POSTGRADUATE OSCE

DR VAISHNAVI

RETINA

A 55-year-old diabetic patient presents with gradual vision loss.

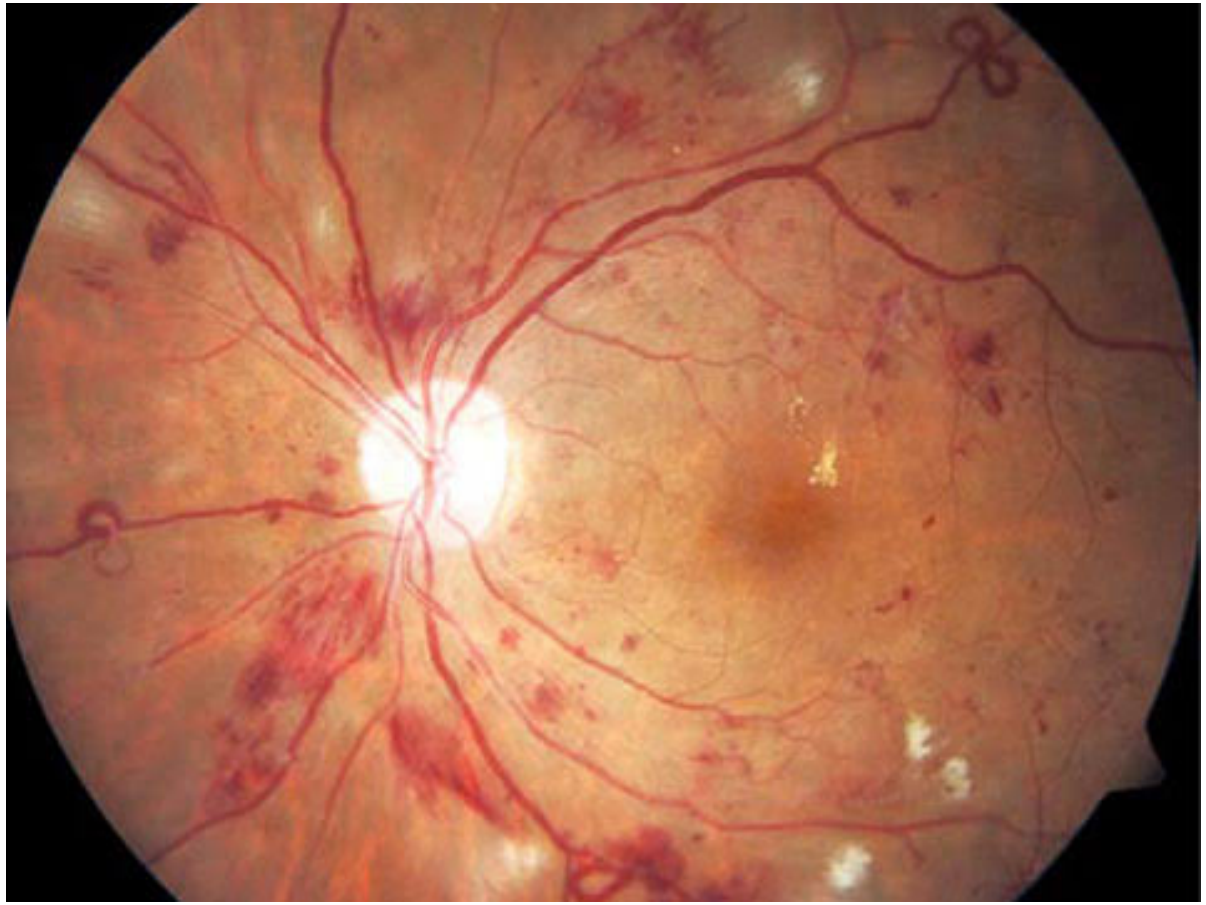
Questions:

1. What grade of diabetic retinopathy is shown? (2 marks)

2. List 4 features visible in this fundus photograph. (4 marks)

3. What is the next management step? (2 marks)

4. When would you consider anti-VEGF therapy? (2 marks)



Grade of diabetic retinopathy (2 marks):
Moderate Non-Proliferative Diabetic Retinopathy (NPDR) (2 marks)
2. Four features visible (4 marks):
Cotton wool spots (nerve fiber layer infarcts) (1 mark)
Hard exudates (lipid deposits) (1 mark)
Microaneurysms (1 mark)
Flame-shaped hemorrhages (1 mark)
3. Next management step (2 marks):
Optimise diabetic control/HbA1c (1 mark)
Regular ophthalmology follow-up (6-12 months) (1 mark)
4. Anti-VEGF therapy indications (2 marks):
Diabetic macular edema with central involvement (1 mark)
Proliferative diabetic retinopathy (1 mark)

60-year-old male with sudden onset of flashing lights and curtain-like visual field defect.

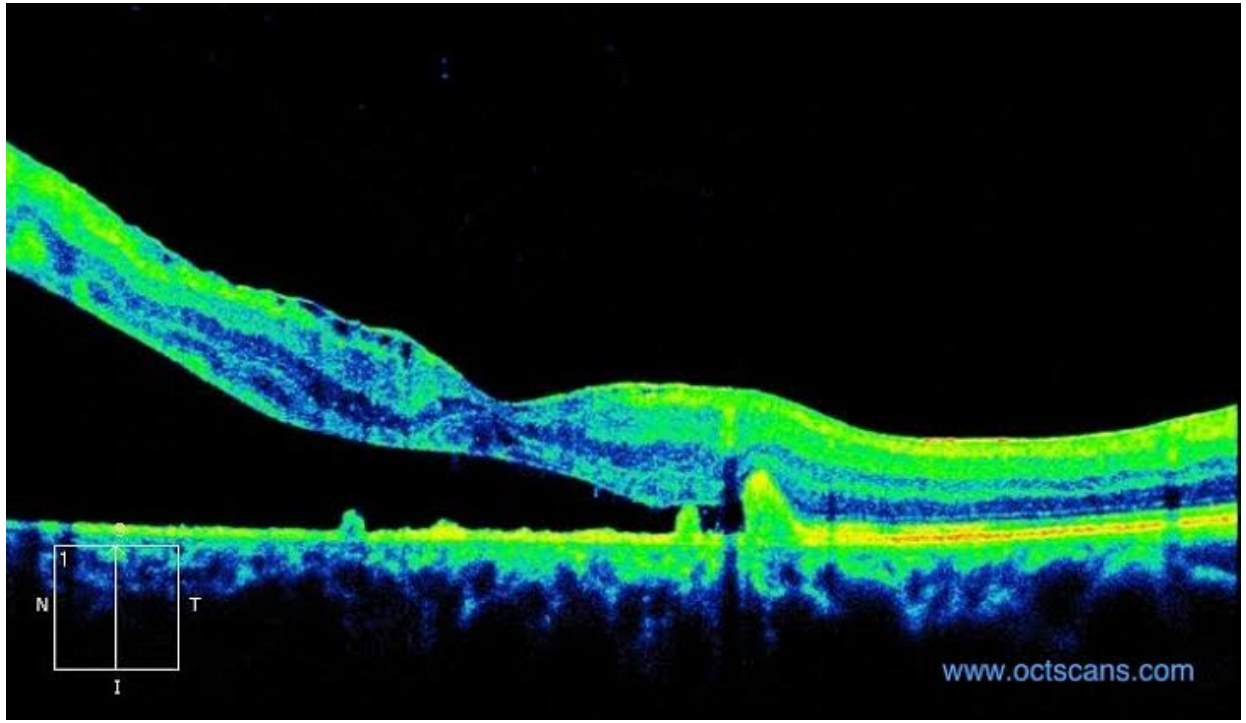
Questions:

1. What type of retinal detachment is this? (2 marks)

2. Name 3 risk factors for this condition. (3 marks)

3. What surgical options are available? (3 marks)

4. What is the prognosis if macula is attached vs detached? (2 marks)



Type of retinal detachment (2 marks):

Rhegmatogenous retinal detachment (2 marks)

2. Three risk factors (3 marks):

High myopia (1 mark)

Previous cataract surgery (1 mark)

Family history/Previous RD in fellow eye (1 mark)

3. Surgical options (3 marks):

Pneumatic retinopexy (1 mark)

Scleral buckle (1 mark)

Pars plana vitrectomy (1 mark)

4. Prognosis (2 marks):

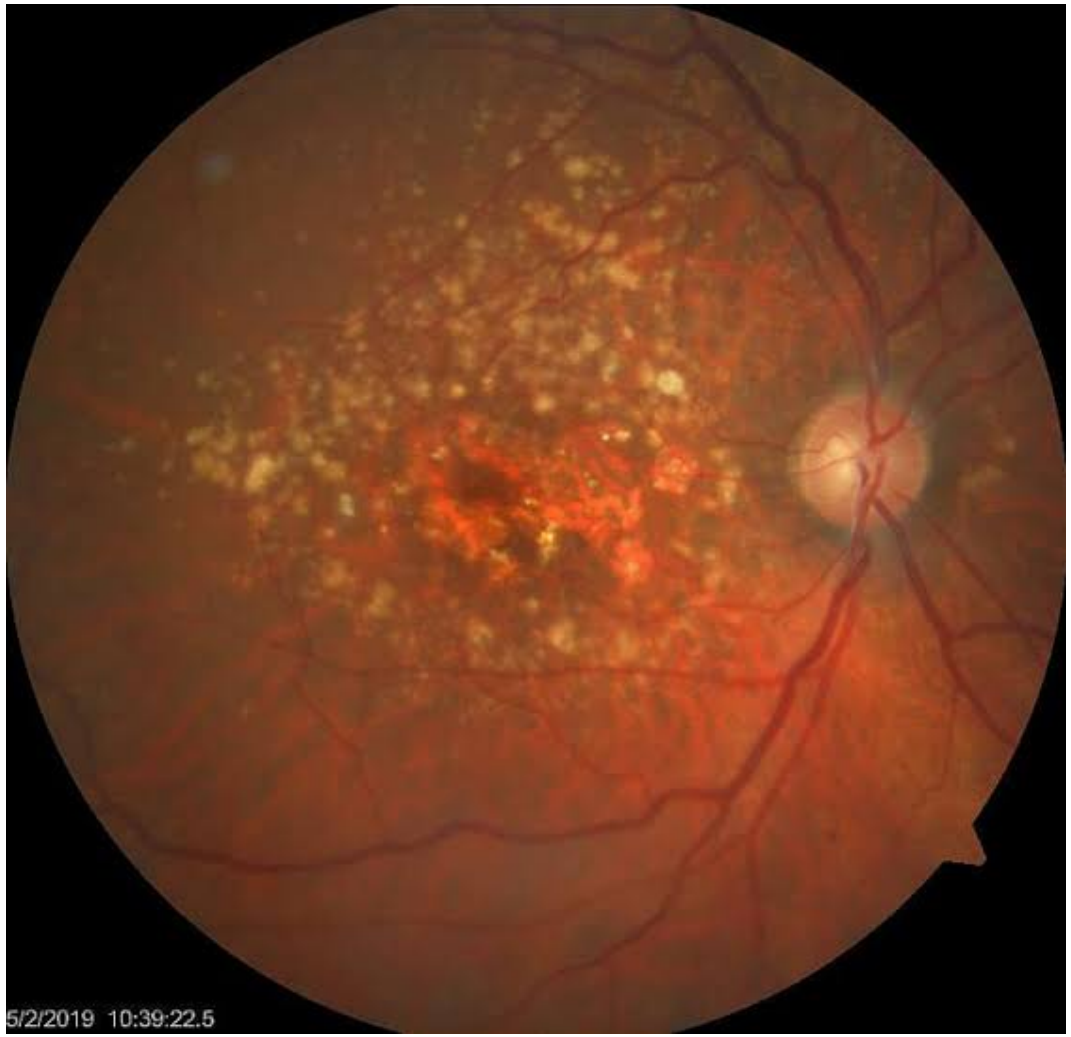
Macula attached: Better visual outcome (6/6-6/12 possible) (1 mark)

Macula detached: Limited visual recovery (6/60 or worse typical) (1 mark)

75-year-old woman complains of central scotoma and metamorphopsia.

Questions:

1. What type of AMD is shown? (2 marks)
2. What is the AREDS classification? (3 marks)
3. List 3 modifiable risk factors. (3 marks)
4. What supplements might benefit this patient? (2 marks)



1. Type of AMD (2 marks):
Dry/Atrophic AMD (2 marks)
2. AREDS classification (3 marks):
Category 1: Few small drusen (1 mark)
Category 2: Many small drusen or few intermediate drusen (1 mark)
Category 3: Extensive intermediate drusen or large drusen (1 mark)
3. Modifiable risk factors (3 marks):
Smoking cessation (1 mark)
Diet modification (antioxidants, omega-3) (1 mark)
UV protection/sunglasses (1 mark)
4. Beneficial supplements (2 marks):
AREDS2 formula: Vitamins C, E, Zinc, Lutein, Zeaxanthin (1 mark)
Omega-3 fatty acids (1 mark)

65-year-old hypertensive patient with sudden painless vision loss.

Questions:

1. What is the most likely diagnosis? (2 marks)

2. List 4 systemic associations. (4 marks)

3. What investigations would you order? (2 marks)

4. What are the potential complications? (2 marks)

1. **Most likely diagnosis (2 marks):**

Central Retinal Vein Occlusion (CRVO) (2 marks)

2. **Four systemic associations (4 marks):**

Hypertension (1 mark)

Diabetes mellitus (1 mark)

Glaucoma (1 mark)

Hyperviscosity syndromes/blood dyscrasias (1 mark)

3. **Investigations (2 marks):**

FBC, ESR, glucose, lipid profile (1 mark)

Blood pressure measurement (1 mark)

4. **Potential complications (2 marks):**

Macular edema (1 mark)Neovascular glaucoma (1 mark)

68-year-old patient with gradual central vision distortion.

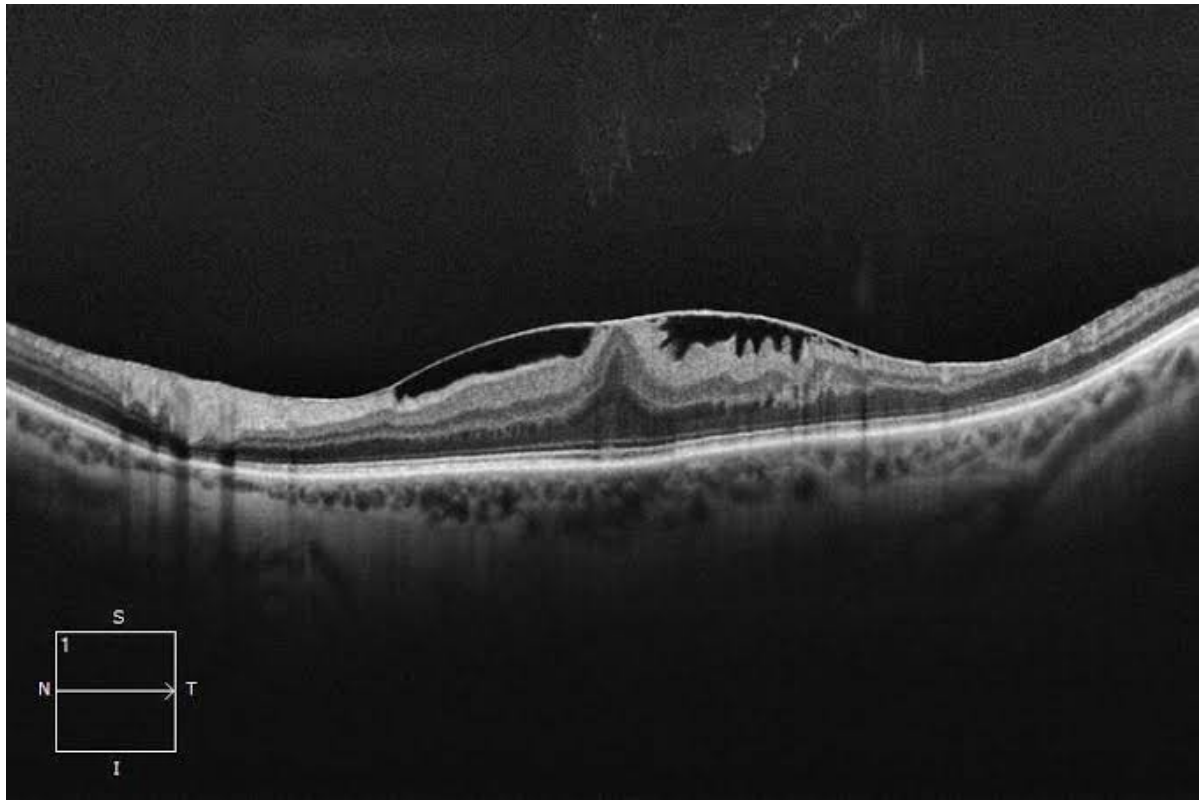
Questions:

1. What is the diagnosis? (2 marks)

2. What symptoms might the patient experience? (3 marks)

3. When is surgical intervention indicated? (3 marks)

4. Name the surgical procedure ? (2 marks)



- 1. **Diagnosis (2 marks):**
- Epiretinal membrane/Macular pucker (2 marks)
- 2. **Symptoms (3 marks):**
- Visual distortion/metamorphopsia (1 mark)
- Reduced visual acuity (1 mark)
- Central scotoma (1 mark)
- 3. **Surgical intervention indications (3 marks):**
- Significant visual impairment (VA <6/12) (1 mark)
- Symptomatic distortion affecting quality of life (1 mark)
- Progressive worsening (1 mark)
- 4. **Surgical procedure (2 marks):**
- Pars plana vitrectomy with membrane peeling (2 marks)

70-year-old patient with sudden superior visual field defect.

Questions:

1. What is the diagnosis? (2 marks)

2. What is the time window for potential treatment? (2 marks)

3. List 3 immediate management steps. (3 marks)

4. What investigations are essential? (3 marks)

1. **Diagnosis (2 marks):**
Branch Retinal Artery Occlusion (BRAO) (2 marks)
2. **Time window for treatment (2 marks):**
4-6 hours (acute phase) (2 marks)
3. **Three immediate management steps (3 marks):**
Ocular massage (1 mark)
Anterior chamber paracentesis (1 mark)
Carbonic anhydrase inhibitors (reduce IOP) (1 mark)
4. **Essential investigations (3 marks):**
Carotid Doppler ultrasound (1 mark)
Echocardiogram (1 mark)
ESR/CRP (rule out GCA if >50 years) (1 mark)

Patient with previous retinal detachment surgery presenting with re-detachment.

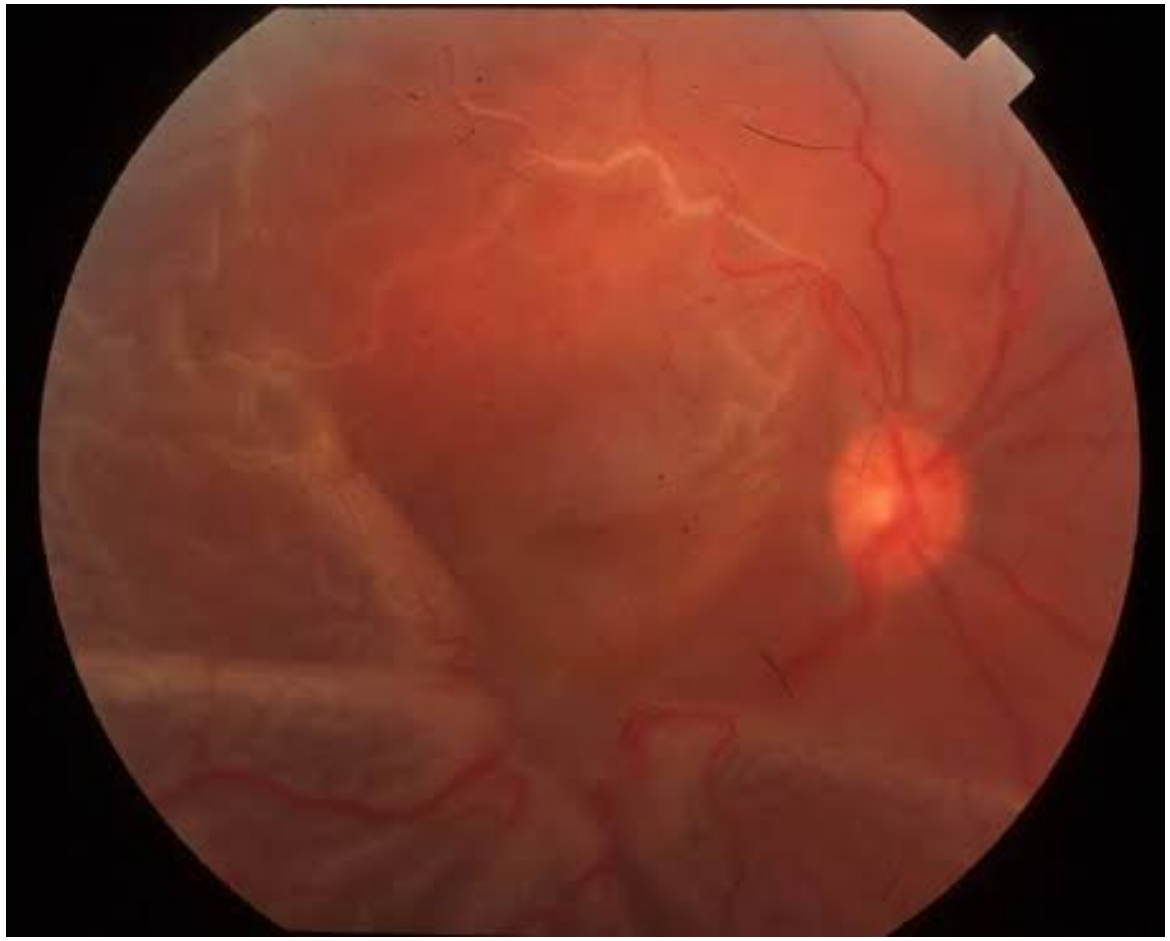
Questions:

1. What is the diagnosis? (2 marks)

2. What are the stages of PVR? (3 marks)

3. What surgical approach is required? (3 marks)

4. What factors influence prognosis? (2 marks)



1. **Diagnosis (2 marks):**
Proliferative Vitreoretinopathy (PVR) (2 marks)
2. **Stages of PVR (3 marks):**
Grade A: Vitreous haze, pigment clumps (1 mark)
Grade B: Surface wrinkling, vessel tortuosity (1 mark)
Grade C: Fixed retinal folds, subretinal strands (1 mark)
3. **Surgical approach (3 marks):**
Pars plana vitrectomy (1 mark)
Membrane peeling/relaxing retinotomies (1 mark)
Silicone oil tamponade (1 mark)
4. **Prognostic factors (2 marks):**
Extent of PVR (1 mark)
Duration of detachment (1 mark)

8-year-old boy with unilateral vision loss and leukocoria.

