

Cataract

Questions

- 157. Rosette cataract is seen due to (MAHE 2001)**
- Trauma
 - Cu-foreign body
 - Diabetes
 - Hyperparathyroidism
- 158. Cataract is seen with: (PGI 88)**
- Galactosemia
 - Congenital Rubella
 - Toxoplasmosis
 - All of the above
- 159. The lens derives its nutrition from:- (AI 88)**
- Aqueous
 - Sclera
 - Vitreous
 - None
- 160. Dislocation of lens is seen in all except (PGI 95)**
- Retinoblastoma
 - Medulloblastoma
 - Neuroblastoma
 - None of the above
- 161. The latest technique in cataract surgery is using (KERALA 91)**
- Microscope
 - Laser
 - UV light
 - IR rays
- 162. Oil drop cataract is seen in : (KERALA 90)**
- Hunters syndrome
 - Galactosemia
 - Steroid therapy
 - Rubella

163. All are indications of ICCE except (PGI 97)

- a. Immature cataract
- b. Subluxated lens
- c. Mature cataract in age group 30-40yrs
- d. Mature cataract in 45-50yrs

164. Most common cause of blindness in India is : (AIIMS 87)

- a. Vit A deficiency
- b. Trachoma
- c. Cataract
- d. Syphilis

165. Rider's cataract is seen in : (AI 91)

- a. Blue - Dot cataract
- b. Zonular cataract
- c. Anterior Capsular cataract
- d. Coronary cataract

166. Supra-temporal lental subluxation is seen in : (AI 89)

- a. Weiss- Marchesani syndrome
- b. Marfans
- c. Hunters
- d. Homocystinuria

167. Polychromatic luster is seen in : (AIIMS 96)

- a. Posterior subcapsular cataract
- b. Zonular cataract
- c. Cortical cataract
- d. Nuclear cataract

168. Anterior lenticonus is seen in : (AI 96)

- a. Marfans
- b. Weiss - Marchesani syndrome
- c. Alport's
- d. Homocystinuria

169. Cataract is found in all except (AIIMS 89)

- a. Primary pulmonary hypertension
- b. Hypoparathyroidism
- c. I.D.D.M
- d. Myotonic dystrophy

60 Ophthalmology

170. In complicated cataract, the following part of the lens is involved (AP 98)

- a. Anterior part of lens
- b. Lens nucleus
- c. Posterior part of lens capsule
- d. All of the above

171. Treatment of congenital cataract:- (PGI 97)

- a. Needling & Aspiration
- b. Extracapsular extraction
- c. Intracapsular extraction
- d. Cryotherapy

172. Atopic cataract is that which follows: (KAR 98)

- a. Exposure to syphilis
- b. Injury
- c. Poisoning
- d. Skin diseases

173. Which morphological type of cataract is most usually handicapping (AIIMS 2002)

- a. Cortical
- b. Nuclear
- c. Posterior subcapsular
- d. Zonular

174. Parenteral steroids cause (AIIMS 86)

- a. Cataract
- b. Glaucoma
- c. Corneal opacity
- d. Papilloedema

175. Nuclear cataract is associated with following type of refractive error : (AP 98)

- a. Myopia
- b. Hypermetropia
- c. Presbyopia
- d. Astigmatism

176. The commonest type of cataract in children is : (PGI 84)

- a. Snow flake cataract
- b. Lamellar cataract
- c. Morgagnian cataract
- d. Sunflower cataract

