

# **Uveitis and Floaters**

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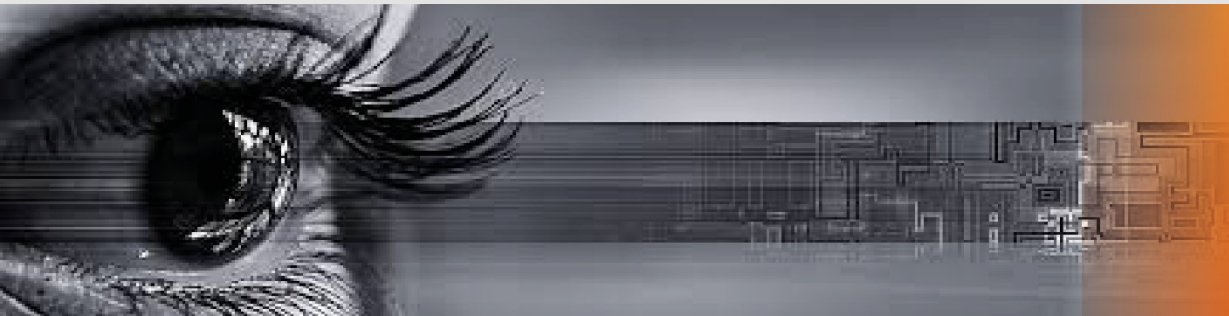
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# Uveitis

- **Inflammation of uveal tissue**
  - Iris, ciliary body, choroid
- **Classification**
  - Anterior - iris
  - Intermediate – ciliary body
  - Posterior – choroid
  - Panuveitis



# Associations of uveitis

- **Idiopathic**
- **HLA B27 +ve**
  - Inflammatory bowel disease
  - Ankylosing spondylitis
  - Psoriatic arthropathy
  - Reiter's syndrome
- **Juvenile chronic arthritis**
- **Sarcoidosis**
- **Behcets**
- **Collagen vascular disorders**
  - SLE
  - Polyarteritis nodosa
  - Wegener's granulomatosis
- **Infection**
  - Toxoplasma, Toxocara, Lyme
  - HSV, HZV, HIV, CMV
  - Tuberculosis, syphilis, leprosy
  - Candidiasis
- **Trauma** – sympathetic ophthalmia

# Anterior Uveitis - Symptoms

- Aching pain
- Redness
- Photophobia
- Blurring of vision
- Pain on accommodation

# Anterior uveitis- signs

- Decreased visual acuity
- Circum-ciliary conjunctival injection
- Small or irregular pupil
- Inflammatory products in AC
- Sequelae

Lens

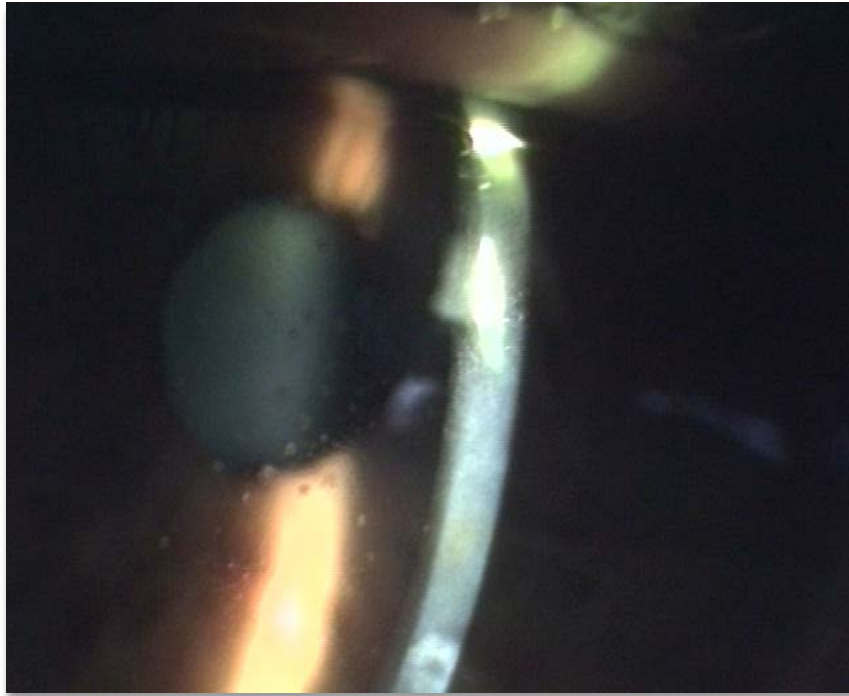
# Inflammatory Products

- Cells – graded as +1 to +4
- Protein (flare) - +1 to +4
- Fibrin – Grade +4 flare
- Keratic precipitates
  - Fine, non-granulomatous
  - Mutton-fat, granulomatous
- Iris nodules – Koeppe, Busacca

