

# EYE AND SYSTEMIC DISEASE

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# EYE AND SYSTEMIC DISEASE

## Diabetes Mellitus

- ❖ The risk of blindness is about 25 times greater in diabetic than in non-diabetics.
- ❖ DR is the commonest cause of legal blindness in individuals between the ages of 20 and 65 years.
- ❖ The incidence of DR is related more to the duration of diabetes than to any other factor.

# EYE AND SYSTEMIC DISEASE

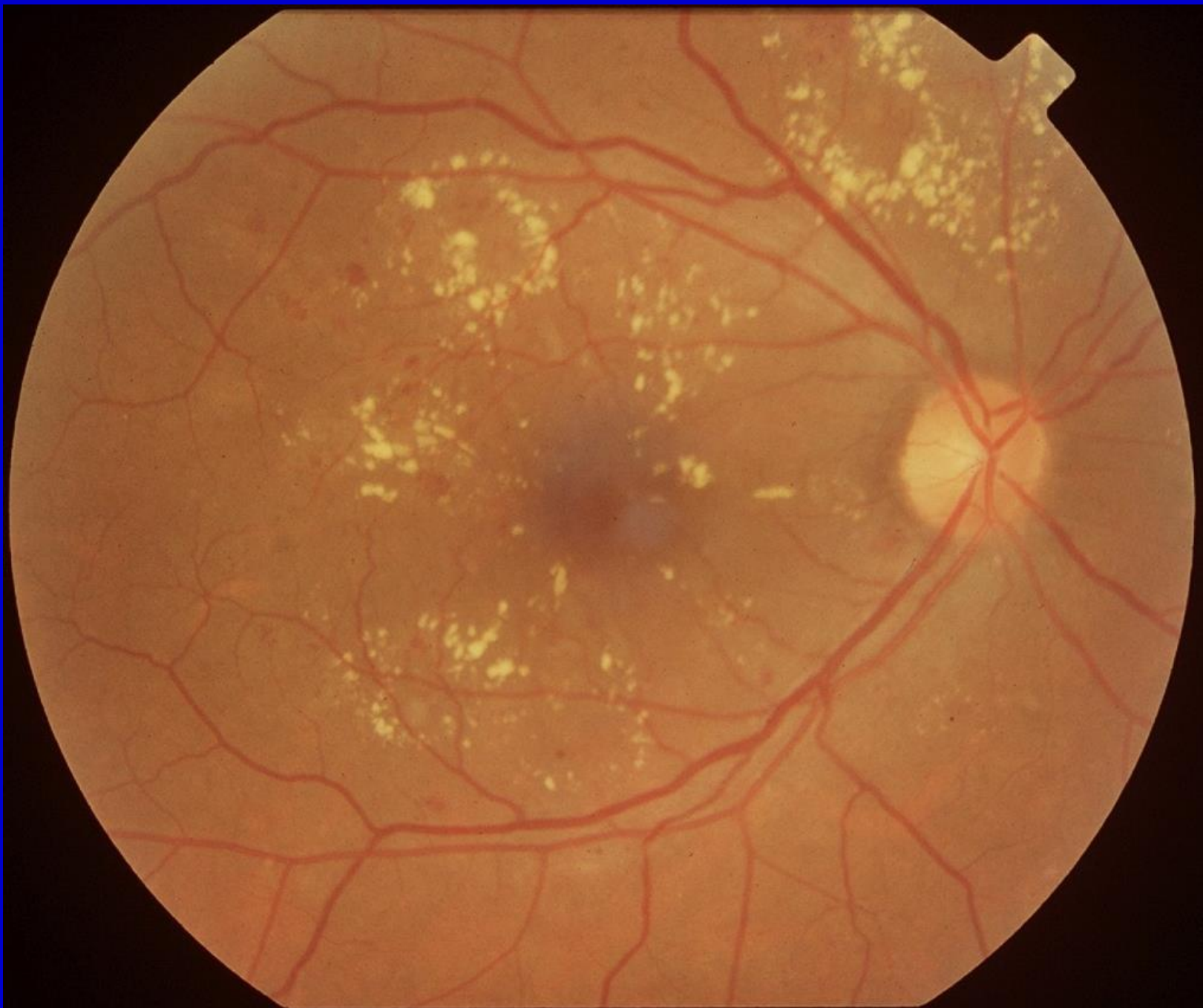
## Ocular Manifestations

- ❖ Iris: Rubeosis Iridis
- ❖ Lens: Cataract
- ❖ Iridocyclitis
- ❖ Retinopathy
- ❖ Optic neuropathy
- ❖ 3<sup>rd</sup>, 4<sup>th</sup> & 6<sup>th</sup> nerve palsies