- 177. Sun flower cataract is seen in : (AIIMS 86)**
- Trauma
 - Chalcosis
 - Diabetes
 - Hyperthyroidism
- 178. Which is not a feature of complicated cataract (AIIMS 91)**
- Sutural involvement
 - Axial spread
 - Polychromatic lustre
 - Originates from posterior cortex
- 179. Unioocular polyopia is seen in which stage: - (AP 97)**
- Intumescent
 - Mature cataract
 - Hyper mature cataract
 - Incipient cataract
- 180. Modern criteria for cataract operation is : (JIPMER 95)**
- Maturation of cataract
 - Loss of vision
 - Complications
 - All of above
- 181. Cataract is associated with:- (PGI 88)**
- Pseudo-muscular hypertrophy
 - Myotonia congenita
 - Myotonic dystrophy
 - SLE
- 182. Ideal site for IOL implantation is : (AIIMS 87)**
- Anterior to pupil
 - Behind the cornea
 - In the lens capsule
 - Behind the lens capsule
- 183. Most common complication of ECCE is : - (PGI 95)**
- Retinal detachment
 - Opacification of posterior capsule
 - Vitreous Haemorrhage
 - None
- 184. Lens capsule is thinnest at: - (AIIMS 87)**
- Centre Anteriorly
 - Laterally
 - Superior pole
 - Posteriorly

62 Ophthalmology

185. Treatment of unilateral hypermature cataract includes: - (AP 94)

- a. Aphakic glasses
- b. Contact glasses
- c. Removal of lens
- d. Removal of lens + IOL implantation

186. Cataract is seen in all except : (AI 90)

- a. Dystrophia myotonica
- b. Atopic Eczema
- c. Diabetes mellitus
- d. Toxemia of pregnancy

187. Lens dislocation occurs in all except:- (KERALA 94)

- a. Marfan's syndrome
- b. Homocystinuria
- c. Glaucoma
- d. Batten - Mayou disease

188. Lens develop from: - (KERALA 94)

- a. Coelomic epithelium
- b. Endoderm
- c. Surface ectoderm
- d. Mesoderm

189. Vision is diminished in day light in which type of cataract (PGI 88)

- a. Peripheral
- b. Central
- c. Hypermature
- d. Concussion

190. IOL is contraindicated in : (JIPMER 90)

- a. Young diabetics
- b. One eyed
- c. Corneal dystrophy
- d. All of the above

191. In which type of the following type of IOL implant in ECCE used : - (AIIMS 89)

- a. Iris support
- b. ACIOL
- c. PCIOL
- d. Angle support

- 192. All are causes of early onset cataract except:- (DELHI 96)**
- Diabetes mellitus
 - Smoking
 - Heredity
 - Recurrent episodes of diarrhoea
- 193. Developmental cataract is seen in :- (PGI 87)**
- Rubella
 - Galactosemia
 - Cretinism
 - All
- 194. Advantage of IOL over glasses are all except : (PGI 97)**
- Better field of vision
 - Better Accommodation
 - Better underwater vision
 - No chromatic aberration
- 195. Which of the following type of senile cataracts is the most notorious to produce glaucoma: - (AIIMS 2000)**
- Incipient cataract
 - Lamellar cataract
 - Hypermature cataract
 - Intumescent cataract
- 196. Vossius ring is: - (AP 97)**
- Circular pigment rim on the anterior capsule of lens
 - Degeneration of retina
 - Depigmentation of iris
 - Pigmentation of cornea
- 197. Snow flake cataract is seen in:- (PGI 83)**
- Diabetes
 - Galactosemia
 - Trauma
 - Rubella
- 198. YAG laser is used in t/t of : (AIIMS 92)**
- Retinal Detachment
 - Diabetic Retinopathy
 - Open Angle glaucoma
 - After cataract

64 Ophthalmology

199. Which of the following is wrong regarding congenital cataract : (AP 98)

- a. Usually bilateral
- b. Progressive in nature
- c. Rapid deterioration of vision
- d. Early surgery required

200. Bilateral dislocation of lens is seen in all except : (AI 2000)

- a. Marfans syndrome
- b. Rubella
- c. Marchesani syndrome
- d. Alkaptonuria

201. The commonest type of cataract in adults is: (PGI 85)

- a. Nuclear cataract
- b. Cortical cataract
- c. Morgagnian cataract
- d. Intumescent cataract

202. Most common type of cataract following irradiation is : - (PGI 83)

- a. Posterior subcapsular
- b. Anterior subcapsular
- c. Tear drop cataract
- d. Diffuse