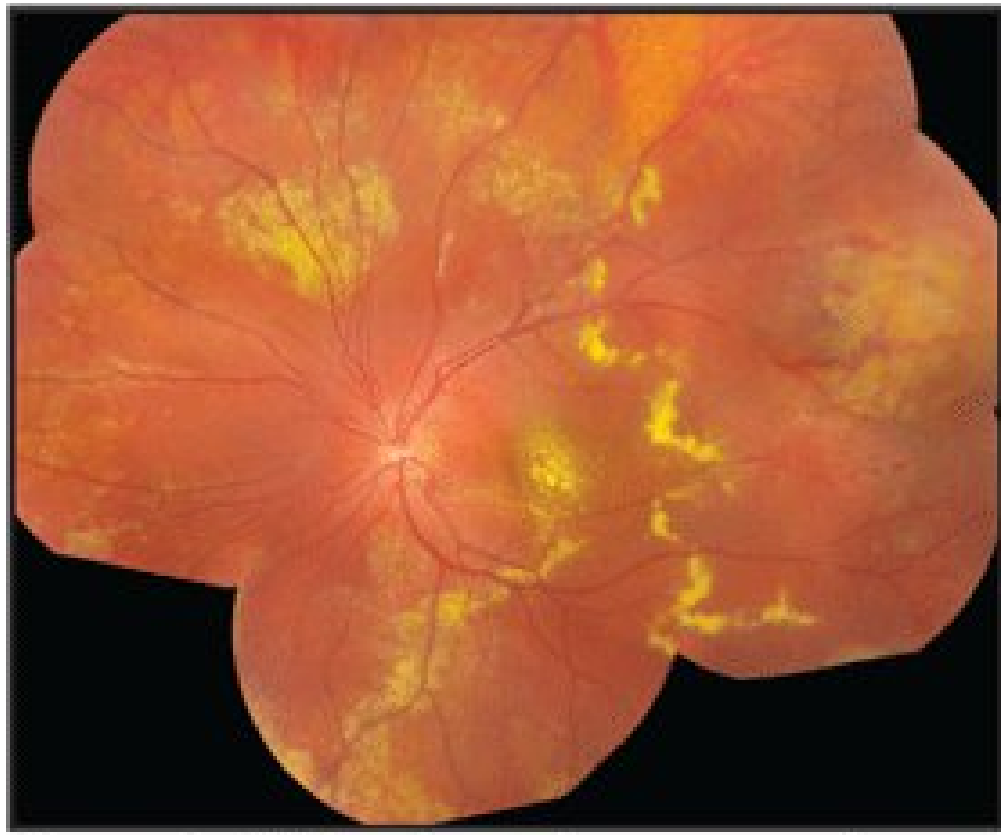
Questions:

1. What is the most likely diagnosis? (2 marks)

2. What are the characteristic features? (4 marks)

3. How does this differ from retinoblastoma? (2 marks)

4. What treatment options are available? (2 marks)



. **Most likely diagnosis (2 marks):**
Coats Disease (2 marks)
2. **Characteristic features (4 marks):**
Unilateral (usually) (1 mark)
Telangiectatic retinal vessels (1 mark)
Massive lipid exudation (1 mark)
Young males predominantly affected (1 mark)
3. **Difference from retinoblastoma (2 marks):**
No calcification on imaging (1 mark)
No family history/bilateral involvement (1 mark)
4. **Treatment options (2 marks):**
Laser photocoagulation (1 mark)
Cryotherapy (1 mark)

glaucoma

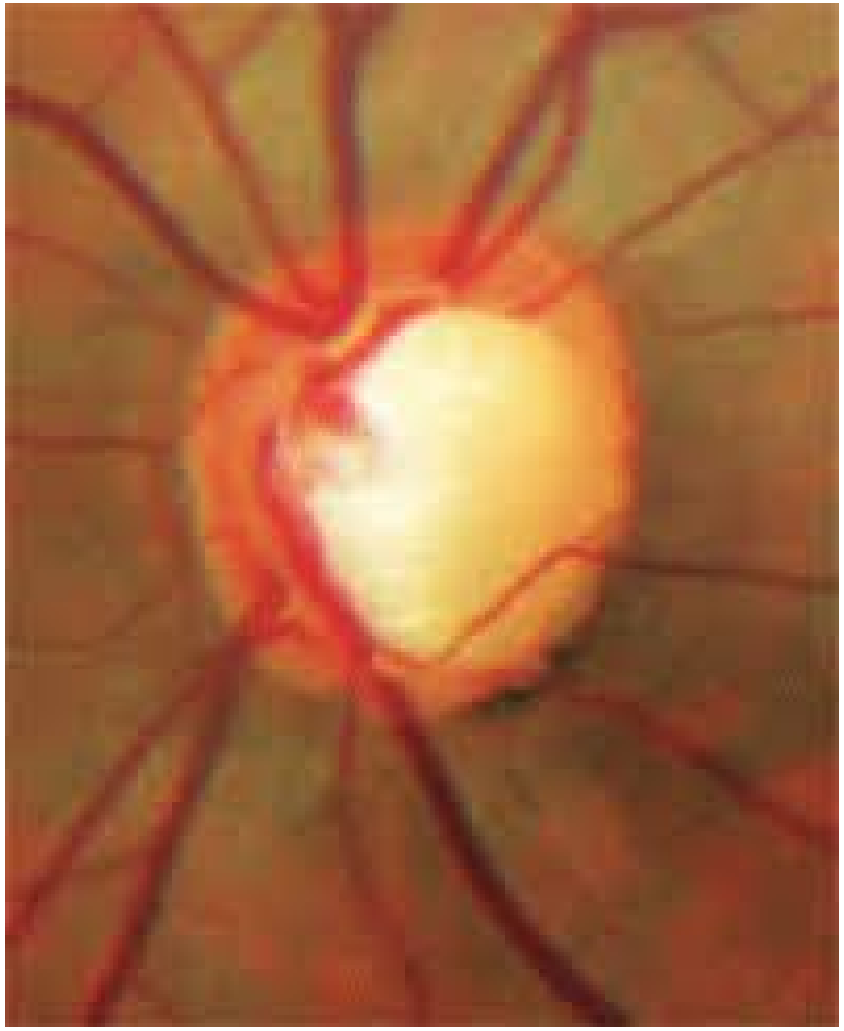
55-year-old Afro-Caribbean male, routine screening shows IOP 28mmHg both eyes.

Questions:

1. What features suggest glaucomatous optic neuropathy? (3 marks)

2. What additional tests would you perform? (3 marks)

3. List 4 risk factors for POAG. (4 marks)



1. **Features suggesting glaucomatous optic neuropathy (3 marks):**High cup-to-disc ratio (0.8) (1 mark)

Inferior notching (1 mark)

Asymmetry between eyes (1 mark)

2. **Additional tests (3 marks):**

Visual field testing (automated perimetry) (1 mark)

OCT optic nerve/RNFL analysis (1 mark)

Gonioscopy (1 mark)

3. **Four risk factors for POAG (4 marks):**

African-Caribbean ethnicity (1 mark)

Positive family history (1 mark)

Age >40 years (1 mark)

High myopia (1 mark)

65-year-old hyperopic female with severe eye pain, nausea, and seeing halos.

Questions:

1. What is the most likely diagnosis? (2 marks)

2. What is the pathophysiology? (3 marks)

3. List 4 immediate management steps. (4 marks)

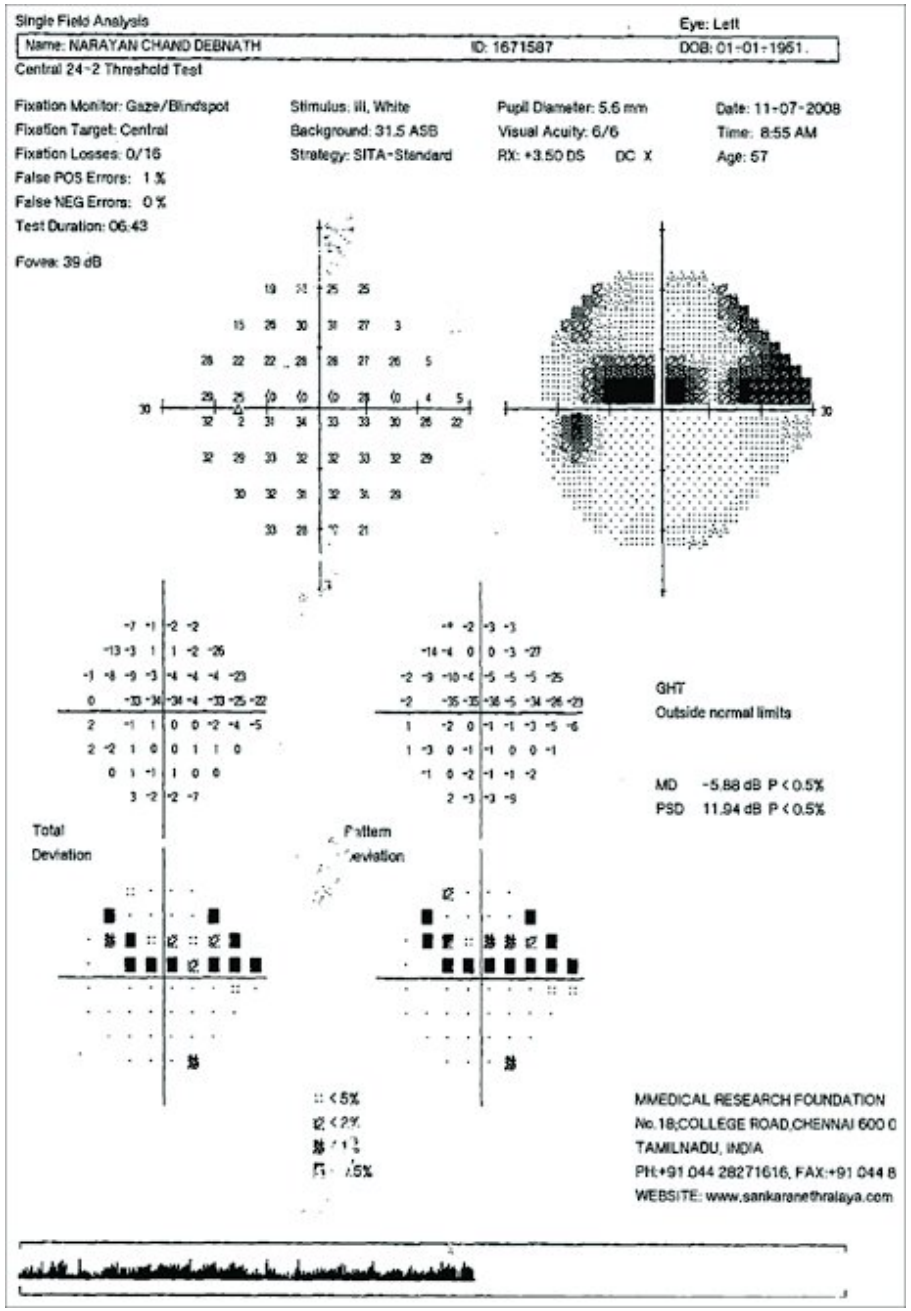
4. What definitive treatment is required? (1 mark)

1. **Most likely diagnosis (2 marks):**
Acute angle closure glaucoma (2 marks)
2. **Pathophysiology (3 marks):**
Pupillary block mechanism (1 mark)
Peripheral iris occludes drainage angle (1 mark)
Acute rise in intraocular pressure (1 mark)
3. **Four immediate management steps (4 marks):**
Topical pilocarpine 2% (1 mark)
Topical beta-blocker (timolol) (1 mark)
Systemic acetazolamide (1 mark)
Analgesia and antiemetics (1 mark)
4. **Definitive treatment (1 mark):**
Laser peripheral iridotomy (1 mark)

70-year-old patient with progressive visual field defects but consistently normal IOP.

Questions:

1. What type of visual field defect is shown? (2 marks)
2. What is normal tension glaucoma? (3 marks)
3. What additional investigations might be helpful? (3 marks)
4. How does management differ from POAG? (2 marks)



1. **Visual field defect (2 marks):**

Superior arcuate defect (2 marks)

2. **Normal tension glaucoma definition (3 marks):**Glaucomatous optic neuropathy (1 mark)

With corresponding visual field defects (1 mark)

But statistically normal IOP (<21mmHg) (1 mark)

3. **Additional investigations (3 marks):**

24-hour IOP monitoring (1 mark)

Blood pressure assessment (1 mark)

Neuroimaging if atypical features (1 mark)

4. **Management differences (2 marks):**

Lower target IOP (30% reduction from baseline) (1 mark)

Consider neuroprotective strategies (1 mark)

75-year-old patient with unilateral white deposits on lens and high IOP. Image

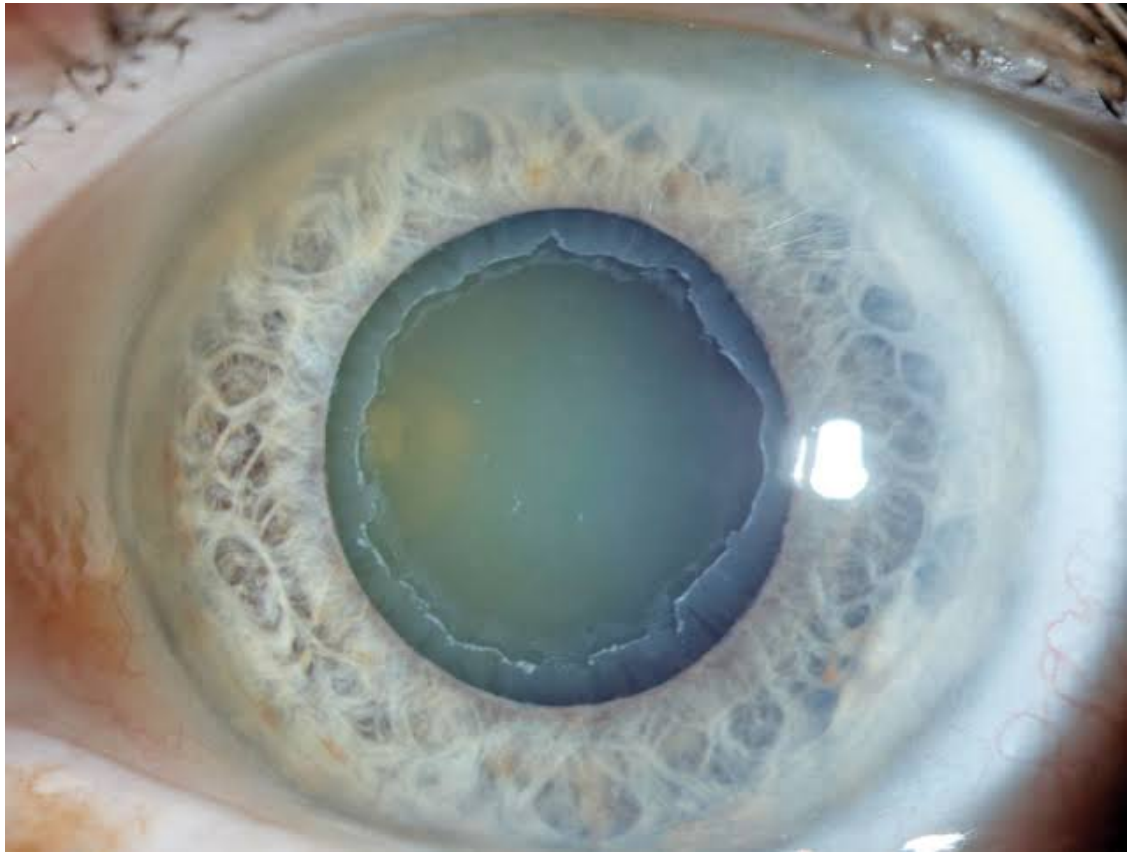
Questions:

1. What condition is demonstrated? (2 marks)

2. What are the ocular complications? (4 marks)

3. How does this affect cataract surgery? (2 marks)

4. What is the systemic association? (2 marks)



1. **Condition demonstrated (2 marks):**
Pseudoexfoliation syndrome (2 marks)
2. **Ocular complications (4 marks):**
Secondary glaucoma (1 mark)
Lens subluxation (1 mark)
Cataract surgery complications (1 mark)
Retinal vein occlusions (1 mark)
3. **Effect on cataract surgery (2 marks):**
Zonular weakness/dehiscence (1 mark)
Increased risk of complications (1 mark)
4. **Systemic association (2 marks):**
Cardiovascular disease (1 mark)
Abdominal aortic aneurysm (1 mark)

30-year-old myopic male with intermittent halos after exercise.

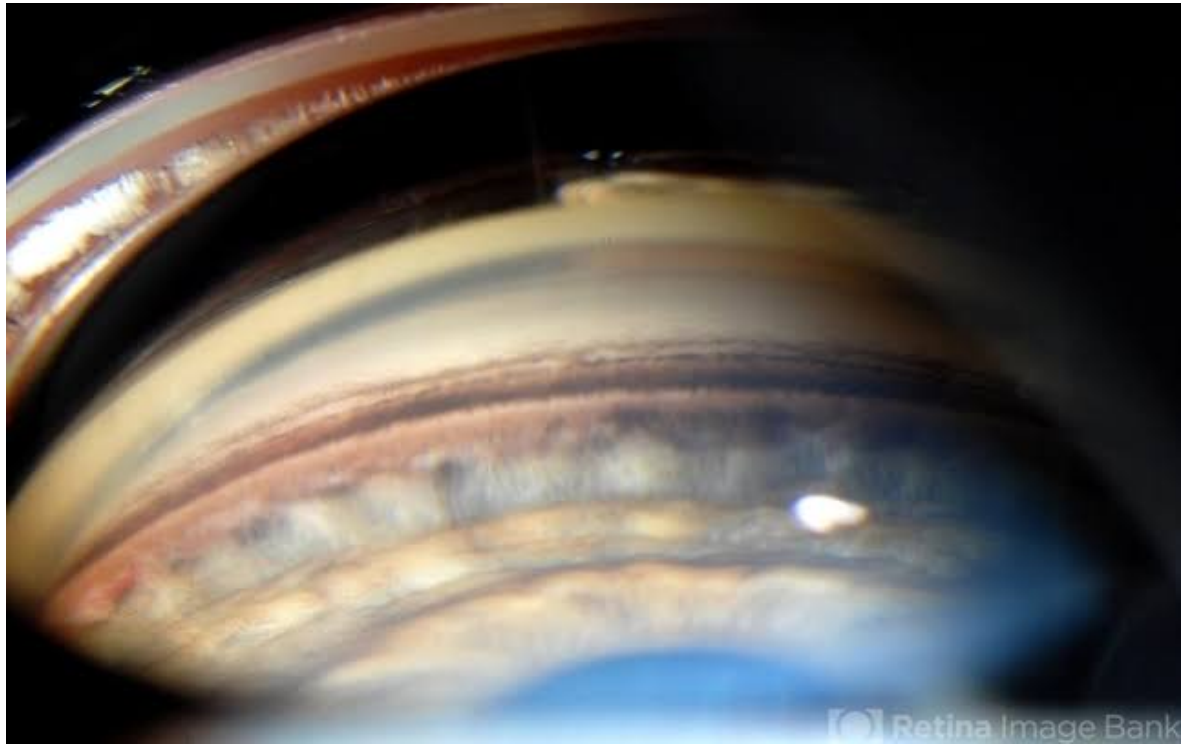
Questions:

1. What diagnosis does the gonioscopy suggest? (2 marks)

2. What is the pathophysiology? (3 marks)

3. List 3 clinical signs to look for. (3 marks)

4. What lifestyle advice would you give? (2 marks)



1. **Gonioscopy suggests (2 marks):**

Pigment dispersion syndrome (2 marks)

2. **Pathophysiology (3 marks):**

Posterior bowing of peripheral iris (1 mark)

Iris rubs against lens zonules (1 mark)Pigment disperses into anterior chamber (1 mark)

3. **Three clinical signs (3 marks):**

Krukenberg spindle (1 mark)

Iris transillumination defects (1 mark)

Pigment on lens equator (1 mark)

4. **Lifestyle advice (2 marks):**

Avoid vigorous exercise (1 mark)

Consider pilocarpine if symptomatic (1 mark)

Diabetic patient with severe eye pain and vision loss.

