

# Ophthalmology SAQ

## By: 430 Ophthalmology team

### Orientation

Done by: Marwah Bafadel

Revised by: Ahlam Al-Sulaiman

❖ **Note: please refer to the original lecture given by the doctor**



The pictures were sorted by:

- Sara Mohammad Al-Shehri
- Marwah Salem Bafadel
- Ahlam Abdullah Al-Sulaiman
- Lamis Atyah Al-Malki

# Slide 1



Q: Identify this instrument?

A: Schoizt Tonometer.

Q: What is this instrument used for?

A: I.O.P (intraocular pressure) measurement; through indentation method.

# Slide 2



Q: Identify this instrument?

A: Perkin tonometer

Q: What is this instrument used for?

A: I.O.P (intraocular pressure) measurement.

# Slide 3



Q: Identify this instrument?

A: Retinoscope

Q: What is this instrument used for?

A: measurement of refractor error.

# Slide 4



Q: Identify this instrument?

A: Tonopen tonometer

Q: What is this instrument used for?

A: I.O.P (intraocular pressure) measurement.

# Slide 5



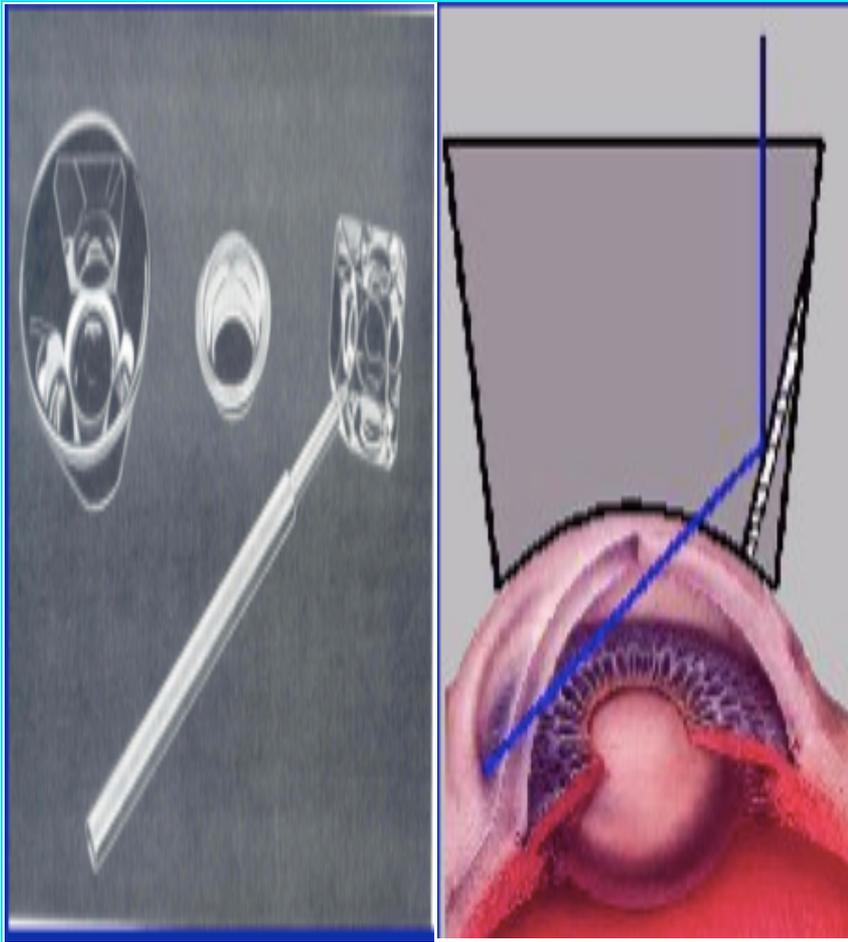
Q: Identify this instrument?

A: Goldman application tonometer.

Q: What is this instrument used for?

A: I.O.P (intraocular pressure) measurement.

# Slide 6



Q: Identify this instrument?

A: Goniolens

Q: What is this instrument used for?

A: to view iridocorneal angle .

# Slide 7



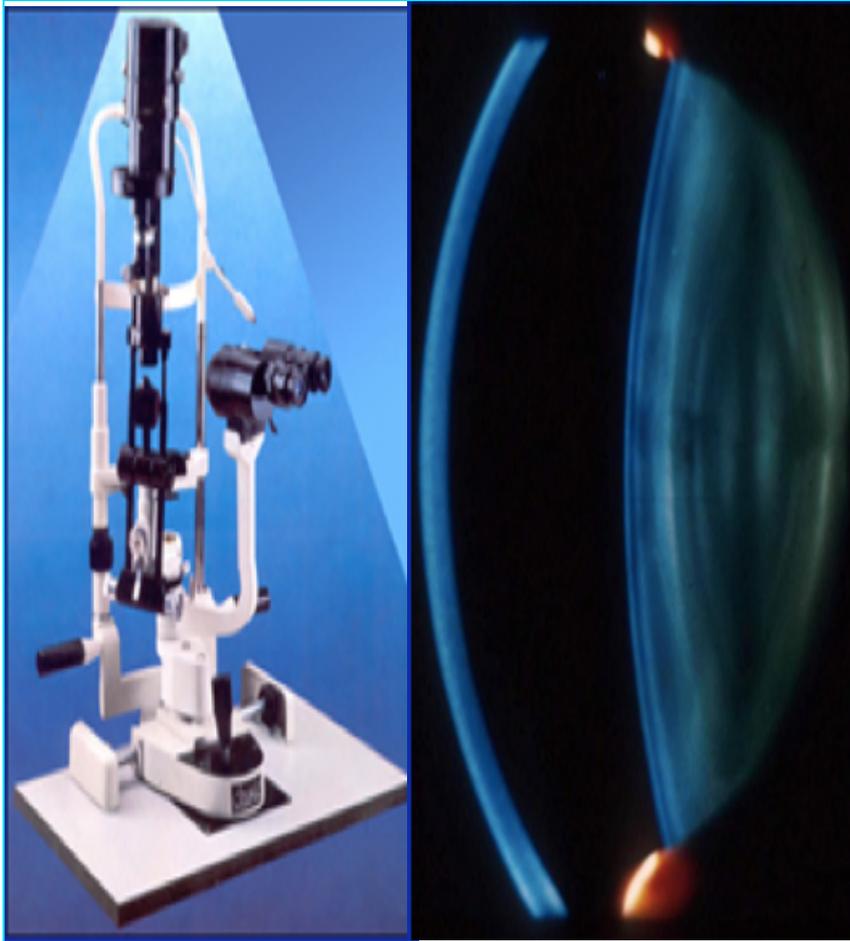
**Q:** Identify this instrument?