203. Second sight is seen in: - (MAHE 2000)

- a. Senile nuclear cataract
- b. Zonular cataract
- c. Traumatic cataract
- d. Posterior capsular cataract

204. Commonest indication of IOL implant is: (DELHI 93)

- a. Diabetic cataract
- b. Unilateral cataract
- c. Complicated cataract
- d. Dislocation of lens

205. Immature cataract can be diagnosed by : - (TN 99)

- a. Retinoscopy
- b. Direct ophthalmoscopy
- c. Distant direct ophthalmoscopy
- d. Indirect ophthalmoscopy

206. Cataract in a new born is :- (KERALA 95)

- a. Zonular
- b. Nuclear
- c. Snowflake
- d. Cortical

207. Method followed to decrease post-op infection in cataract surgery

- a. Pre-op. antibiotics
- b. Intra-op. antibiotics
- c. Post-op. sub conjunctival injection
- d. Post-op. IV antibiotics

208. Which is not associated with zonular cataract : (PGI 93)

- a. Diabetes
- b. IUGR
- c. Rickets
- d. Dental abnormalities

Cataract

Answers

157. (a) Trauma (Ref: K -373)

Traumatic cataract is due to:

- (i) Imbibition of aqueous
- (ii) Direct mechanical effects of injury on lens fibres

It could be:-

- (i) Discrete subepithelial opacities
- (ii) Early Rosette cataract : feathery lines of opacity along star shaped suture lines usually in posterior cortex
- (iii) Late Rosette cataract: It develops in posterior cortex 1-2 yrs after injury.

158. (d) All of the above (Ref: K -187)

Causes of cataract :

- (1) Heredity : eg. Cataracta Pulveranta, Coronary cataract
- (2) Maternal : Infections eg. Rubella, Toxoplasmosis
Drug ingestion : Corticosteroids
Radiation
- (3) Foetal : Metabolic disorders : Galactosemia
galactose kinase deficiency
Deficient oxygenation
- (4) Idiopathic

159. (a) Aqueous (Ref: K -184)

Crystalline lens being an avascular structure is dependent on aqueous humour for its nutrition.

The metabolic activity is largely confined to the cortex.

80% of Glucose is metabolised anaerobically by glycolytic pathway, 15% by hexose monophosphate shunt & small proportion via oxidative kreb's citric acid cycle. Sorbitol pathway is important for Diabetic & galactosemic patients.

160. (d) None of the above (Ref: K -210)

In dislocated lens, all the zonules are severed from the lens. Intraocular tumours gives rise to dislocation by mechanical stretching of the lens fibres and their ultimate rupture.

Clinical Features:-

Deep Anterior chamber
Aphakia

Iridodonesis

Complications :-

Uveitis

Secondary Glaucoma

161. (b) Laser (Ref: K -203)

In laser phacoemulsification, the lens nucleus is emulsified using laser energy.

The advantage of this technique is that laser energy used to emulsify cataractous lens is not exposed to other intra ocular structures.

162. (b) Galactosemia (Ref: K -194)

Galactosemia occurs in two forms:-

(i) Classical Galactosemia → Deficiency of Galactose - 1- PO₄ - Uridyl-Transferase

(ii) Deficiency of Galactokinase.

It is frequently accompanied with Bilateral cataract.

The lens changes may be reversible & occurrence of cataract may be prevented if milk & milk products are eliminated from diet when diagnosed at early stage.

163. (c) Mature cataract in age group 30-40yrs (Ref: K -198)

In ICCE, the entire cataractous lens along with the intact capsule is removed.

Therefore weak and degenerated zonules are a prerequisite for this method. Because of this reason, this technique is not employed in young where the zonules are strong.