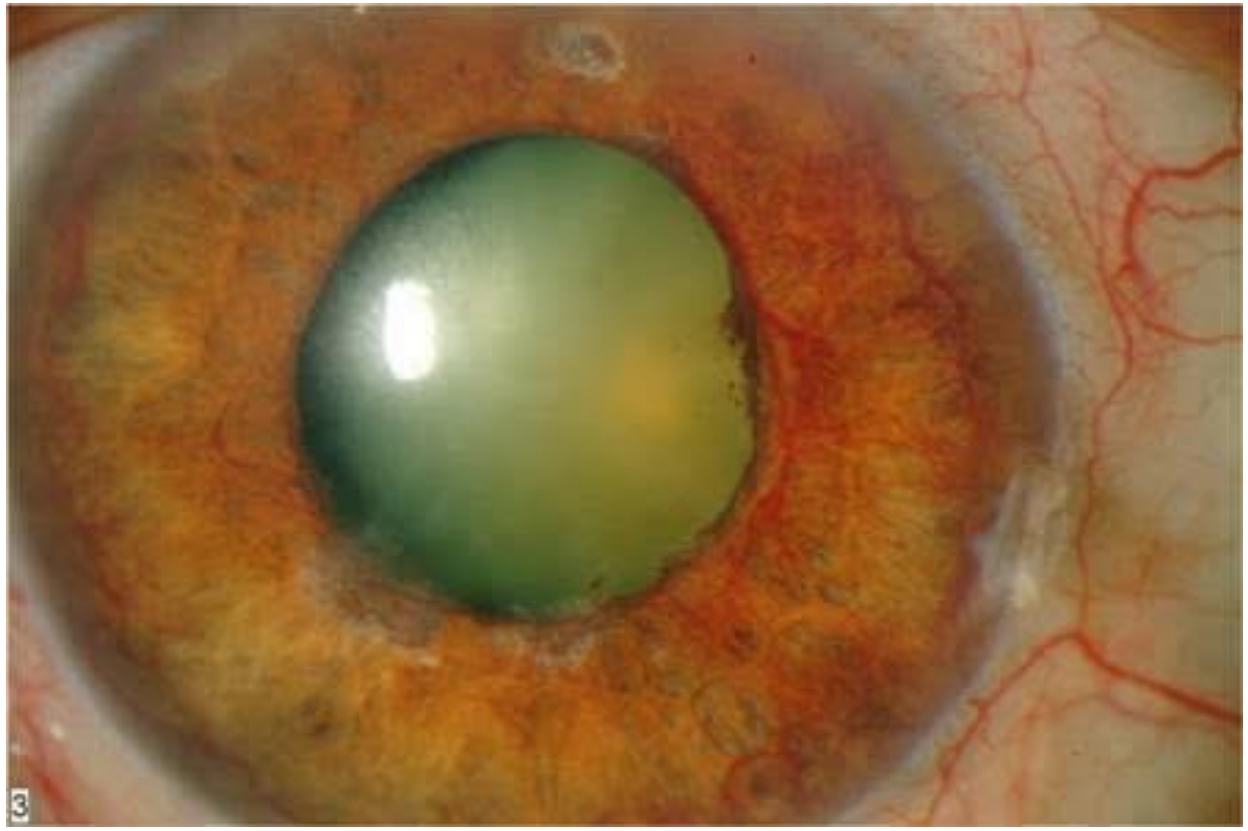
Questions:

1. What type of glaucoma is this? (2 marks)

2. What are the common underlying causes? (3 marks)

3. What is the pathophysiology? (3 marks)

4. How would you manage this condition? (2 marks)



1. **Type of glaucoma (2 marks):**
Neovascular glaucoma (2 marks)
2. **Common underlying causes (3 marks):**
Diabetic retinopathy (1 mark)
Central retinal vein occlusion (1 mark)
Ocular ischemic syndrome (1 mark)
3. **Pathophysiology (3 marks):**
Retinal ischemia (1 mark)
VEGF release (1 mark)
Iris and angle neovascularization (1 mark)
4. **Management (2 marks):**
Treat underlying retinal ischemia (PRP) (1 mark)
Anti-VEGF therapy (1 mark)

Patient with refractory glaucoma post multiple failed trabeculectomies.

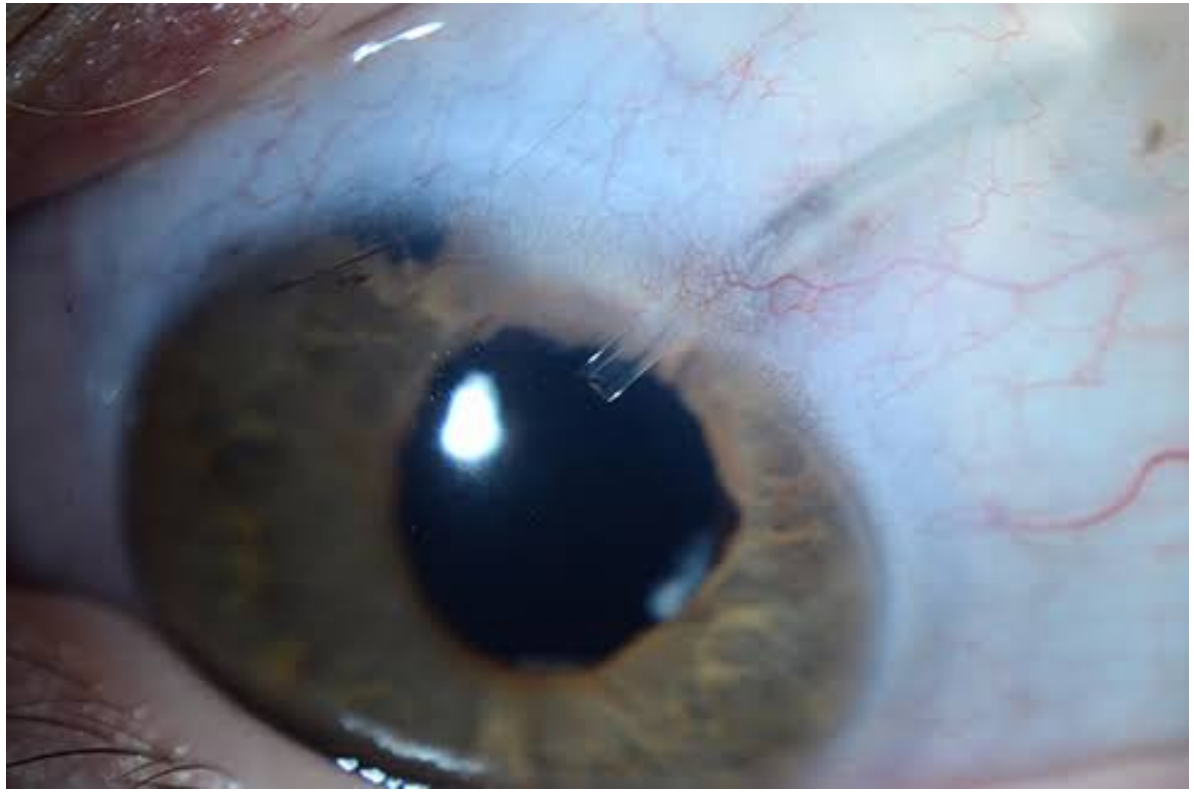
Questions:

1. What procedure has been performed? (2 marks)

2. When are drainage devices indicated? (3 marks)

3. What are the potential complications? (3 marks)

4. How do you monitor these patients? (2 marks)



1. **Procedure performed (2 marks):**

Glaucoma drainage device/tube shunt implantation (2 marks)

2. **Indications (3 marks):**

Failed trabeculectomy (1 mark)

Secondary glaucomas (1 mark)

High risk of conventional surgery failure (1 mark)

3. **Potential complications (3 marks):**Hypotony (1 mark)

Tube erosion/exposure (1 mark)

Diplopia (restriction of extraocular muscles) (1 mark)

4. **Monitoring (2 marks):**

Regular IOP checks (1 mark)

Assessment of tube position (1 mark)

6-month-old with enlarged cloudy eyes and photophobia.

Questions:

1. What is the most likely diagnosis? (2 marks)

2. What are the classic triad of symptoms? (3 marks)

3. What urgent intervention is needed? (2 marks)

4. What are the long-term challenges? (3 marks)

1. **Most likely diagnosis (2 marks):**

Congenital/Primary infantile glaucoma (2 marks)

2. **Classic triad (3 marks):**

Photophobia (1 mark)

Lacrimation (1 mark)

Blepharospasm (1 mark)

3. **Urgent intervention (2 marks):**

Urgent surgical intervention (goniotomy/trabeculotomy) (2 marks)

4. **Long-term challenges (3 marks):**

Amblyopia management (1 mark)

Multiple surgeries often required (1 mark)

Refractive error correction (1 mark)

16-year-old with family history of glaucoma, high IOP detected during routine examination

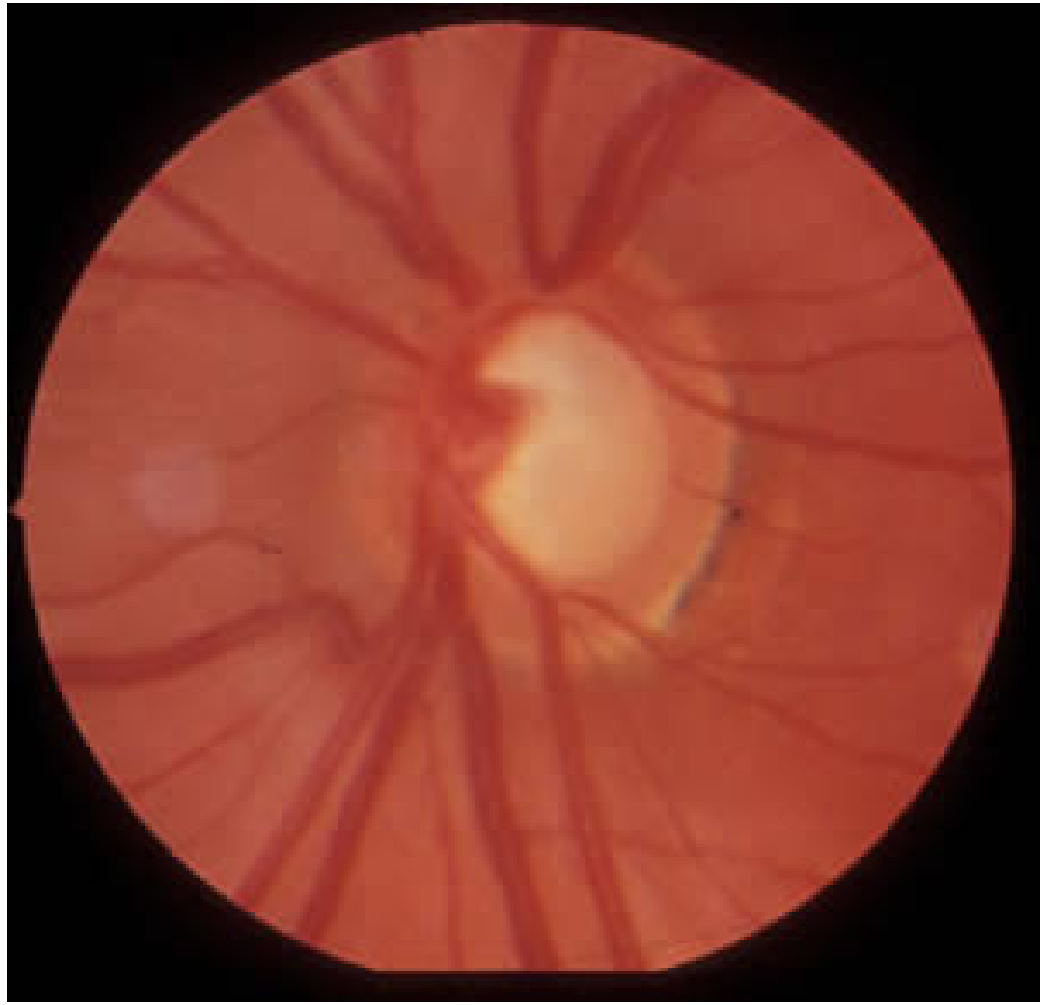
Questions:

1. What is the diagnosis? (2 marks)

2. What genetic factors are involved? (3 marks)

3. How does management differ from adult POAG? (3 marks)

4. What is the long-term prognosis? (2 marks)

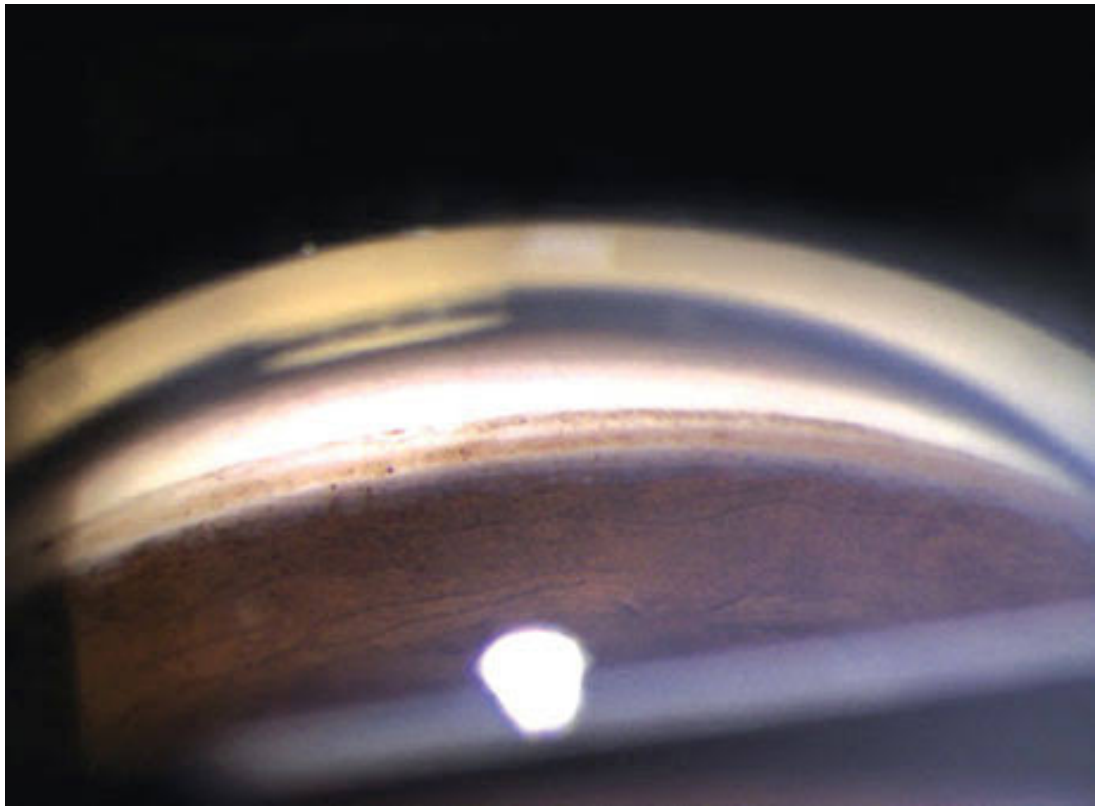


1. **Diagnosis (2 marks):**
Juvenile Open Angle Glaucoma (2 marks)
2. **Genetic factors (3 marks):**
MYOC gene mutations (1 mark)
Autosomal dominant inheritance (1 mark)
High penetrance (1 mark)
3. **Management differences (3 marks):**
More aggressive treatment required (1 mark)
Surgery often needed early (1 mark)
Lifelong monitoring required (1 mark)
4. **Long-term prognosis (2 marks):**
Generally good if diagnosed early (1 mark)
Requires aggressive management (1 mark)

45-year-old patient on topical steroids for uveitis develops elevated IOP.

Questions:

1. What type of secondary glaucoma is this? (2 marks)
2. What is the mechanism of steroid-induced IOP elevation? (3 marks)
3. What factors increase the risk of steroid response? (3 marks)
4. How would you manage this patient? (2 marks)



1. **Type of secondary glaucoma (2 marks):**
Steroid-induced glaucoma (2 marks)
2. **Mechanism of IOP elevation (3 marks):**
Increased resistance to aqueous outflow (1 mark)
Changes in trabecular meshwork (1 mark)
Glycosaminoglycan deposition (1 mark)
3. **Risk factors for steroid response (3 marks):**
Primary open angle glaucoma (1 mark)
Diabetes mellitus (1 mark)
High myopia (1 mark)
4. **Management (2 marks):**
Discontinue/reduce steroids if possible (1 mark)
IOP-lowering therapy (1 mark)

CORNEA

Contact lens wearer with painful red eye and photophobia.

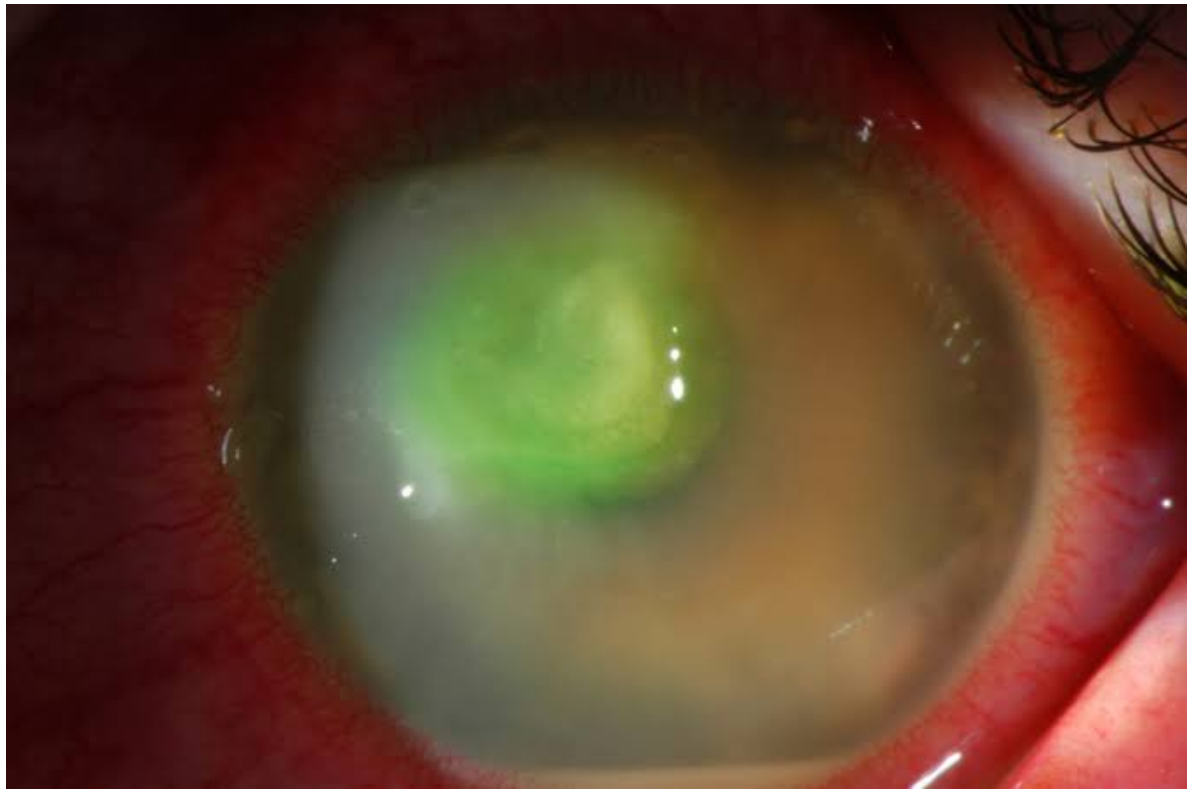
Questions:

1. What is the most likely diagnosis? (2 marks)

2. What are 3 risk factors in this patient? (3 marks)

3. What immediate investigations are needed? (3 marks)

4. Outline initial management. (2 marks)



1. **Most likely diagnosis (2 marks):**

Bacterial keratitis (2 marks)

2. **Three risk factors (3 marks):**

Contact lens wear (1 mark)

Poor contact lens hygiene (1 mark)

Overnight contact lens wear (1 mark)

3. **Immediate investigations (3 marks):**

Corneal scraping for microbiology (1 mark)

Gram stain (1 mark)

Culture and sensitivity (1 mark)4. **Initial management (2 marks):**

Intensive topical broad-spectrum antibiotics (1 mark)

Discontinue contact lens wear (1 mark)

65-year-old woman with morning visual blur that improves during the day.

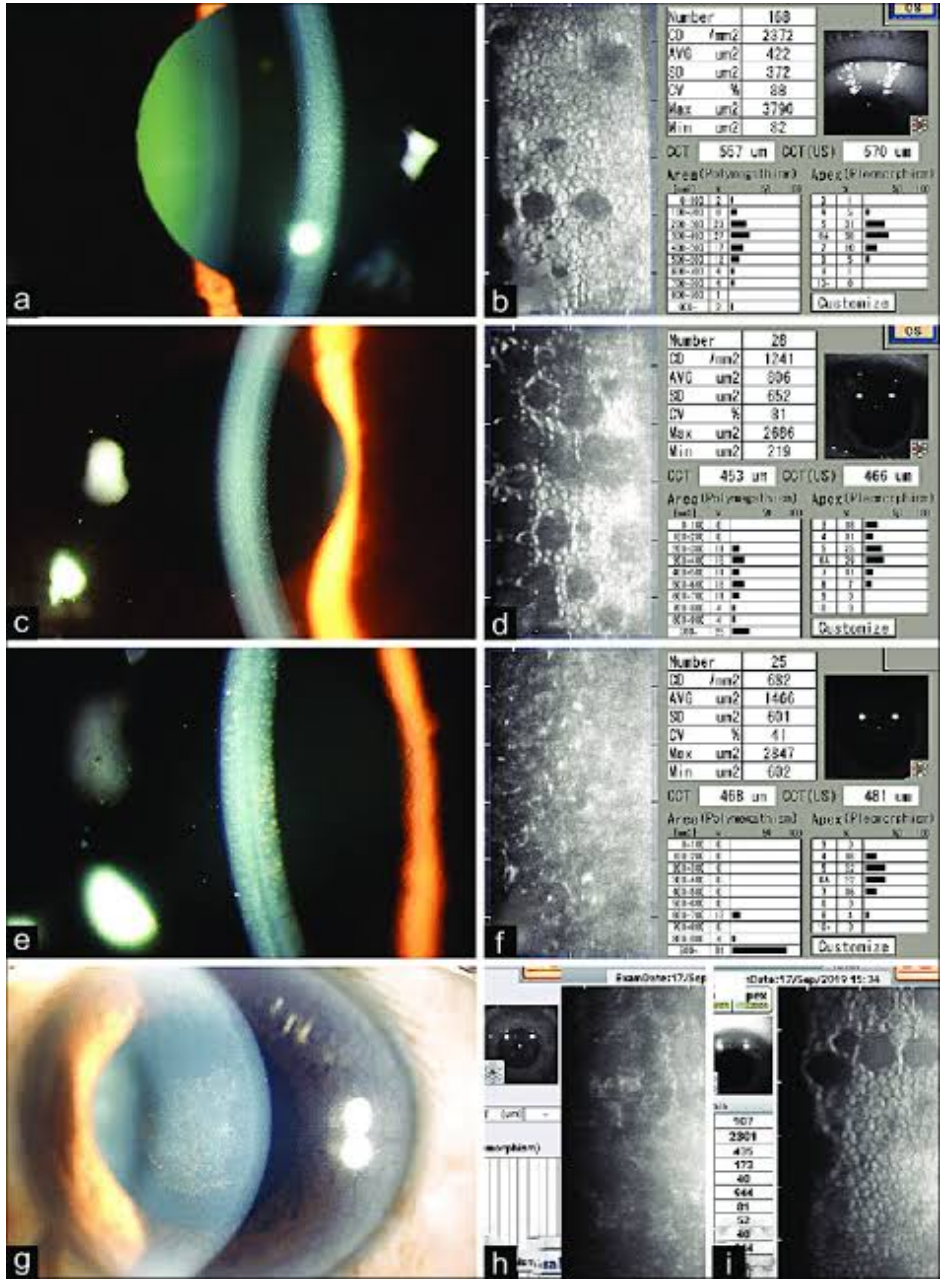
Questions:

1. What is the diagnosis? (2 marks)

2. Explain the pathophysiology. (3 marks)

3. What are the stages of this condition? (3 marks)

4. When is surgical intervention indicated? (2 marks)



1. **Diagnosis (2 marks):**
Fuchs' endothelial dystrophy (2 marks)
2. **Pathophysiology (3 marks):**
Endothelial cell dysfunction/loss (1 mark)
Accumulation of abnormal collagen (guttata) (1 mark)
Impaired corneal dehydration (1 mark)
3. **Stages (3 marks):**
Stage 1: Central guttata, no symptoms (1 mark)
Stage 2: Confluent guttata, morning blurring (1 mark)
Stage 3: Corneal edema, reduced vision (1 mark)
4. **Surgical intervention indications (2 marks):**
Visually significant corneal edema (1 mark)
Failed medical management (1 mark)

20-year-old male with progressive myopia and astigmatism.