**A:** Air-puff tonometer

**Q:** What is this instrument used for?

**A:** I.O.P (intraocular pressure) measurement.

# Slide 8



**Q:** Identify this instrument?

**A:** Slit lamp

**Q:** What is this instrument used for?

**A:** visualized the anterior half of the globe (anterior segment).

# Slide 9



**Q:** Identify this instrument?

**A:** Indirect ophthalmoscope.

**Q:** What is this instrument used for?

**A:** For retina examination till the periphery.

# Slide 11



Q: What is the magnification for this instrument?

A: up to 15 times

Q: Mention 2 characteristics for the image obtained.

- 1- Erect.
- 2- Virtual (not real).

# Slide 12



Q: Identify this instrument?

A: Direct ophthalmoscopy.

Q: What is this instrument used for?

- 1- provide more detailed views of the retina (more magnification)
- 2-Examine pupillary reaction
- 3- Light source may be used for the red reflexes.

# Slide 13



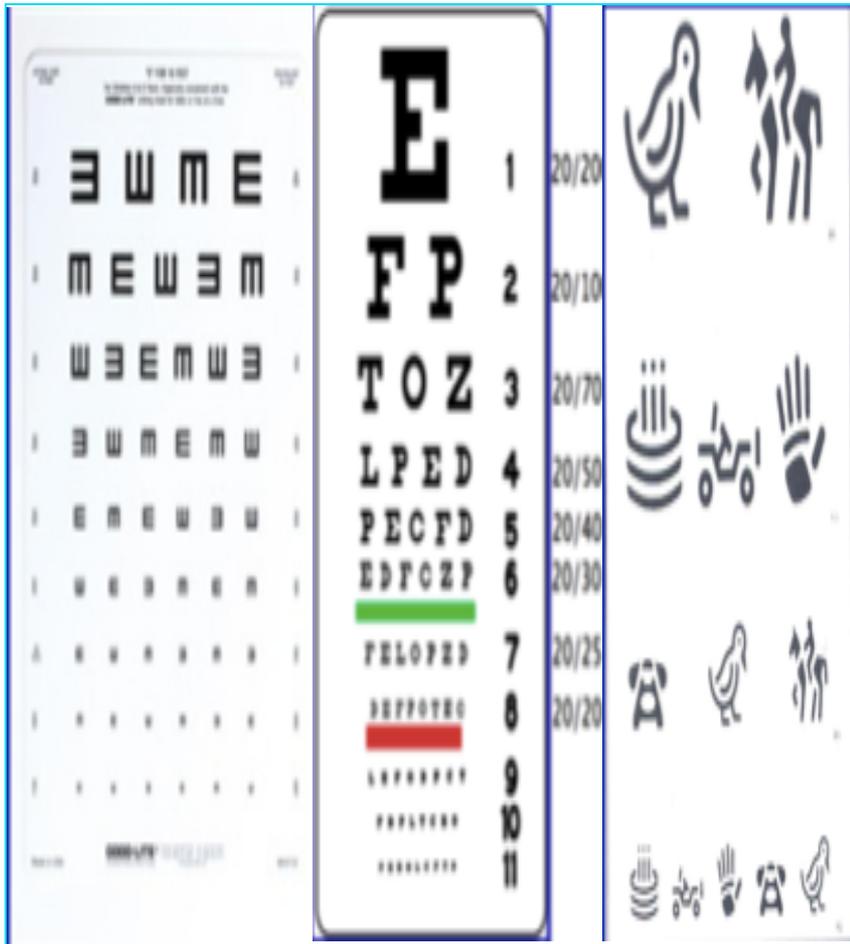
Q: Identify this instrument?

Humphrey Field  
Analyzer

Q: What is this instrument  
used for?

To test the visual fields.

# Slide 14



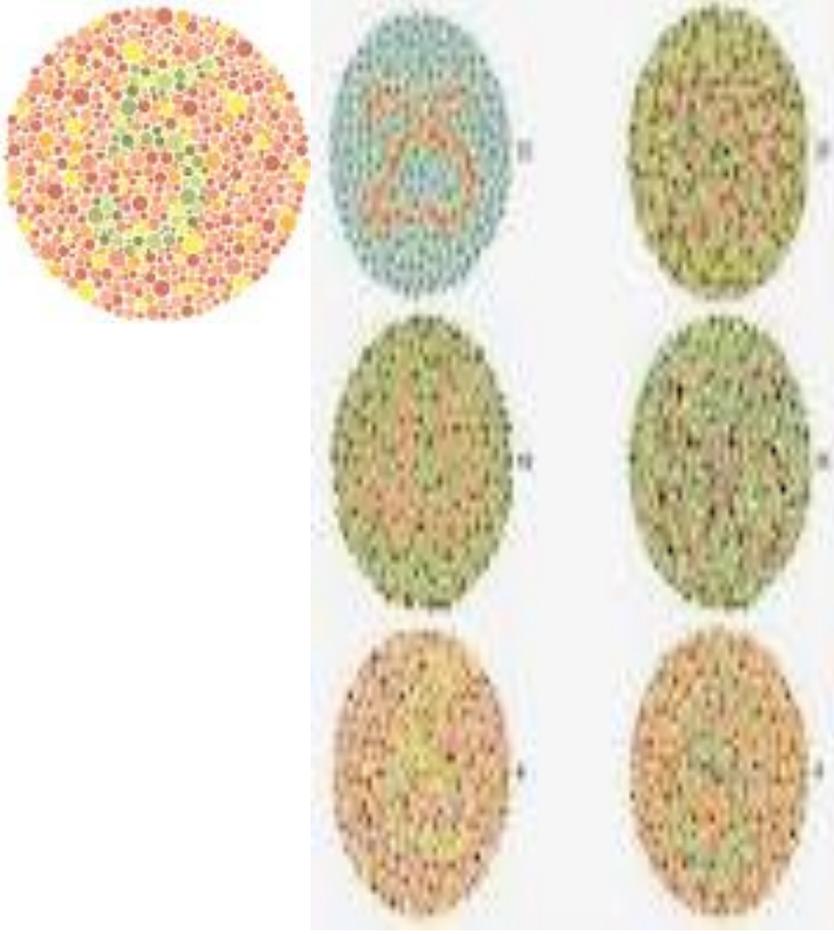
**Q:** Identify this instrument?