Other indications of ICCE:-

(a) eye camps

(b) facilities for microsurgery not available

(c) surgeon not trained in ICCE

164. (c) Cataract (Ref: K -425)

Leading causes of blindness in India:-

(i) Cataract

(ii) Refractive errors

(iii) Aphakic blindness

(iv) Glaucoma

(v) Corneal opacity

(vi) Trachoma

(vii) Others

165. (b) Zonular cataract (Ref: K -187)

Cataract occurs in the zone of foetal nucleus surrounding the embryonic nuclear occasionally, two such rings of opacity are present.

The main mass of lens internal & external to the zone of cataract is

68 Ophthalmology

clear, except for small linear opacities like spokes of wheel (riders) which may be seen towards the equator.

166. (b) Marfans (Ref: K -210)

It is autosomal dominant mesodermal dysplasia

Other anomalies accompanying are:-

- (i) Arachnodactyly
- (ii) Long extremities
- (iii) Hyperextensibility of joints
- (iv) High arched palate
- (v) Dissecting Aneurysm

167. (a) Postr. sub-capsular cataract (Ref: K -195)

The opacity is irregular in outline and variable in density. Slit lamp examination shows bread crumb appearance.

Characteristic sign is appearance of iridescent colored particles, the so called 'polychromatic lustre' of reds, greens & blues. A diffuse yellow haze is seen in adjoining cortex. Slowly the opacity spreads & finally the entire lens becomes opaque giving chalky white appearance.

168. (c) Alport's (Ref: K -212)

It is a cone-shaped elevation of anterior pole.

On distant direct ophthalmoscopy, both present as oil globule lying in the centre of red reflex.

Slit lamp examination confirms the diagnosis.

169. (a) Primary pulmonary hypertension (Ref: K-187 FOR 'd' ; K-194 'b' & 'c')

- (a) Hypoparathyroidism → hypocalcemic cataract (Discrete white flecks of opacities)
- (b) I.D.D.B. → snow flake cataract
- (c) Myotonic dystrophy → Cataract is part of this congenital anomaly

170. (c) Posterior part of lens capsule (Ref: K -195)

When posterior part of lens capsule is affected following changes occur:-

- (i) 'Bread-crumbs' opacities
- (ii) Polychromatic lustre
- (iii) Chalky white opacity of lens

171. (a) Needling & Aspiration (Ref: K -189)

Needling & Aspiration is obsolete now

In this technique, a cruciate incision is made in the anterior capsule with a ziegler's knife and lens matter was stirred up and left as such for self absorption.

High post-op complications were:
Uveitis, Glaucoma & after cataract.

172. (d) Skin diseases (Ref: K -196)

Atropic cataracts are bilateral & occur at young age
Disease leading to atopic cataract are:

- ◆ Atopic Dermatitis
- ◆ Poikiloderma
- ◆ Vasculare atrophica
- ◆ Scleroderma
- ◆ Keratitis folliculare

173. (d) Zonular (Ref: K -191)

Zonular cataract is a congenital cataract that occurs in the zone of foetal nucleus.

The 'spokes of a wheel' opacity gives riders appearance.

Cause : Genetic →Autosomal dominant
Environmental →Vit. D deficiency

It is bilateral & causes severe visual defect.

174. (a) Cataract (Essential of Medical Pharmacology -K.D. Tripathi 5/e, 264)

Corticosteroids induce posterior subcapsular cataract

Children are more susceptible than adults

Therefore regular examination of all patients requiring prolonged corticosteroids therapy should be done by an ophthalmologist.

175. (a) Myopia (Ref: K -192)

In patients with nuclear cataract, distant vision deteriorates due to progressive Index myopia.

Such patients may be able to read without presbyopic glasses.

This improvement in near vision is referred to as 'second sight'.

176. (b) Lamellar cataract (Ref: K -187)

In lamellar or zonular cataract the development of lens is interfered at later stage.

Etiology:

- (a) Heredity of dominant type
- (b) Associated with Vit D deficiency

177. (b) Chalcosis (Ref: K -378)

Chalcosis refers to the specific changes produced by the alloy of copper in the eye.