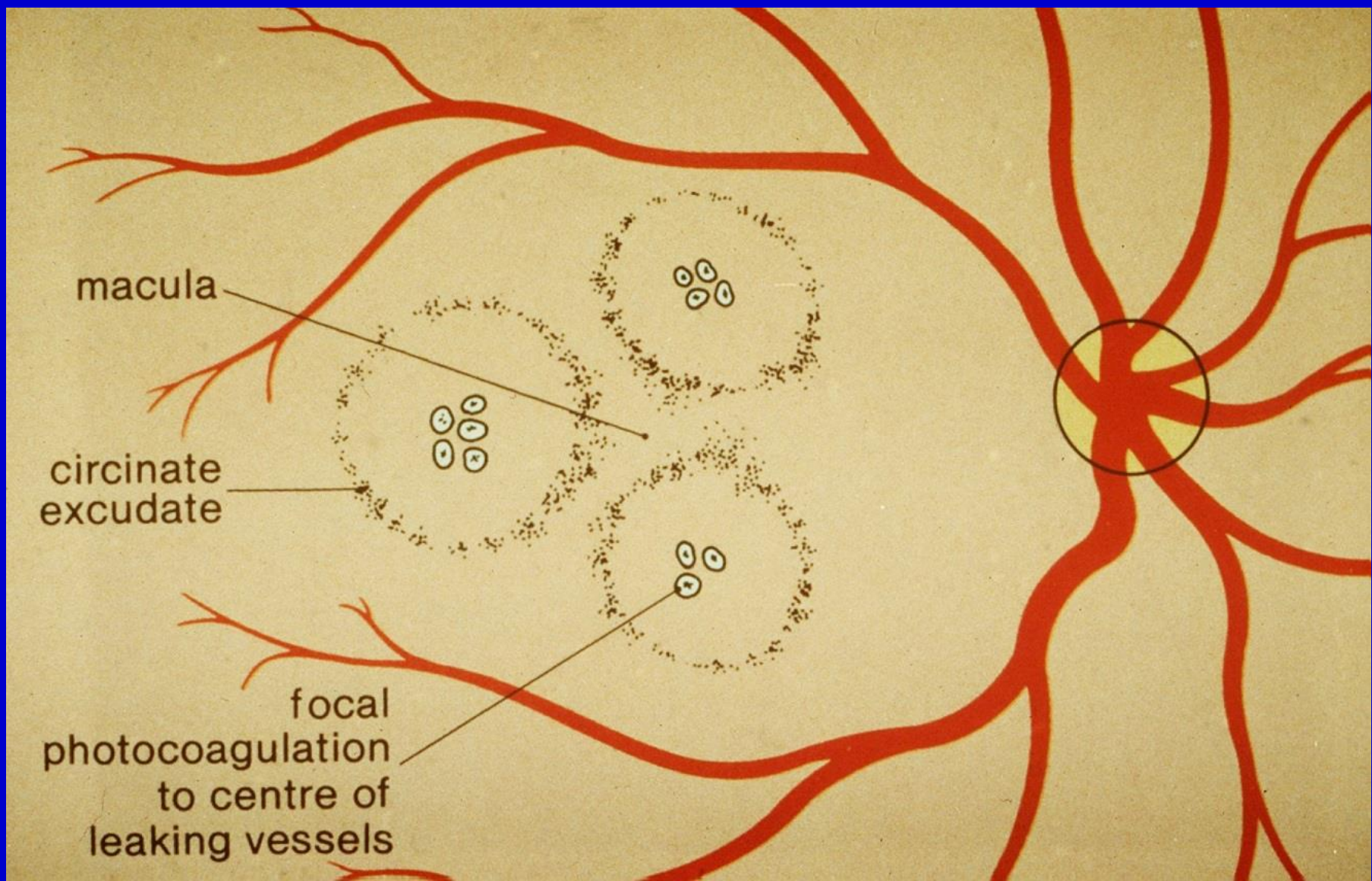












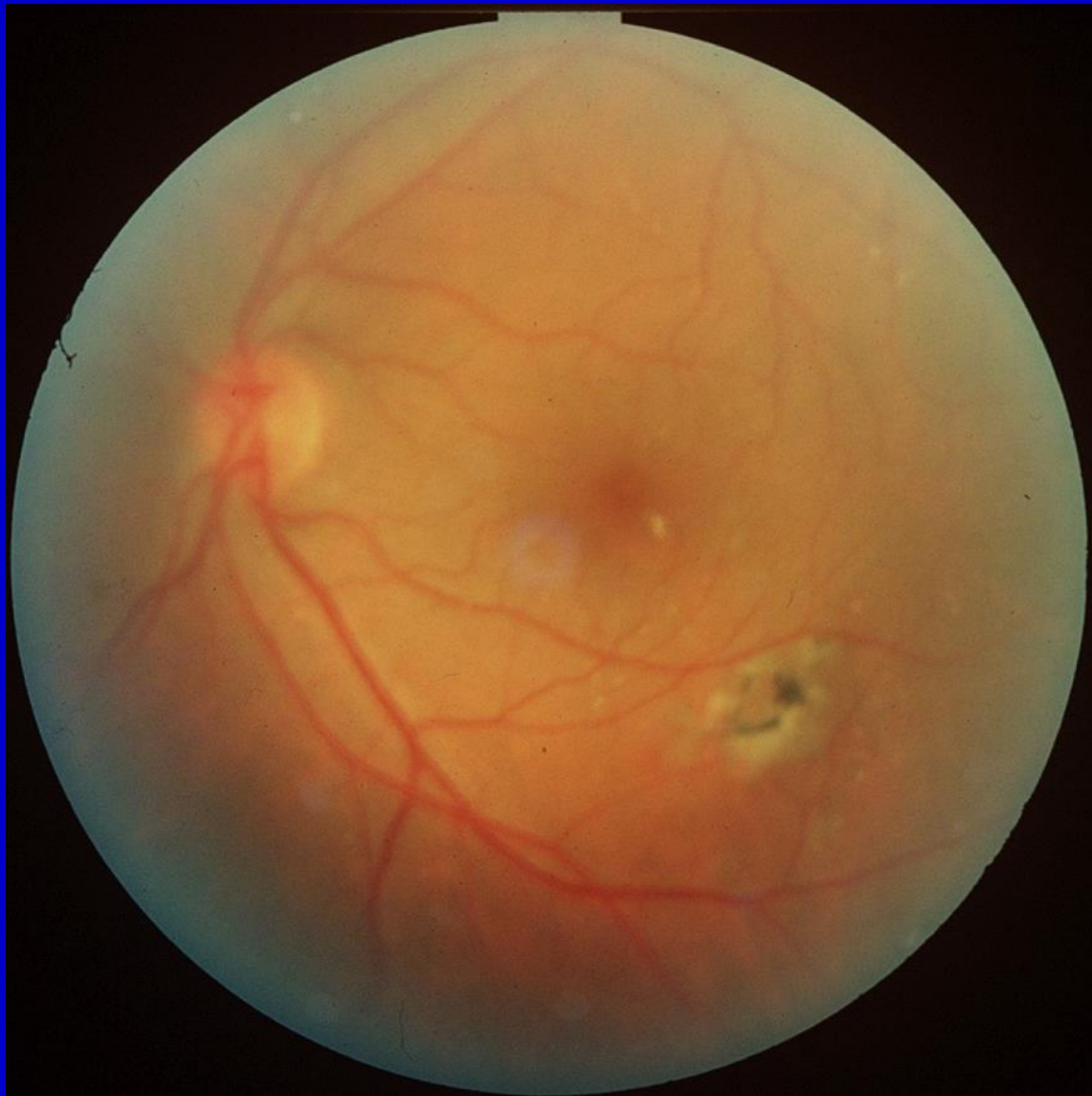
macula

circinate  
exudate

focal  
photocoagulation  
to centre of  
leaking vessels





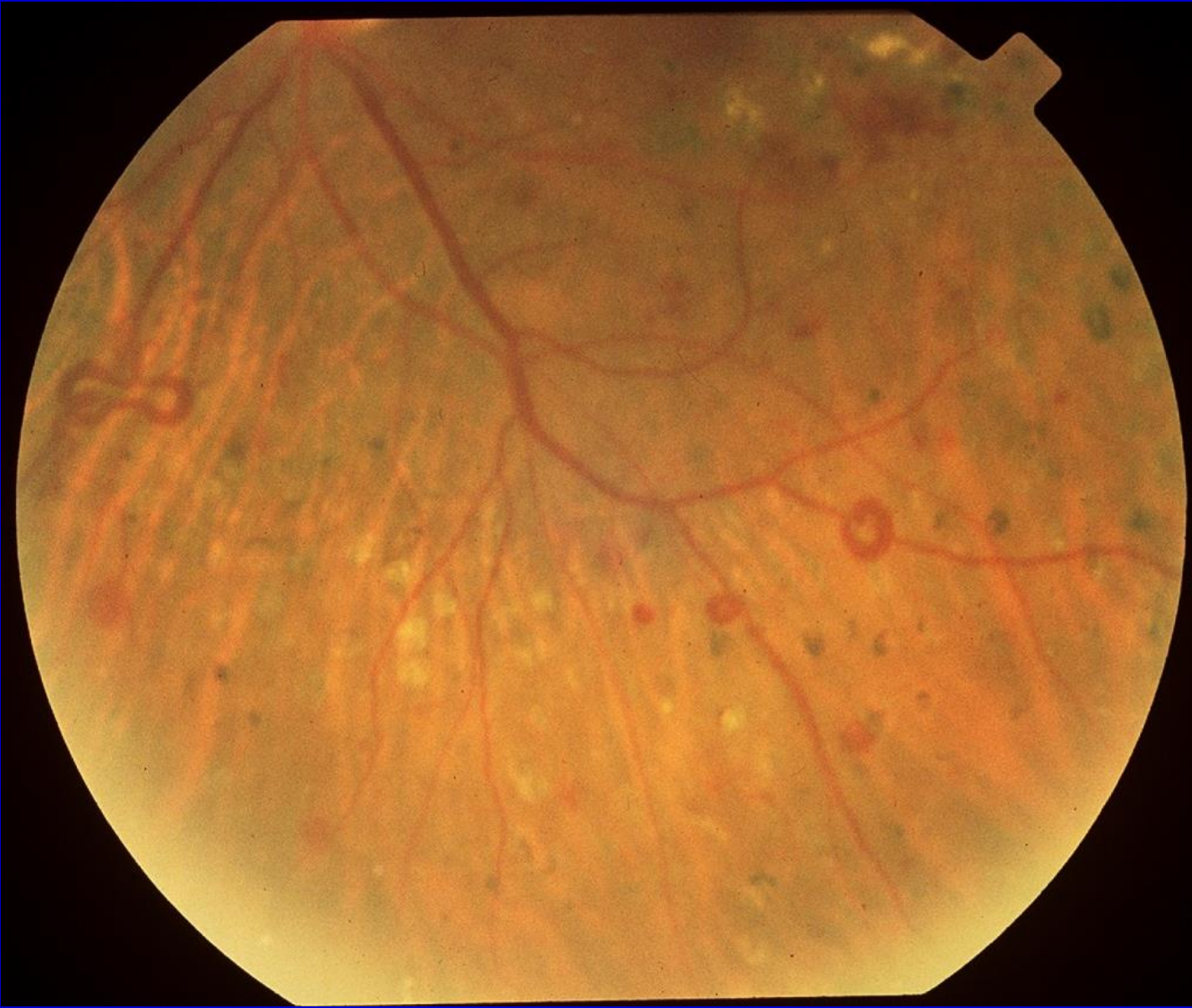


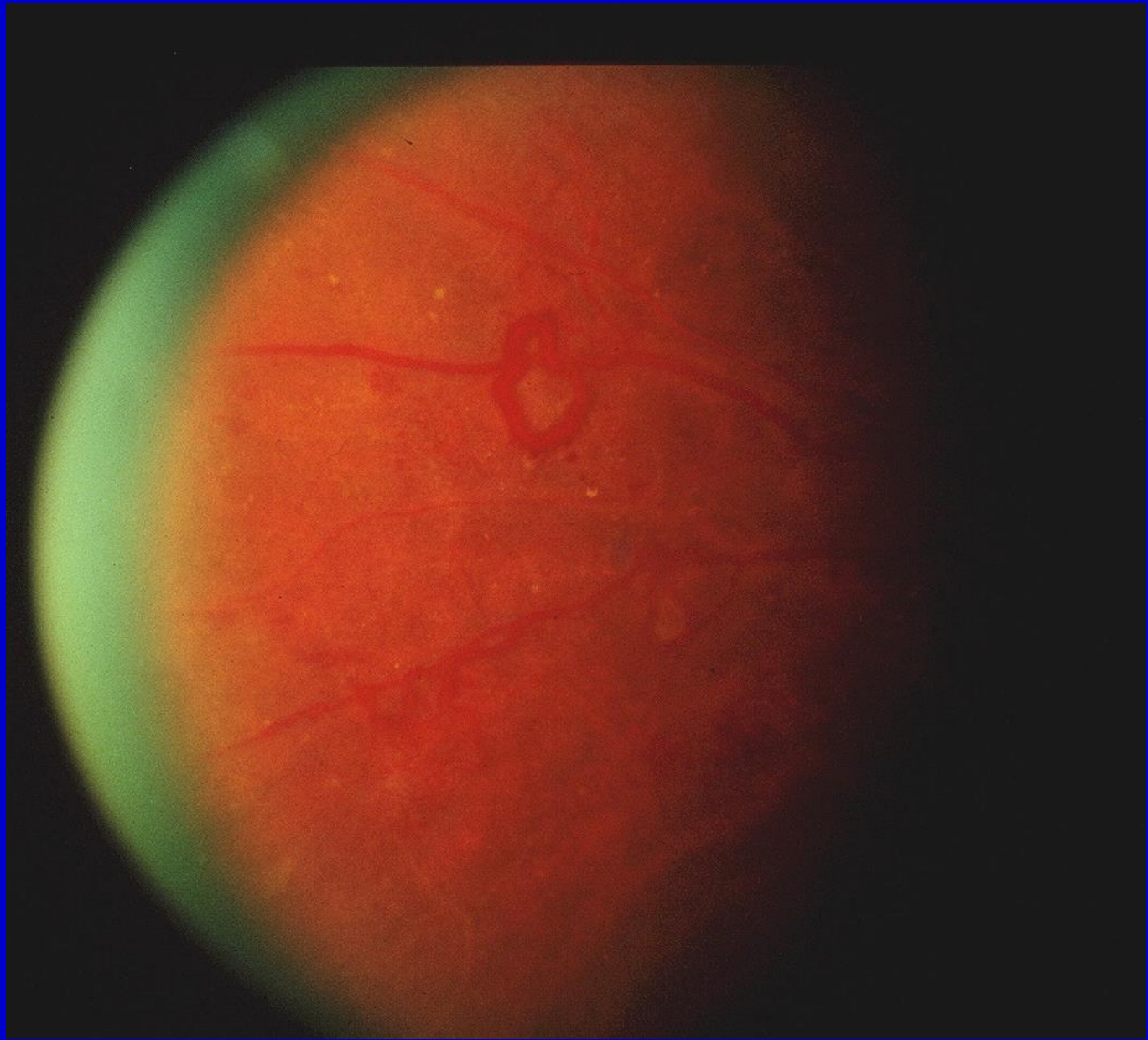




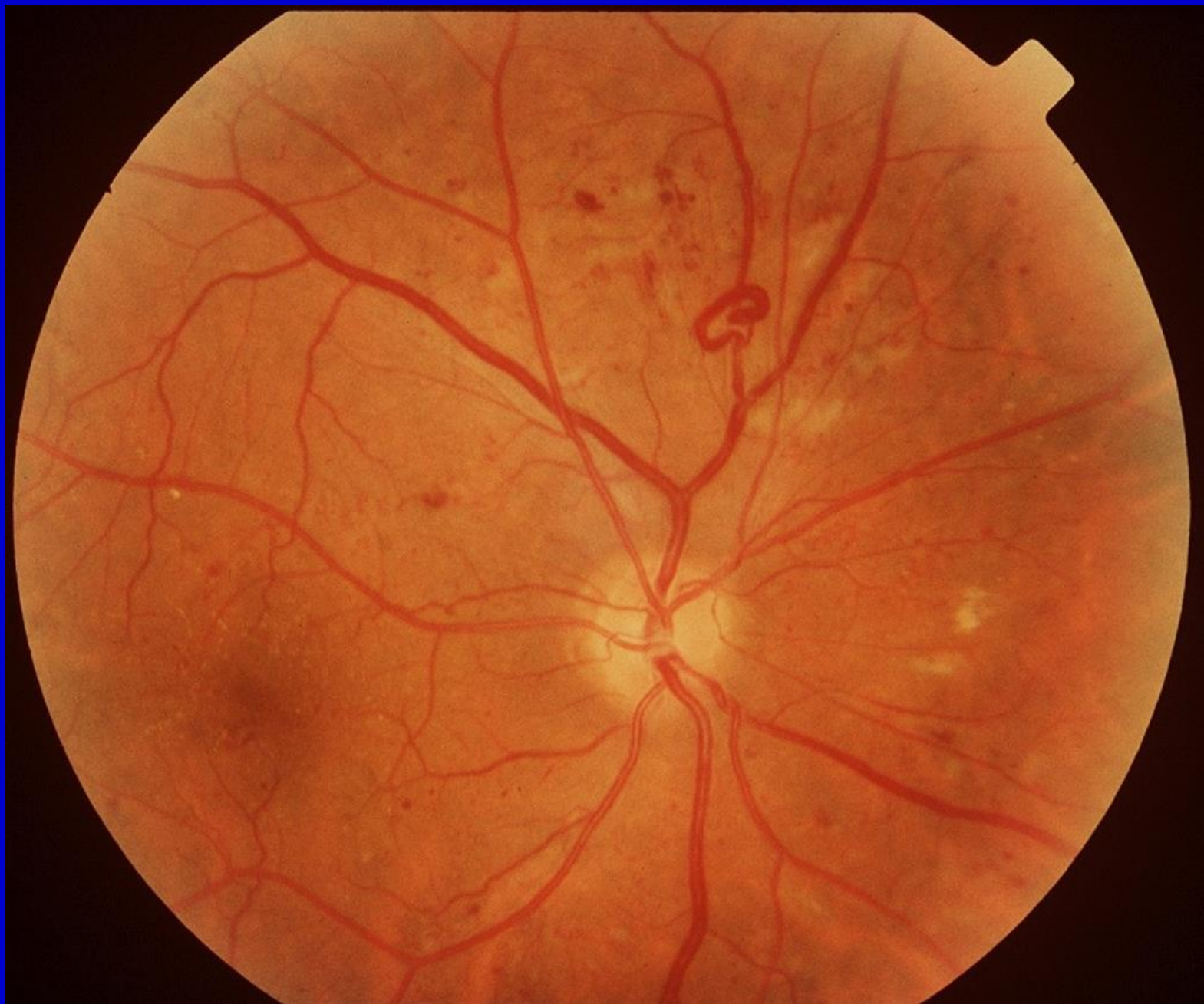