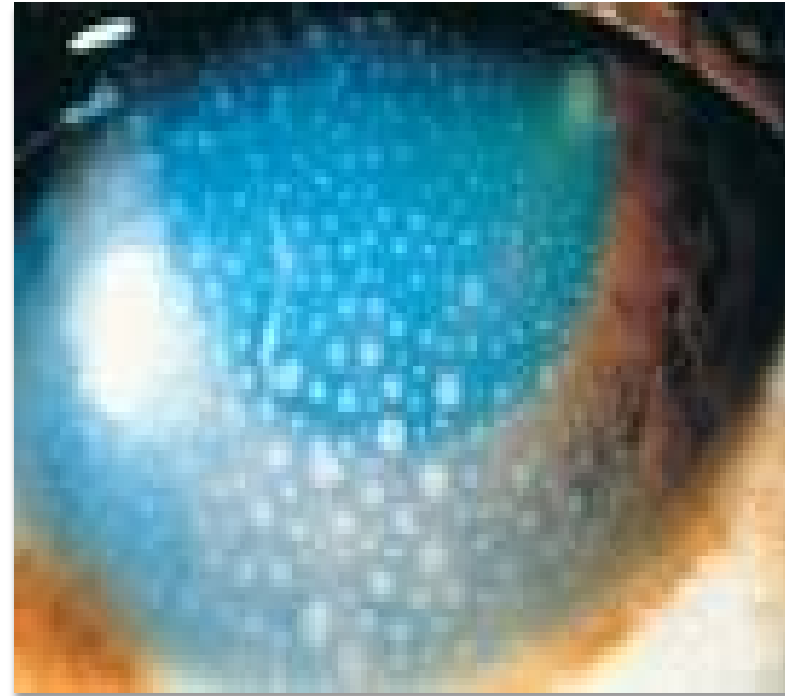


# Keratic precipitates

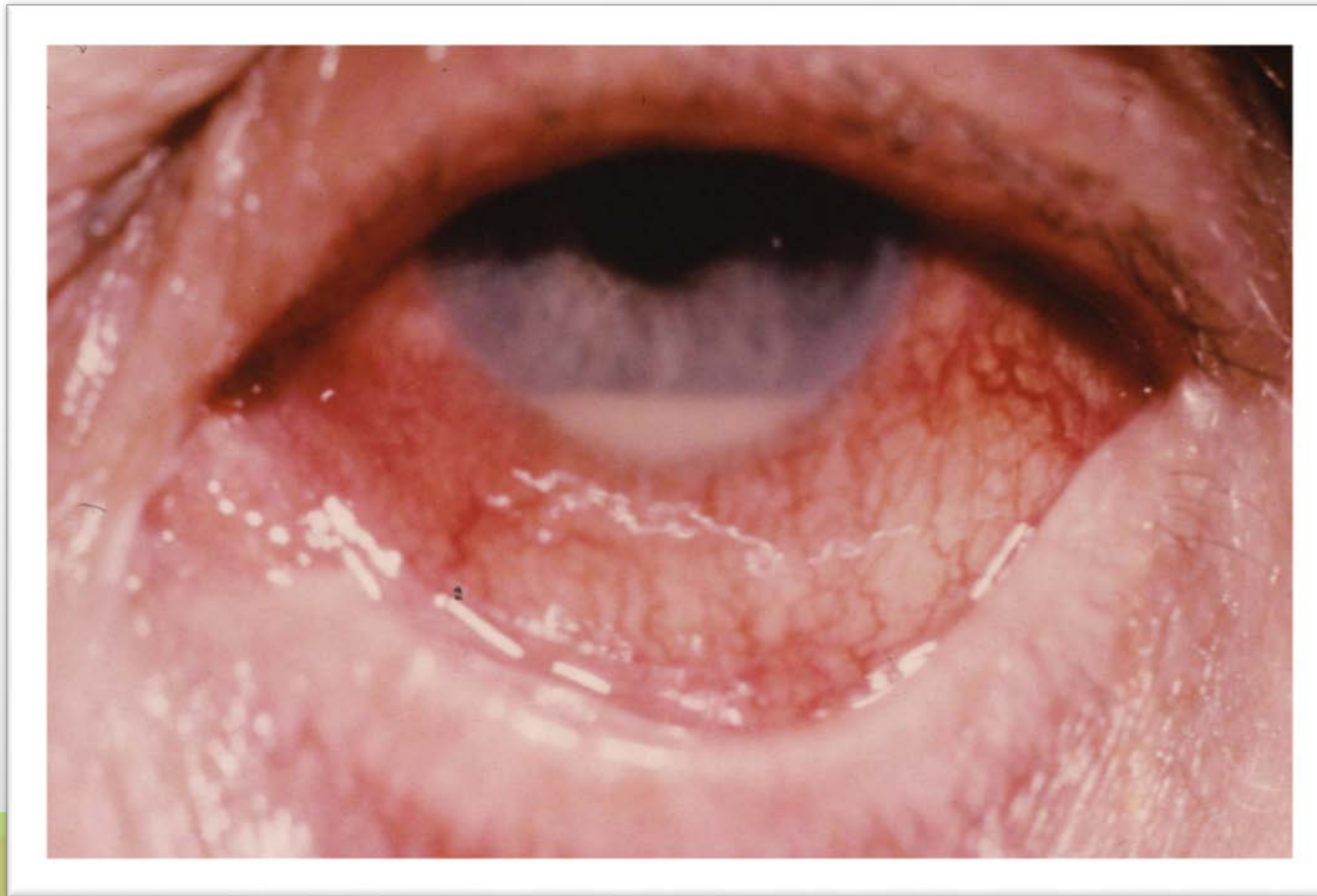
- Non-granulomatous



- Granulomatous



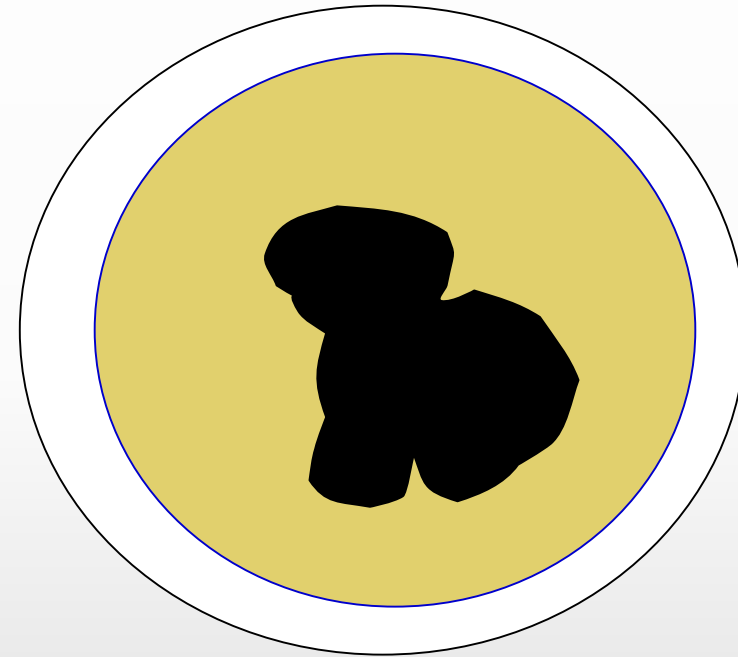
# Hypopyon



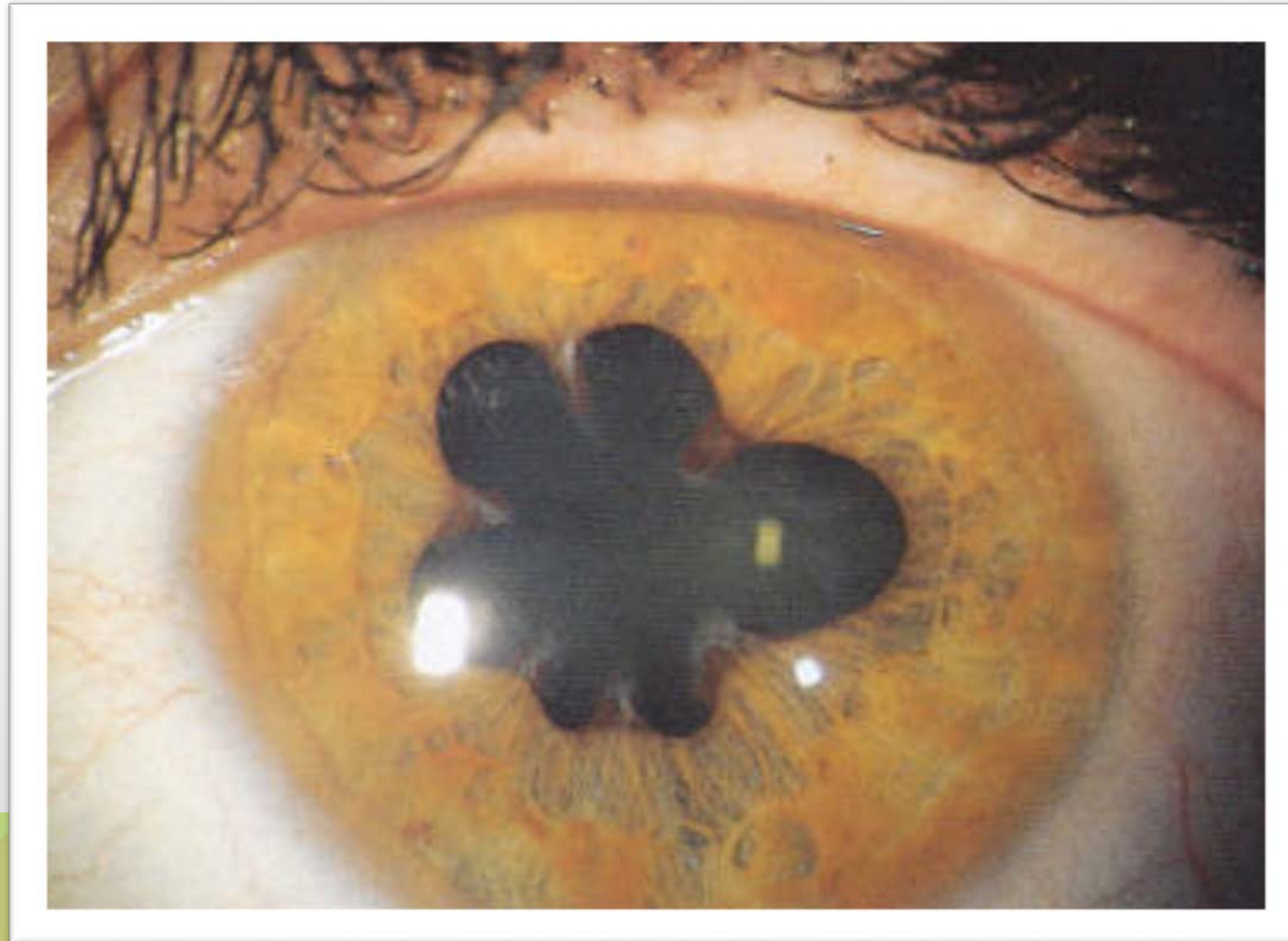


# Sequelae

- Posterior synechiae
- Seclusio pupillae
- Occlusio pupillae
- Iris bombè
- Sectoral iris atrophy - HZO
- Low IOP - hypotony
- Glaucoma
- Cataract
- Cystoid macular oedema
- Neovascularisation