**A:** Snellen chart.

**Q:** What is this instrument used for?

**A:** measurement of visual acuity.

# Slide 15



**Q:** Identify this instrument?

**A:** Ishihara color test

**Q:** What is this instrument used for?

**A:** detected red-green color deficiencies or color blindness .

# Slide 16



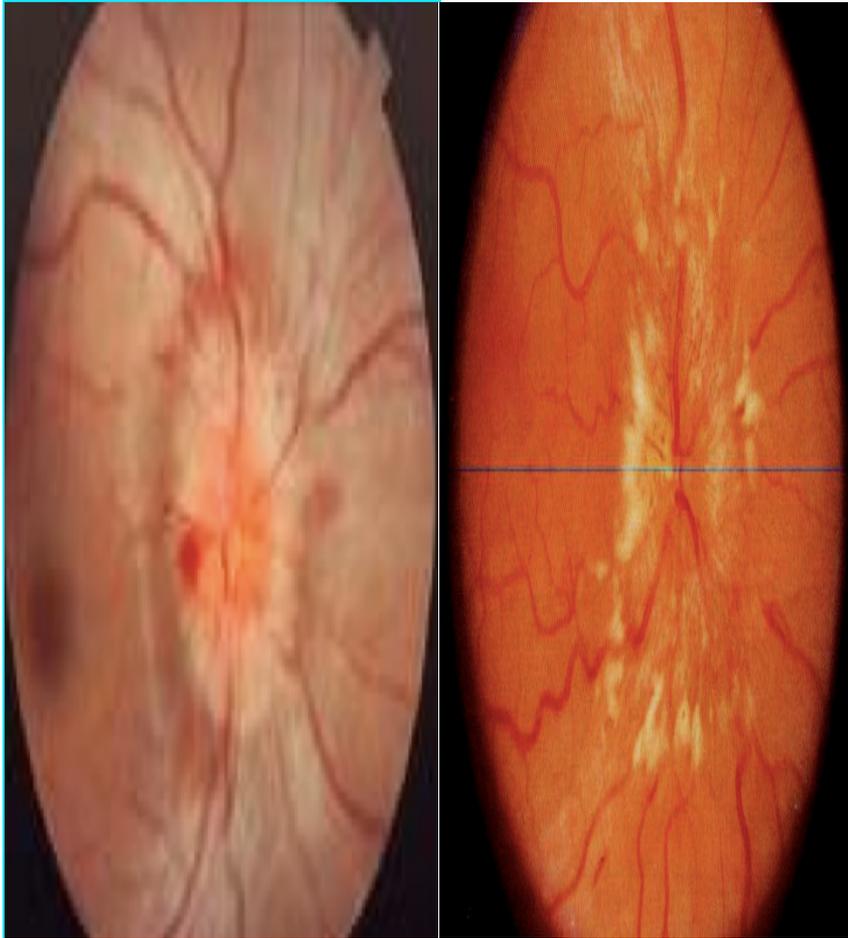
Q: Identify this Test?

**A:** Confrontation Test.

Q: What is this test used for?

**A:** Visual Field testing.

# Slide 17



- ↑ ICP (papilledema).

# Slide 18



- optic atrophy.

# Slide 19



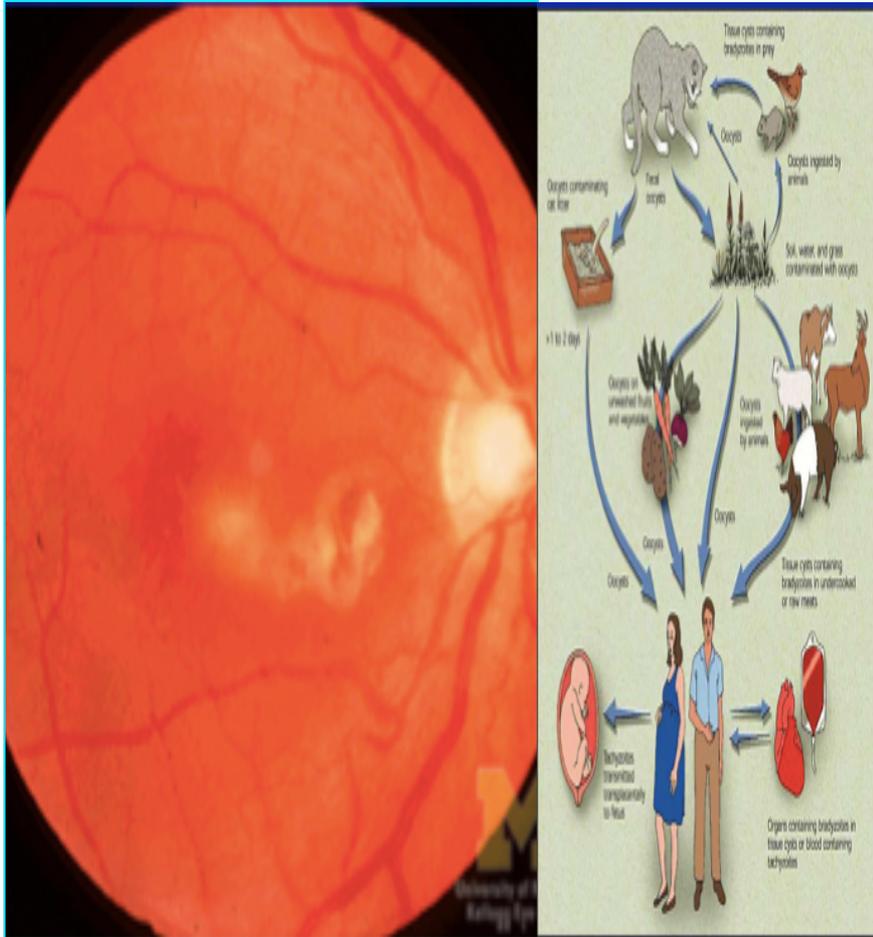
- Venous flow disorder:  
cavernous sinus  
thrombosis, carotid –  
cavernous fistula
- (orbital congestion)