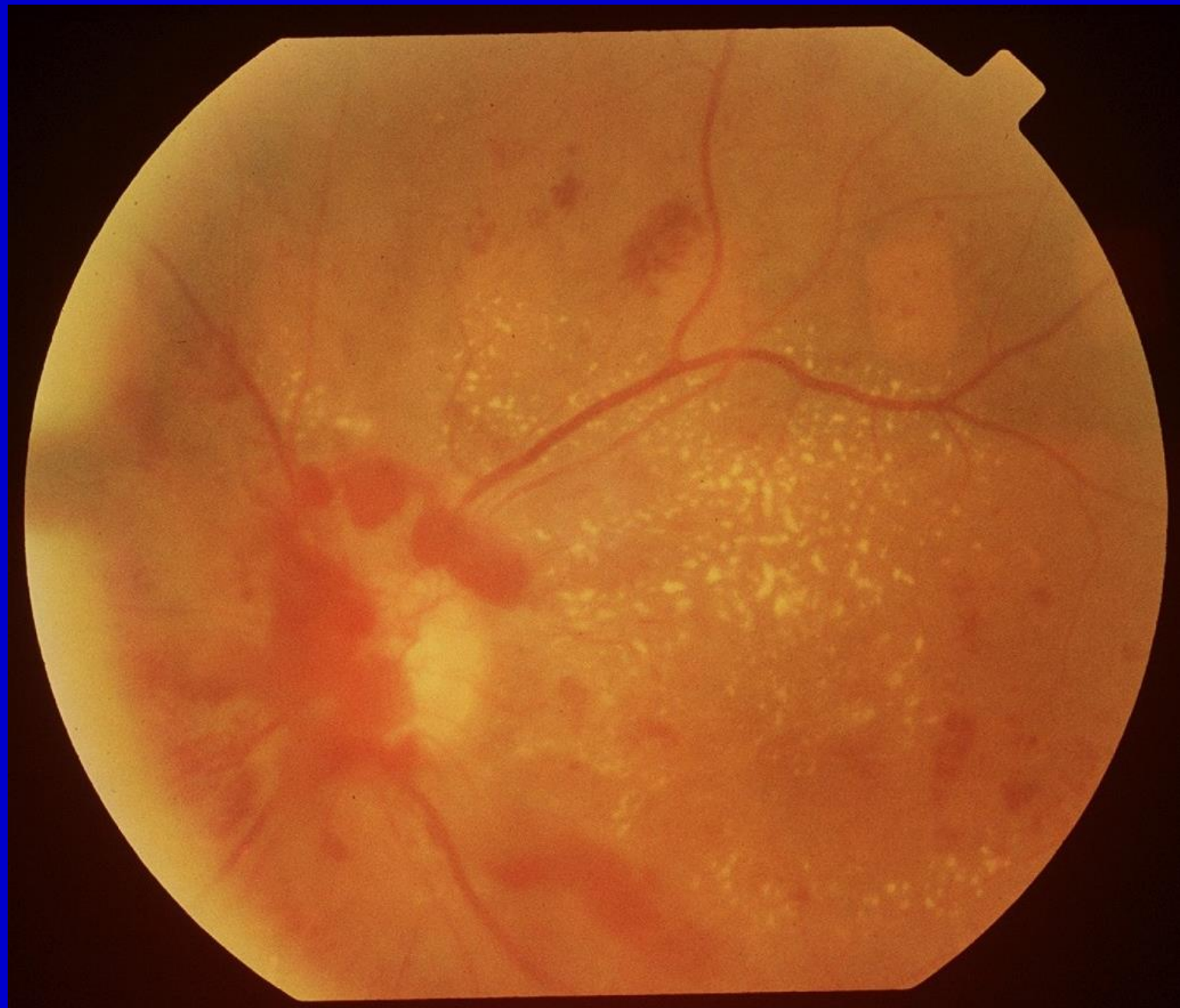










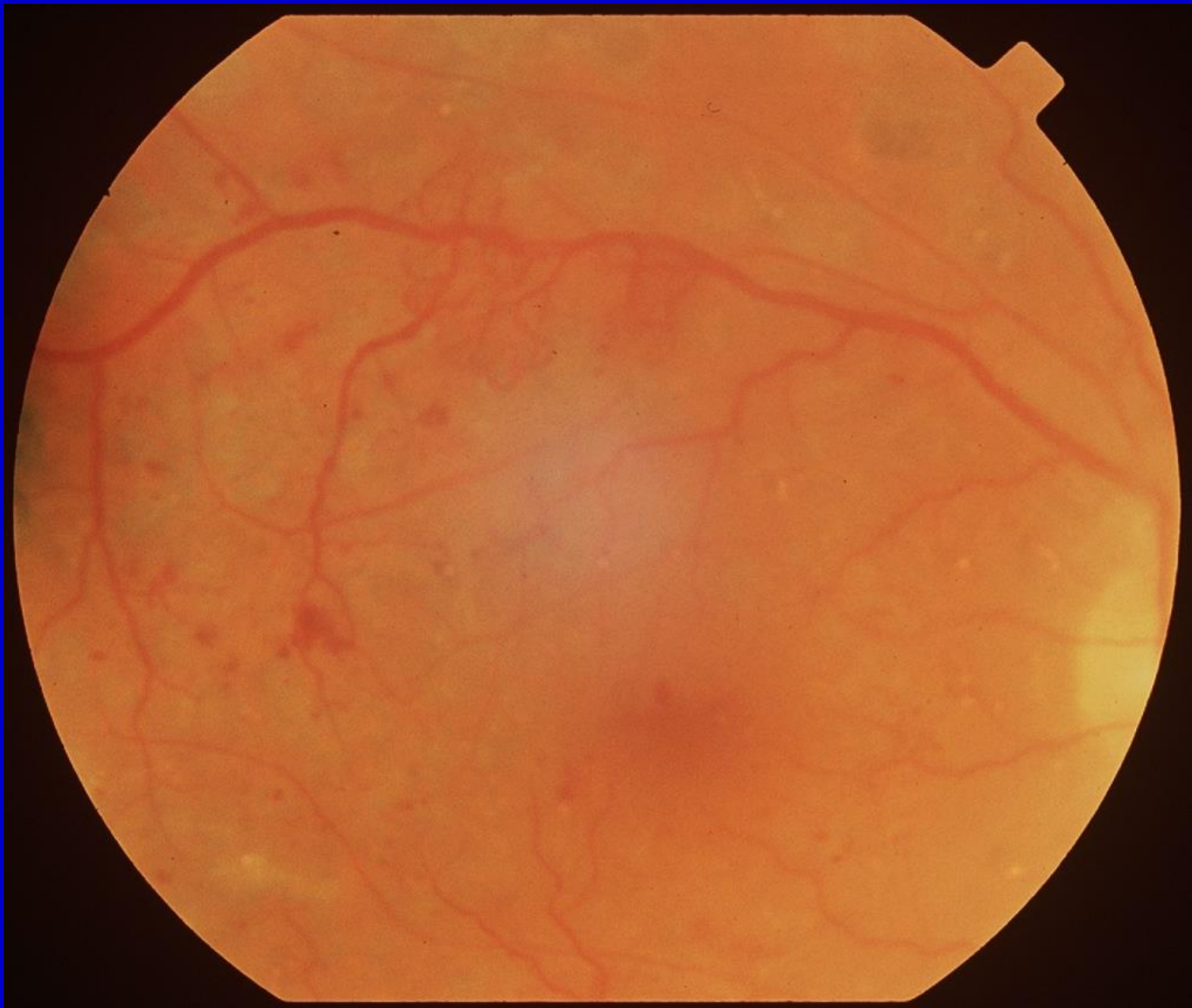


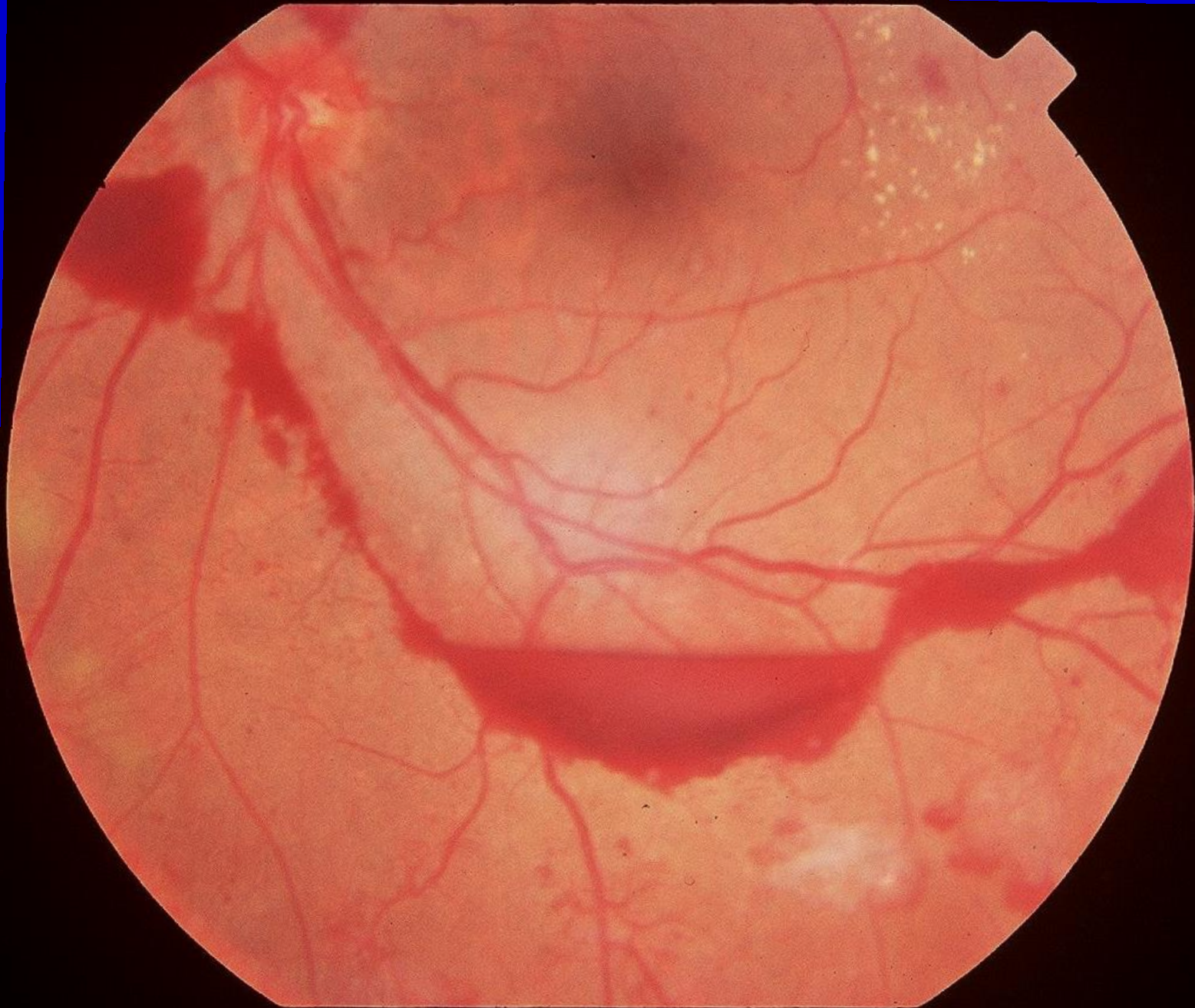




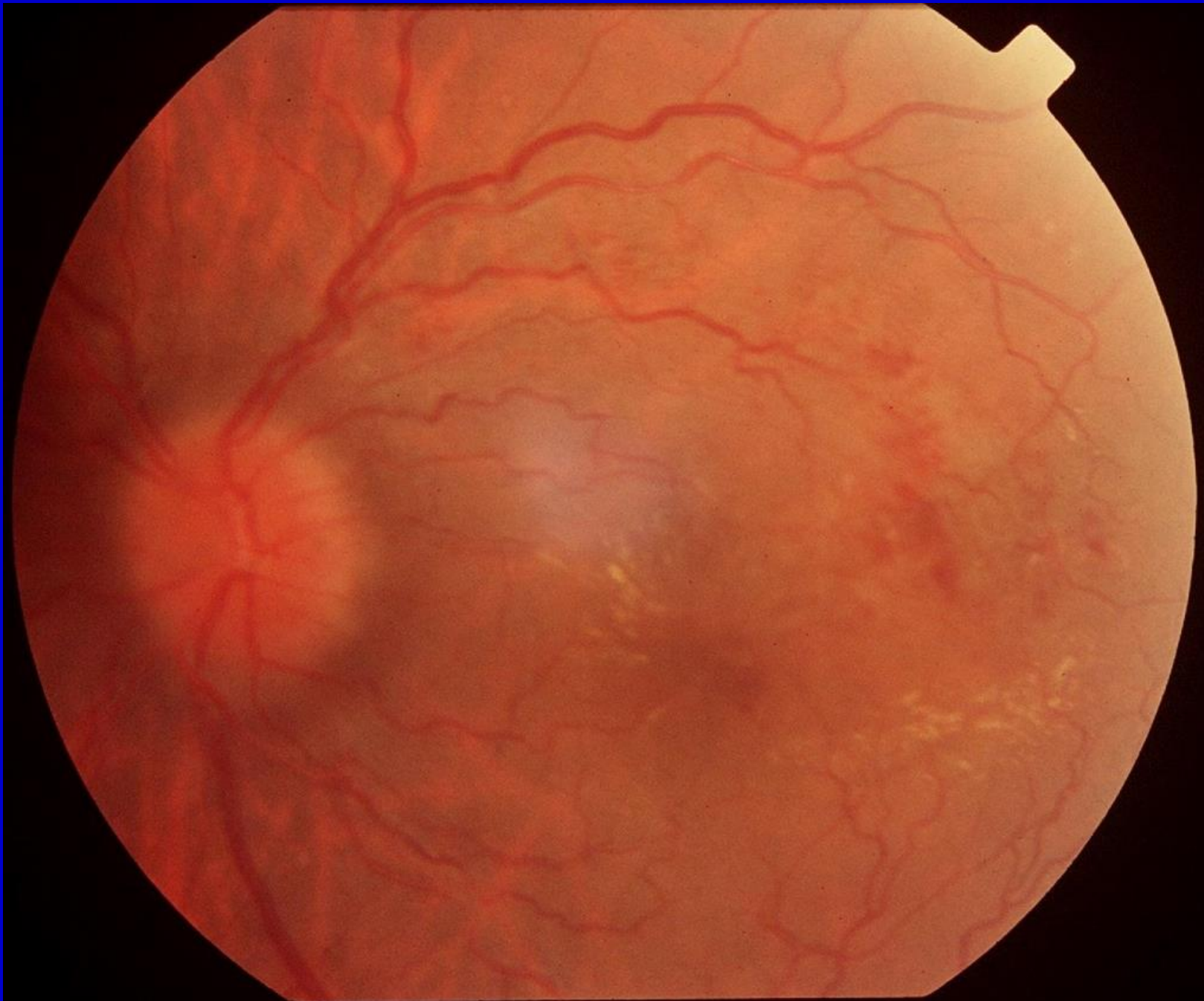


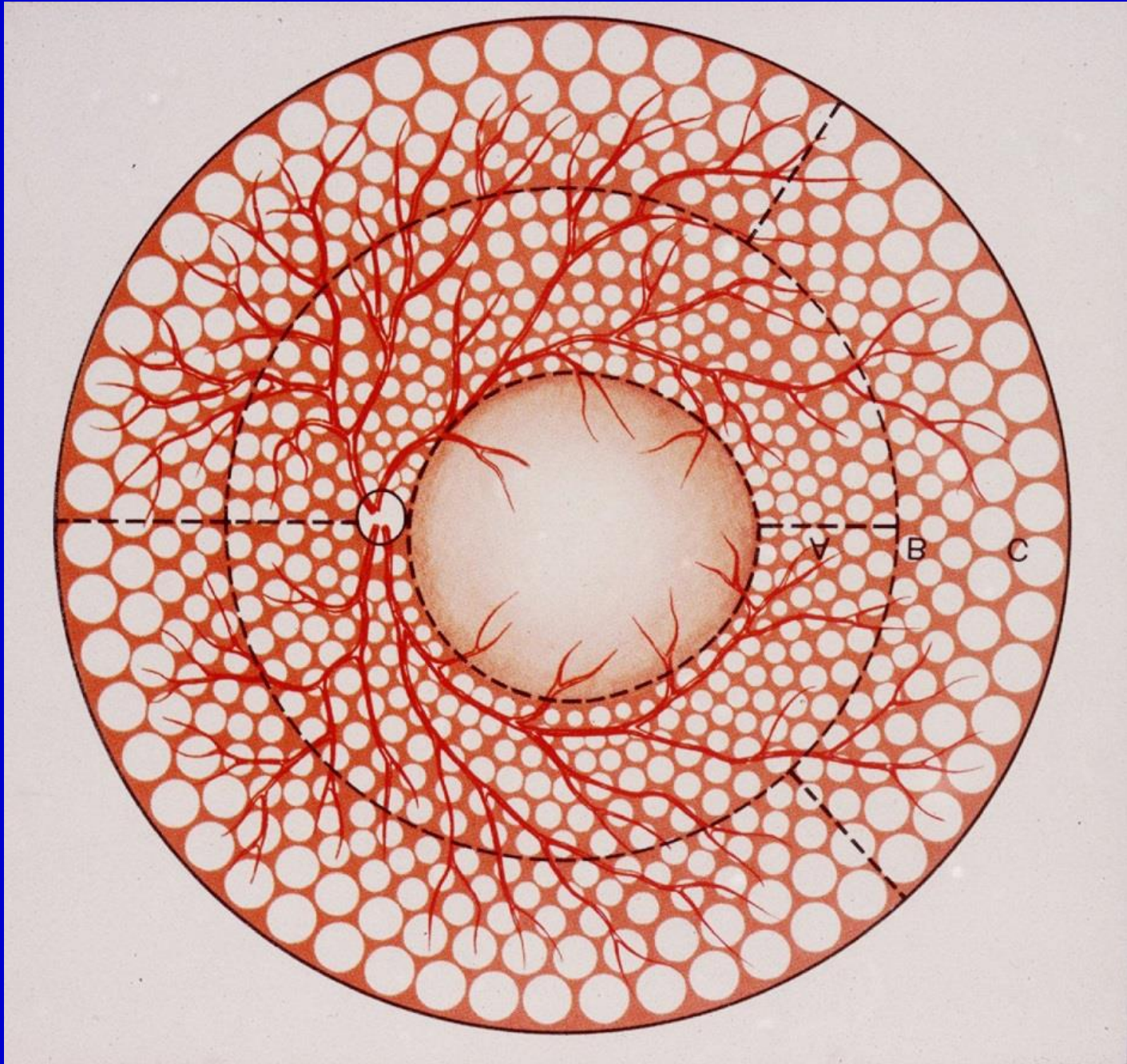




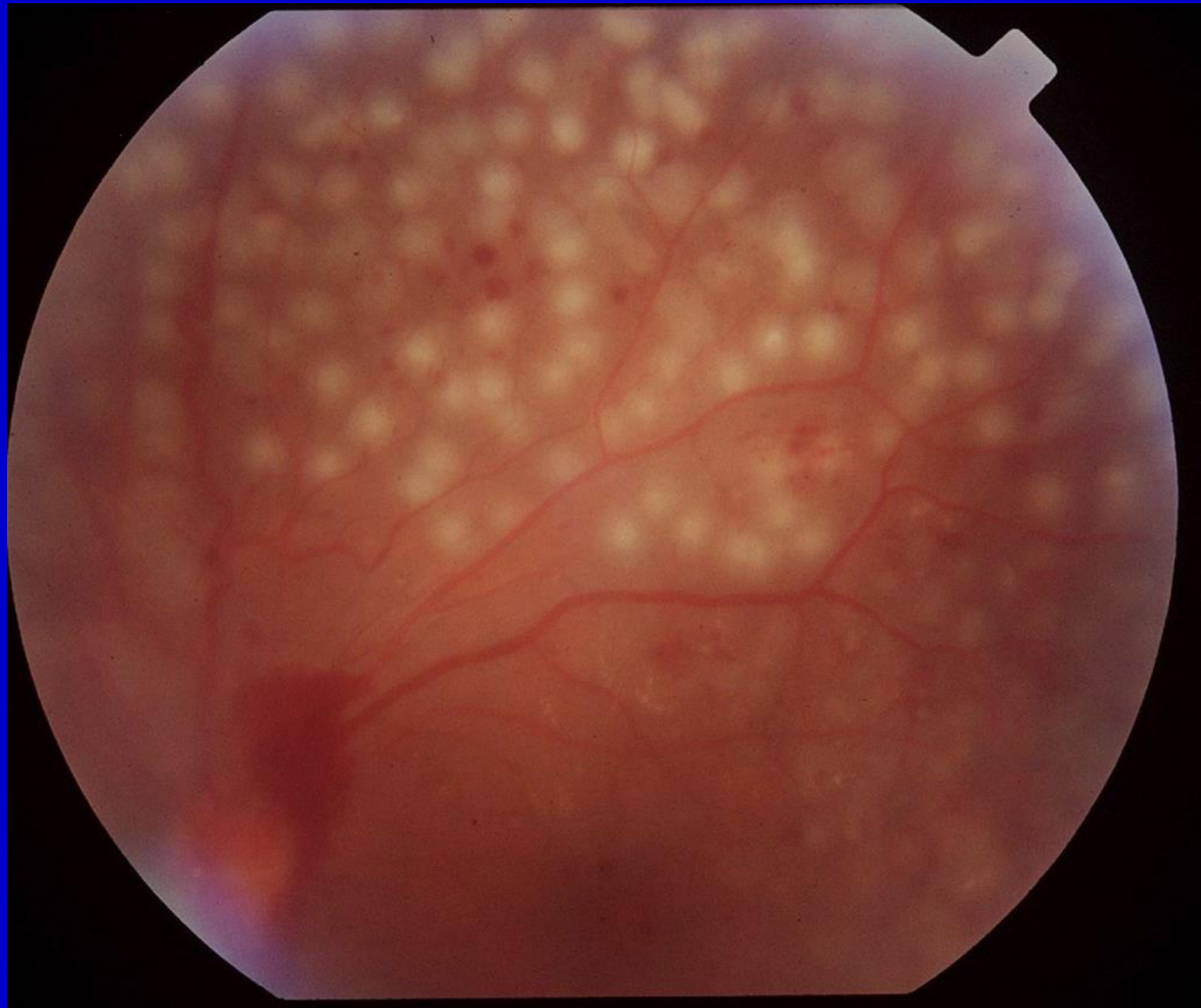




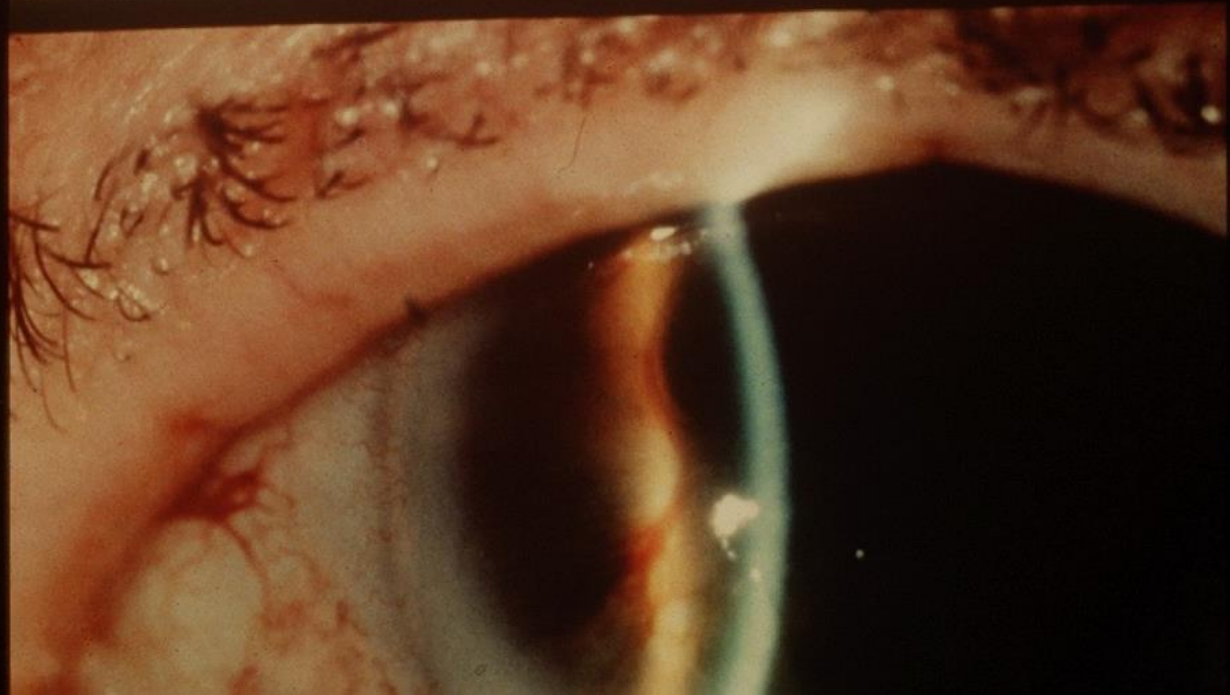