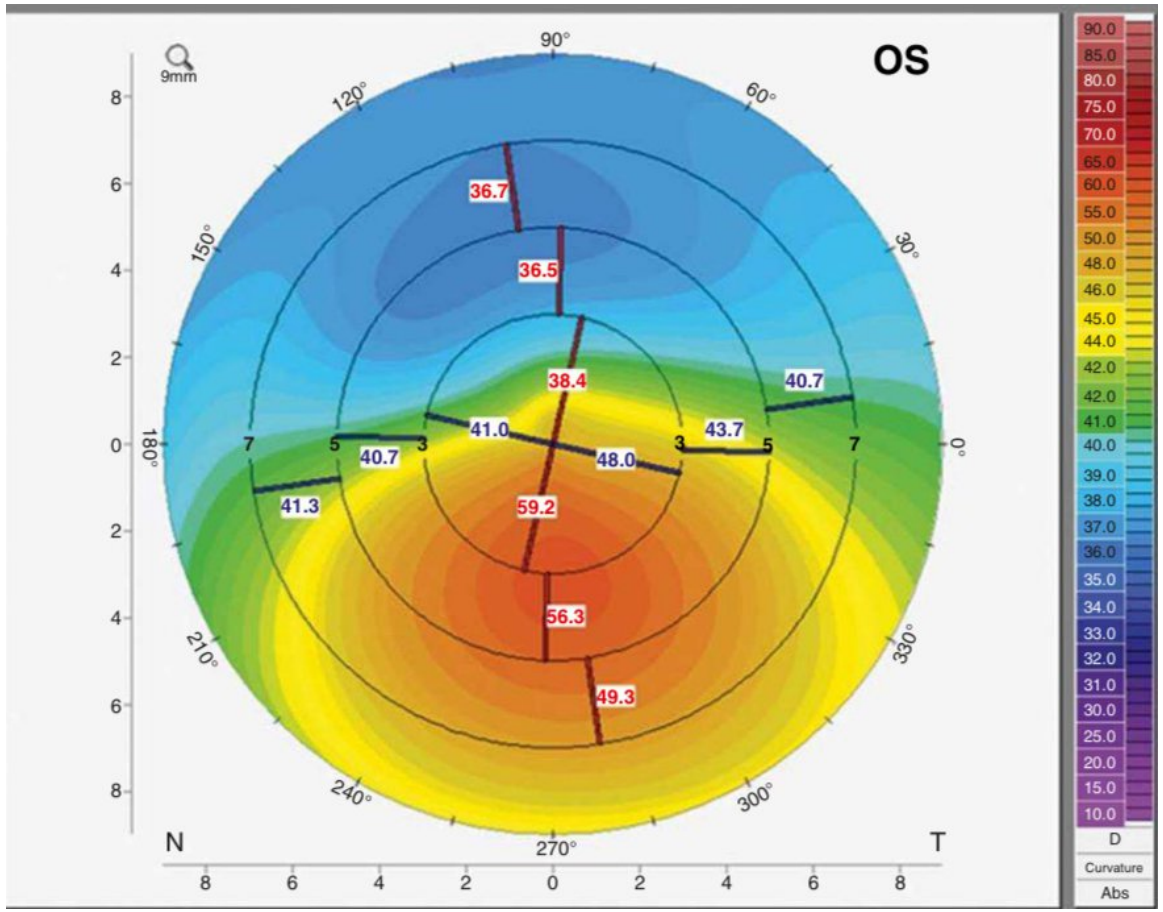
Questions:

1. What does the topography suggest? (2 marks)

2. List 4 clinical signs of this condition. (4 marks)

3. What non-surgical treatments are available? (2 marks)

4. What is corneal collagen cross-linking? (2 marks)



1. **Topography suggests (2 marks):**

Keratoconus (2 marks)

2. **Four clinical signs (4 marks):**

Munson's sign (1 mark)

Rizutti's sign (1 mark)

Vogt's striae (1 mark)

Fleischer ring (1 mark)

3. **Non-surgical treatments (2 marks):**

Rigid contact lenses (1 mark)

Corneal collagen cross-linking (1 mark)

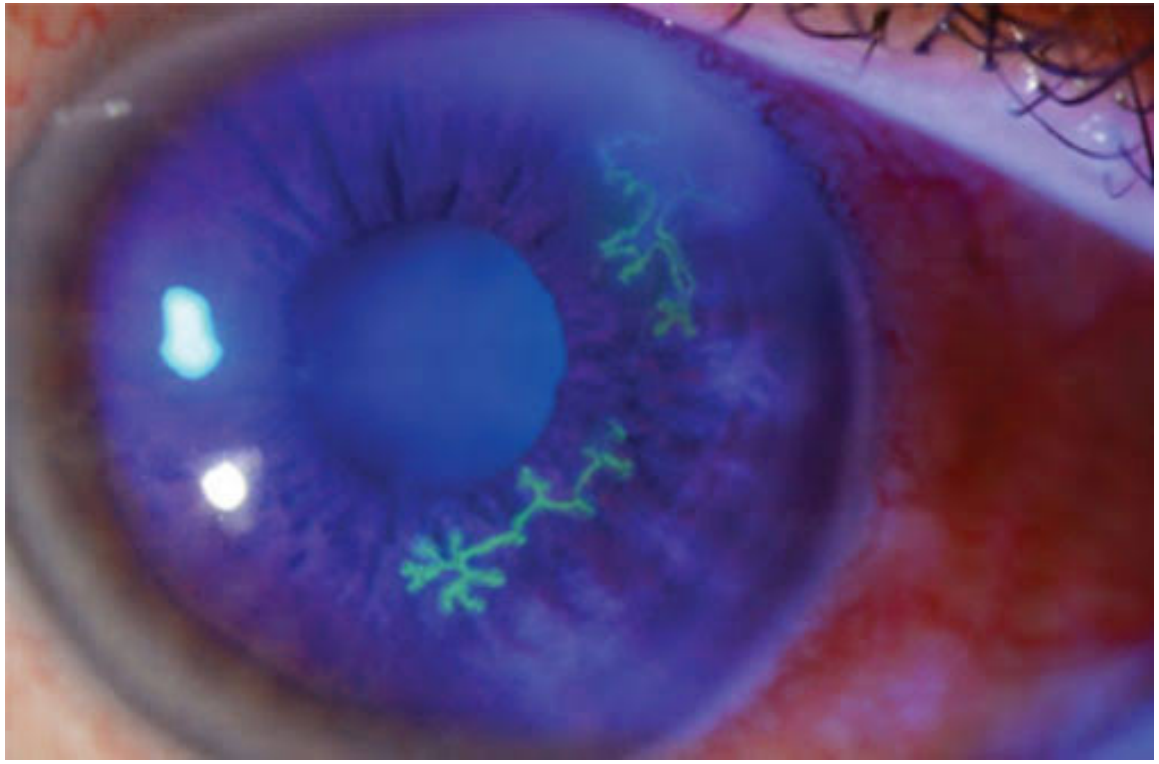
4. **Corneal collagen cross-linking (2 marks):**

UV-A light with riboflavin (1 mark)Halts progression of keratoconus (1 mark)

35-year-old with recurrent episodes of unilateral eye pain and photophobia.

Questions:

1. What is the characteristic pattern shown? (2 marks)
2. What is the pathogen responsible? (1 mark)
3. What is the first-line treatment? (2 marks)
4. List 3 complications of this condition. (3 marks)
5. Why should topical steroids be used cautiously? (2 marks)



1. **Characteristic pattern (2 marks):**
Dendritic ulcer (2 marks)
2. **Pathogen responsible (1 mark):**
Herpes simplex virus (HSV) (1 mark)
3. **First-line treatment (2 marks):**
Topical aciclovir (1 mark)
Or oral aciclovir (1 mark)
4. **Three complications (3 marks):**
Stromal keratitis (1 mark)
Corneal perforation (1 mark)
Secondary bacterial infection (1 mark)
5. **Steroid caution (2 marks):**
Can worsen epithelial disease (1 mark)
Risk of corneal perforation (1 mark)

45-year-old outdoor worker with bilateral nasal conjunctival growths.

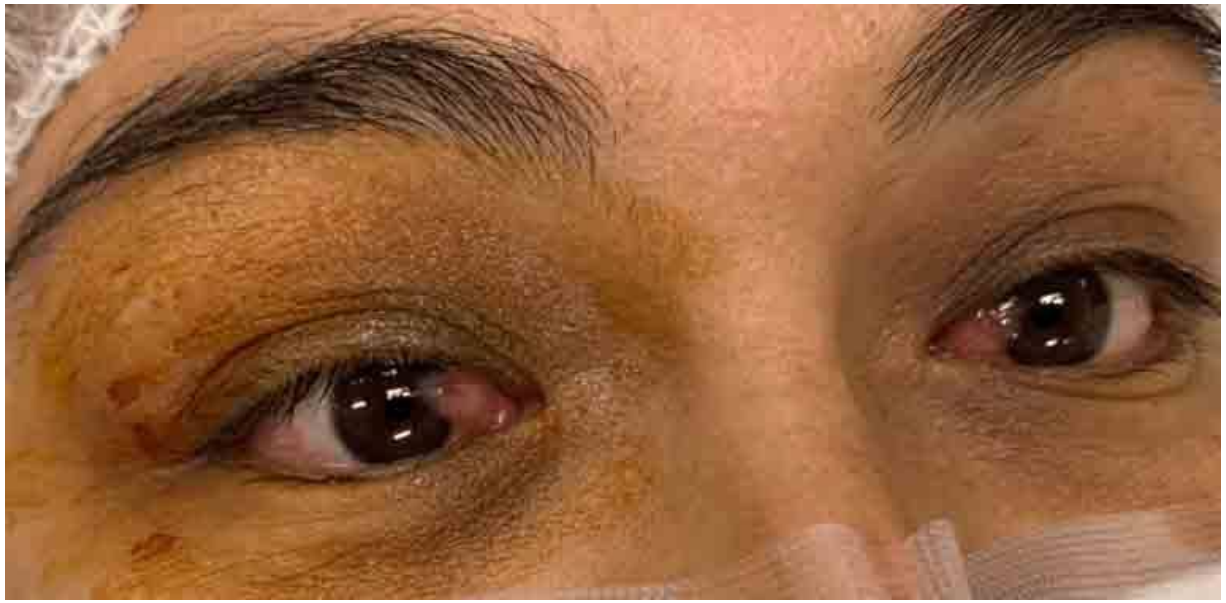
Questions:

1. What is the diagnosis? (2 marks)

2. What are the main risk factors? (3 marks)

3. When is surgical intervention indicated? (3 marks)

4. What techniques reduce recurrence? (2 marks)

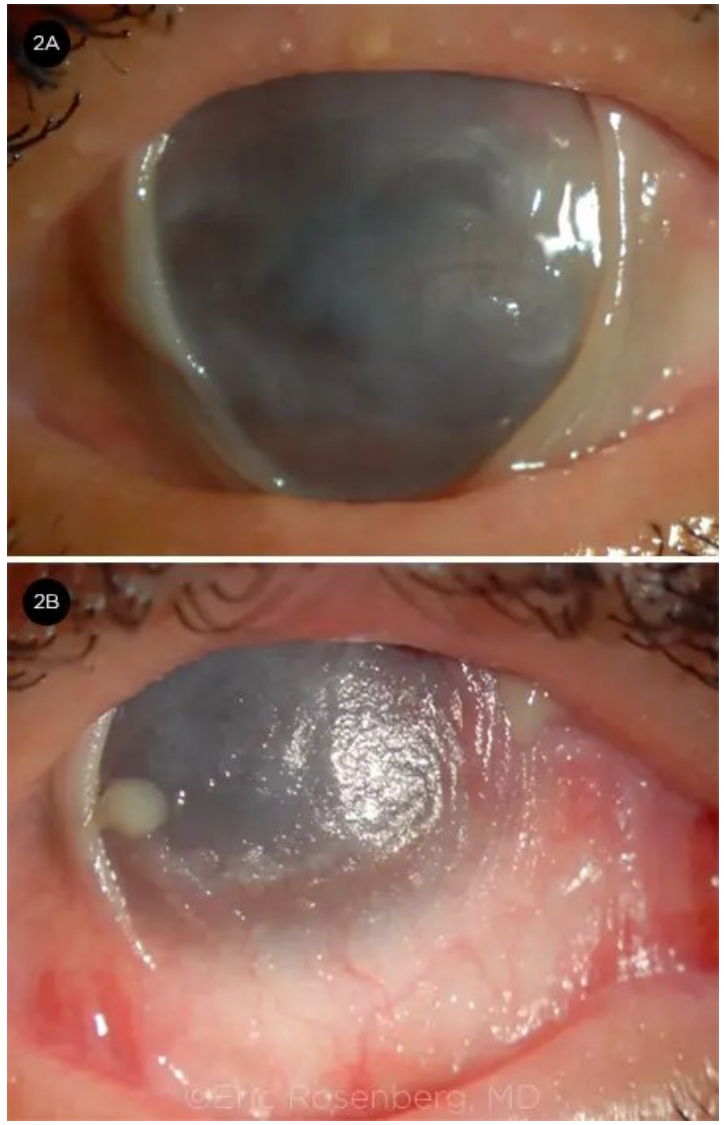


- 1. **Diagnosis (2 marks):**
- Pterygium (2 marks)
- 2. **Main risk factors (3 marks):**
- UV exposure (1 mark)
- Dry, dusty environment (1 mark)
- Male gender (1 mark)
- 3. **Surgical intervention indications (3 marks):**
- Visual axis involvement (1 mark)
- Significant astigmatism (1 mark)
- Cosmetic concerns (1 mark)
- 4. **Techniques to reduce recurrence (2 marks):**
- Conjunctival autograft (1 mark)
- Mitomycin C application (1 mark)

30-year-old patient with severe bilateral conjunctivitis following medication

Questions:

1. What ocular condition is shown? (2 marks)
2. What are common triggering medications? (3 marks)
3. List 4 acute management priorities. (4 marks)
4. What are long-term complications? (1 mark)



1. **Ocular condition (2 marks):**
Stevens-Johnson syndrome with ocular involvement (2 marks)
2. **Common triggering medications (3 marks):**
Sulfonamides (1 mark)
Anticonvulsants (phenytoin, carbamazepine) (1 mark)
Allopurinol (1 mark)
3. **Four acute management priorities (4 marks):**
Lubrication (preservative-free tears) (1 mark)
Prevent symblepharon formation (1 mark)
Topical steroids (controversial) (1 mark)
Systemic immunosuppression (1 mark)
4. **Long-term complications (1 mark):**
Dry eye syndrome (1 mark)

Patient 6 months post-penetrating keratoplasty with reduced vision and red eye.

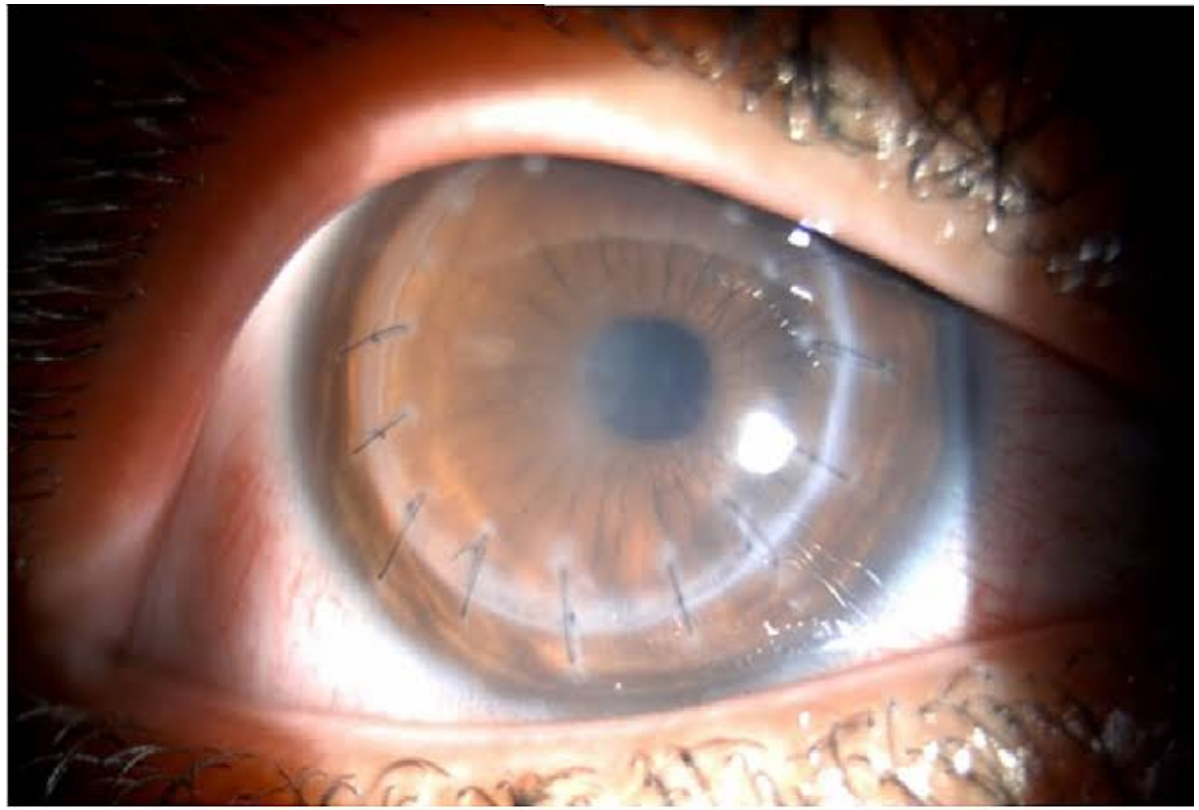
Questions:

1. What type of rejection is shown? (2 marks)

2. What are the signs of corneal graft rejection? (4 marks)

3. What is the immediate management? (2 marks)

4. What factors increase rejection risk? (2 marks)



1. **Type of rejection (2 marks):**
Endothelial rejection (2 marks)
2. **Signs of graft rejection (4 marks):**
Endothelial rejection line (1 mark)
Corneal edema (1 mark)
Keratic precipitates (1 mark)
Reduced vision (1 mark)
3. **Immediate management (2 marks):**
Intensive topical steroids (1 mark)
Urgent ophthalmology review (1 mark)
4. **Factors increasing rejection risk (2 marks):**
Previous rejection episodes (1 mark)
Vascularized recipient bed (1 mark)

Contact lens wearer with severe pain disproportionate to clinical signs.

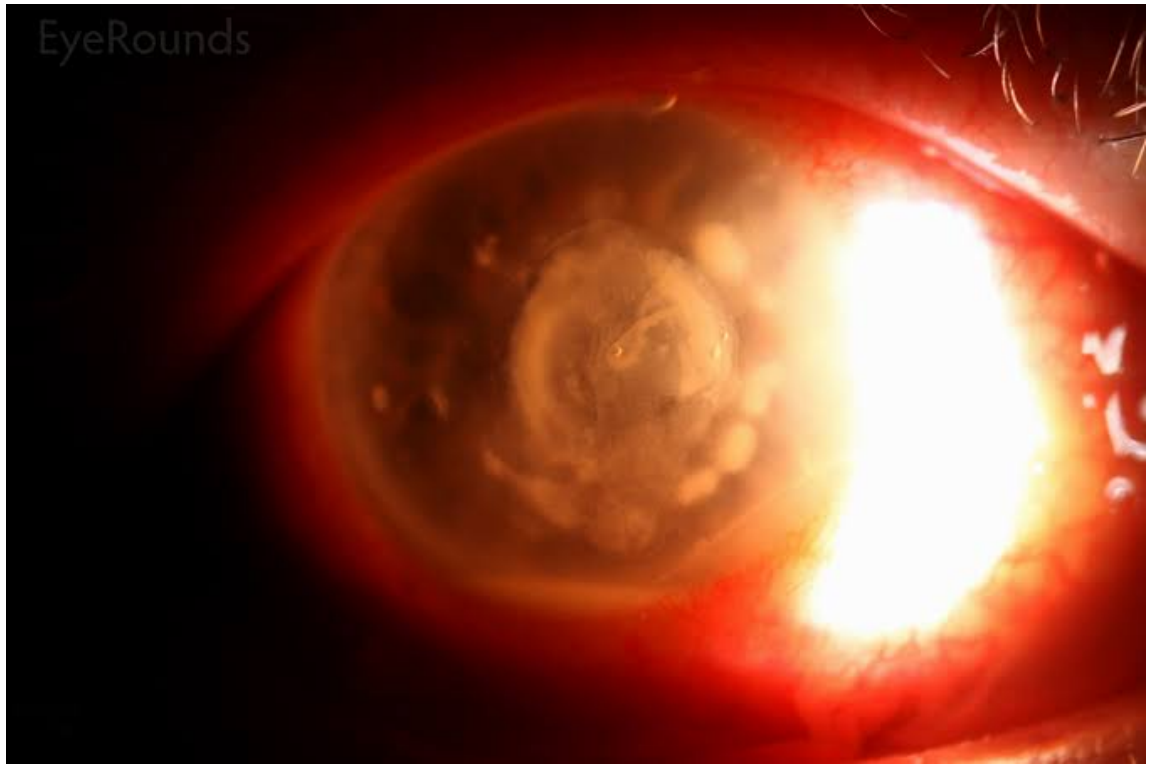
Questions:

1. What is the most likely diagnosis? (2 marks)

2. What are the risk factors? (3 marks)

3. What investigations would you perform? (3 marks)

4. What is the treatment protocol? (2 marks)



1. **Most likely diagnosis (2 marks):**
Acanthamoeba keratitis (2 marks)
2. **Risk factors (3 marks):**
Contact lens wear (1 mark)
Water exposure (swimming, tap water) (1 mark)
Poor contact lens hygiene (1 mark)
3. **Investigations (3 marks):**
Corneal scraping for microscopy (1 mark)
Culture on non-nutrient agar (1 mark)
Confocal microscopy (1 mark)
4. **Treatment protocol (2 marks):**
Topical biguanides (PHMB/chlorhexidine) (1 mark)
Topical diamidines (propamidine) (1 mark)

25-year-old with alkali splash to the eye 2 hours ago.