# Slide 20



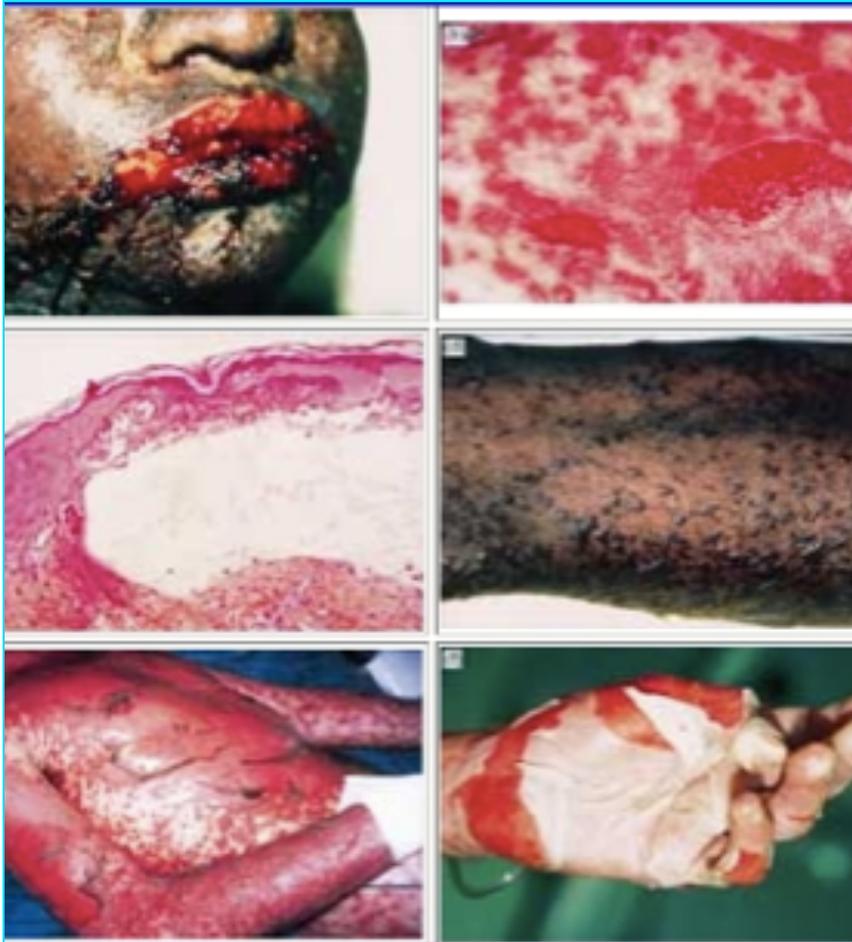
- Thyroid eye disease: Exophthalmos, Lid retraction.

# Slide 21



- Infections:  
(Syphilis, **Toxoplasmosis**,  
Rubella)

# Slide 22



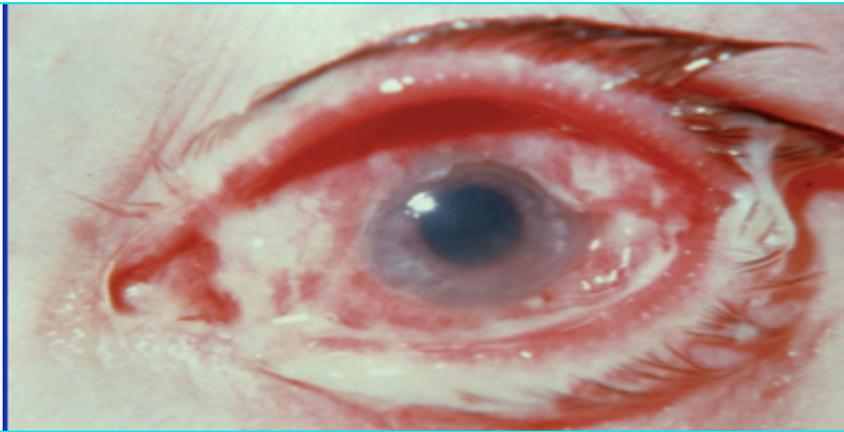
- Mucocutaneous disorders: SJS, pemphigus.
- Elastic tissue: (Pseudoxanthoma elasticum).