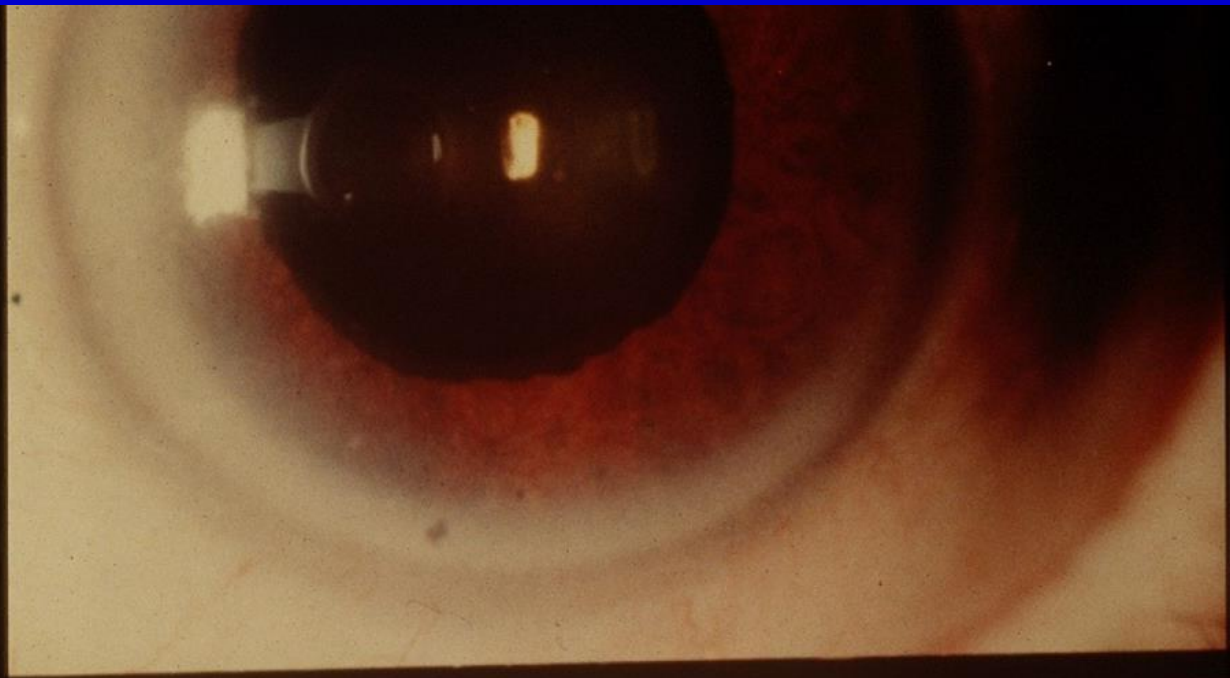












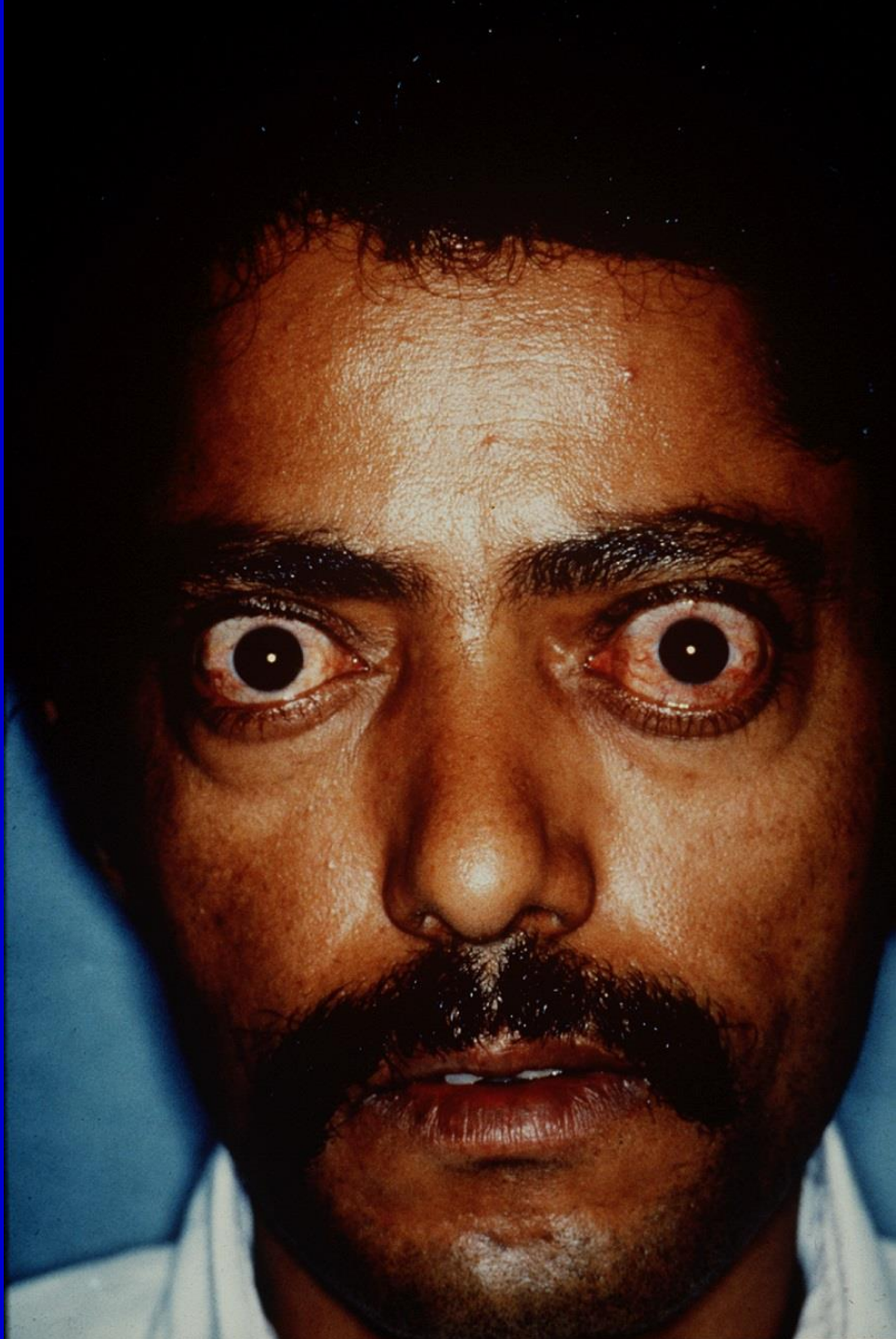
# EYE AND SYSTEMIC DISEASE

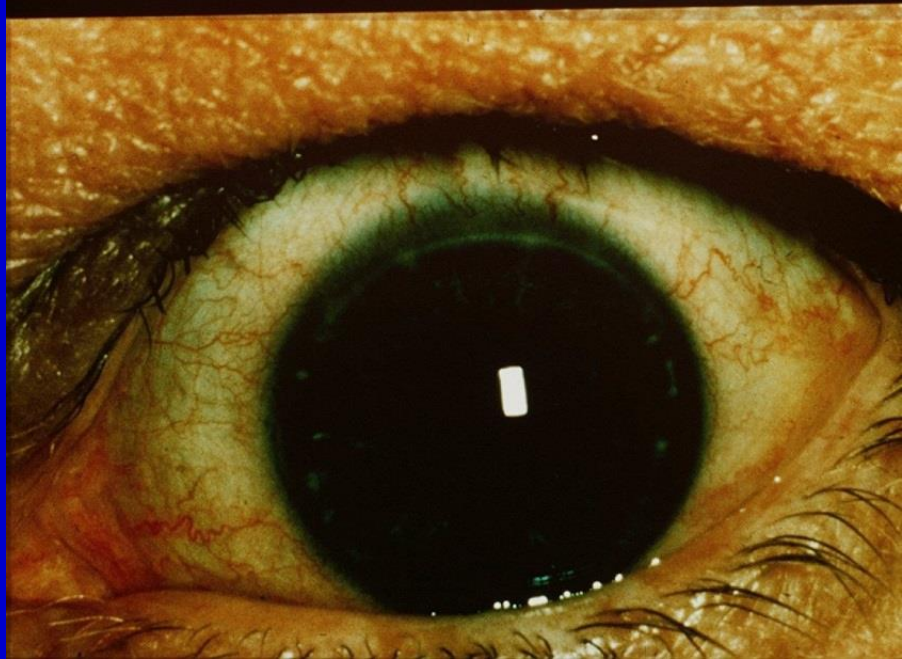
## GRAVES' DISEASE

### Ocular features:

- Eyelid retraction
- Infiltrative ophthalmopathy
- Proptosis
- Dysthyroid optic neuropathy
- Restrictive thyroid myopathy















# EYE AND SYSTEMIC DISEASE

## TUBERCULOSIS

- Phlyctenular keratoconjunctivitis
- Interstitial keratitis
- Uvea
- Retinal vasculitis











# EYE AND SYSTEMIC DISEASE

## LEPROSY (Hansen's disease)

Ocular involvement is more common in the lepromatous type.