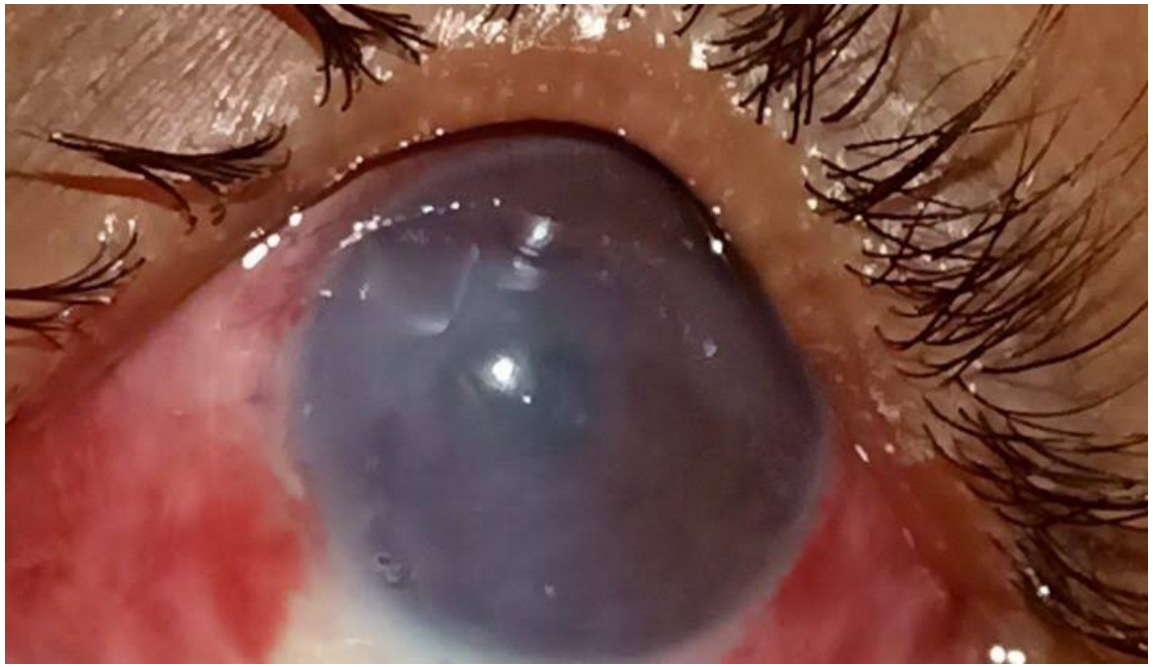
Questions:

1. What is the severity grade of this chemical injury? (2 marks)

2. What immediate treatment should have been started? (3 marks)

3. What are the prognostic indicators? (3 marks)

4. What long-term complications may occur? (2 marks)

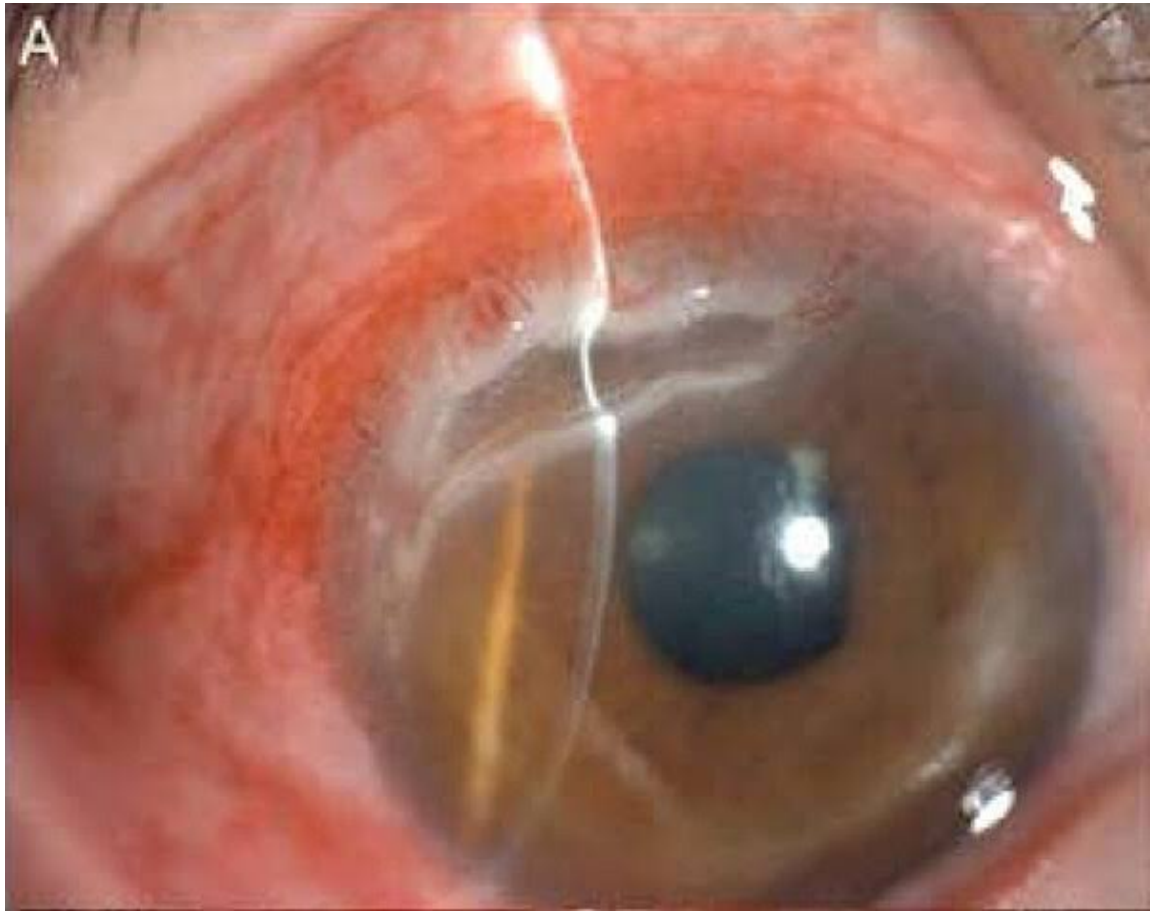


1. **Severity grade (2 marks):**
Grade III-IV (severe) chemical injury (2 marks)
2. **Immediate treatment (3 marks):**
Copious irrigation with normal saline (1 mark)
Remove particulate matter (1 mark)
Immediate (within minutes of exposure) (1 mark)
3. **Prognostic indicators (3 marks):**
Extent of limbal ischemia (1 mark)
Corneal clarity (1 mark)
Conjunctival involvement (1 mark)
4. **Long-term complications (2 marks):**
Corneal perforation (1 mark)
Limbal stem cell deficiency (1 mark)

60-year-old with progressive peripheral corneal ulceration and severe pain

Questions:

1. What is the most likely diagnosis? (2 marks)
2. What is the pathophysiology? (3 marks)
3. How do you differentiate from other peripheral ulcerative keratopathies? (3 marks)
4. What treatment options are available? (2 marks)



1. **Most likely diagnosis (2 marks):**Mooren's ulcer (2 marks)

2. **Pathophysiology (3 marks):**

Autoimmune process (1 mark)

T-cell mediated response (1 mark)

Against corneal antigens (1 mark)

3. **Differentiation from other peripheral ulcerative keratopathies (3 marks):**

No systemic associations (1 mark)

Overhanging epithelial edge (1 mark)

Progressive undermining ulcer (1 mark)

4. **Treatment options (2 marks):**

Topical immunosuppression (1 mark)

Systemic immunosuppression if severe (1 mark)

NEUROOPHTHALMOLOGY

60-year-old diabetic with sudden onset ptosis and diplopia.

Questions:

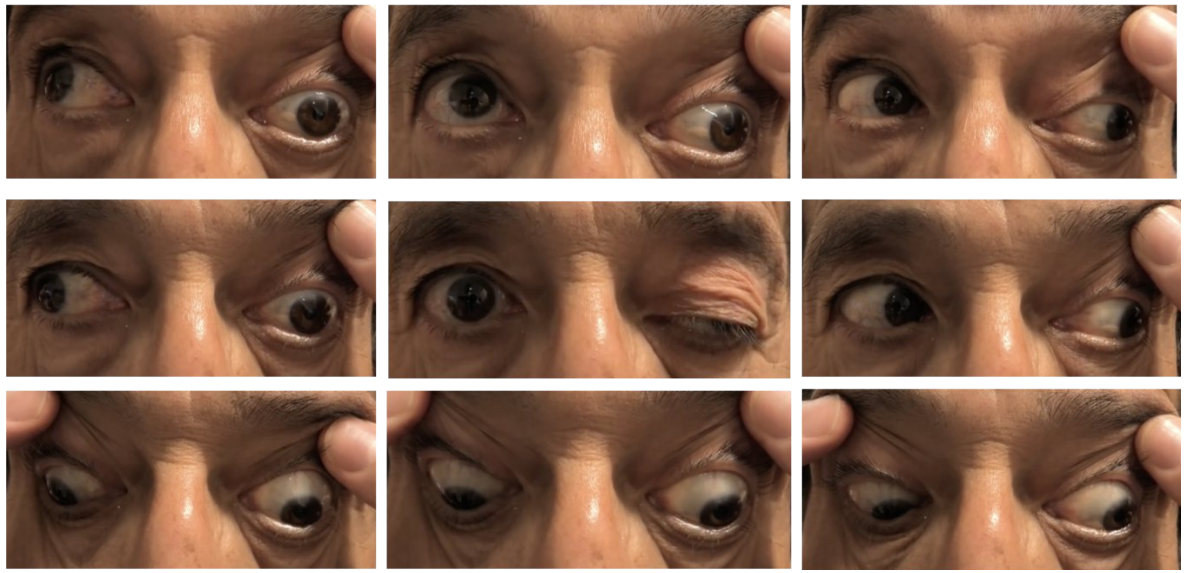
1. What cranial nerve is affected? (1 mark)

2. List 4 muscles innervated by this nerve. (4 marks)

3. What does pupil involvement suggest? (2 marks)

4. What urgent investigation is needed if pupil is involved? (2 marks)

5. What is the most common cause in diabetics? (1 mark)



1. **Cranial nerve affected (1 mark):**
Third cranial nerve (oculomotor) (1 mark)
2. **Four muscles innervated (4 marks):**
Superior rectus (1 mark)
Inferior rectus (1 mark)
Medial rectus (1 mark)
Inferior oblique (1 mark)
3. **Pupil involvement suggests (2 marks):**
Compressive lesion (aneurysm) (1 mark)
Surgical emergency (1 mark)
4. **Urgent investigation (2 marks):**
CT/MR angiography (1 mark)
To rule out posterior communicating artery aneurysm (1 mark)
5. **Most common cause in diabetics (1 mark):**
Diabetic third nerve palsy (microvascular) (1 mark)

25-year-old obese female with headaches and transient visual obscurations.

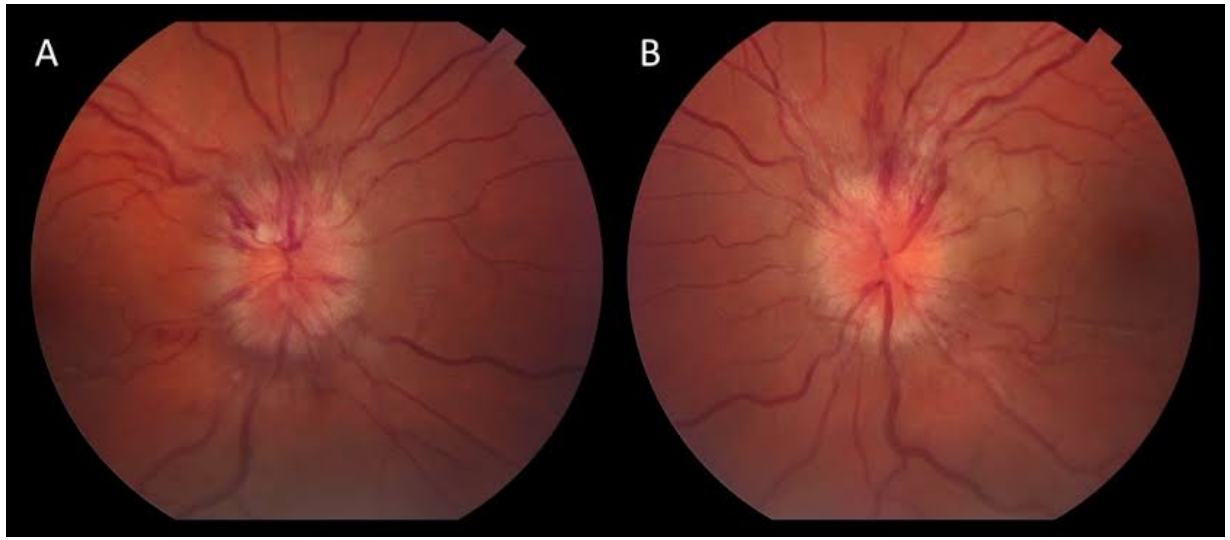
Questions:

1. What abnormality is shown? (2 marks)

2. What is the most likely underlying condition? (2 marks)

3. List 4 symptoms of raised intracranial pressure. (4 marks)

4. What investigations are required? (2 marks)



1. **Abnormality shown (2 marks):**
Papilledema (optic disc swelling) (2 marks)
2. **Most likely underlying condition (2 marks):**
Idiopathic intracranial hypertension (2 marks)
3. **Four symptoms of raised ICP (4 marks):**
Headache (1 mark)
Transient visual obscurations (1 mark)
Nausea and vomiting (1 mark)
Diplopia (sixth nerve palsy) (1 mark)
4. **Investigations required (2 marks):**
Neuroimaging (CT/MRI brain) (1 mark)
Lumbar puncture (if imaging normal) (1 mark)

45-year-old smoker with unilateral ptosis and smaller pupil.

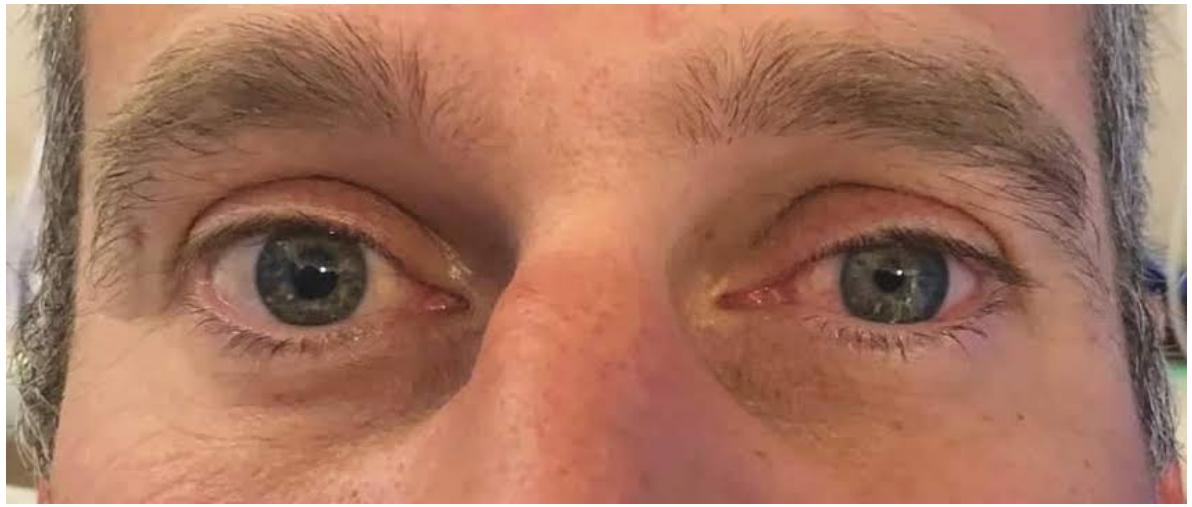
Questions:

1. What syndrome is demonstrated? (2 marks)

2. What are the three classic signs? (3 marks)

3. How would you localize the lesion? (3 marks)

4. What investigations are needed in this patient? (2 marks)



1. **Syndrome demonstrated (2 marks):**

Horner's syndrome (2 marks)

2. **Three classic signs (3 marks):**

Ptosis (1 mark)

Miosis (1 mark)

Anhidrosis (1 mark)

3. **Localize the lesion (3 marks):**

Cocaine test (confirms Horner's) (1 mark)

Hydroxyamphetamine test (localizes level) (1 mark)

Central, preganglionic, or postganglionic (1 mark)

4. **Investigations needed (2 marks):**

Chest X-ray/CT chest (lung apex) (1 mark)

Given smoking history (Pancoast tumor) (1 mark)

55-year-old hypertensive with horizontal diplopia worse on left gaze.

Questions:

1. Which cranial nerve is affected? (1 mark)

2. What muscle is paralyzed? (1 mark)

3. List 4 potential causes of isolated sixth nerve palsy. (4 marks)

4. What is the false localizing sign concept? (2 marks)

5. How long would you observe before investigating? (2 marks)

1. **Cranial nerve affected (1 mark):**
Sixth cranial nerve (abducens) (1 mark)
2. **Muscle paralyzed (1 mark):**
Lateral rectus (1 mark)
3. **Four potential causes (4 marks):**
Microvascular (diabetes, hypertension) (1 mark)
Raised intracranial pressure (1 mark)
Neoplasm (1 mark)
Trauma (1 mark)
4. **False localizing sign concept (2 marks):**
Long intracranial course of sixth nerve (1 mark)
Can be affected by raised ICP without direct compression (1 mark)
5. **Observation period (2 marks):**
3-6 months (1 mark)
If no improvement, investigate further (1 mark)

35-year-old female with variable ptosis and diplopia, worse in evening.

Questions:

1. What neuromuscular condition should be considered? (2 marks)

2. What is the pathophysiology? (3 marks)

3. How would you test for this condition? (3 marks)

4. What are the treatment options? (2 marks)

1. **Neuromuscular condition (2 marks):**

Myasthenia gravis (2 marks)

2. **Pathophysiology (3 marks):**Autoimmune disorder (1 mark)

Antibodies against acetylcholine receptors (1 mark)

Impaired neuromuscular transmission (1 mark)

3. **Testing (3 marks):**

Tensilon (edrophonium) test (1 mark)

Acetylcholine receptor antibodies (1 mark)

Single fiber EMG (1 mark)

4. **Treatment options (2 marks):**

Anticholinesterases (pyridostigmine) (1 mark)

Immunosuppression (steroids) (1 mark)

45-year-old with gradual bilateral vision loss and headaches.

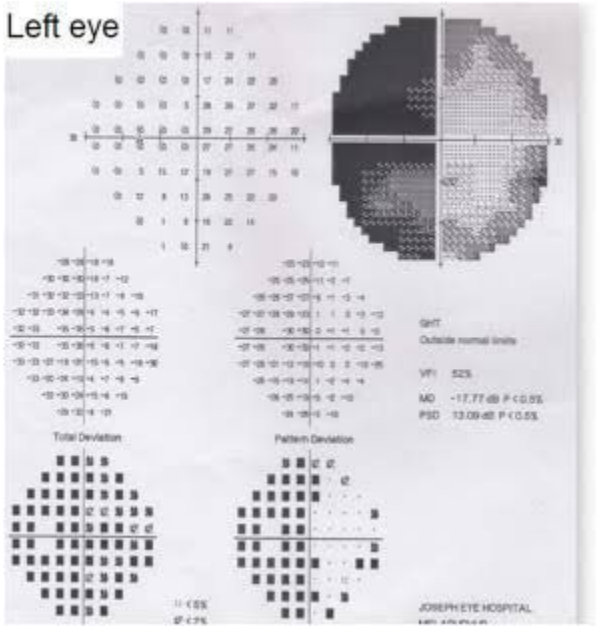
Questions:

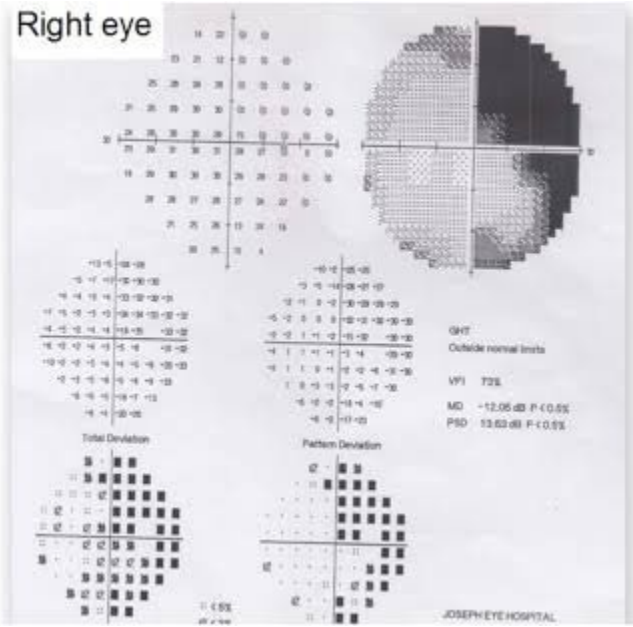
1. What visual field defect is shown? (2 marks)

2. Where is the anatomical lesion? (2 marks)

3. List 3 potential causes. (3 marks)

4. What additional investigations are needed? (3 marks)





1. **Visual field defect (2 marks):**

Bitemporal hemianopia (2 marks)

2. **Anatomical lesion (2 marks):**

Optic chiasm (2 marks)

3. **Three potential causes (3 marks):**

Pituitary adenoma (1 mark)

Craniopharyngioma (1 mark)

Meningioma (1 mark)

4. **Additional investigations (3 marks):**

MRI brain with contrast (1 mark)

Pituitary function tests (1 mark)

Formal visual field testing (1 mark)

75-year-old with sudden vision loss, jaw claudication, and temporal headache.