# Slide 23



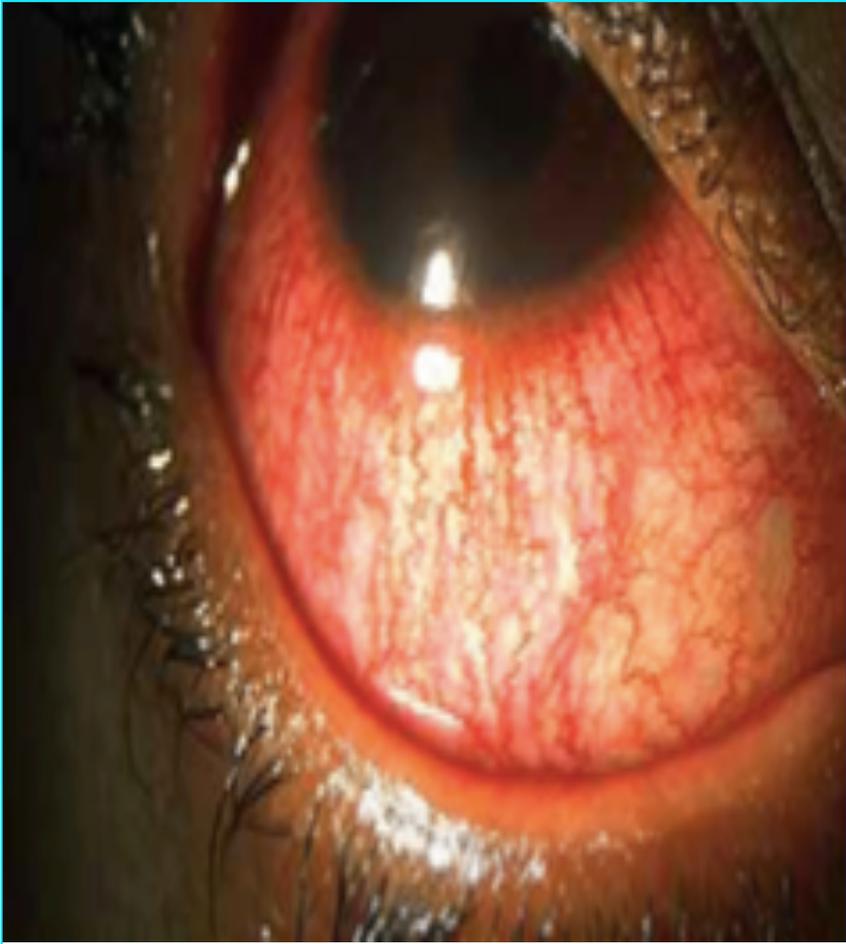
- Allergy: VKC (Vernal keratoconjunctivitis)

# Slide 24



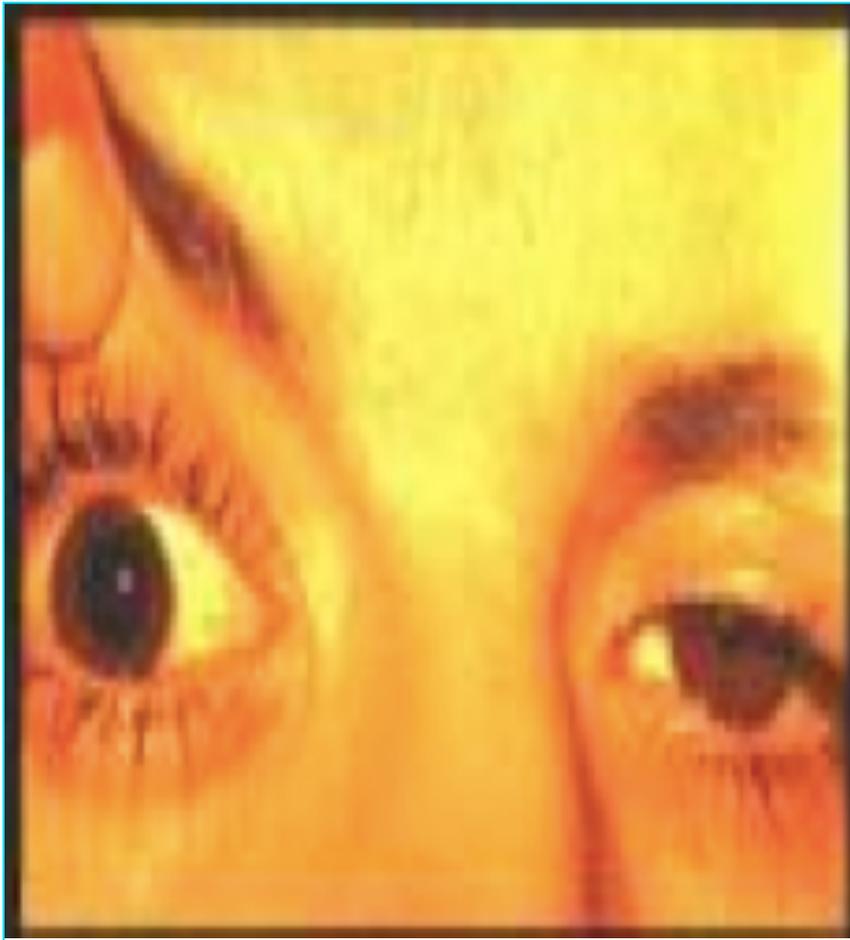
- **Abnormal ocular secretions:**
- Lacrimation, epiphora.
- Dryness.
- Discharge (purulent, mucopurulent, mucoid, watery).

# Slide 25



- **Redness ?**

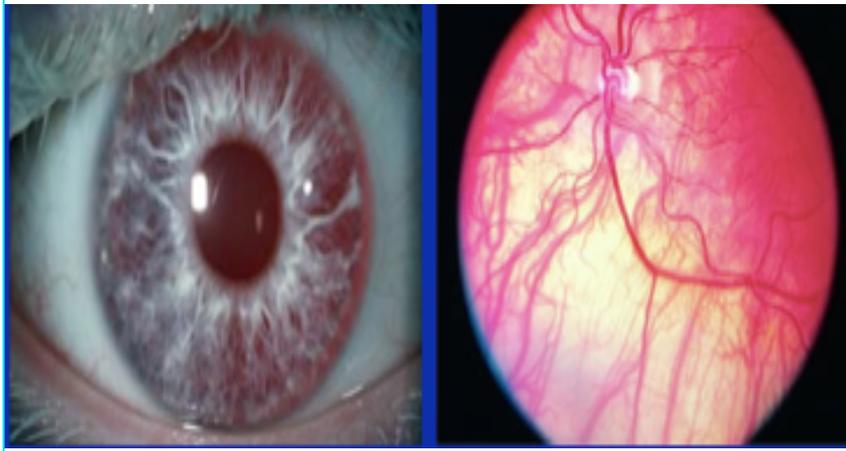
# Slide 26



Anisocoria.