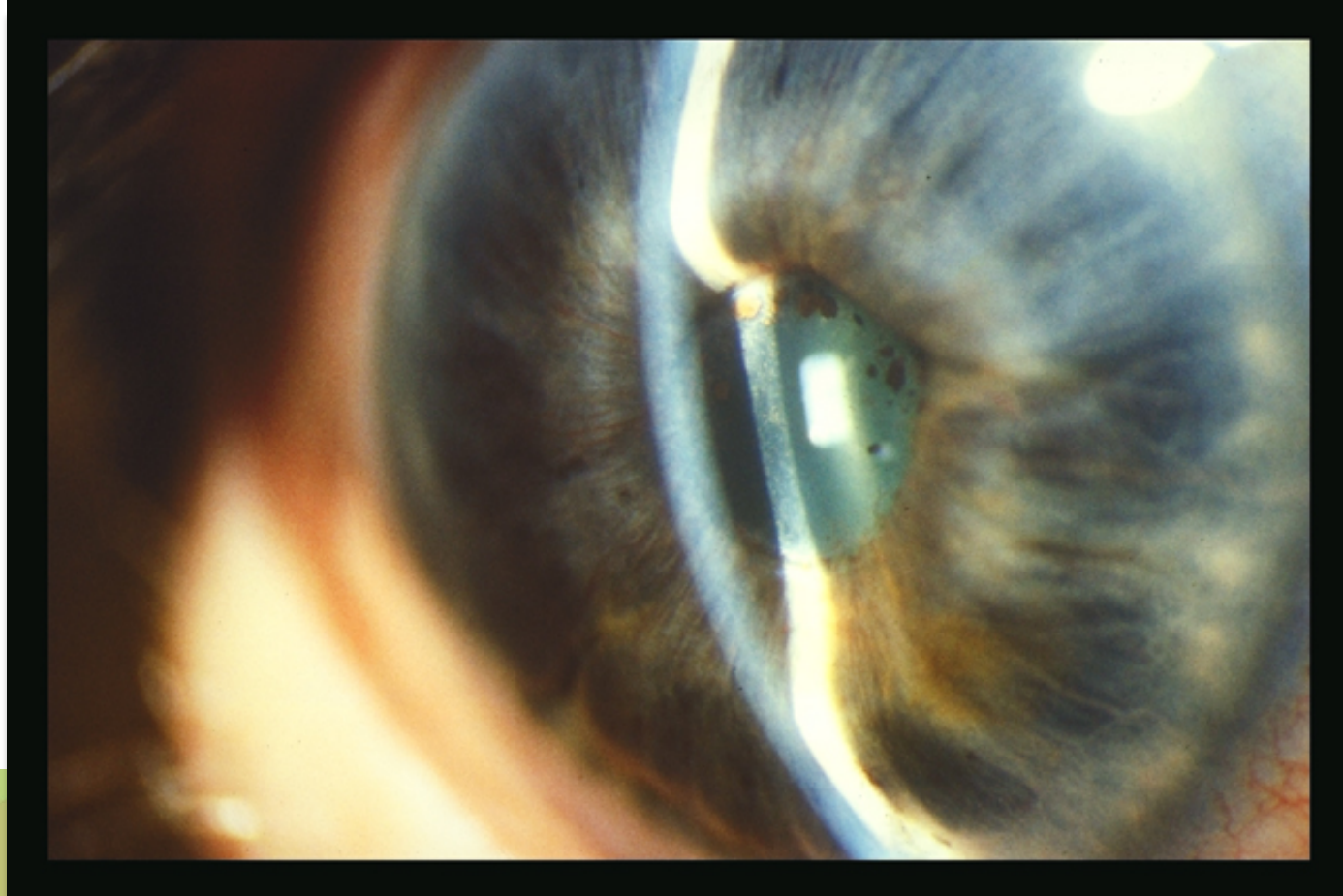
# Posterior synechiae



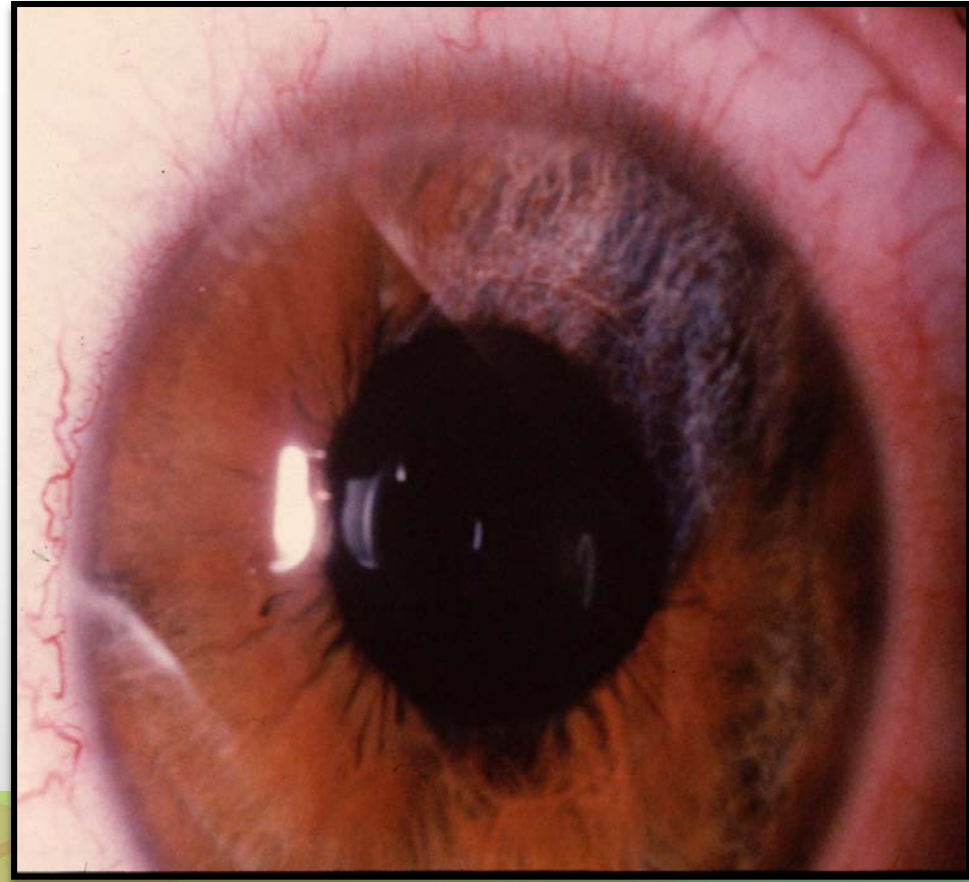
# Glaucoma

- **Inflammation** of the trabecular meshwork
- **Steroid responsive glaucoma** – in 20% due to topical treatment
- **Mechanical** - 'pupil block' glaucoma

# Iris bombè – pupil block glaucoma



# Herpes zoster ophthalmicus



# Posterior uveitis - symptoms

- Floaters
- Blurred vision

# Posterior uveitis- signs

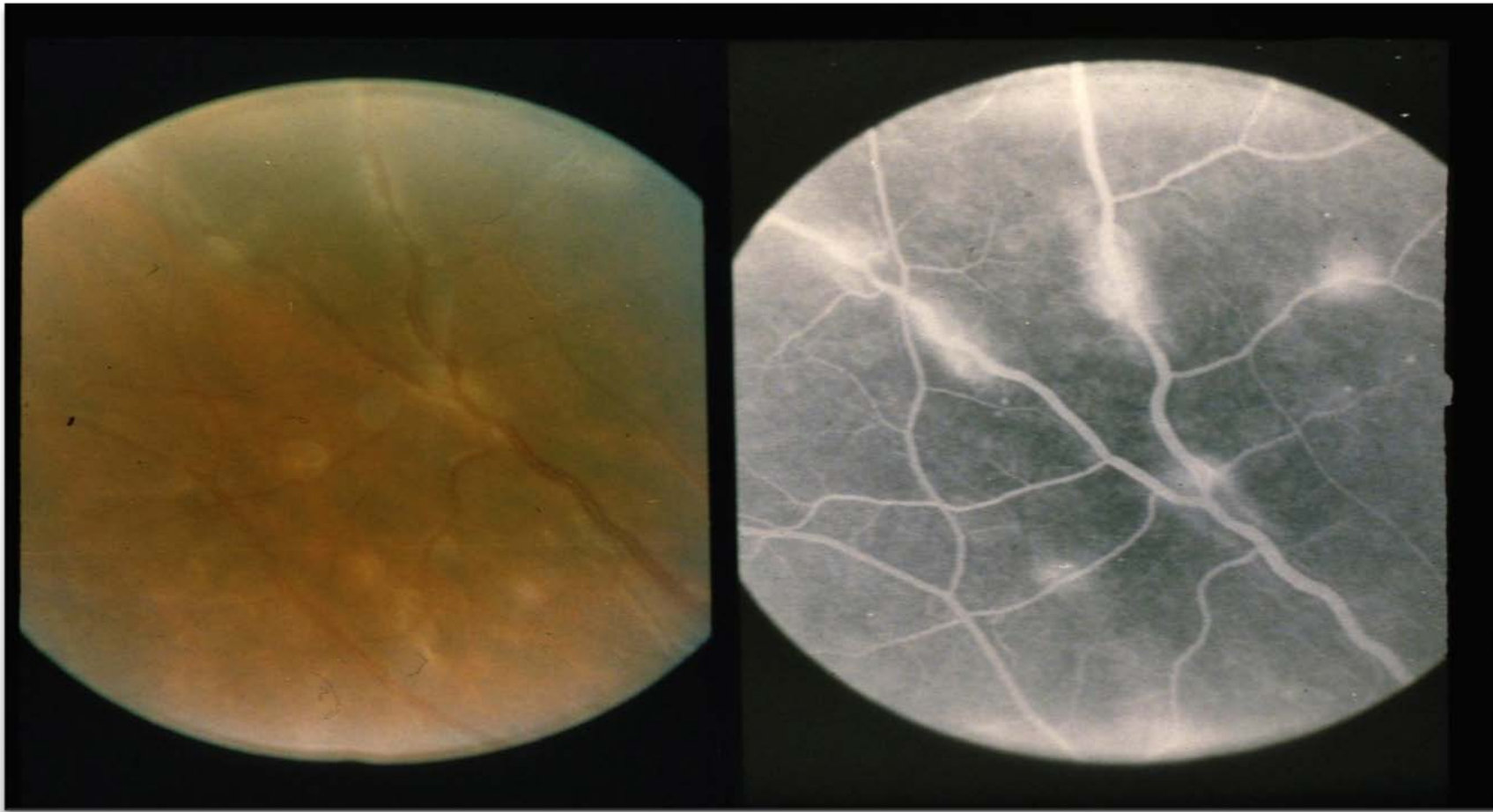
- Inflammatory products
- Visible focus of chorioretinal inflammation
- Inflammatory sequelae
  - Macular oedema
  - Vascular sheathing / occlusions
  - Optic disc swelling