### Signs:

- Facial nerve affection
- Loss of the lateral portions of the eye brows and eye lashes (Madarosis)
- Interstitial keratitis
- Iritis



# EYE AND SYSTEMIC DISEASE

## Syphilis

### Congenital:

- Interstitial keratitis
- Chorioretinitis

### Acquired:

- Ocular chancre
- Iridocyclitis
- Interstitial keratitis
- Chorioretinitis
- Neuro-ophthalmic

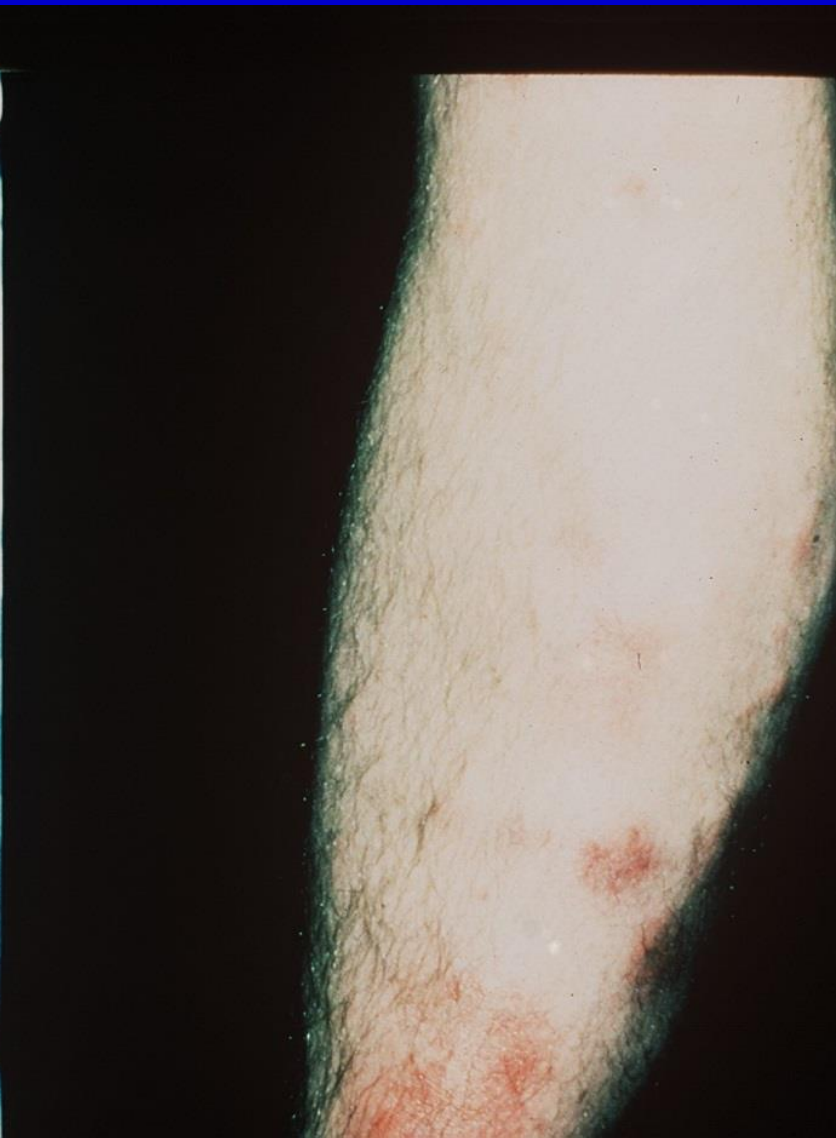
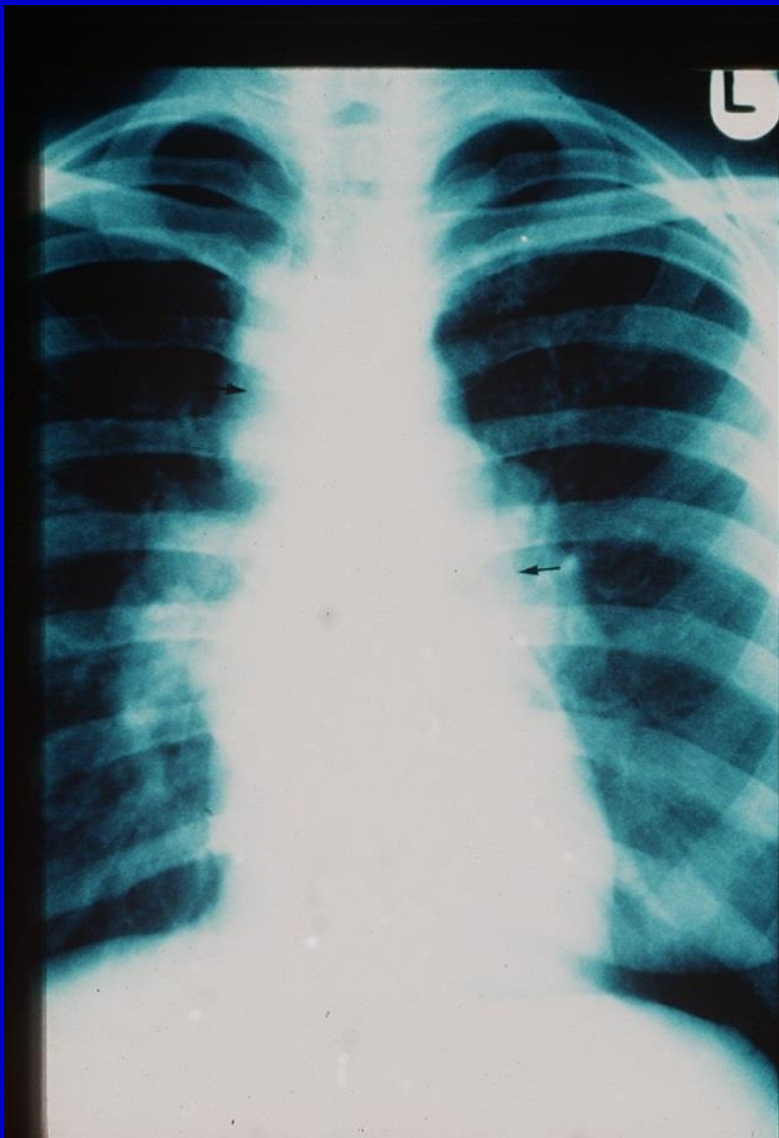
# EYE AND SYSTEMIC DISEASE

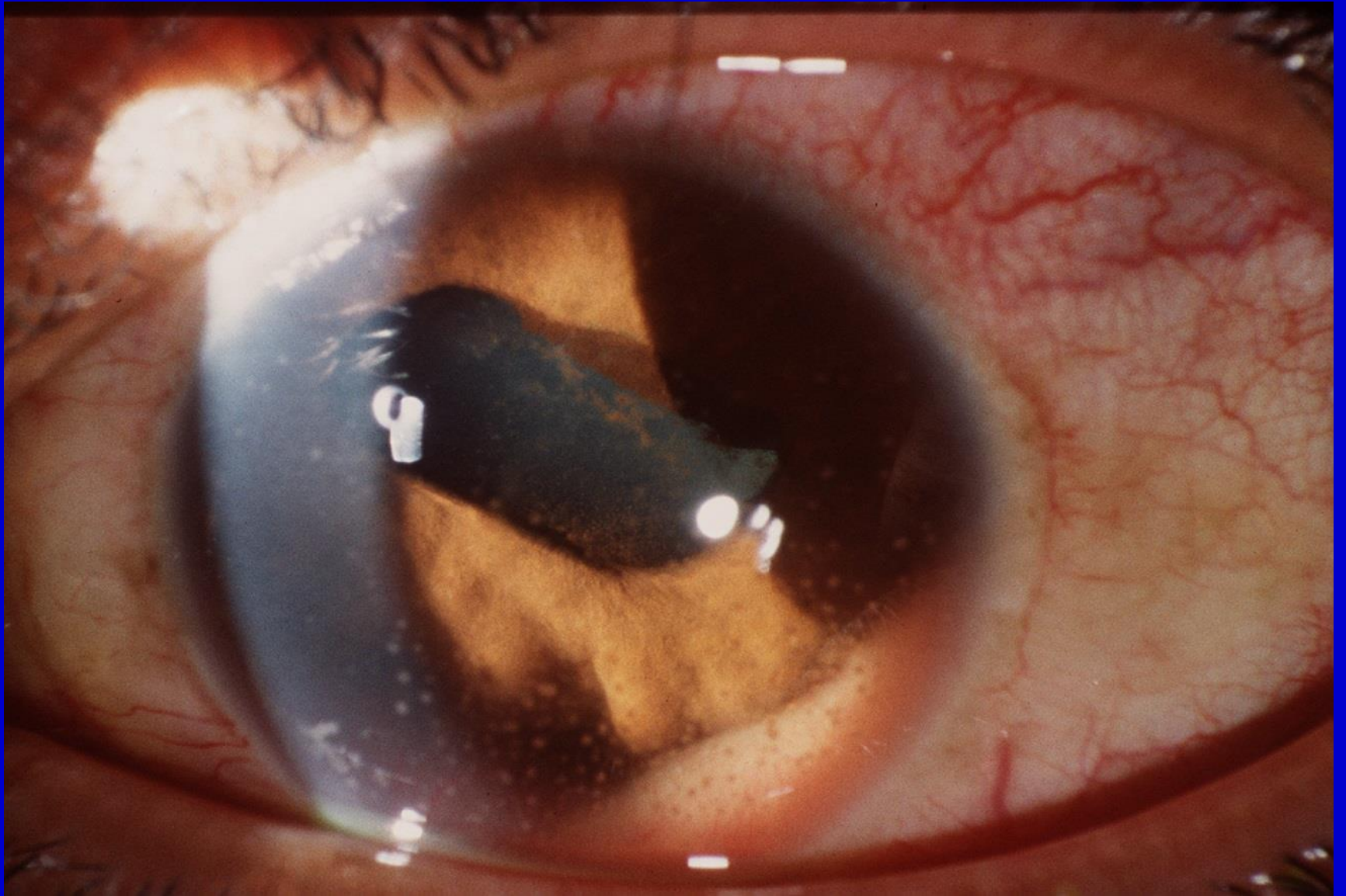
## Sarcoidosis

### Eye lesions:

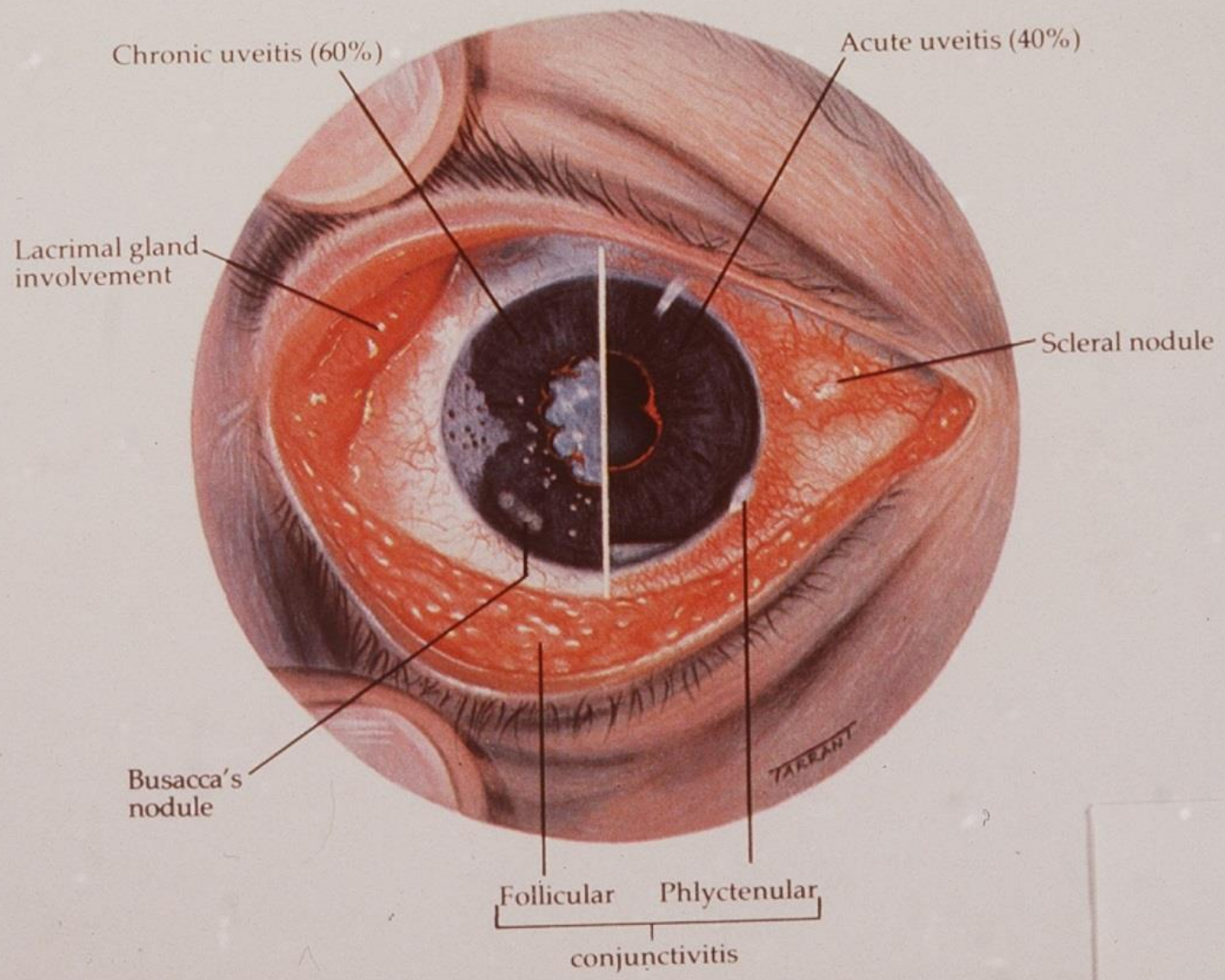
- Lid margin and conjunctival granuloma
- Acute iridocyclitis
- Chronic granulomatous iridocyclitis
- Peripheral retinal periphlebitis
- Choroidal granulomas
- Retinal granulomas
- Optic nerve granulomas