\* is a condition characterized by an unequal size of the eye's pupils

# Slide 27



A

B

**A:** absence of iris pigment

**B:** Albino retina (The choroidal vessels are prominent because of a lack of melanin pigment)

\* Imp to ask about family history and genatic disease.

# Slide 28



- Ocular adnexa. (lid, periocular area)

# Slide 29



- Skin lesions, growths, inflammatory lesions.  
(Neurofibroma of the eye)

# Slide 30



- Ptosis

# Slide 31

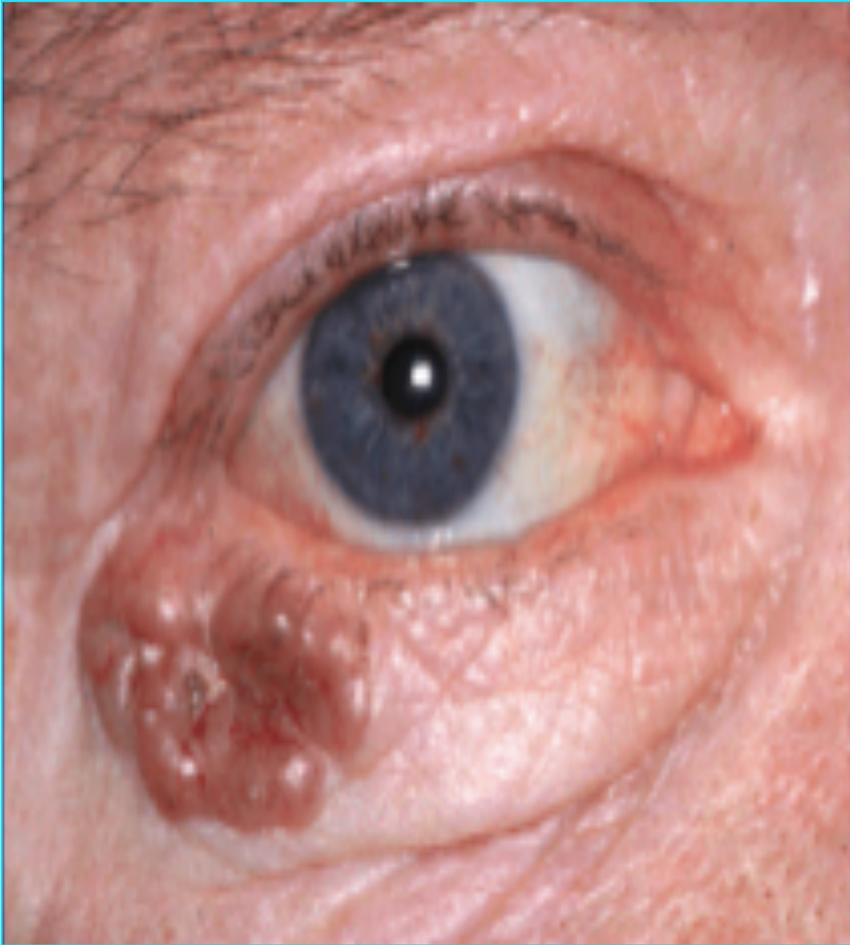


- Exophthalmos.



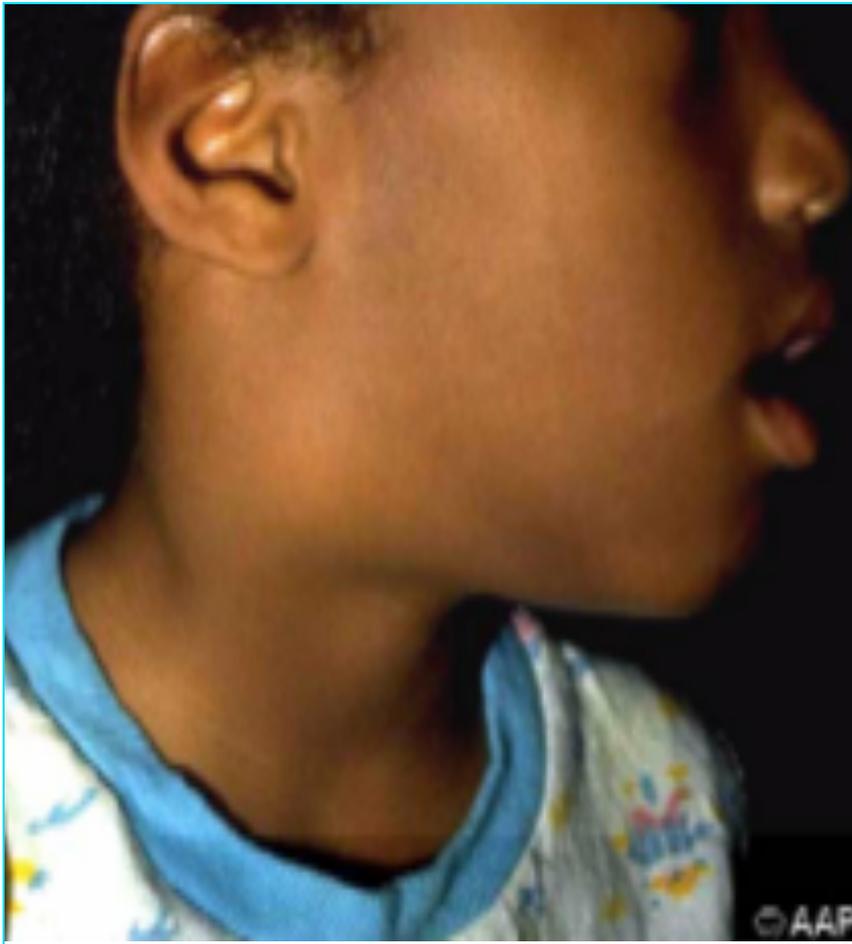
- Enophthalmos.