# Inflammatory products - Vitritis

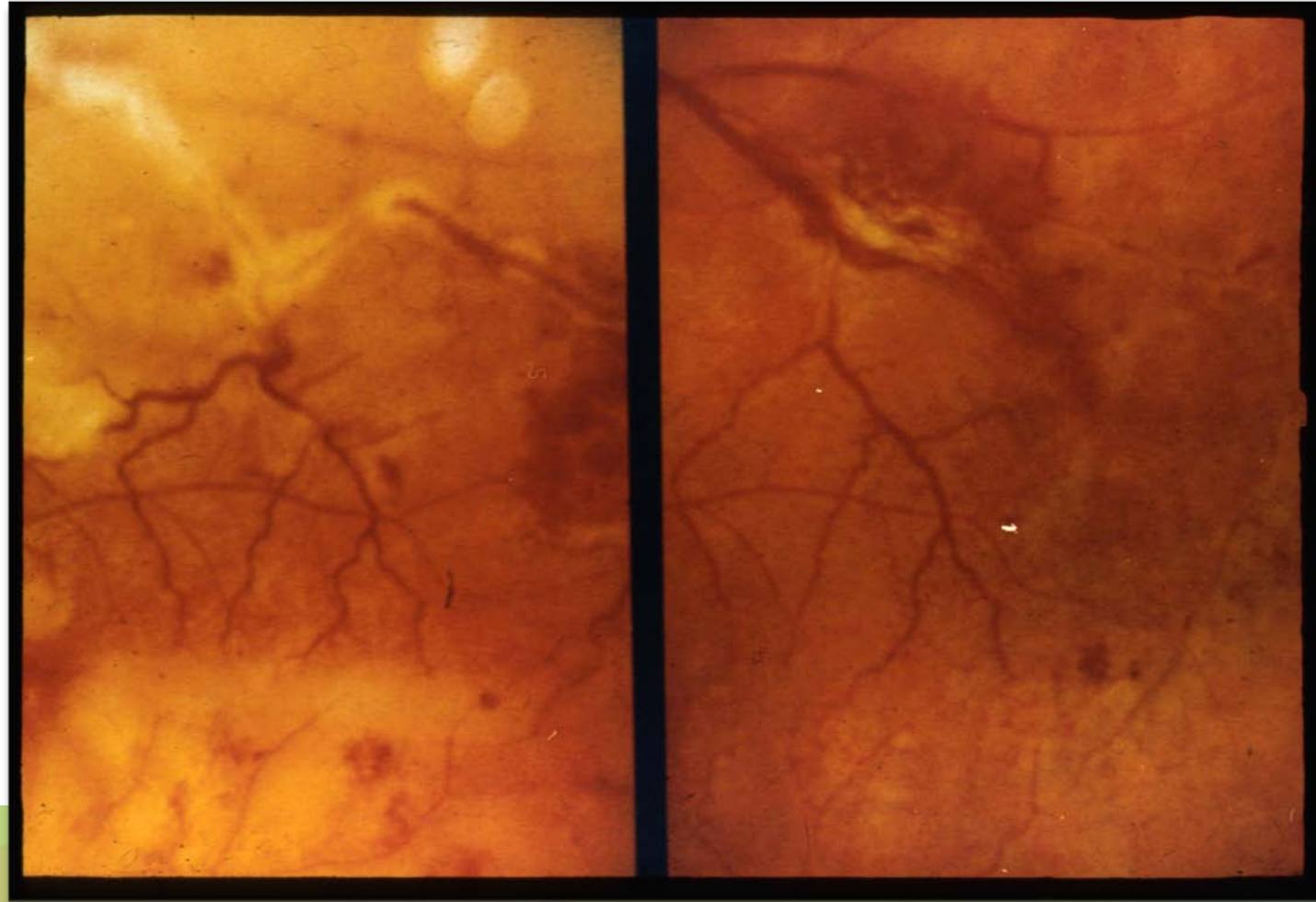




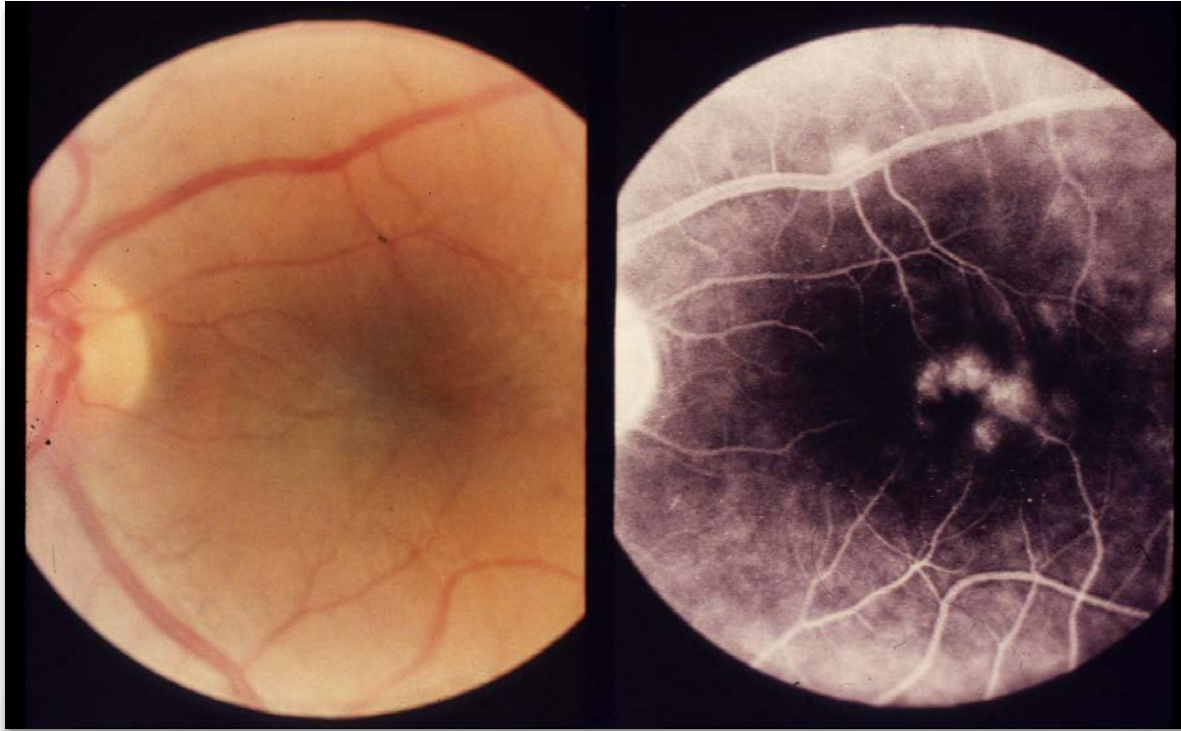
# Retinal vascular sheathing



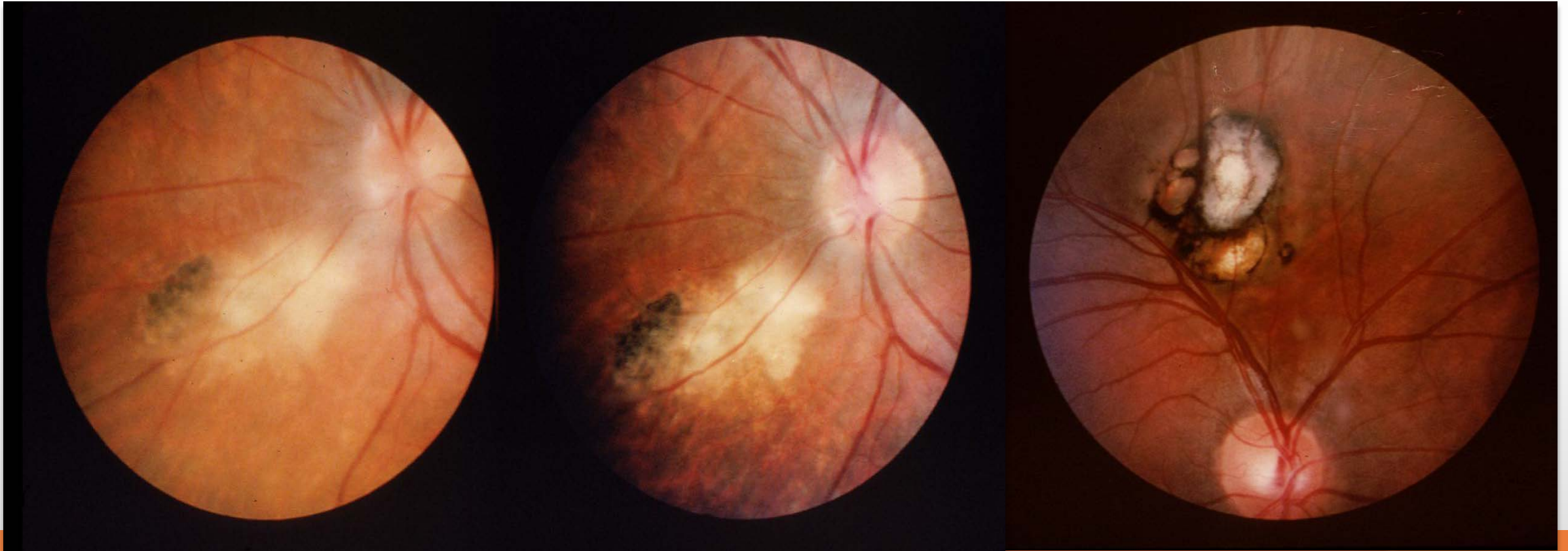
# Retinal vascular occlusions



# Cystoid macular oedema : changes in blood-retinal barrier



# Inflammatory focus: commonly Toxoplasmosis



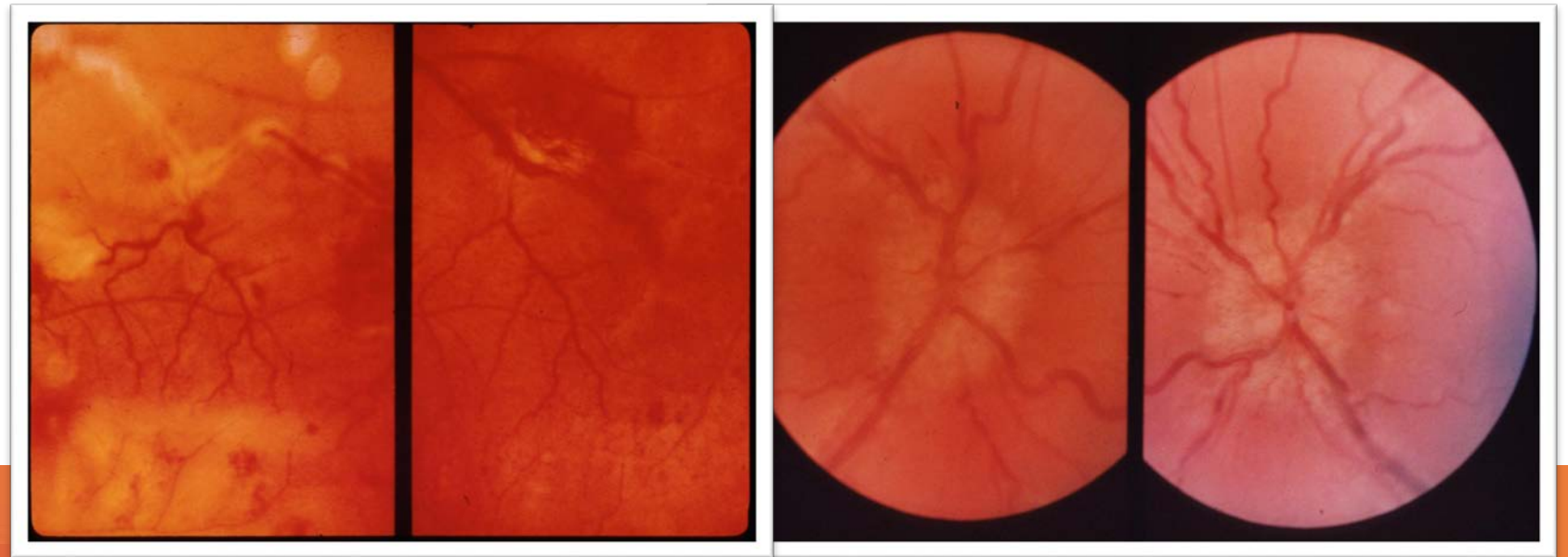
# Toxocara





# Sarcoidosis:

panuveitis, optic neuropathy



# Management of Uveitis

## Anterior uveitis

- Topical steroids (intensive and early)
- Cycloplegics (pain relief and prevent posterior synechiae)
- Topical / oral Antivirals (aciclovir) – HSV, HZO
- Local steroid injections (subconjunctival / sub tenons)
- Systemic steroids

## Posterior/panuveitis

- Orbital floor / posterior subtenons Steroid injection
- Systemic steroids
- Antibiotics, anti-TB therapy
- Antivirals – oral (HZO, CMV, HIV), intravitreal ganciclovir (CMV)
- Immunosuppression

# Floater: Causes

- **Posterior vitreous detachment** - commonest
- **Blood**
  - Neovascularisation e.g. diabetes
  - Torn peripheral retina
- **Inflammatory products** – intermediate / posterior uveitis



