

STATION NO 9



QUESTIONS

- 1) Explain the the 4 parts of photo.
- 2) What is your clinical diagnosis?
- 3) How will you treat?
- 4) In which season(s) it is most severe?
- 5) What is its course?

1) gelatinous papila on limbal conjunctiva
cobblestone papilla
trantos dot
sheild ulcer
2 vkc
3) antihistamine
steroid
avoid exposure to illergn
cold compressed
mast cell stabilize
nsaid
topical steroid
acetylcytine topical cyclosporine
4) spring and summer
5) ulcer
keratoconus
corneal opacity
infectious karatitis
limbal stem cell deficiency

1

Treatment :-

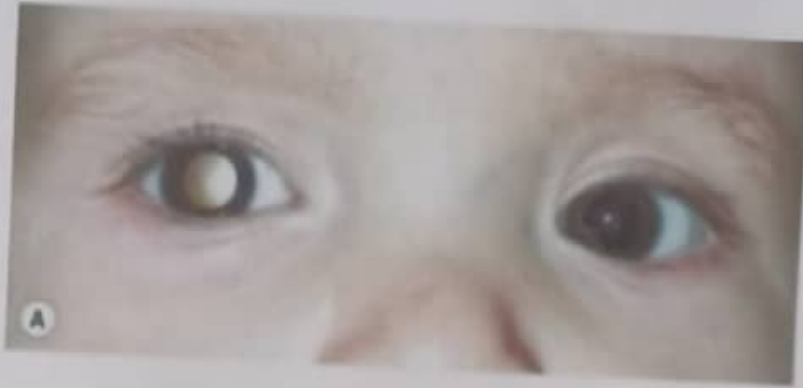
Topical Therapy :-

- ① Antihistamine
- ② NSAIDs
- ③ mast cell stabilizers
- ④ topical corticosteroids
- ⑤ Acetylcysteine
- ⑥ Topical cyclosporine

Systemic steroid injection.

Systemic therapy :-

- ① Immunosuppressive agents
- ② Oral antihistamine



1. What is the white pupillary reflex called? (2)
2. What are its different causes? (2)
3. What is the most common malignant tumor of eye in children?(1)

②

White pupillary reflex:

(i) called leukocoria.

(ii) Causes: Congenital cataract

Retinoblastoma.

Endophthalmitis.

Coat's Disease.

(iii) M/c tumor of eye in children : RB.



3

Carefully see the pathology in the photograph and answer the following questions.

1. Name the pathological sign, evident in this picture?
2. Name different causes of this condition?
3. How will you investigate this condition?
4. What will be followed if this condition was not treated?
5. How will you treat this condition?

③

Papilledema.

⇒

Causes: • Intracranial space occupying lesions (tumor, abscess, cyst).

• Intracranial Infections.

• Benign IC. HTN.

• IC. hemorrhage.

⇒

I_x: CT, MRI, MRV (Mag. Resonance Venography)

CBC, ESR, Blood sugar, LP.

⇒

If not treated → Optic Neuritis → Blindness.

⇒

Treat underlying cause + Control ↑ IOP.



Look this photograph carefully and answer the following questions.

1. Name the pathological signs evident in this photograph?
2. Name the eye disease that this photograph is suggesting?
3. What are the different causes of this condition?
4. How you will investigate this condition?
5. How you will treat this condition?

④ ⇒ Dark-blot hemorrhages, cotton-wool spots,
Hard exudate, dilated B.V.


⇒ Diabetic Retinopathy.

⇒ Causes: Uncontrolled DM, HTN, CRVO, Pregnancy, Nephropathy, Hyperlipidemia.

⇒ I_x: Blood sugar, Urine analysis, RFTs, Lipid profile, HbA1c.

⇒ Tx : Medical → Anti-VEGF, Steroids.
Surgery → Pars-Plana vitrectomy.



1. Name this Pathology? 
2. Name the causative organisms?
3. Name the stains used in diagnosis of this condition?
4. Can this condition be vision-threatening?
5. Suggest treatment for this condition?

⑤ ⇒ HSV - Geographical / Dendritic Corneal Ulcer.

⇒ Cause: Herpes Simplex Virus Type I + II.

⇒ Stains: Fluorescein stain, Rose Bengal stain

⇒ Yes, vision threatening → leads to Blindness.

⇒ Tx: • Topical antiviral (Acyclovir)

• Debridement.

• Topical Antibiotics (for sec. infx)

• Cycloplegic (1% Atropine) → for pain relief.

• Oral antiviral. (Immunodef. pt).