# Slide 32



- Palpation of bony rim, periocular soft tissue. (basal cell carcinoma)

# Slide 33



- General facial examination e.g. enlarged preauricular lymph node, temporal artery prominence.

# Slide 34



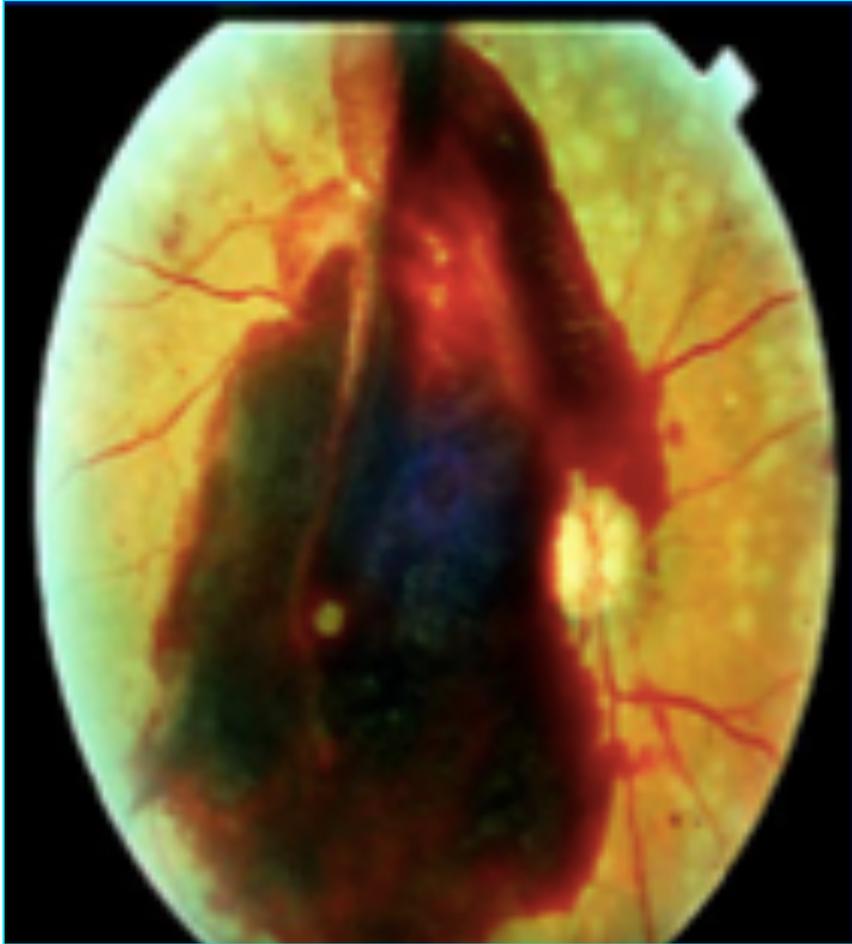
- Misalignment of the eyes

# Slide 35



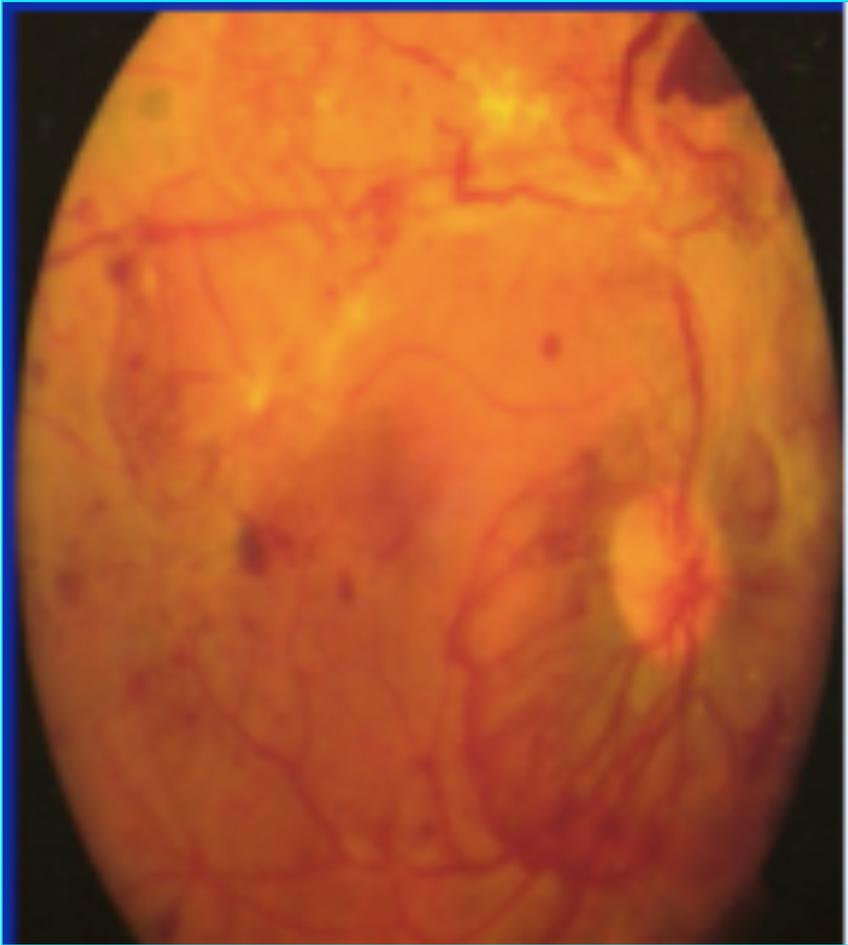
- Examine for pupils size, shape, reactivity to both light and accommodation.
  - Direct response and consensual response.
  - Afferent pupillary defect (Marcus Gunn pupil)
  - Efferent pupillary defect.
- \* This child with Retinoblastoma