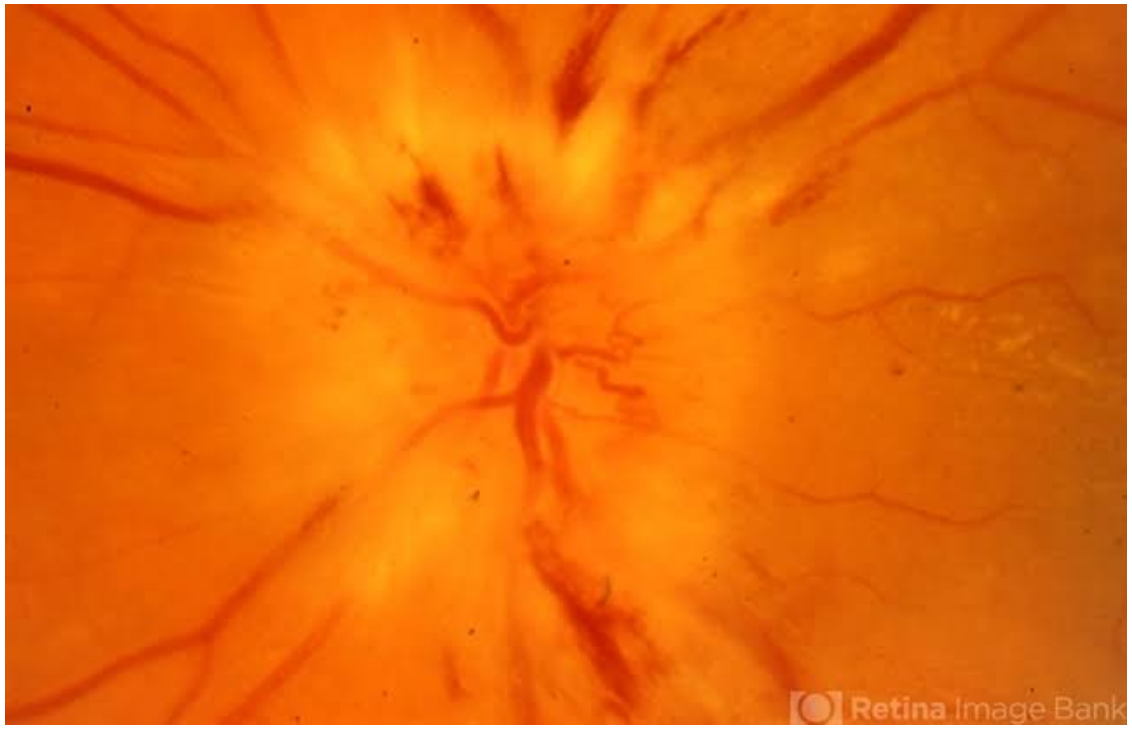
Questions:

1. What is the most likely diagnosis? (2 marks)

2. What urgent investigations are needed? (3 marks)

3. What immediate treatment is required? (3 marks)

4. What are the potential complications if untreated? (2 marks)



1. **Most likely diagnosis (2 marks):**
Giant Cell Arteritis (Temporal Arteritis) (2 marks)
2. **Urgent investigations (3 marks):**
ESR and CRP (1 mark)
Temporal artery biopsy (1 mark)
Platelet count (1 mark)
3. **Immediate treatment (3 marks):**
High-dose IV methylprednisolone (1 mark)
Start immediately (don't wait for biopsy) (1 mark)
1g daily for 3 days (1 mark)
4. **Complications if untreated (2 marks):**
Bilateral blindness (1 mark)
Stroke (1 mark)

pEDIATRIC OPHTHALMOLOGY

Newborn with white reflex noted during examination

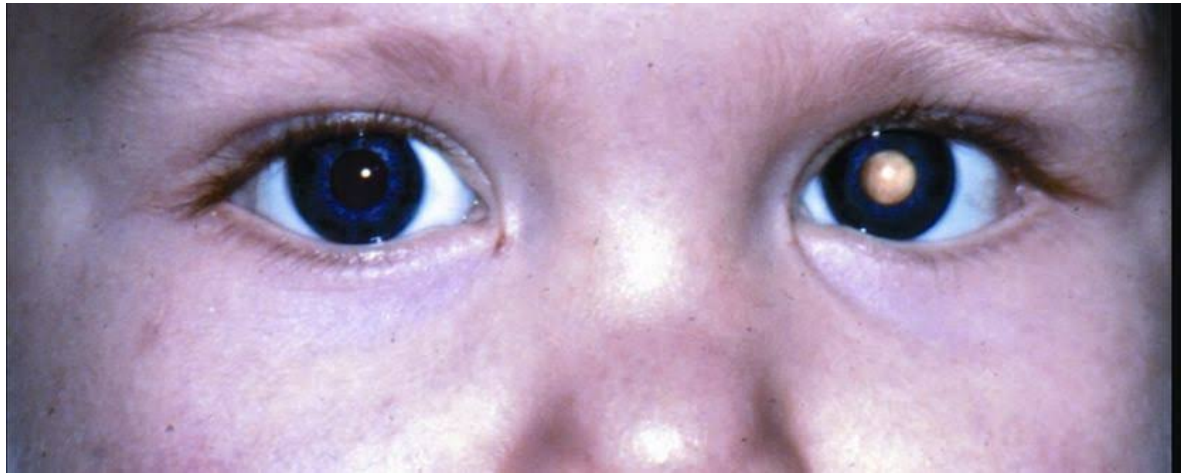
Questions:

1. What is the most urgent concern? (2 marks)

2. What investigations are needed? (3 marks)

3. What is the critical period for visual development? (2 marks)

4. What are the main causes of congenital cataracts? (3 marks)



1. **Most urgent concern (2 marks):**

Stimulus deprivation amblyopia (2 marks)

2. **Investigations needed (3 marks):**

TORCH screen (1 mark)

Metabolic workup (galactosemia) (1 mark)

Genetic counseling (1 mark)

3. **Critical period for visual development (2 marks):**

First 6-8 weeks of life for dense central cataracts (2 marks)

4. **Main causes of congenital cataracts (3 marks):**

Idiopathic (most common) (1 mark)

Metabolic (galactosemia) (1 mark)

Infectious (TORCH) (1 mark)

8-month-old infant with constant inward turning of both eyes.

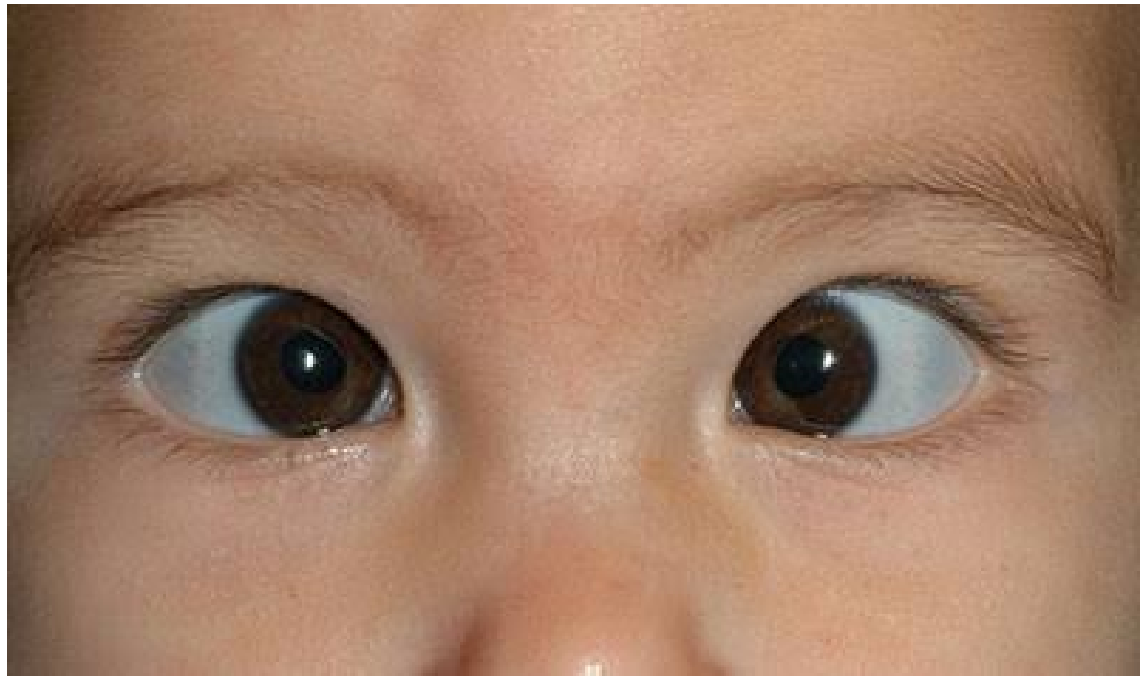
Questions:

1. What type of strabismus is shown? (2 marks)

2. What are the characteristics of this condition? (4 marks)

3. When should surgery be performed? (2 marks)

4. What are the long-term visual outcomes? (2 marks)



1. **Type of strabismus (2 marks):**

Infantile (congenital) esotropia (2 marks)

2. **Characteristics (4 marks):**

Onset before 6 months of age (1 mark)

Large angle (>30 prism diopters) (1 mark)

Alternating fixation (1 mark)

No significant refractive error (1 mark)3. **When to perform surgery (2 marks):**

By 24 months of age (1 mark)

Preferably before 12 months (1 mark)

4. **Long-term visual outcomes (2 marks):**

Good stereopsis unlikely (1 mark)

Amblyopia prevention possible with early surgery (1 mark)

28 week premature infant for ROP screening.

Questions:

1. What stage of ROP is shown? (2 marks)
2. What are the screening criteria? (3 marks)
3. When is treatment indicated? (3 marks)
4. What treatment modalities are available? (2 marks)

1. **Stage of ROP (2 marks):**

Stage 3 ROP (2 marks)

2. **Screening criteria (3 marks):**

Birth weight <1500g OR gestational age <32 weeks (1 mark)

First examination at 31 weeks post-menstrual age (1 mark)

Or 4 weeks chronological age (whichever is later) (1 mark)

3. **Treatment indications (3 marks):**

Threshold ROP (Stage 3+ in zone I or II) (1 mark)Plus disease (1 mark)

Type 1 ROP (1 mark)

4. **Treatment modalities (2 marks):**

Laser photocoagulation (1 mark)

Anti-VEGF injections (1 mark)

3-year-old with intermittent inward eye turning, worse when looking at near objects.

Questions:

1. What type of strabismus is this? (2 marks)

2. What is the underlying mechanism? (3 marks)

3. How would you measure the deviation? (2 marks)

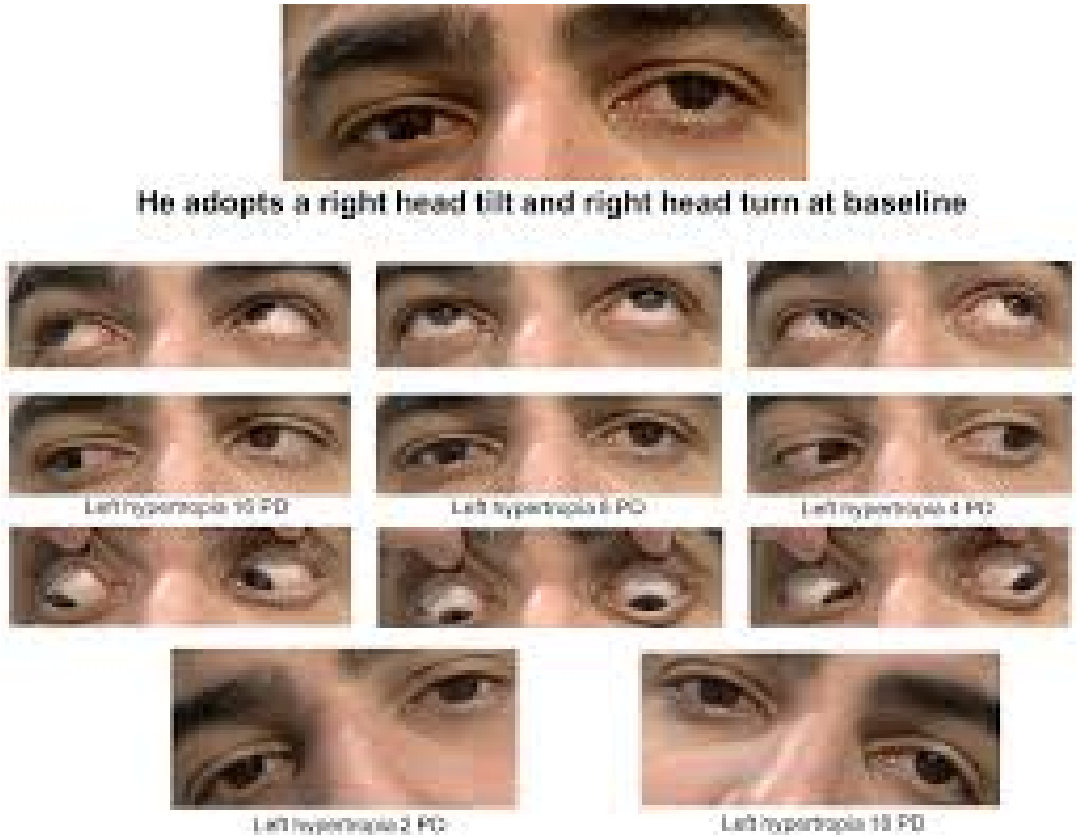
4. What is the initial management? (3 marks)

1. **Type of strabismus (2 marks):**
Accommodative esotropia (2 marks)
2. **Underlying mechanism (3 marks):**
Hypermetropia (1 mark)
Excessive accommodation required for clear vision (1 mark)
Associated convergence causes esotropia (1 mark)
3. **Measuring deviation (2 marks):**
Prism and alternate cover test (1 mark)
With and without hypermetropic correction (1 mark)
4. **Initial management (3 marks):**
Full hypermetropic correction (1 mark)
Bifocals if high AC/A ratio (1 mark)
Treat any amblyopia (1 mark)

8-year-old with vertical diplopia and abnormal head posture.

Questions:

1. Which cranial nerve is affected? (1 mark)
2. What muscle is weak? (1 mark)
3. How do you perform the Parks-Bielschowsky test? (3 marks)
4. Why does the patient adopt a head tilt? (2 marks)
5. What are the common causes in children? (3 marks)



1. **Cranial nerve affected (1 mark):**

Fourth cranial nerve (trochlear) (1 mark)

2. **Muscle weak (1 mark):**

Superior oblique (1 mark)

3. **Parks-Bielschowsky test (3 marks):**

Hypertropia increases on gaze toward weak muscle (1 mark)

Hypertropia increases on head tilt toward weak muscle (1 mark)

Three-step test for vertical diplopia (1 mark)

4. **Head tilt adoption (2 marks):**

Compensates for weak superior oblique (1 mark)Tilts away from affected side (1 mark)

5. **Common causes in children (3 marks):**

Congenital (most common) (1 mark)

Trauma (1 mark)

Neoplasm (1 mark)

8-month-old with persistent tearing and discharge from one eye.

Questions:

1. What is the most likely diagnosis? (2 marks)
2. What is the natural history? (3 marks)
3. What conservative treatments can be tried? (3 marks)
4. When is surgical intervention indicated? (2 marks)

1. **Most likely diagnosis (2 marks):**

Congenital nasolacrimal duct obstruction (2 marks)

2. **Natural history (3 marks):**

Present from birth (1 mark)

90% resolve spontaneously by 12 months (1 mark)

Due to imperforate Hasner's valve (1 mark)

3. **Conservative treatments (3 marks):**

Lacrimal sac massage (1 mark)

Topical antibiotics for secondary infection (1 mark)

Wait and see approach until 12 months (1 mark)

4. **Surgical intervention indication (2 marks):**

Persistent after 12-15 months of age (1 mark)

Recurrent dacryocystitis (1 mark)

7-year-old with limitation of eye movement and abnormal head posture.

Questions:

1. What condition is demonstrated? (2 marks)

2. What are the three types? (3 marks)

3. What is the underlying pathophysiology? (3 marks)

4. When is surgery indicated? (2 marks)

1. **Condition demonstrated (2 marks):**
Duane syndrome (2 marks)
2. **Three types (3 marks):**
Type 1: Limited abduction (1 mark)
Type 2: Limited adduction (1 mark)
Type 3: Limited abduction and adduction (1 mark)
3. **Underlying pathophysiology (3 marks):**
Absent or hypoplastic sixth nerve (1 mark)
Aberrant innervation from third nerve (1 mark)
Co-contraction of horizontal recti (1 mark)
4. **Surgery indicated when (2 marks):**
Significant head turn (1 mark)
Marked globe retraction with diplopia (1 mark)

UVEA

30-year-old male with sudden onset red painful eye and photophobia.

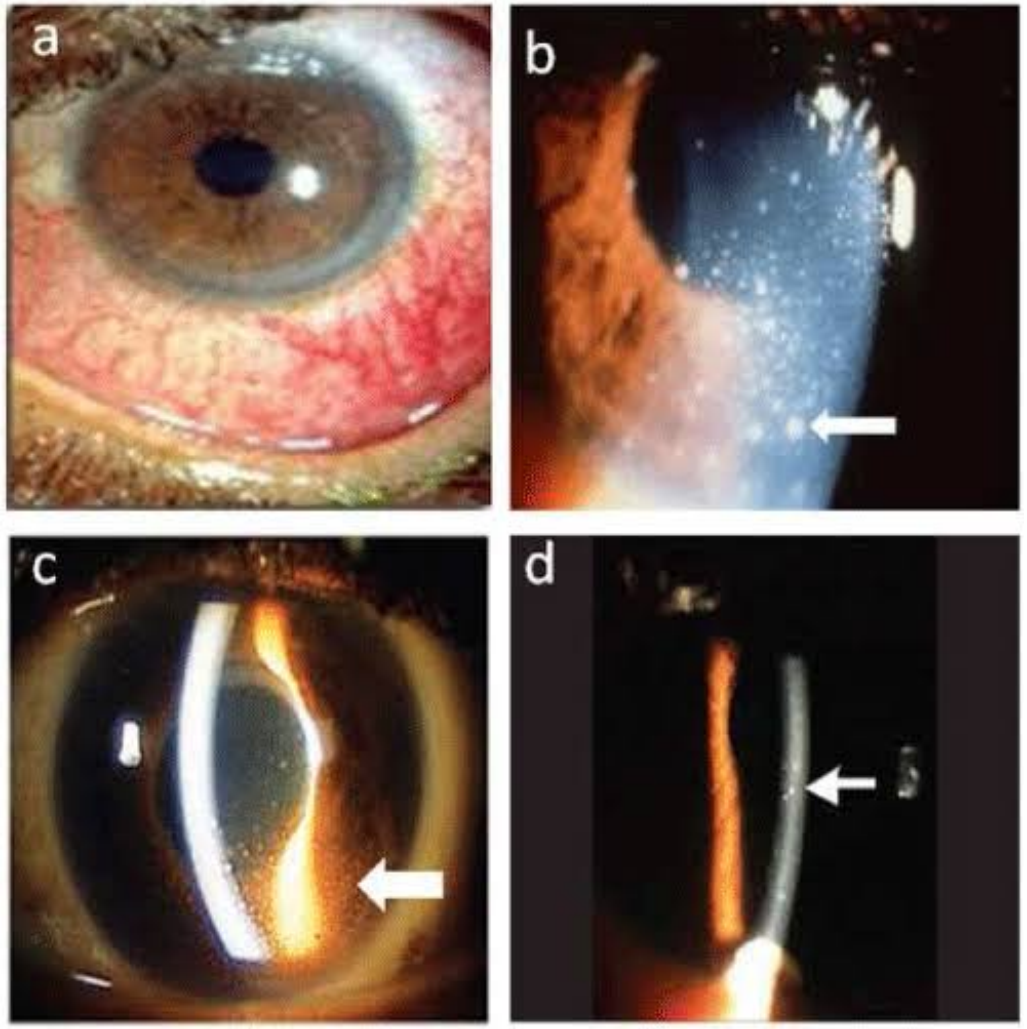
Questions:

1. What inflammatory signs are visible? (3 marks)

2. What systemic associations should be considered? (4 marks)

3. What investigations would you order? (2 marks)

4. How would you treat this acutely? (1 mark)



1. **Inflammatory signs visible (3 marks):**

Cells in anterior chamber (1 mark)

Flare in anterior chamber (1 mark)

Keratic precipitates (1 mark)

2. **Systemic associations (4 marks):**

Ankylosing spondylitis (1 mark)

HLA-B27 related conditions (1 mark)

Behçet's disease (1 mark)

Vogt-Koyanagi-Harada disease (1 mark)

3. **Investigations (2 marks):**

HLA-B27 typing (1 mark)

ESR, CRP (1 mark)

4. **Acute treatment (1 mark):**

Topical steroids (1 mark)

35-year-old Asian female with bilateral panuveitis and hearing loss.