This patient came with the complain of dimness of vision, swelling and severe pain. His eye lid skin has lesions shown in the picture

- 1-What is your most probable diagnosis? (1)
- 2-What is the most common cause of loss of vision in this patient? (1)
- 3-How will you treat him? (2)

(4) Do you think Cornea is affected in this case and tell the reason for your answer? (1)

⑥ ⇒ Herpes zoster ophthalmicus.

⇒ M/C ^{cause of.} loss of vision in this → Optic neuritis.

⇒ Tx : Acyclovir, Antibiotics, steroids, Cycloplegic,
Anti-glaucoma drugs.

⇒ Yes, cornea is affected (Corneal ulcers / Acute epithelial keratitis).

A 28 years old male was brought to eye OPD with sudden painless loss of vision in his right eye for one week. This was preceded by "flashes of light. Look at the following picture and answer the given questions.



1. Name abnormal clinical findings in this picture. (2.0)
2. Name two ocular conditions that can predispose to this condition. (2.0)
3. What is your diagnosis? (1.0)

7

Retinal Detachment:-

- ⇒ • Bullous + corrugated app. of retina.
 - Darker + Tortuous B.V.
 - Artery + vein have same blood color.
- ⇒ Trauma, Prolif. Diabetic retinopathy
- ⇒ Dx: Retinal detachment.

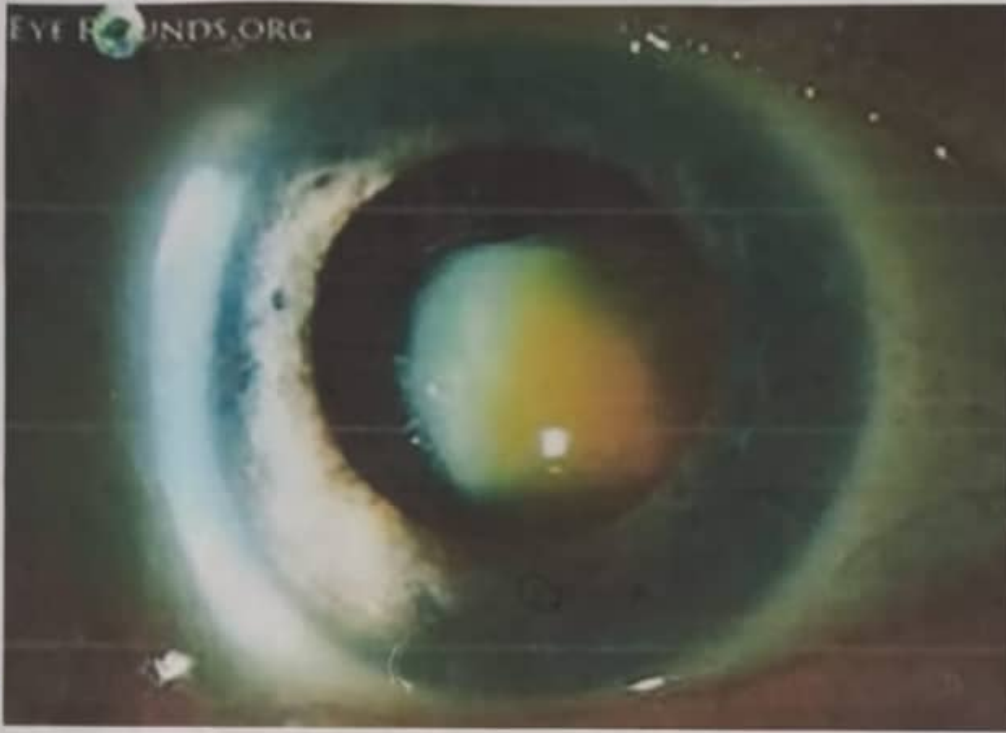
⊕



1. What are the findings in this picture? (2)
2. What are your differential diagnosis?(2)
3. What are the treatment options?(1) *Anti VEGF*

⑧

Diabetic Retinopathy.



Nuclear Cataract

This is a retired army general eye picture that develops decrease vision. He wants best treatment for him

1-What is your diagnosis?

2-Which treatment option is best for him? ~

③ After surgery he develop dimness of vision again over 5 Months. What is the most common reason?

4-How will you treat him then?

⑨ ⇒ Nuclear Cataract (Morgagnian Cataract →
Hypermature state)

⇒ Tx: Extracapsular Cataract Extraction (ECCE)

⇒ Post. capsular opacification.

⇒ Nd: YAG laser.



This is the picture of a young man who is suffering from kidney disease as well.

1-Describe the positive eye findings in this picture

2-How will you treat him?