# Slide 36



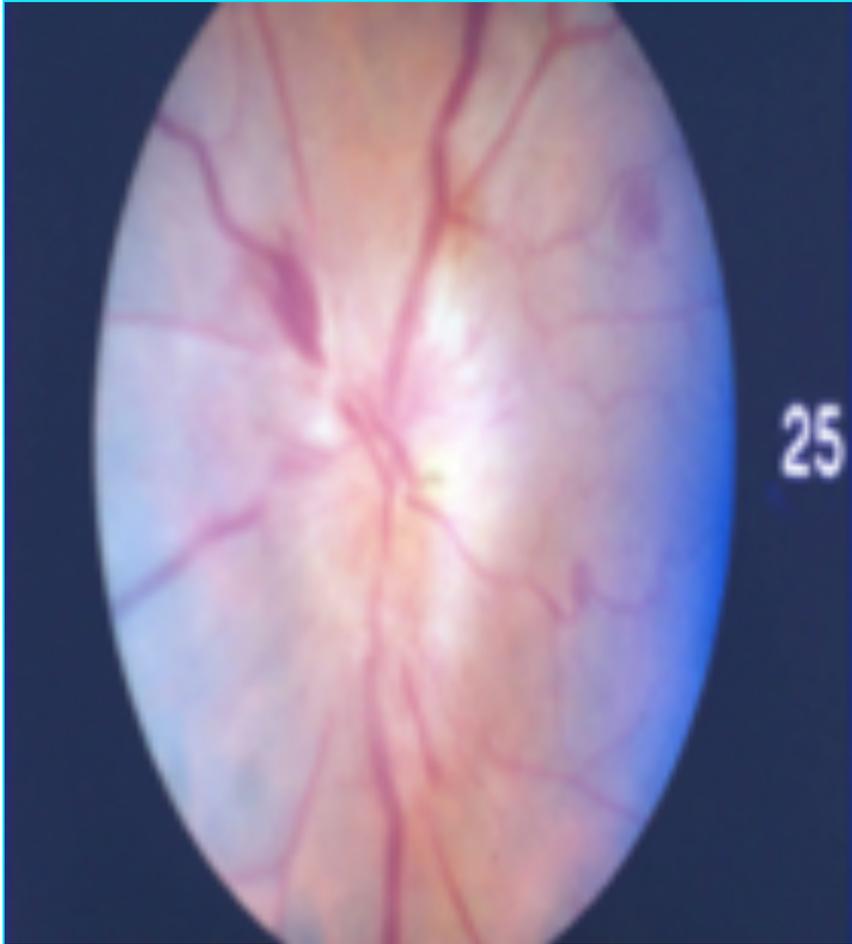
- **Retinal hemorrhage**

# Slide 37



- Proliferative Diabetic Retinopathy.

# Slide 38

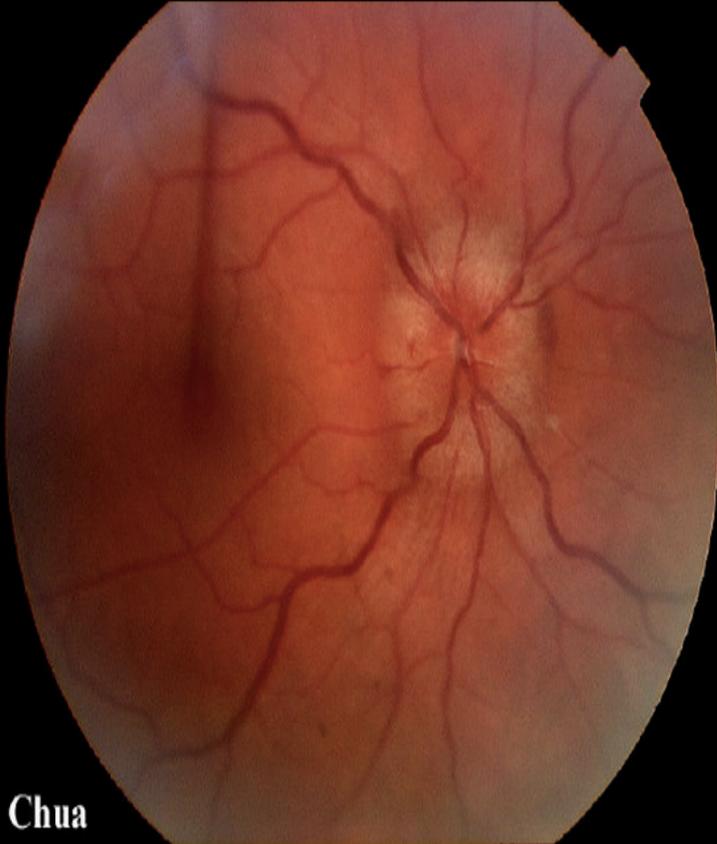


- Papilledema.

## Case 43

History: This 23 year-old man was referred by his optician because of bilateral optic disc swelling. His vision was 6/9 in both eyes and the patient complained of being unwell for the past 3 months and suffered with intermittent blurred vision. His blood pressure measured 220/130. He was referred to the neurologist on-duty. An urgent CT scan shows no evidence of space-occupying lesion.

His routine blood test showed normochromic normocytic anaemia and raised urea and creatinine consistent with chronic renal failure. Renal scans revealed shrunken kidneys probably secondary to damage from recurrent ureteric reflux. The blood pressure was controlled with medication and he received haemodialysis. The optic disc swelling resolved when he was seen again at two-month ocular review.



## Slide 39

- Hypertensive retinopathy (Optic disc swelling )