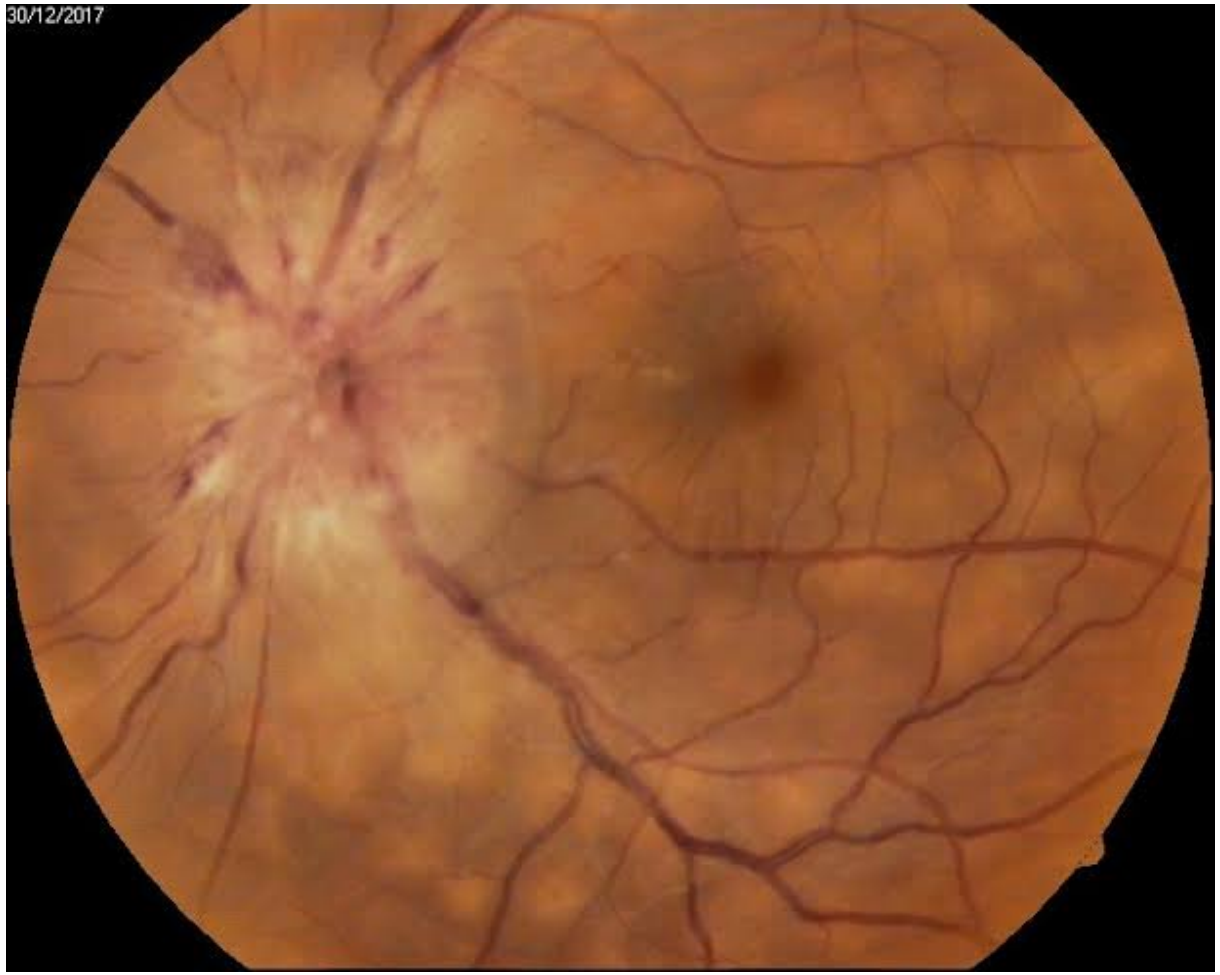
Questions:

1. What systemic syndrome is suggested? (2 marks)

2. What are the four phases of this disease? (4 marks)

3. What investigations would you perform? (2 marks)

4. What is the mainstay of treatment? (2 marks)



- 1. **Systemic syndrome (2 marks):**
- Vogt-Koyanagi-Harada disease (2 marks)
- 2. **Four phases (4 marks):**
- Prodromal phase (flu-like symptoms) (1 mark)
- Acute uveitic phase (bilateral panuveitis) (1 mark)
- Convalescent phase (depigmentation) (1 mark)
- Recurrent chronic phase (1 mark)
- 3. **Investigations (2 marks):**
- Fluorescein angiography (1 mark)Lumbar puncture (CSF pleocytosis) (1 mark)
- 4. **Mainstay of treatment (2 marks):**
- High-dose systemic steroids (2 marks)

Patient with bilateral granulomatous uveitis 6 weeks after penetrating trauma to one eye.

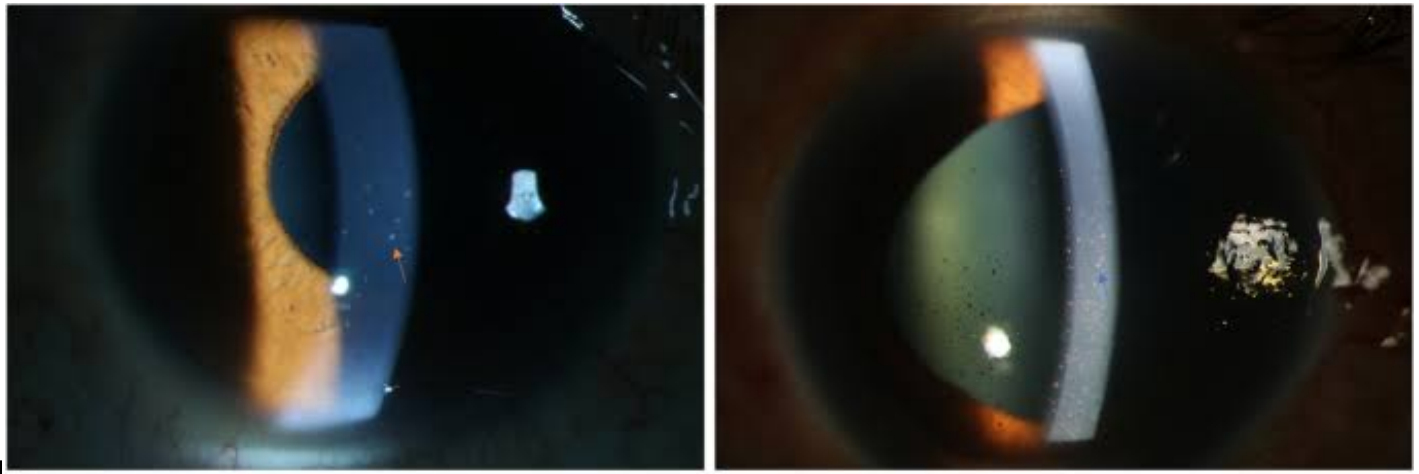
Questions:

1. What condition should suspected? (2 marks)

2. What is the pathophysiology? (3 mark

3. What are the risk factors? (3 marks)

4. How can this condition be prevented? (2 marks)



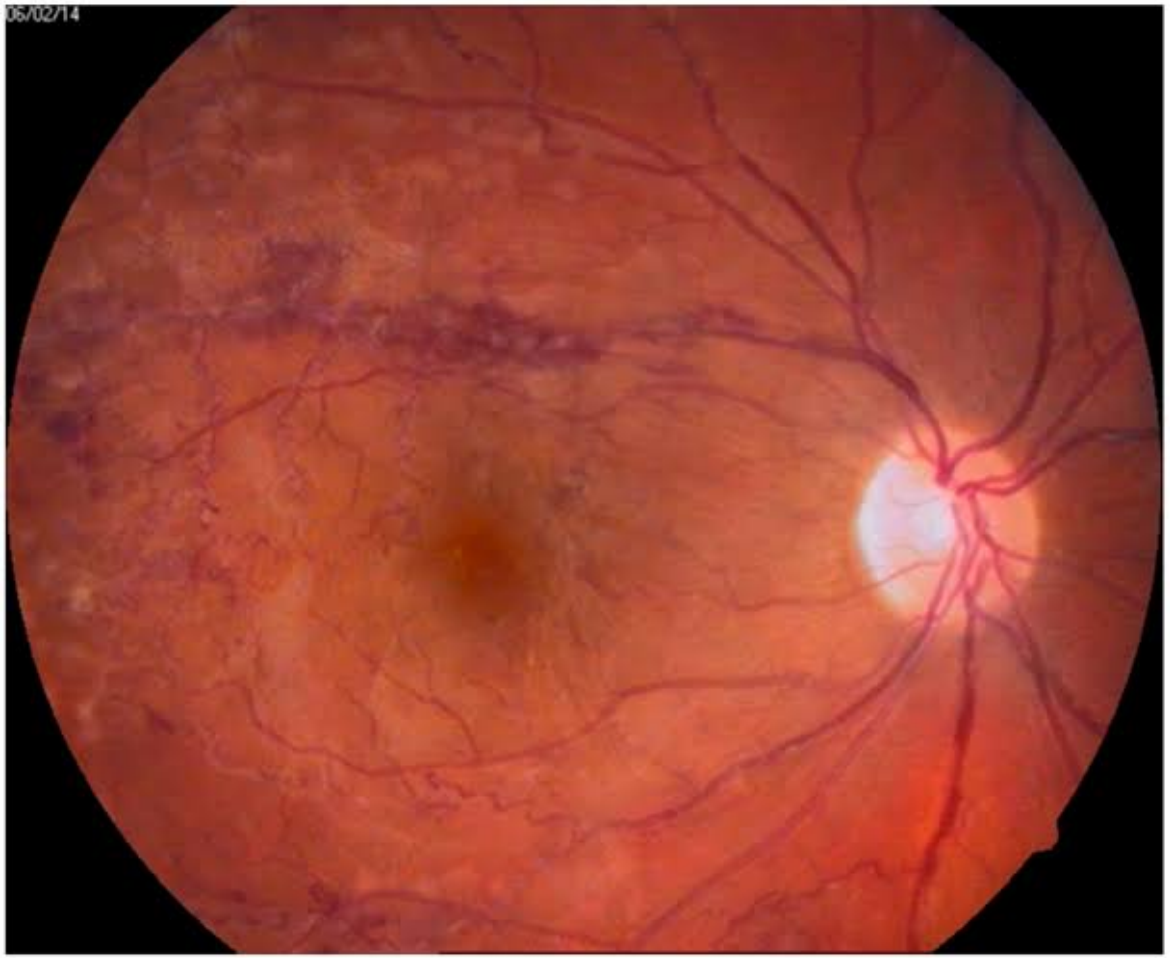
A B

1. **Condition suspected (2 marks):**
Sympathetic ophthalmia (2 marks)
2. **Pathophysiology (3 marks):**
Autoimmune response (1 mark)
Against uveal antigens (1 mark)
Cross-reactivity between eyes (1 mark)
3. **Risk factors (3 marks):**
Penetrating ocular trauma (1 mark)
Ocular surgery (especially vitreoretinal) (1 mark)
Uveal tissue exposure (1 mark)
4. **Prevention (2 marks):**
Early enucleation of severely damaged eye (1 mark)
Within 14 days of trauma (1 mark)

25-year-old Mediterranean male with recurrent oral ulcers and ocular inflammation.

Questions:

1. What systemic condition is suggested? (2 marks)
2. What are the major diagnostic criteria? (4 marks)
3. What are the ocular manifestations? (3 marks)
4. What treatments are used? (1 mark)



1. **Systemic condition (2 marks):**

Behçet's disease (2 marks)

2. **Major diagnostic criteria (4 marks):**

Recurrent oral ulceration (1 mark)

Genital ulceration (1 mark)

Skin lesions (1 mark)

Ocular lesions (1 mark)

3. **Ocular manifestations (3 marks):**

Retinal vasculitis (1 mark)

Anterior uveitis (1 mark)

Posterior uveitis (1 mark)

4. **Treatments for severe ocular disease (1 mark):**Immunosuppressive therapy (1 mark)

15-year-old with bilateral vitreous inflammation and reduced vision.

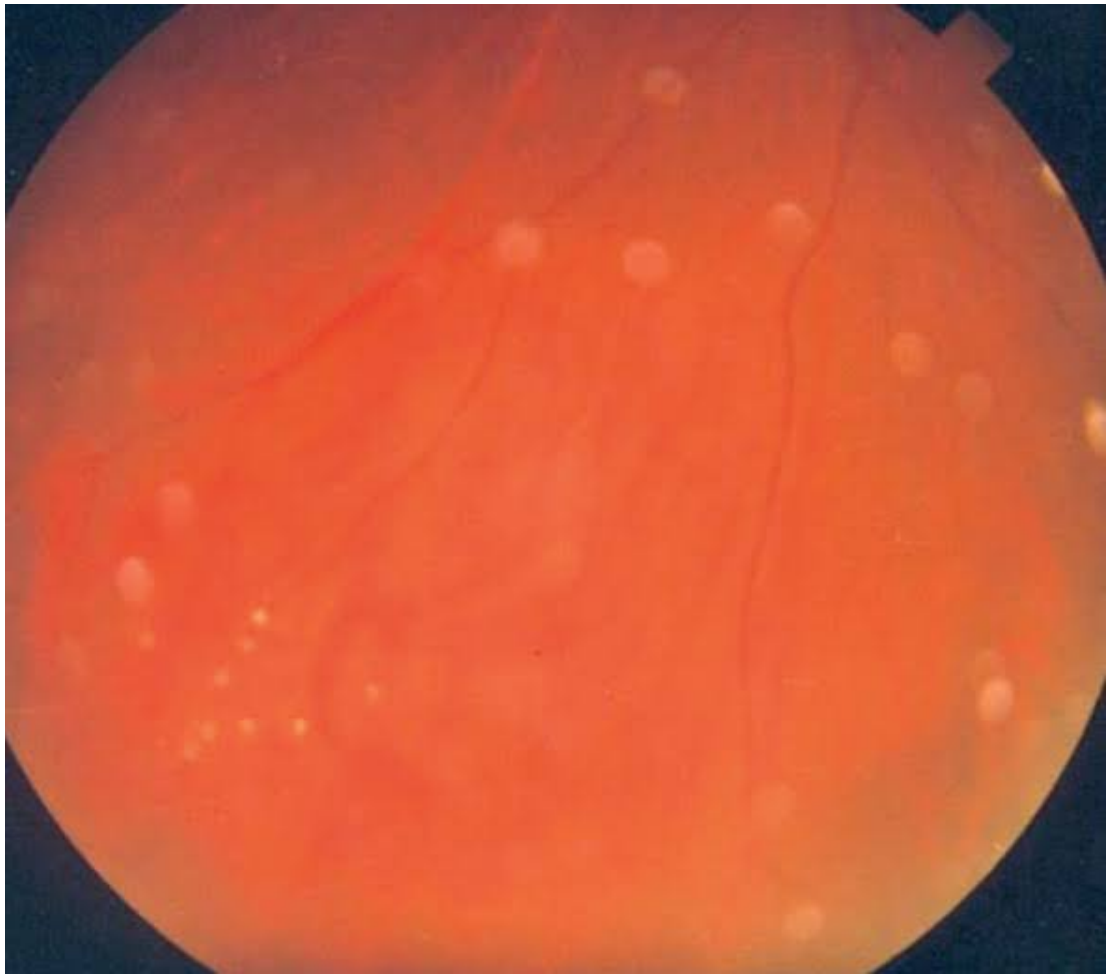
Questions:

1. What type of uveitis is this? (2 marks)

2. What are the characteristic features? (3 marks)

3. What systemic associations exist? (3 marks)

4. When is treatment indicated? (2 marks)

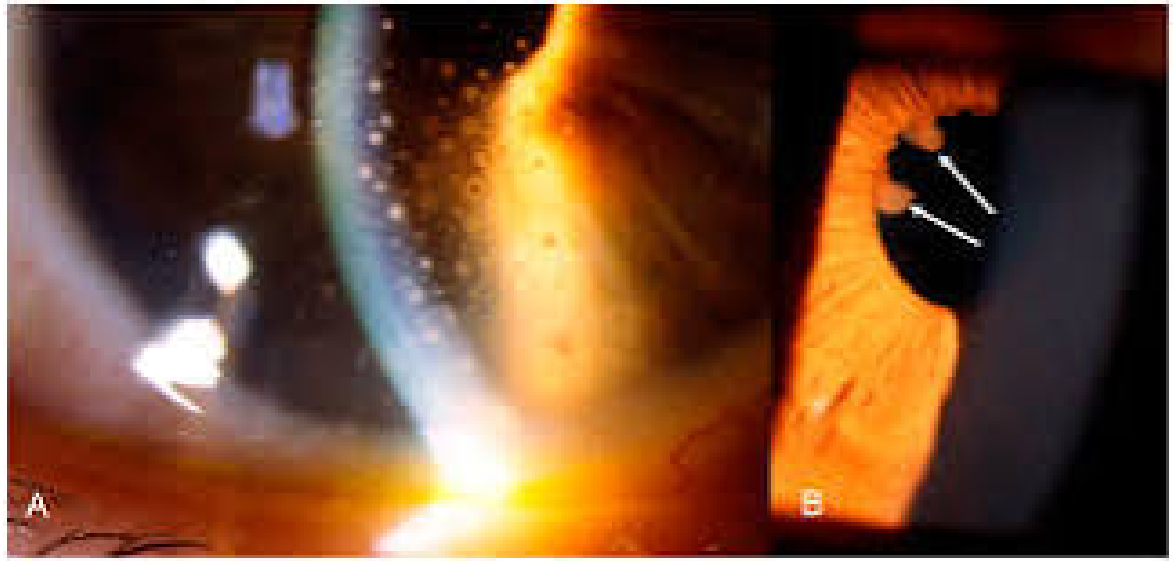


- 1. **Type of uveitis (2 marks):**
- Intermediate uveitis (2 marks)
- 2. **Characteristic features (3 marks):**
- Vitreous inflammation (1 mark)
- Snowballs (inflammatory aggregates) (1 mark)
- Pars plana involvement (1 mark)
- 3. **Systemic associations (3 marks):**
- Sarcoidosis (1 mark)
- Multiple sclerosis (1 mark)
- Often idiopathic (1 mark)
- 4. **Treatment indication (2 marks):**
- Macular edema (1 mark)
- Significant vitreous opacity affecting vision (1 mark)

40-year-old African-American female with chronic granulomatous anterior uveitis.

Questions:

1. What type of uveitis is shown? (2 marks)
2. What systemic condition should be considered? (2 marks)
3. What investigations would you order? (4 marks)
4. What are the treatment options? (2 marks)



1. **Type of uveitis (2 marks):**

Chronic granulomatous anterior uveitis (2 marks)

2. **Systemic condition (2 marks):**

Sarcoidosis (2 marks)

3. **Investigations (4 marks):**

Chest X-ray (1 mark)

Serum ACE levels (1 mark)

Serum calcium (1 mark)

Tissue biopsy if indicated (1 mark)

4. **Treatment options (2 marks):**

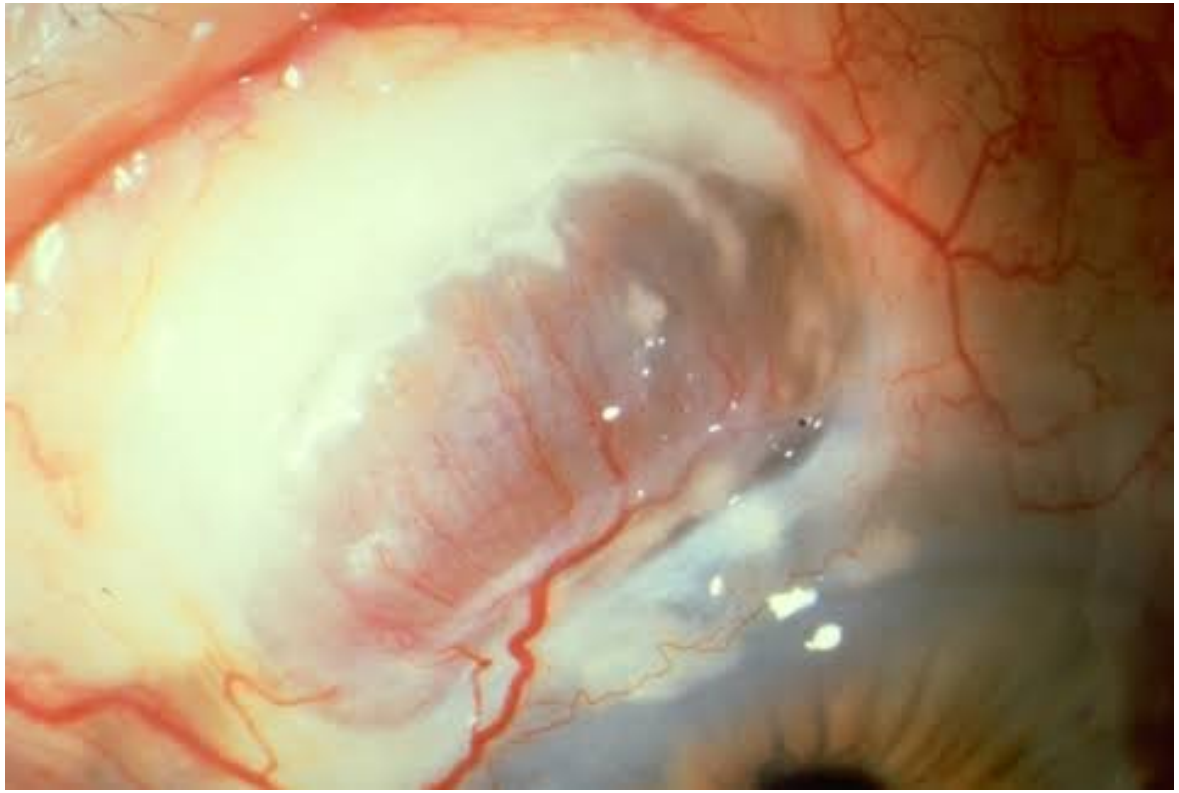
Topical steroids (1 mark)

Systemic immunosuppression if severe (1 mark)

55-year-old with RA presents with sudden severe eye pain and vision loss.