Sunflower cataract is produced by deposition of copper under the posterior capsule of the lens. It is brilliant golden green in colour & arranged like the petals of a sunflower.

Other changes of chalcosis:

- (a) K-F ring of cornea
- (b) Golden plaques at postr. pole of Retina.

70 Ophthalmology

178. (a) Sutural involvement (Ref: K-195)

Complicated cataract refers to the opacification of lens secondary to intraocular disease.

Etiology:-

- (a) Inflammatory : Iridocyclitis, endophthalmitis
- (b) Degenerative : Retinitis Pigmentosa
- (c) Retinal Detachment
- (d) Glaucoma
- (c) Intra - ocular tumors, Eg. Retinoblastoma.

179. (d) Incipient cataract (Ref: K-192)

Unilateral Polyopia → doubling, trebling of objects.

It occurs due to irregular refraction by the lens owing to variable refractive index as a result of cataractous process.

Other symptoms of cataract :-

- (i) Glare
- (ii) Colored haloes
- (iii) Black spots in front of eyes
- (iv) Image blurring, distortion of image
- (v) Loss of vision.

180. (b) Loss of vision (Ref: K-196)

An individual is operated for cataract when the visual handicap becomes a significant deterrent to the maintenance of his or her usual lifestyle.

Patients with usual activity of less than 6/36 may be advised surgical management.

181. (c) Myotonic Dystrophy (Ref: K-187)

Foetal factors affecting the lens & causing cataract are:

- (1) Deficient oxygenation owing to placental haemorrhage
- (2) Metabolic disorders like galactosemia, galactokinase deficiency
- (3) Cataracts → lowe's syndrome, myotonic dystrophica, congenital ichthyosis
- (4) Malnutrition
- (5) Birth Trauma

182. (c) In the lens capsule

PCIOLS are commonly placed behind the iris.

They are supported by ciliary sulcus or the capsular bag.

In-the-bag-fixation is commonest today.

Types of IOL :

- (a) ACIOL - Eg. Kelman multiflex
- (b) Iris supported - eg. Singh & worst's
- (c) PCIOL - Modified J-loop or C-loop

183. (b) Opacification of postr. capsule (Ref: K -199)

The types of 'After Cataract' are:-

- (i) Thin membranous after cataract
- (ii) Dense membranous after cataract
- (iii) Soemerrings Ring
- (iv) Elsching's pearls

Cause:

Residual opaque lens matter may persist when it is imprisoned between remains of antr. & postr. capsule

184. (d) Posteriorly (Ref: K -183)

Lens capsule is a thin, transparent, hyaline membrane surrounding the lens which is thicker over anterior than the posterior surface. The lens capsule is thickest at pre-equator region (14μ) & thinnest at the postr. pole (3μ).

In ECCE, major portion of antr. capsule with epithelium, nucleus & cortex are removed, leaving behind intact postr. capsule.

185. (d) Removal of lens + IOL implantation

Hyperature cataract has a visual acuity of PL +ve

It occurs in two forms:

- (i) Morgagnian : Whole cortex liquefies & lens is converted into a bag of milky fluid. The small brownish nucleus settles at the bottom altering its position with change in position of head.
- (ii) Sclerotic : The cortex becomes disintegrated & lens becomes shrunken due to leakage of water. The antr. capsule is wrinkled & thickened due to proliferation of antr. cells & a dense white capsule cataract is formed.

186. (d) Toxemia of Pregnancy (Ref: K -194, 17)

Cataract



Congenital



Developmental



Eg. Dystrophica Myotonica

Acquired

Dermatogenic

Eg. Atopic Eczema

Senile

Traumatic

Complicated

Metabolic

Eg. Diabetes Mellitus

72 Ophthalmology

187. (d) Batten - Mayou disease (Ref: K -210)

Dislocation of lens with systemic anomalies :-

- (i) Marfan's syndrome : Autosomal dominant inheritance
 Supra-temporal displacement
- (ii) Homocystinuria : Autosomal recessive
 Infra-nasal displacement
- (iii) Weil - Marchesani syndrome : Autosomal recessive
 Forward subluxation of lens
- (iv) Ehlers-Danlos syndrome : Subluxation with blue sclera

