології  
для практичної роботи за темою  
«Захворювання рогівки та кришталика»**

***Методичні вказівки  
для індивідуальної підготовки студентів-іноземців  
з англійською мовою навчання***

Упорядники      Бездітко Павло Андрійович  
                         Мужичук Олена Павлівна  
                         Ільїна Євгенія Миколаївна

Відповідальний за випуск      П. А. Бездітко



Комп'ютерна верстка О. Ю. Лавриненко

План 2015, поз. 104.  
Формат А5. Ризографія. Ум. друк. арк. 1,0.  
Тираж 150 прим. Зам. № 15-3311.

---

**Редакційно-видавничий відділ  
ХНМУ, пр. Леніна, 4, м. Харків, 61022  
izdatknmu@mail.ru, izdat@knmu.kharkov.ua**

Свідцтво про внесення суб'єкта видавничої справи до Державного реєстру видавництв, виготівників і розповсюджувачів видавничої продукції серії ДК № 3242 від 18.07.2008 р.

**KROK 2 OF OPHTHALMOLOGY  
FOR THE PRACTICAL WORK  
FOR STUDENTS FOR TOPIC  
«DISEASES OF CORNEA AND LENS»**

***Manual for individual work  
for English speaking  
foreign students***