3-What is your most probable diagnosis? → *Band keratopathy*
if familial

10

Key

- 1-band like sub epithelial corneal opacity in the centre
- 2-treat the cause, chelating agents
- 3-Band keratopathy

⑩ ⇒ Band-like sub-epithelial corneal opacity
in the centre.

(Ca-dep. in Bowman's memb, stroma, BM).

⇒ Tx : • Treat the cause.

- Chelating agent (EDTA)
- Lamellar keratoplasty.
- Excimer keratectomy.

⇒ Dx : Band keratopathy.



- 1) Identify the instrument ?
- 2) For what purpose it is used ?
- 3) If the Visual acuity is improved by it what does it signify ?
- 4) If the Visual acuity is worsened by it what does it signify then ?
- 5) What is its limitation(s) ?

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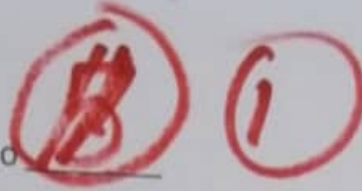
KEY

- 1) Pin hole
- 2) To differentiate whether the decreased vision is because of refractive error or organic disease
- 3) Refractive error
- 4) Disease of the central cornea, lens or macula
- 5) High refractive errors (>4 D) cannot be corrected

② ⇒ Pin Hole.

- ⇒ Diff. b/w dec. vision due to either refractive error or organic disease.
- ⇒ Refractive error.
- ⇒ Disease of central cornea, lens, macula.
- ⇒ High refractive error ($>4D$) → cannot be corrected.

STATION NO



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A 75 year old male presented to you with decreased vision in his right eye from a very long time. It was painless decrease and his vision was hand movements. You put dilating drops in both eyes.

- 1) What are the findings in the above photograph?
- 2) What is your diagnosis? *cat*
- 3) What are different surgical modalities for its treatment? *ph*
- 4) Which investigation will you do if you cannot see the fundus clinically? *✓*
- 5) Which complication may arise if the condition is untreated for long time? *✓*
1) opacification of crystalline lens

2) cataract

3) ECCE
ICCE

4 B scan

5) glaucumoa
uvitis

- ⑫ ⇒ Opacification of crystalline lens .
- ⇒ Senile Cataract .
- ⇒ ECCE / ICCE .
- ⇒ B-Scan .
- ⇒ Glaucoma / Uveitis .



QUESTIONS

- 1) What does the photo show? *Ulceration with resistant ulcer*
- 2) What are the differential diagnoses in a 70 year old man?
- 3) What is the most likely diagnosis in a 70 year old man?
- 4) Which investigation should be done initially? *Biopsy*
- 5) How will you confirm the diagnosis?

Basal cell carcinoma
Squamous
melanoma
Melanoma

shave Biopsy
+ punch Biopsy

punch biopsy
excisional biopsy
Incisional biopsy
shave biopsy

BCCIA
(rodent ulcer)

- (13) ⇒ ~~Ulceration~~ with
Nodular lesion with rodent ulcer & raised
rolled edges.
- ⇒ DDs: BCC, SCC.
- ⇒ BCC.
- ⇒ Biopsy (i) Shave Biopsy (ii) Punch Biopsy
(iii) Incisional Biopsy (iv) Excisional Biopsy.
- ⇒ Biopsy + Histopathology.

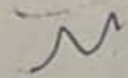
(14) \Rightarrow Snellen's chart.

\Rightarrow 6m

\Rightarrow Pt. sees from 6m which a normal person can see from 18m.

STATION # _____

DISTANCE VISUAL ACUITY



INTERACTIVE STATION # _____

Marks 5

Distance Visual Acuity:

- A. What are prerequisites for checking DV? (1)
- B. What are the other components of vision? (1)
(NV, Field of Vision, Colour Vision, Contrast, Stereopsis / Depth of vision)
- C. What is the proper distance for checking distance VA and Why? (1)
- D. What do you mean by 6/18? (1)
- E. Majority of new born babies are hypermetrope or myope?(1)

⑮ Distance Visual Acuity :-

- A. Snellen chart.
- B.
- C. 6 m. (6/6 is the visual acuity needed to discriminate contours separated by 1 arc minute;
1.75 mm at 6m)
- E. Hypermetrope.