188. (c) Surface ectoderm (Ref: K -8)

Other structures from surface ectoderm:-

- (i) Corneal epithelium
- (ii) Conjunctival epithelium
- (iii) Lacrimal gland
- (iv) Epithelium of eyelids
- (v) Epithelium of lacrimal apparatus
- (vi) Conjunctival & tarsal glands

189. (b) Central (Ref: K -192)

Light in the day causes constriction of the pupil

The opacity of lens at the centre is right in front of the constricted pupil.

During the dim light in the evening, pupil dilates & the person can see better.

Hence vision is markedly diminished in the day.

190. (d) All of the above (Ref: Nema 379)

Other contraindications are:-

- (i) Proliferative Diabetic Retinopathy / Rubeosis Iridis
- (ii) Uveitis (Active or Chronic)
- (iii) Glaucoma with advanced field loss
- (iv) Retinal detachment

191. (c) PCIOL (Ref: K -205)

Advantages of PCIOL:-

- (i) Normal physiological place of natural lens
- (ii) Least magnification
- (iii) Decreased incidence of endophthalmodonesis
- (iv) Least chance of corneal damage
- (v) Post-op complication of
 - (a) vitreous herniation in AC
 - (b) pupillary block
 - (c) vitreous Touch syndrome are low

- 192. (b) Smoking** (Ref: K -190, 194)
 Factors affecting age of onset & maturation of cataract include:
- (i) Heredity
 - (ii) UV irradiations
 - (iii) Dietary factors
 - Anomalous diet as regards certain proteins, amino-acids, Vitamins (Riboflavin, Vit.E, Vit.C)
 - (iv) Dehydrational crisis Eg. Diarrhoea, Cholera
 - (v) Diabetes → osmotic overhydration of lens
- 193. (d) All** (Ref: Nema 221 & K - 187)
 Developmental cataract may occur from infancy to adolescence:-
 Therefore opacities may involve infantile or adult nucleus, deeper parts of cortex or capsule.
 Developmental cataract typically affects the particular zone which is being formed when this process is disturbed.
 The fibres laid down previously & subsequently are often normally formed & remain clear.
- 194. (b) Better Accommodation** (Ref: P - 295 & 297)
 Disadvantages of IOL are:-
- (a) Costly
 - (b) Increased post-op complications:-
 - Corneal dystrophy
 - Implant dislocation
 - Pupil block glaucoma
 - Cystoid Macular edema
 - Post-op iridocyclitis
 - Post-op astigmatism
- 195. (d) Intumescent cataract** (Ref: K -191)
 Intumescent cataract is a type of immature senile cataract. In this stage, lens may become swollen due to continued hydration. Due to the swollen lens, the AC becomes shallow. The swollen lens blocks the trabecular meshwork & the aqueous outflow is blocked. This causes increased intra-ocular tension resulting in glaucoma.
- 196. (a) Circular pigment rim on the anterior capsule of lens** (Ref: K - 373)
 Vossius ring occurs in contusion injury.
 It is a circular ring of brown pigment seen on anterior capsule.
 It occurs due to striking of contracted pupillary margin against the crystalline lens.
 Other effects of trauma on lens:-
- (i) Concussion cataract
 - (ii) Traumatic absorption of lens

74 Ophthalmology

- (iii) Subluxated lens
- (iv) Dislocation of lens

197. (a) Diabetes (Ref: K -194)

True Diabetic cataract usually occurs in young adults due to osmotic overhydration of lens. Initially a large number of fluid vacuoles appear underneath the antr. & postr. capsule which is soon followed by appearance of bilateral snow flake opacities in the cortex.