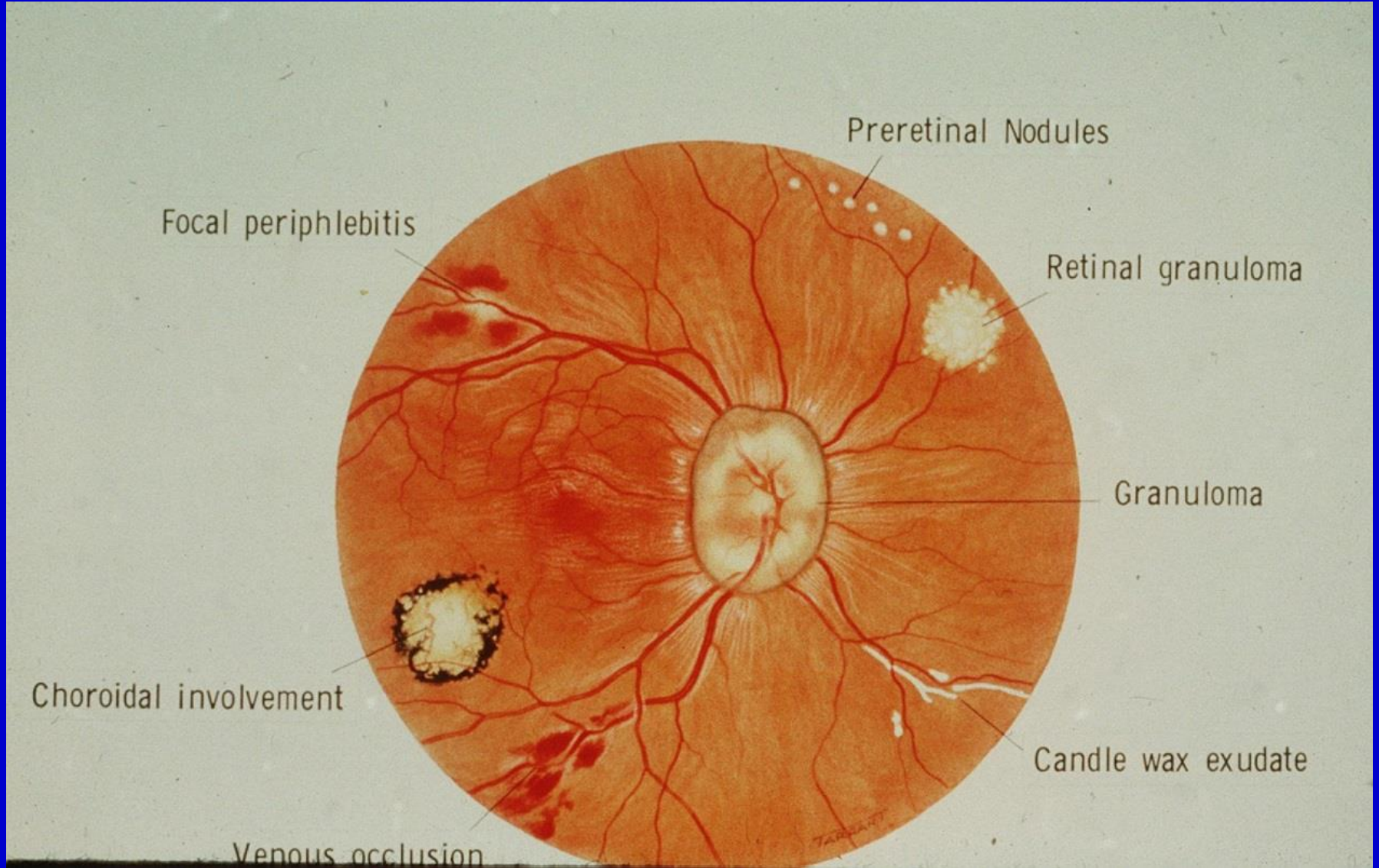












Preretinal Nodules

Focal periphlebitis

Retinal granuloma

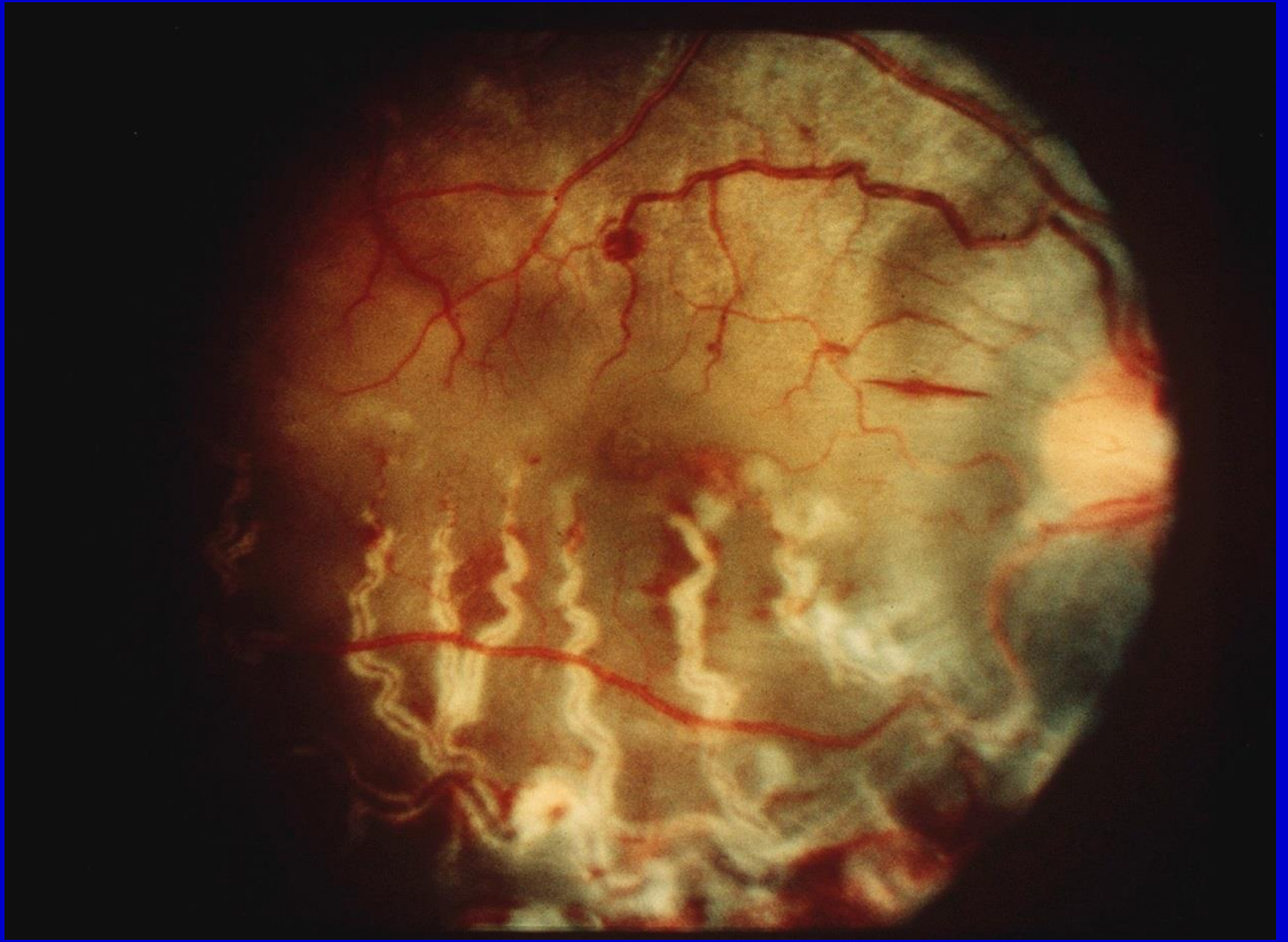
Granuloma

Choroidal involvement

Candle wax exudate

Venous occlusion







# EYE AND SYSTEMIC DISEASE

## RUBELLA

- Cataract
- Microphthalmos
- Retinopathy
- Glaucoma



# EYE AND SYSTEMIC DISEASE

## WILSON'S DISEASE (Hepatolenticular degeneration)

### Ocular features:

- Kayser-Fleischer ring
- Green sunflower cataract

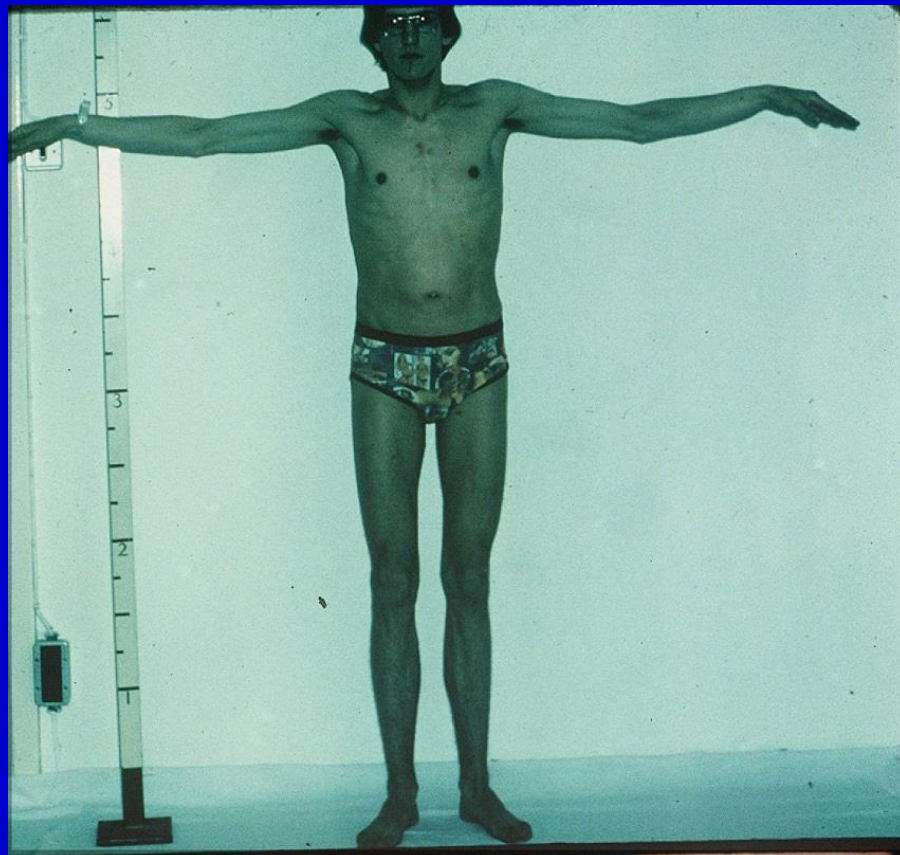


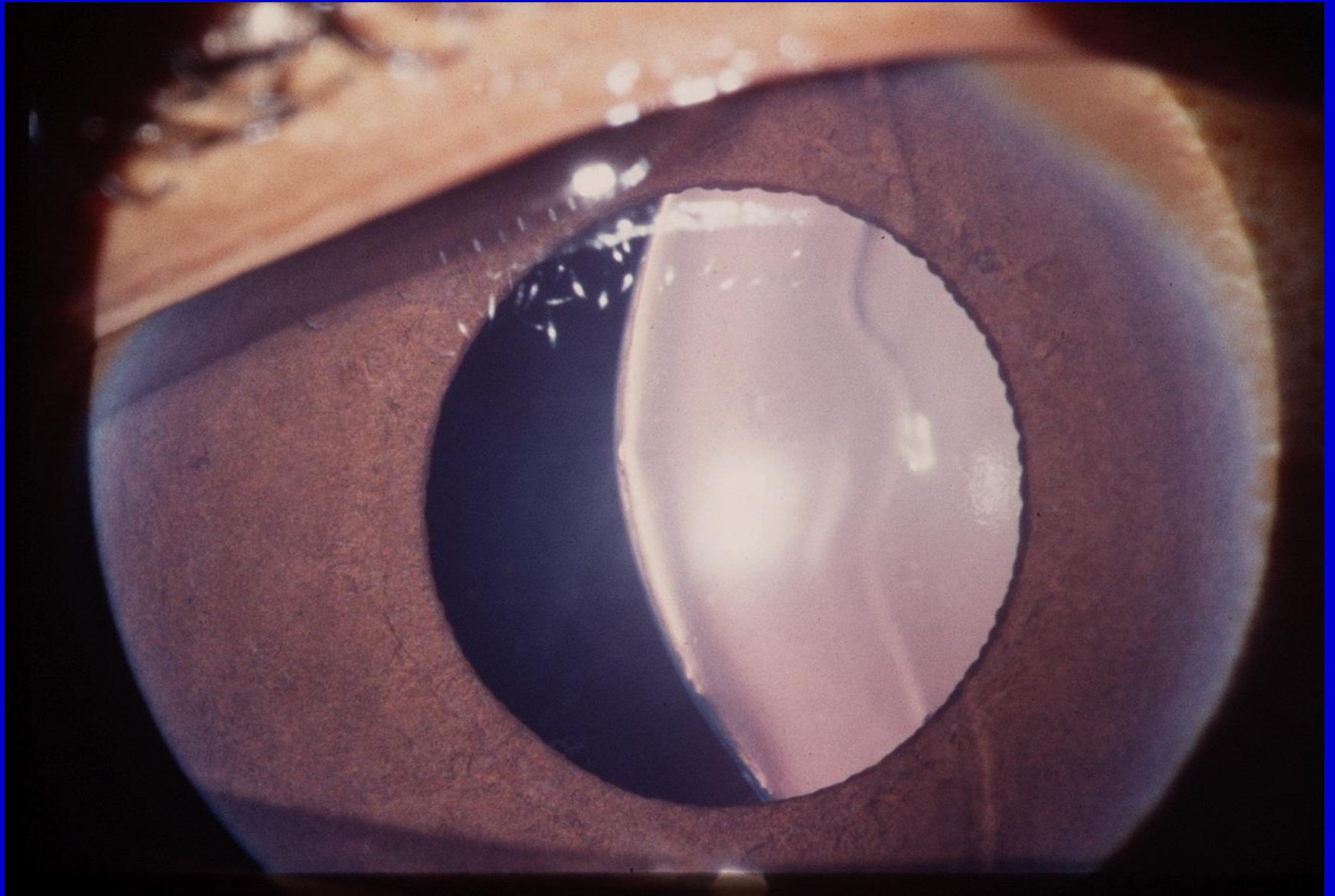
# EYE AND SYSTEMIC DISEASE

## MARFAN'S SYNDROME

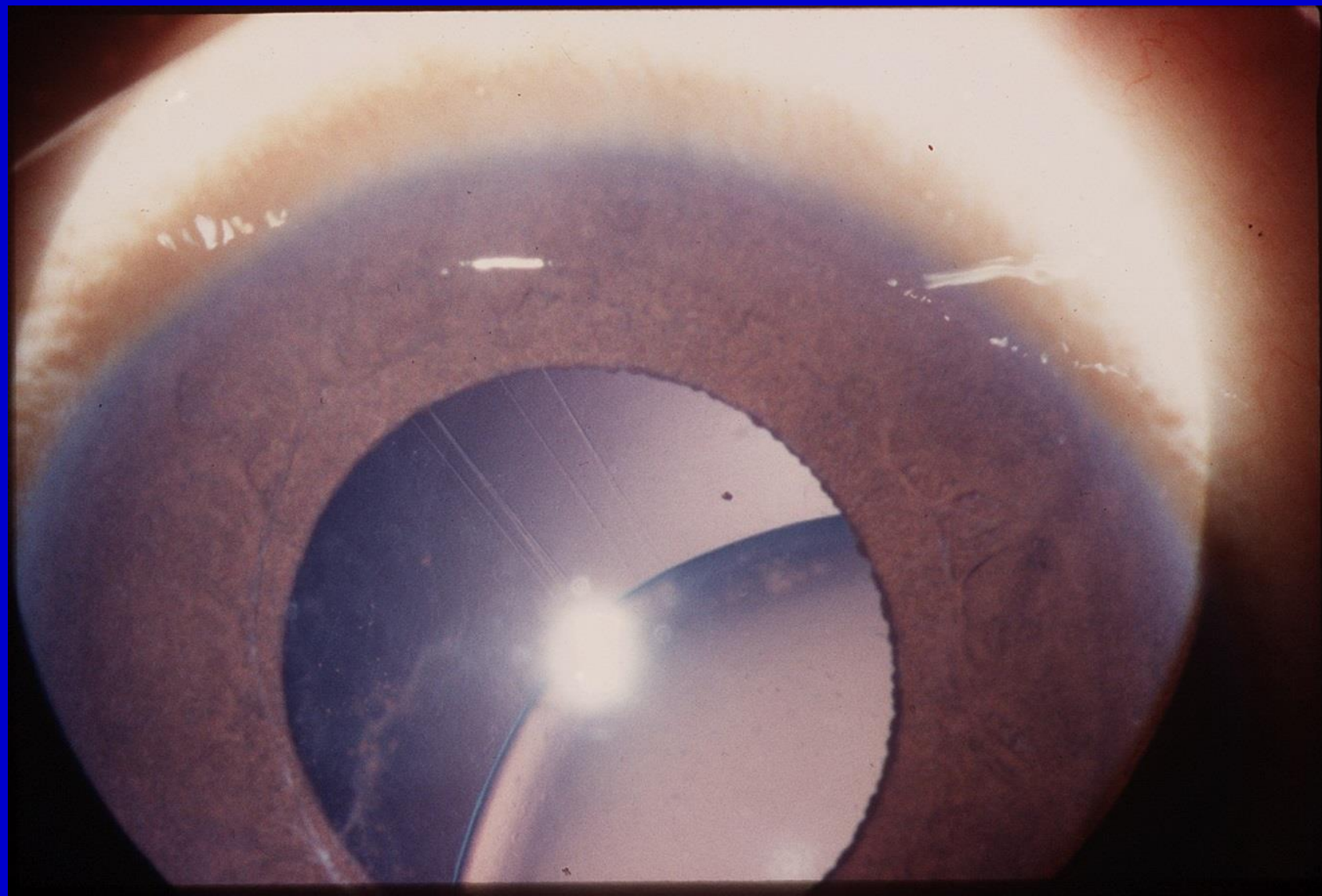
### Ocular features:

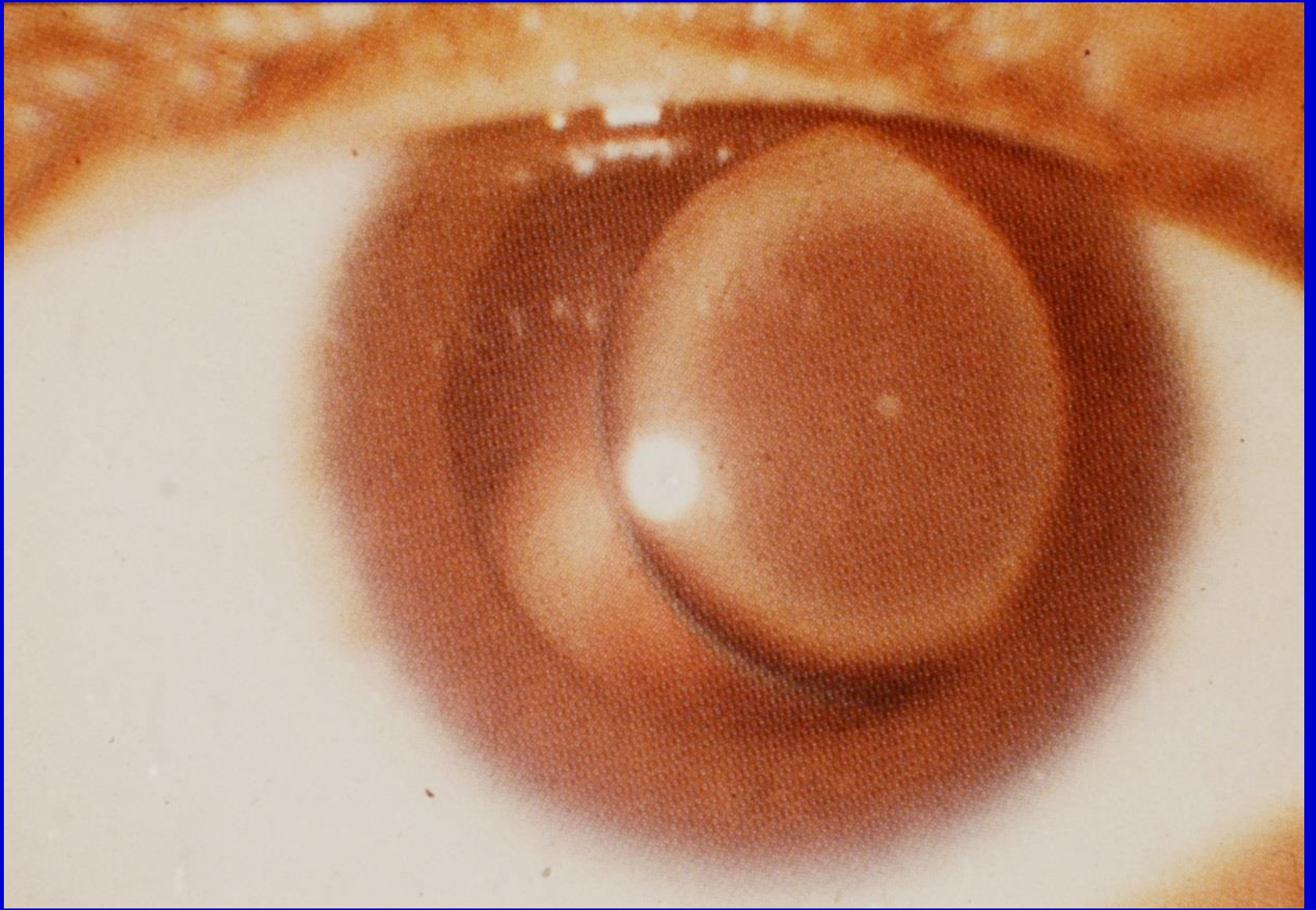
- Lens subluxation
- Angle anomaly
- Glaucoma
- Hypoplasia of the dilator M.
- Axial myopia
- Retinal detachment