Distance Visual Acuity:

- A. What are prerequisites for checking DV? (1)
- B. What are the other components of vision? (1)
(NV, Field of Vision, Colour Vision, Contrast, Stereopsis / Depth of vision)
- C. What is the proper distance for checking distance VA and Why? (1)
- D. What do you mean by 6/18? (1)
- E. Majority of new born babies are hypermetrope or myope?(1)

A) Snellen chart

C) 6meter the lines can be seen by normal person at 6 meters

D) normal at 18 abnormal at 6 Meter

E) hypermetrope

C) 6/6 is the visual acuity needed to discriminate two contour separated by 1 arc mint

2) to see anterior segment and posterior segment with help of additional lenses

3) yes

4) no gonioscope lens is used to see angle of anterior chamber



QUESTIONS

slit lamp

- 1) Identify the instrument? *Slit lamp*
- 2) For what purpose it is used? *Retinal fund* Anterior + posterior chamber
- 3) Can we see fundus of the eye through it? *Yes*
- 4) Can we see angle of anterior chamber of eye through it? *No*
- 5) Name its major parts. *Illuminator, Polaris, Chin rest, objective lens, Stand*

(16)

Slit lamp:

s) Forehead band, chin rest, stand, illuminator, joystick, ocular/objective lens, light source, filters.

propendin

STATION NO

7

- 1) applanation tonometer
- 2) to measure IOP

3) based on Imbert Fick principle pressure is equal to force per unit area pressure inside a sphere equal force needed to flatten its surface divided by surface area

No, it's influenced by corneal thickness oedema and squeezing pressure on eye ball

5 schiotz indentation tonometer
portable applanation tonometer (Perkin can be use by hand)
pneumotonometer
to open tonometer



- 1) Identify the instrument Gold man tonometer.
- 2) What is it used for?
- 3) What is its working principle? Imbert Fick principle
- 4) Does it always give accurate result?
- 5) Name other devices used for the same purpose?

St tonopen
i case tonometer
digital
schiotz
case

①7 ⇒ Goldmann Applanation Tonometer.

⇒ Measure IOP.

⇒ Principle: Lambert-Fick Principle ; $P = F/A$.

Pressure inside a sphere equals force needed to flatten its surface divided by area of flattening.

⇒ No, it's influenced by corneal thickness, edema E_1 , squeezing pressure on eye ball.

- ⇒
- Schiötz indentation tonometer.
 - Portable applanation tonometer
 - Pneumotonometer.
 - Tonopen tonometer.

STATION NO _____



for aspiration

- 1) Simcoe cannula (two-way irrigation and aspiration cannula)
- 2) Provide way to inject and aspire fluids from anterior chamber. e.g:
 - a) For irrigation and suction of lens matter in extracapsular cataract extraction.
 - b) Aspiration of hyphaema.
- 3) Damage to corneal epithelium or posterior capsule of lens.
- 4) Infusion line is connected to the inflow cannula(irrigation end) while the outflow cannula(aspiration end) is connected to a syringe that the surgeon can use to manually control aspiration.
- 5) silicon tube, metal cannulas (stainless steel)

11:56 am



for irrigation

QUESTIONS

- 1) What is this?
- 2) What is/are its function(s)?
- 3) What complication(s) may arise if not properly used?
- 4) What is/are attached to it when it is used?
- 5) It is made up of which materials?

STATION NO _____



A 40 year old lady presented as depicted in photograph above. She gives history of weight loss, tremors, sweating and palpitations.

- 1) Explain the photo
- 2) What are your differential diagnoses?
- 3) What is your most probable diagnosis?
- 4) What specific blood tests should be done to confirm your diagnosis?
- 5) How will you treat?

3) endophthalmitis
panophthalmitis
4) TFS
ocular muscles involment
CT scan
MRI
ultrasonography

1) periorbital edema chemosis
conjunctiva proptosis 2) cellulitis
3) thyroid ophthalmopathy
4) T3 T4 TSH
5) antithyroid drugs
treatment of
ocular discomfort
and dryness

1. Unilateral Non-axial Exophthalmos.

2. Exophthalmos may be due to Thyroid related problems, due to Tumor, or due to Trauma.

3. Most probably due to Tumor because it's Non-axial (Thyroid waje axial yi) .

4. Specific tests to confirm tumor e.g : CBC

5. Chemotherapy or Surgery

8:39 pm



This man suffers road traffic accident with the eye picture shown above.

1-Name three ocular findings

2-How will you manage this person?

3-What will happen if you left him untreated?

1) sub Conj hemorrhage

racoon's eye

enophthalmos

2) conservative treatment surgical treatment

) endophthalmitis

panophthalmitis

blindness

20

20) 1) • Sub-conjunctival hemorrhage.

- Black eye (Raccoon's eye) / Periorbital bruising).
- Enophthalmos.

2) Conservative + Surgical Tx.

→ Local Analgesics

→ Hot fermentation.

3) Endophthalmitis, Panophthalmitis, Blindness.