198. (d) After cataract (Ref: Nema - 235)

Types of 'after-cataract' & their treatment

- (a) Thin membranous : YAG laser capsulotomy
- (b) Thick membranous : Membranectomy
- (c) Soemmerrings ring : No treatment
- (d) Elschings Pearls : YAG laser capsulotomy

199. (c) Rapid deterioration of vision

Egs. of congenital & developmental cataract

- (i) Cataracta centralis pulverulenta
- (ii) Zonular cataract
- (iii) Sutural cataract
- (iv) Antr. polar cataract
- (v) Postr. polar cataract
- (vi) Coronary cataract
- (vii) Punctate cataract
- (viii) Total congenital cataract

200. (b) Rubella (Ref: K -210)

In Rubella, the child is born with a dense white nuclear cataract congenital Rubella cataract may be alone or as a part of congenital Rubella Syndrome which consists of:-

- (i) Ocular defects (Cong. cataract, salt & pepper Retinopathy, microphthalmos)
- (ii) Ear defects (Deafness due to destruction of organ of corti)
- (iii) Heart defects (Patent ductus Atriosus, Pulmonary stenosis)

201. (b) Cortical cataract (Ref: K -190)

Cortical cataract exists in two forms:

- (i) Cupuliform - 5%
- (ii) Cuneiform - 70%

Nuclear cataract is responsible for remaining 25% cataracts.

Cuneiform cataract which is most common is characterised by wedge shaped opacities with clear areas in between.

Cupuliform cataract forms a part of postr. cortex (Postr. sub capsular cataract)

- 202. (a) Postr. subcapsular** (Ref: K -195)
 Radiational energy is known to produce cataract by damaging the lens epithelium.
 The types seen are:-
 (a) Infra red cataract = (Postr. subcapsular cataract)
 Also called Glass-worker's cataract
 (b) Irradiation cataract (X-ray, γ rays)
 (c) UV radiation cataract
- 203. (a) Senile nuclear cataract** (Ref: K -192)
 In patients with nuclear sclerosis, distant vision deteriorates due to progressive 'index' myopia. Such patients may be able to read without presbyopic glasses. This improvement in near vision is called 'second sight'.
 As opacification progresses vision steadily diminishes.
- 204. (b) Unilateral cataract** (Ref: Nema - 379)
 Specific indications for IOL are:-
 (i) Macular Degeneration
 (ii) Severe Arthritis
 (iii) Mental retardation
 (iv) Parkinsonism
 (v) Professionals wanting good vision
 (a) Doctors
 (b) Pilots
 (c) Armed forces
- 205. (c) Distant direct ophthalmoscopy** (Ref: K -193 Table 8.1)
 In D.D.O, Immature senile cataract shows multiple dark areas against red fundal glow.
 Other examinations to be done in cataract:
 (i) Visual acuity
 (ii) Iris shadow → present in immature cataract
 (iii) Oblique illumination for color of lens → Greyish white in ISC
 (iv) Slit lamp → Areas of normal with cataractous cortex.
- 206. (a) Zonular** (Ref: K -187)
 Zonular cataract is a congenital cataract occurring in the zone of foetal nucleus:
 Etiology: Vit. D deficiency
 Hereditary
 Senile cataract occurs in two forms:
 (i) Cortical
 (ii) Nuclear
 Diabetes in young as well as adults leads to snowflake cataract

76 Ophthalmology

207. (c) Post-op sub.conj. injection.

Panophthalmitis may follow cataract surgery

It is a serious disease and should be treated at earliest.

Perforation of globe following improper surgery must be repaired immediately & gentamycin injected subconjunctivally (6 hrly) in addition to systemic antibiotics.

Post-op sepsis can also be controlled by intra-vitreous injections of gentamycin.

Other measures : Vitrectomy
Evisceration

208. (a) Diabetes (Ref: Nema 224)

Etiology of Zonular cataracts:

Heredity → Autosomal dominant trait

Congenital nuclear & sutural opacities

Maternal metabolic disturbances

Disturbances of Calcium metabolism

- Hypothyroidism (IUGR)

- Hypovitaminosis D
(Rickets)

- Defective development of
enamel of permanent
teeth.