# History...

- Onset
- Flashing lights
- Reduced vision
- Other symptoms e.g. field loss
- Other history - ocular e.g. myopia, surgery, trauma  
- systemic e.g. diabetes

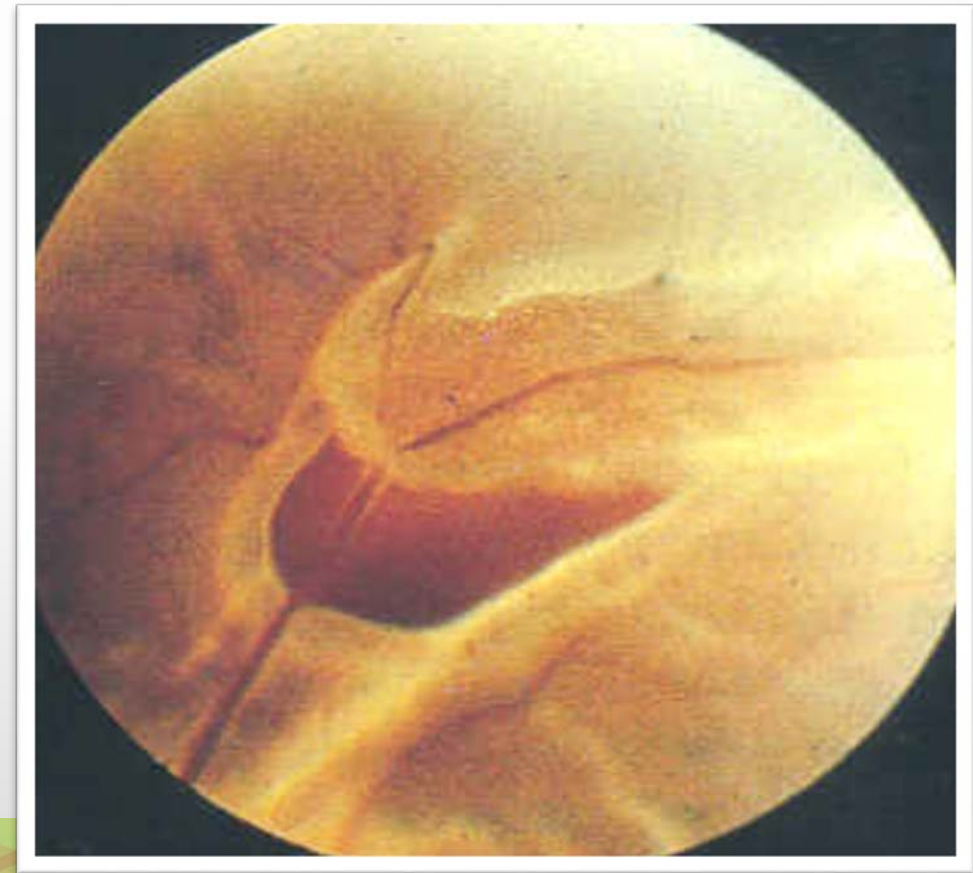
# Retinal Tear

## **Floaters –**

haemorrhage / PVD

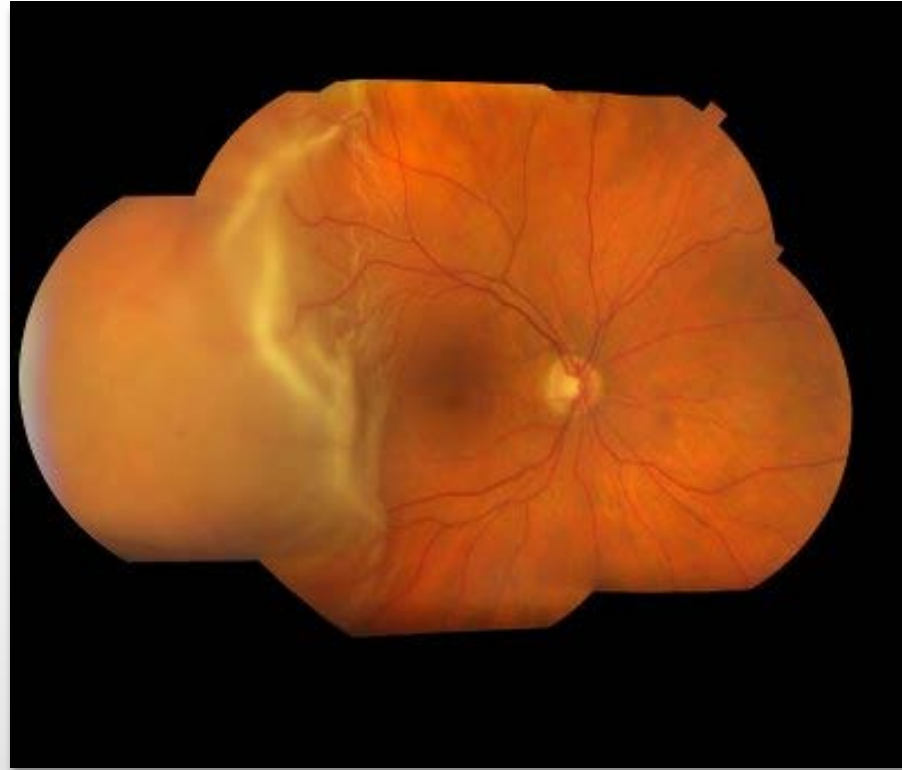
## **Photopsia / flashes –**

traction at edge of tear

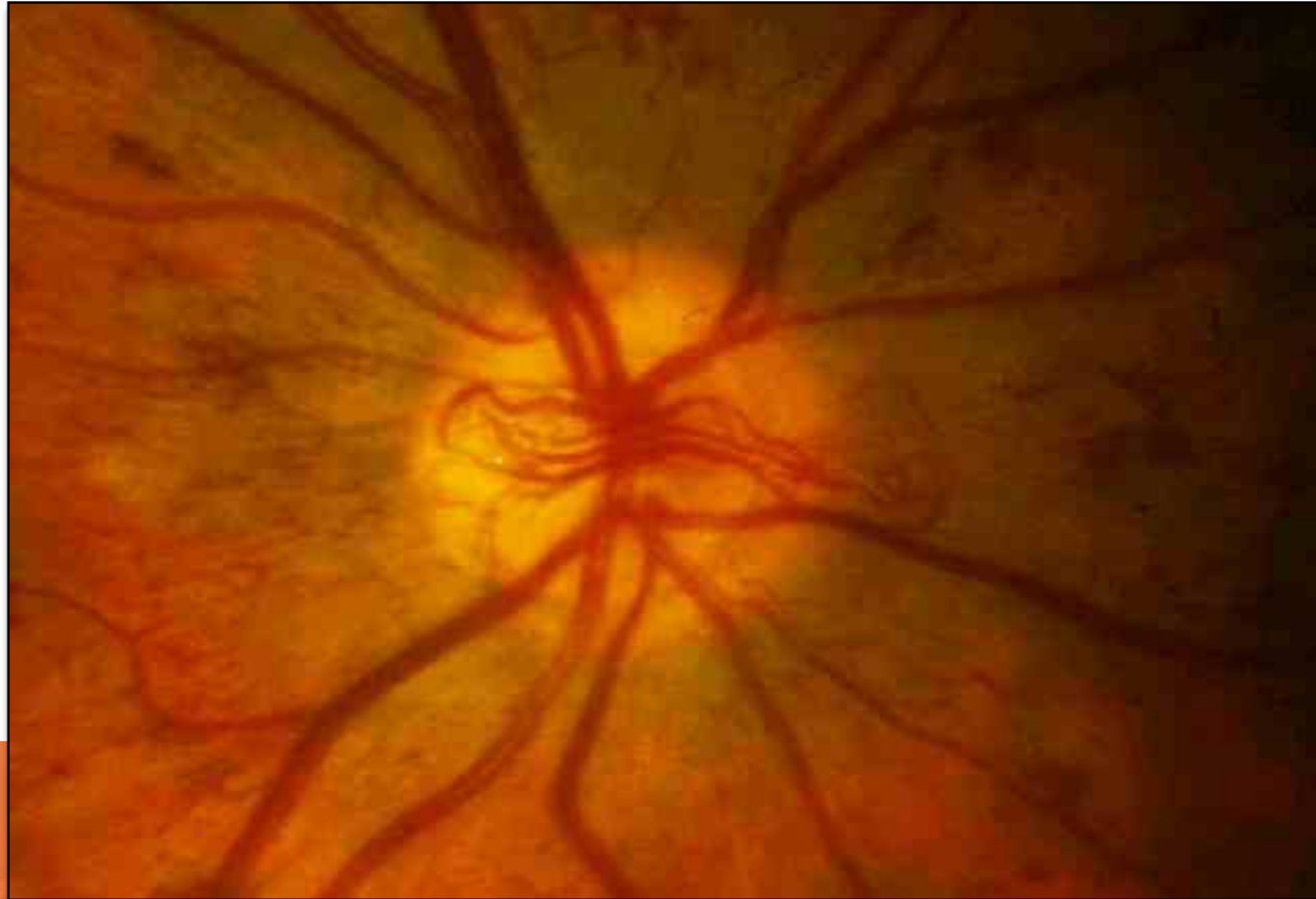


# Retinal detachment

- Secondary to PVD and retinal tear