Questions:

1. What ocular complication is shown? (2 marks)
2. What other ocular manifestations can occur in RA? (4 marks)
3. What is the pathophysiology of this complication? (2 marks)
4. How would you manage this patient? (2 marks)



Total: 10 marks

1. **Ocular complication (2 marks):**

Scleral thinning/scleritis (2 marks)

2. **Other ocular manifestations in RA (4 marks):**

Keratoconjunctivitis sicca (dry eye) (1 mark)

Peripheral ulcerative keratitis (1 mark)

Scleritis (1 mark)

Secondary Sjögren's syndrome (1 mark)

3. **Pathophysiology of complication (2 marks):**

Immune complex deposition (1 mark)

Inflammatory cell infiltration (1 mark)

4. **Management (2 marks):**

Systemic immunosuppression (1 mark)

Urgent rheumatology referral (1 mark)

OCULOPLASTY

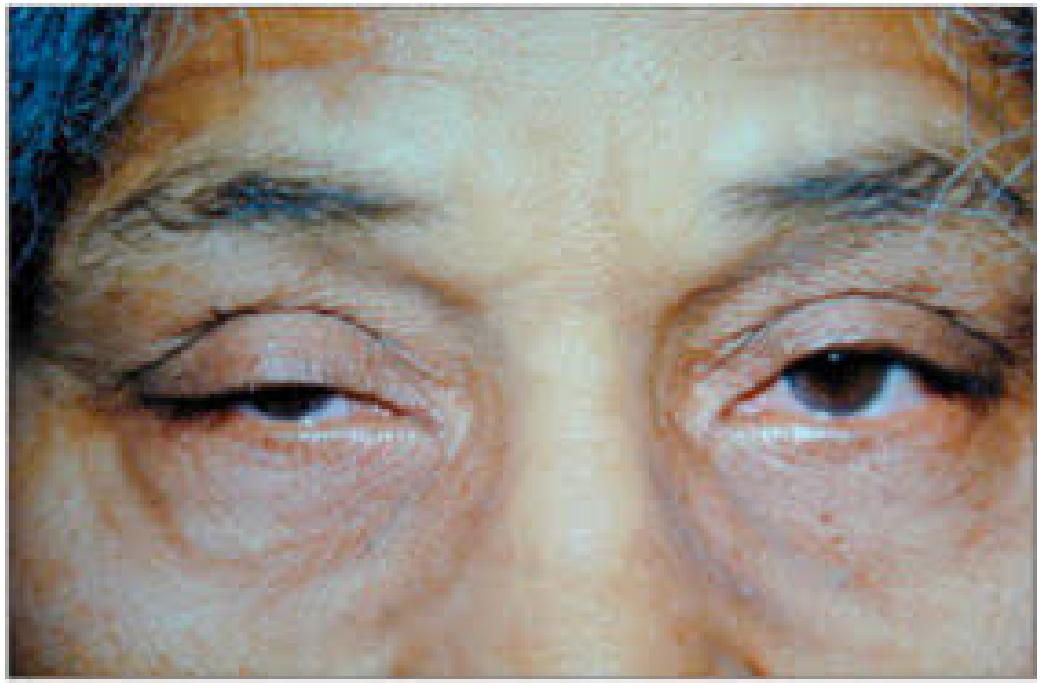
70-year-old with gradually drooping upper eyelid affecting vision. Questions:

1. What measurements would you take? (3 marks)

2. How do you assess levator function? (2 marks)

3. What are the main causes of acquired ptosis? (3 marks)

4. When is surgery indicated? (2 marks)



1. **Measurements to take (3 marks):**
Margin-to-reflex distance (MRD1) (1 mark)
Levator function (1 mark)
Palpebral fissure height (1 mark)
2. **Assess levator function (2 marks):**
Measure upper lid excursion (1 mark)
With frontalis muscle immobilized (1 mark)
3. **Main causes of acquired ptosis (3 marks):**
Aponeurotic (aging) (1 mark)
Neurogenic (third nerve palsy) (1 mark)
Mechanical (tumor, edema) (1 mark)
4. **Surgery indicated when (2 marks):**
Functional visual impairment (1 mark)
Cosmetic concerns (1 mark)

75-year-old with lower lid turning outward and epiphora.

Questions:

1. What condition is shown? (2 marks)

2. What are the main types and causes? (4 marks)

3. What complications can occur? (2 marks)

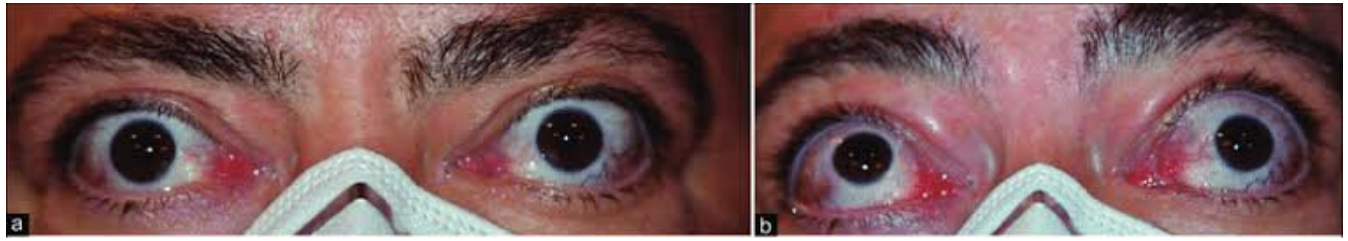
4. What surgical options are available? (2 marks)

1. **Condition shown (2 marks):**
Ectropion (2 marks)
2. **Main types and causes (4 marks):**
Involutional (aging, tissue laxity) (1 mark)
Paralytic (facial nerve palsy) (1 mark)
Cicatricial (scarring) (1 mark)
Mechanical (tumor, edema) (1 mark)
3. **Complications (2 marks):**
Exposure keratopathy (1 mark)
Chronic conjunctivitis (1 mark)
4. **Surgical options (2 marks):**
Horizontal lid tightening (1 mark)
Tarsal strip procedure (1 mark)

45-year-old with hyperthyroidism and bilateral proptosis.

Questions:

1. What are the clinical signs shown? (4 marks)
2. What is the pathophysiology? (3 marks)
3. How would you assess and monitor this patient? (2 marks)
4. When is orbital decompression indicated? (1 mark)



1. **Clinical signs shown (4 marks):**
Bilateral proptosis (1 mark)
Upper lid retraction (1 mark)
Limitation of upgaze (1 mark)
Lid lag (1 mark)
2. **Pathophysiology (3 marks):**
Autoimmune orbital inflammation (1 mark)
Extraocular muscle fibrosis (1 mark)
Increased orbital fat and connective tissue (1 mark)
3. **Assessment and monitoring (2 marks):**
Exophthalmometry (1 mark)
Orthoptic assessment (1 mark)
4. **Orbital decompression indication (1 mark):**
Compressive optic neuropathy (1 mark)

8-year-old child with swollen red eyelids following upper respiratory infection.

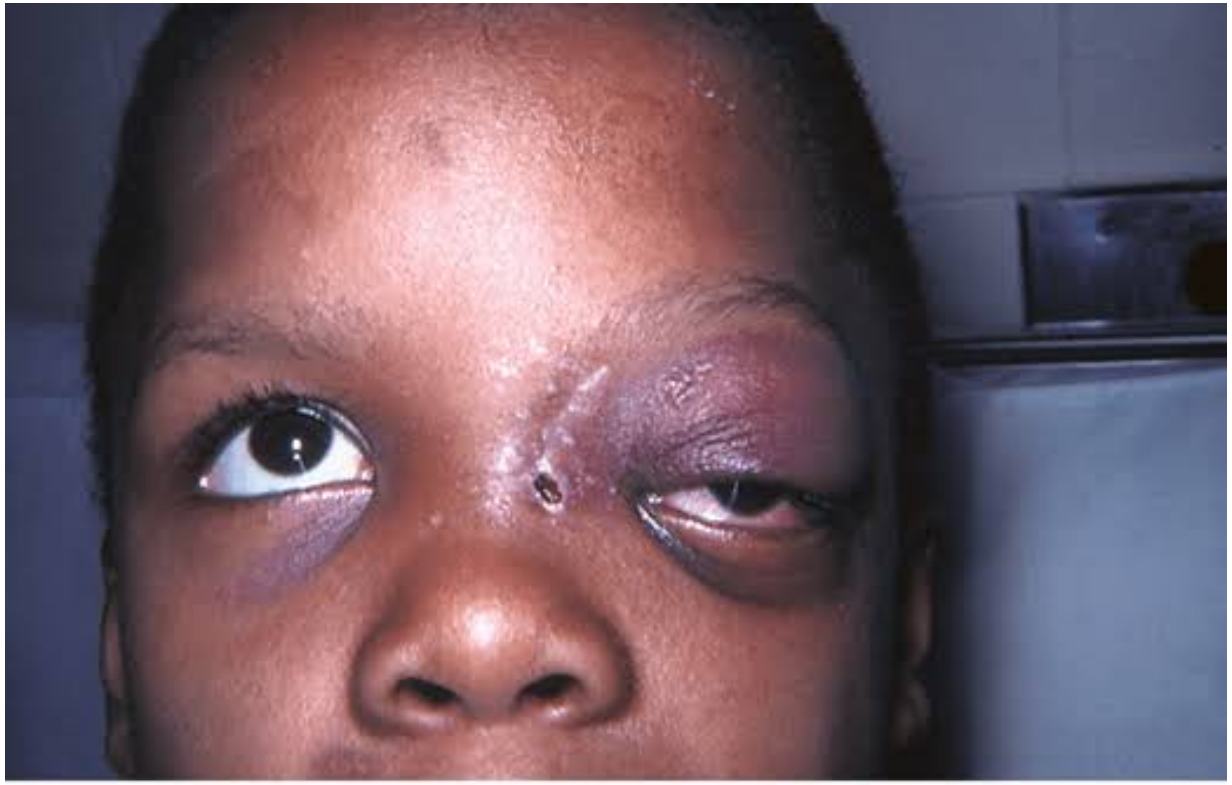
Questions:

1. What is the diagnosis? (2 marks)

2. How do you differentiate from preseptal cellulitis? (3 marks)

3. What are the potential complications? (3 marks)

4. What is the management? (2 marks)



Source: Shah BR, Lucchesi M, Amodio J, Silverberg M: *Atlas of Pediatric Emergency Medicine:* www.accessemergencymedicine.com

1. **Diagnosis (2 marks):**
Orbital cellulitis (2 marks)
2. **Differentiate from preseptal cellulitis (3 marks):**
Proptosis present (1 mark)
Restricted eye movements (1 mark)
Reduced visual acuity (1 mark)
3. **Potential complications (3 marks):**
Cavernous sinus thrombosis (1 mark)
Brain abscess (1 mark)
Meningitis (1 mark)
4. **Management (2 marks):**
IV broad-spectrum antibiotics (1 mark)
Urgent hospital admission (1 mark)

55-year-old with painful swelling at medial canthal area and epiphora.

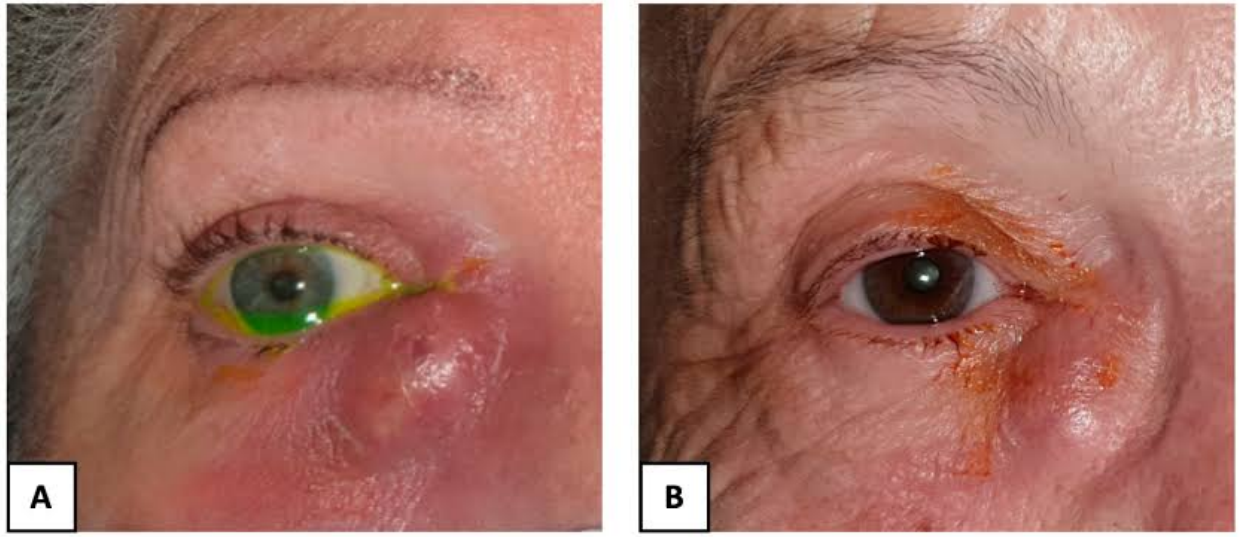
Questions:

1. What is the diagnosis? (2 marks)

2. What is the underlying pathophysiology? (3 marks)

3. How would you investigate this patient? (3 marks)

4. What are the treatment options? (2 marks)

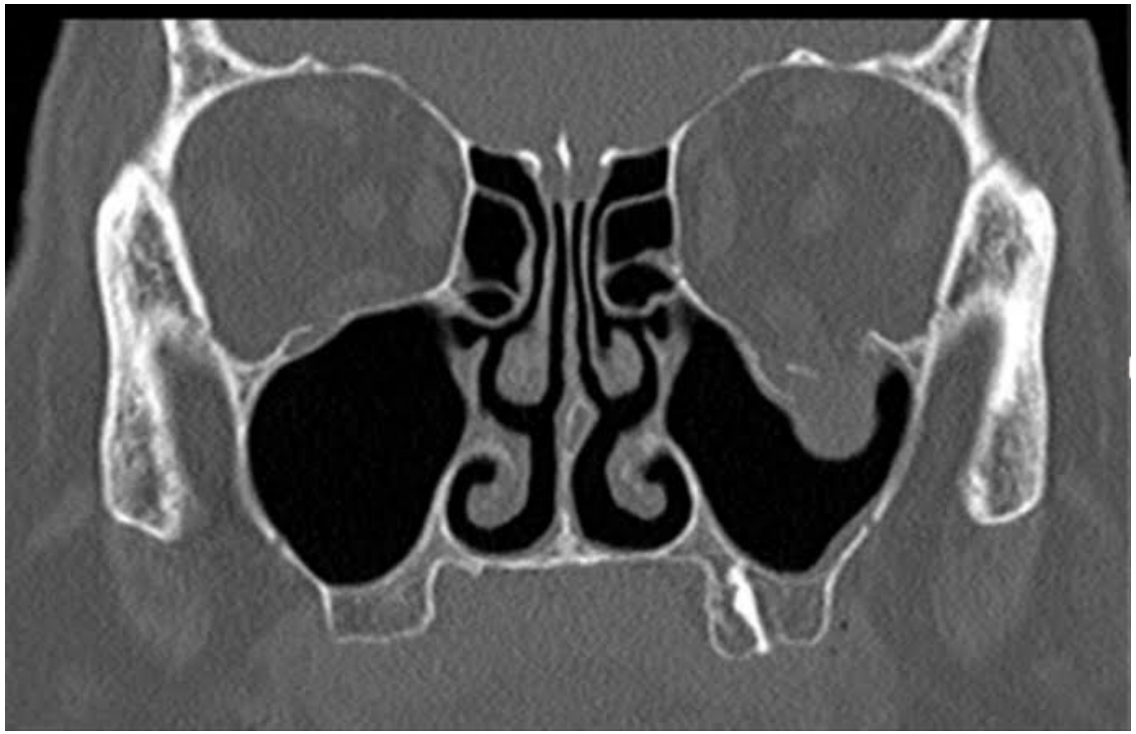


1. **Diagnosis (2 marks):**
Acute dacryocystitis (2 marks)
2. **Underlying pathophysiology (3 marks):**
Nasolacrimal duct obstruction (1 mark)
Stagnation of tears (1 mark)
Secondary bacterial infection (1 mark)
3. **Investigations (3 marks):**
Clinical diagnosis (1 mark)
CT if orbital extension suspected (1 mark)
Dacryocystography when acute settled (1 mark)
4. **Treatment options (2 marks):**
Systemic antibiotics (acute phase) (1 mark)
Dacryocystorhinostomy (definitive) (1 mark)

25-year-old presents after motor vehicle accident with visual disturbance.

Questions:

1. What type of orbital fracture is shown? (2 marks)
2. What are the indications for urgent surgical repair? (4 marks)
3. What clinical tests would you perform? (2 marks)
4. What are the potential complications if left untreated? (2 marks)



1. **Type of fracture (2 marks):**
Orbital floor fracture (blowout fracture) (2 marks)
2. **Indications for urgent repair (4 marks):**
Muscle entrapment with restriction (1 mark)
Large fracture (>50% floor) (1 mark)
Significant enophthalmos (>2mm) (1 mark)
Persistent diplopia (1 mark)
3. **Clinical tests (2 marks):**
Forced duction test (1 mark)
Assessment of infraorbital nerve sensation (1 mark)
4. **Complications if untreated (2 marks):**
Persistent diplopia (1 mark)
Cosmetic deformity (enophthalmos) (1 mark)

Two patients with eyelid lumps.

Questions:

1. Differentiate between these two conditions. (4 marks)

2. What is the pathophysiology of each? (3 marks)

3. How would you manage each condition? (3 marks)

1. **Differentiation (4 marks):**

Chalazion: chronic, painless, meibomian gland (2 marks)

Hordeolum: acute, painful, lash follicle/gland of Zeis (2 marks)

2. **Pathophysiology (3 marks):**

Chalazion: blocked meibomian gland (1 mark)

Hordeolum: acute bacterial infection (1 mark)

Different anatomical locations (1 mark)

3. **Management (3 marks):**

Conservative: warm compresses, massage (1 mark)

Chalazion: incision and curettage if persistent (1 mark)

Hordeolum: topical antibiotics (1 mark)

50-year-old with progressive proptosis and diplopia over 6 months.

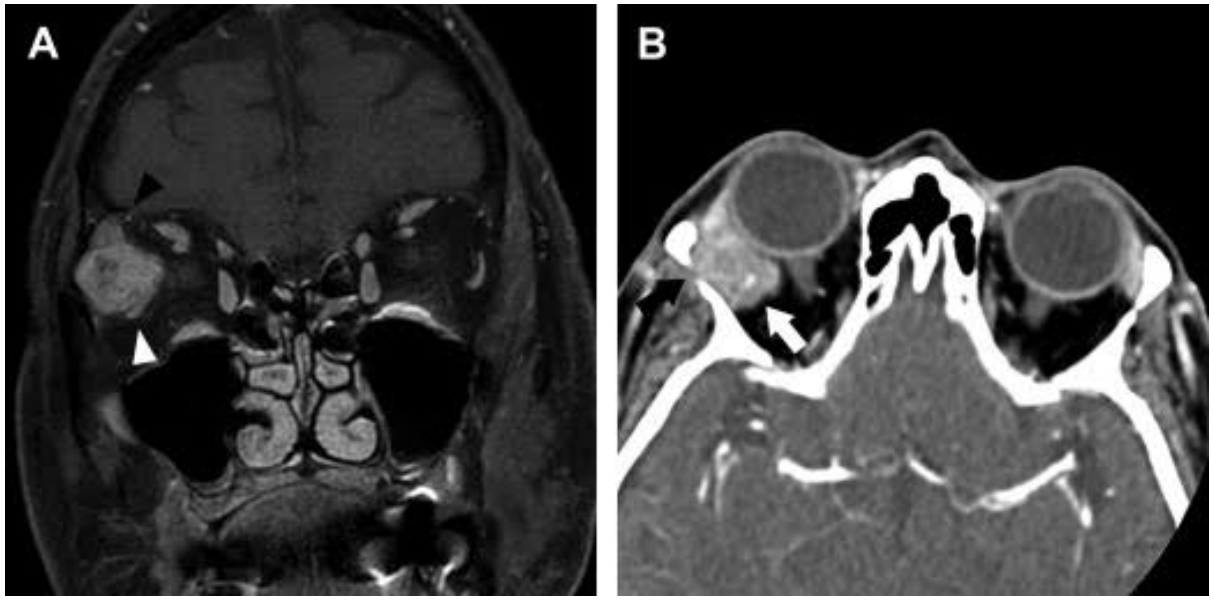
Questions:

1. What is the most likely location of the mass? (2 marks)

2. What are the differential diagnoses? (4 marks)

3. What investigations are needed? (2 marks)

4. What is the management approach? (2 marks)



1. **Most likely location (2 marks):**

Lacrimal gland (superolateral orbit) (2 marks)

2. **Differential diagnoses (4 marks):**

Pleomorphic adenoma (1 mark)Adenoid cystic carcinoma (1 mark)

Lymphoma (1 mark)

Inflammatory pseudotumor (1 mark)

3. **Investigations needed (2 marks):**

MRI orbits with contrast (1 mark)

Biopsy (incisional, not excisional) (1 mark)

4. **Management approach (2 marks):**

Complete surgical excision with intact capsule (1 mark)

Avoid incisional biopsy if pleomorphic adenoma suspected (1 mark)

55-year-old with incidental finding of pigmented choroidal lesion.

Questions:

1. What is the most likely diagnosis? (2 marks)

2. What features suggest malignancy? (4 marks)

3. What investigations would you order? (2 marks)

1. **Most likely diagnosis (2 marks):**

Choroidal melanoma (2 marks)

2. **Features suggesting malignancy (4 marks):**

Dome-shaped configuration (1 mark)

Overlying retinal detachment (1 mark)

Thickness >2mm (1 mark)

Orange pigment (lipofuscin) on surface (1 mark)

3. **Investigations (2 marks):**

B-scan ultrasonography (1 mark)

Fluorescein angiography (1 mark)

4. **Treatment options (2 marks):**

Plaque radiotherapy (1 mark)

Enucleation (large tumors) (1 mark)