- Floaters / flashes and loss of field
- 'Curtain' effect



# Diabetic Eye Disease: neovascularisation at optic disc

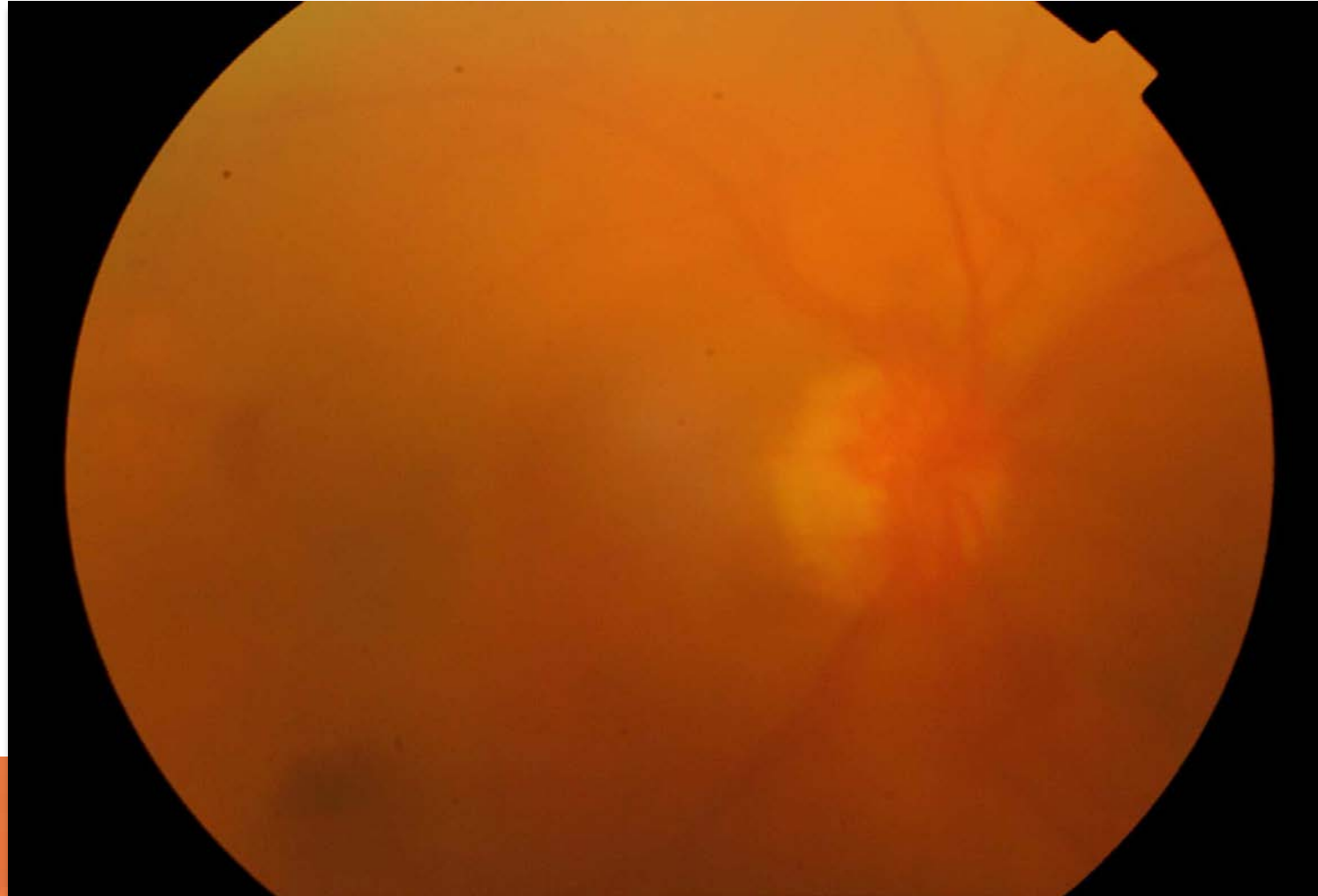


# Diabetes:

pre-retinal and vitreous haemorrhage due to neovascularisation



# Vitreous haemorrhage: blurred vision and floaters



# Translational Vision Research



Department of Ophthalmology

## The End

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