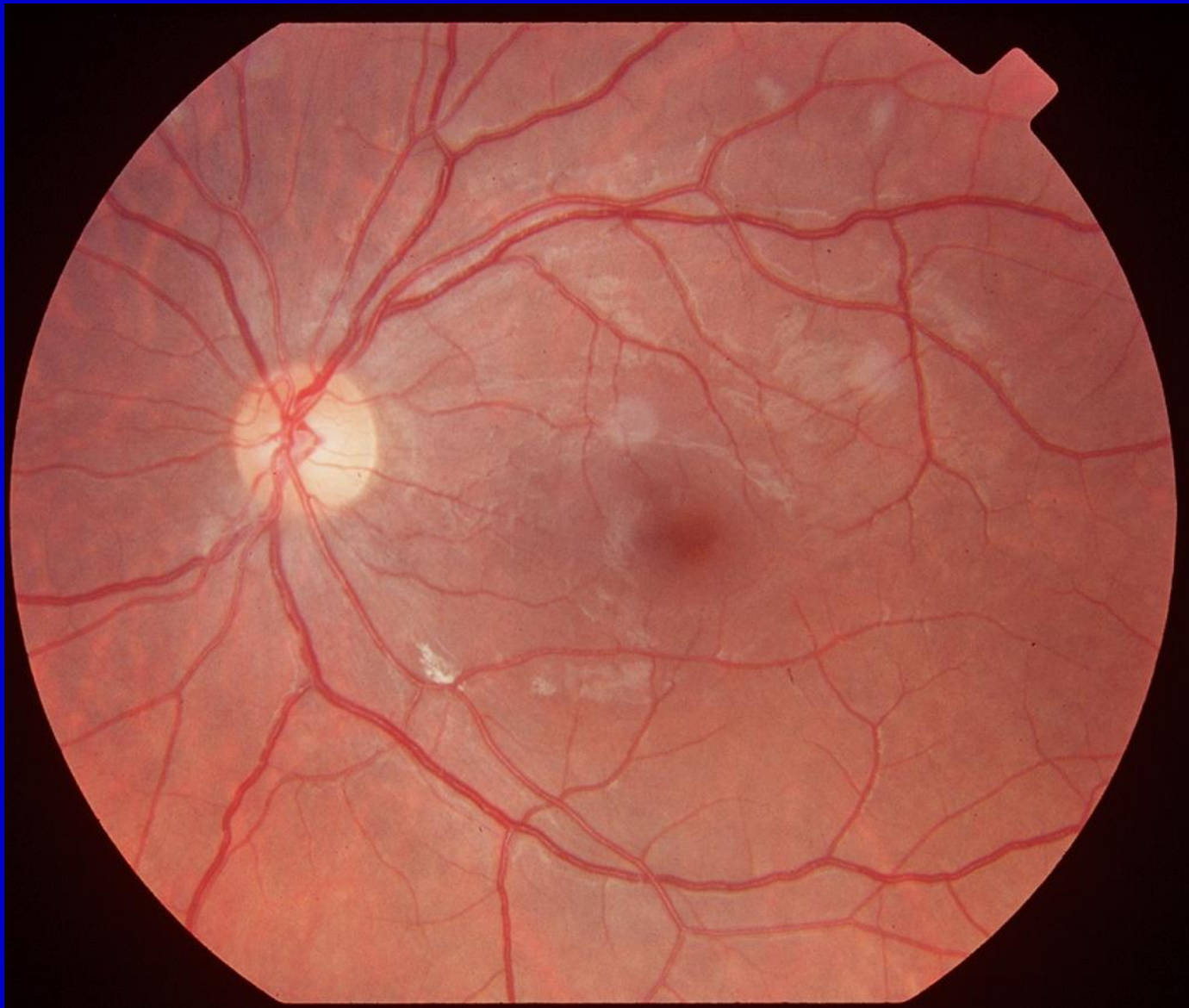




















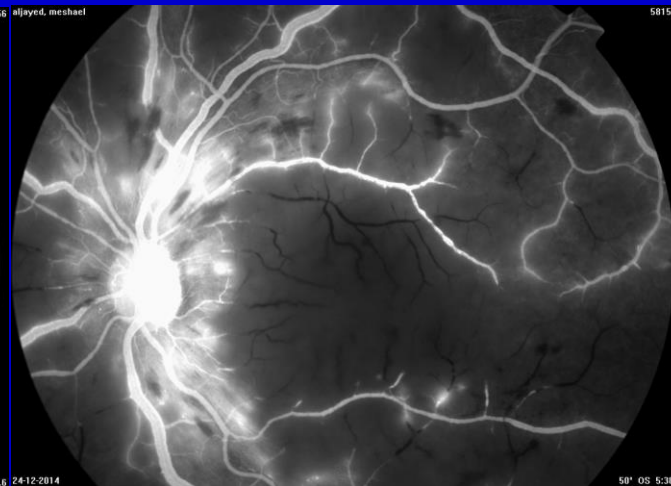
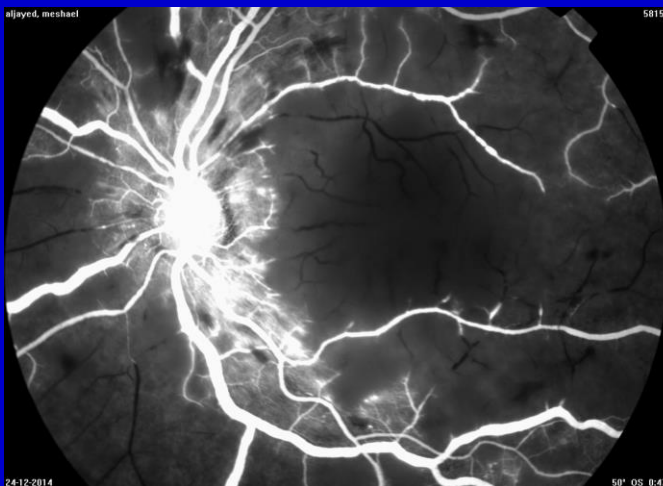
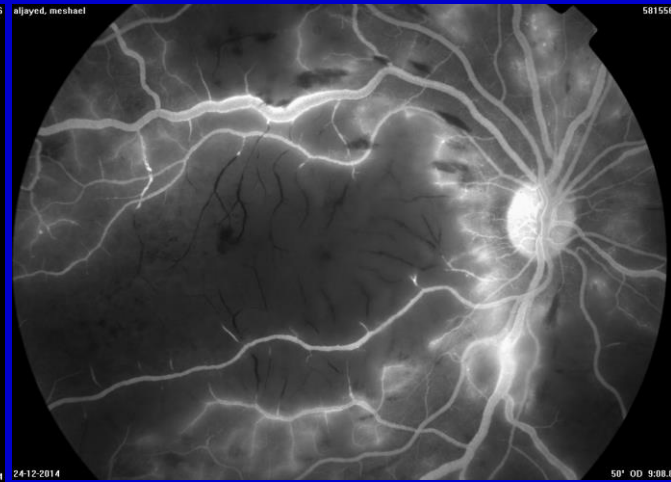
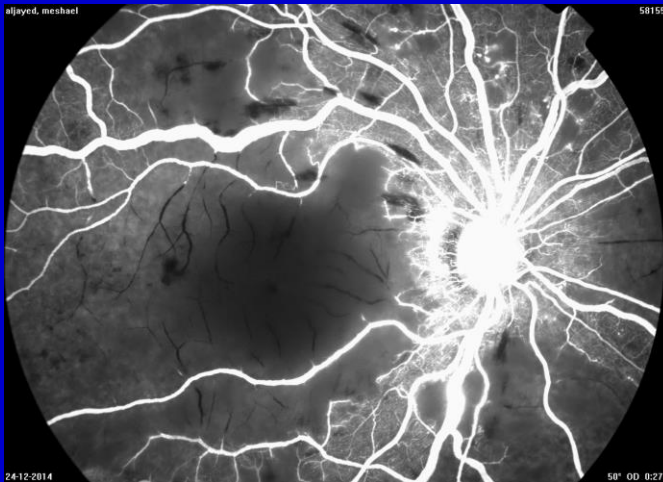
# EYE AND SYSTEMIC DISEASE

## Systemic Lupus Erythematosus



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# EYE AND SYSTEMIC DISEASE

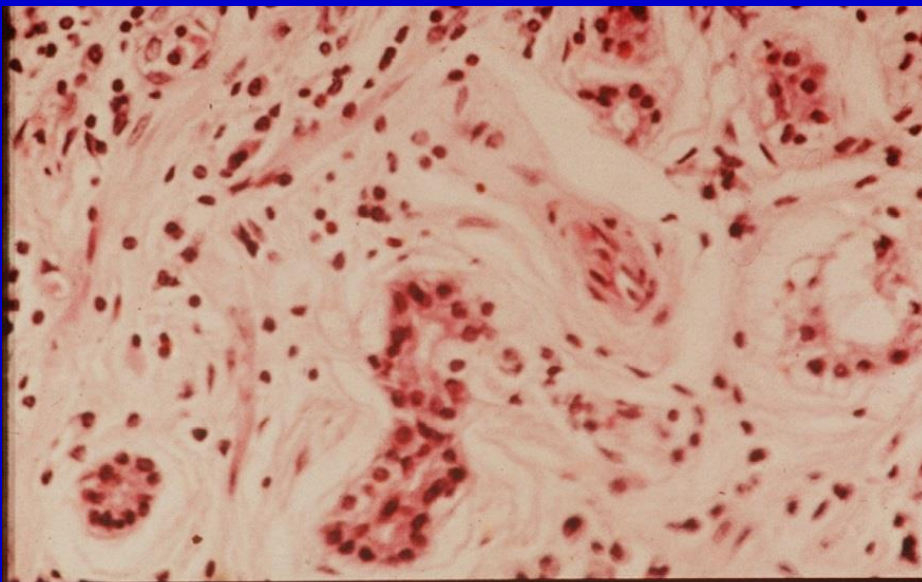
## RHEUMATOID ARTHRITIS

- Seropositive

### Ocular:

- K.C.S.
- Scleritis
- Keratitis

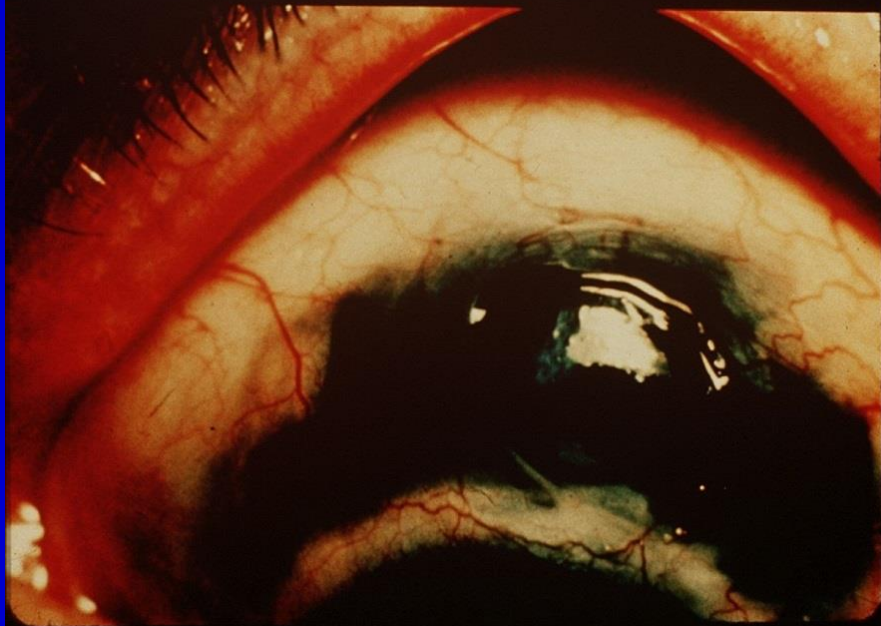
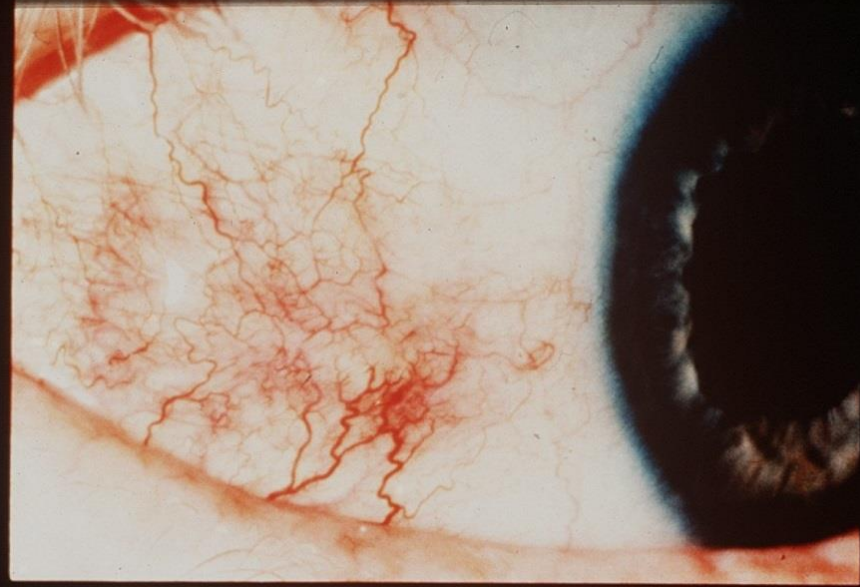




Keratoconjunctivitis sicca ( 15% )



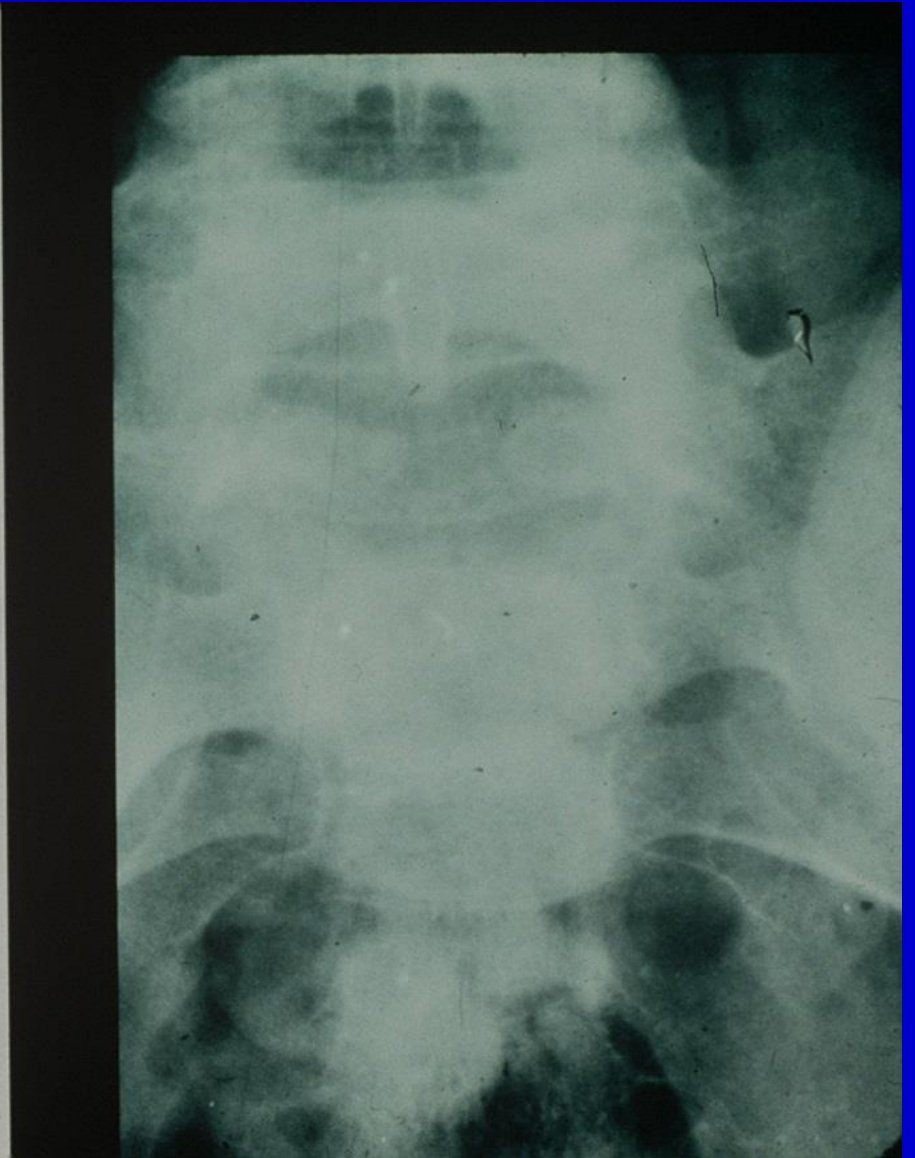
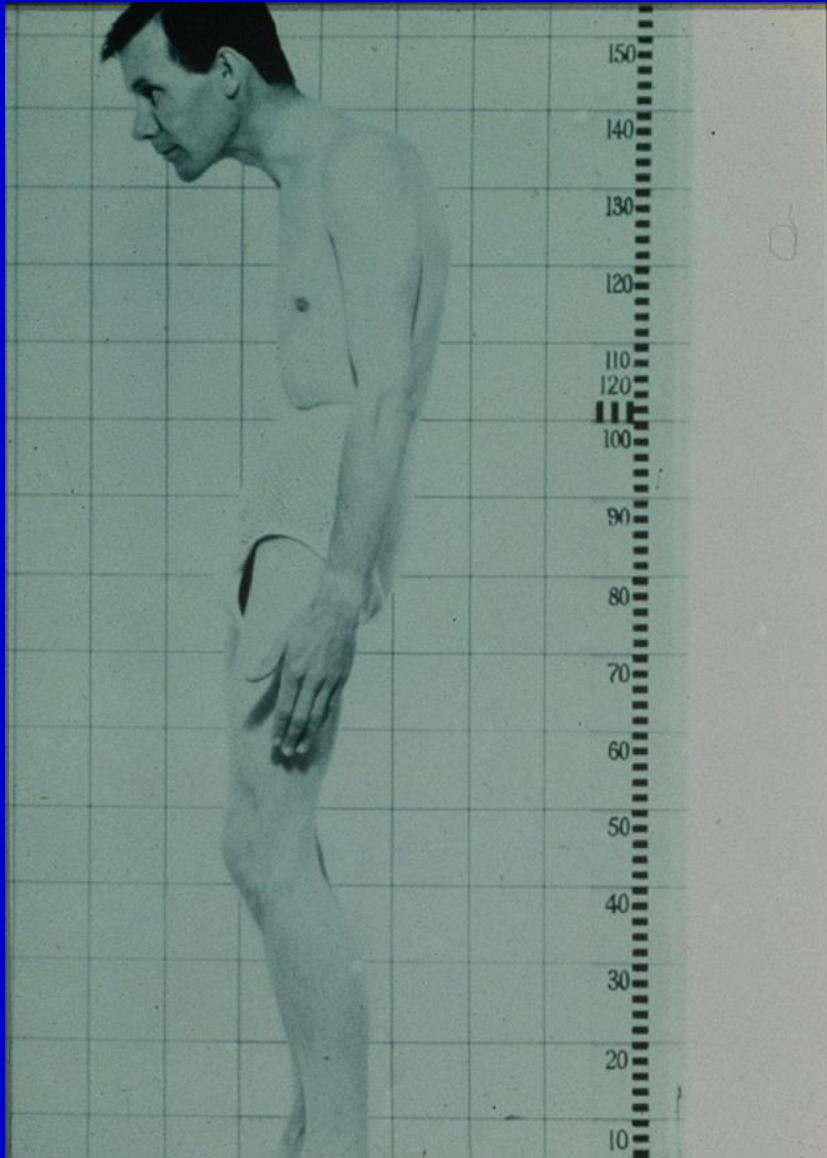




# EYE AND SYSTEMIC DISEASE

## ANYLOSING SPONDYLITIS

- Seronegative
- X-rays of sacroiliac joints
- Acute recurrent non-granulomatous iridocyclitis

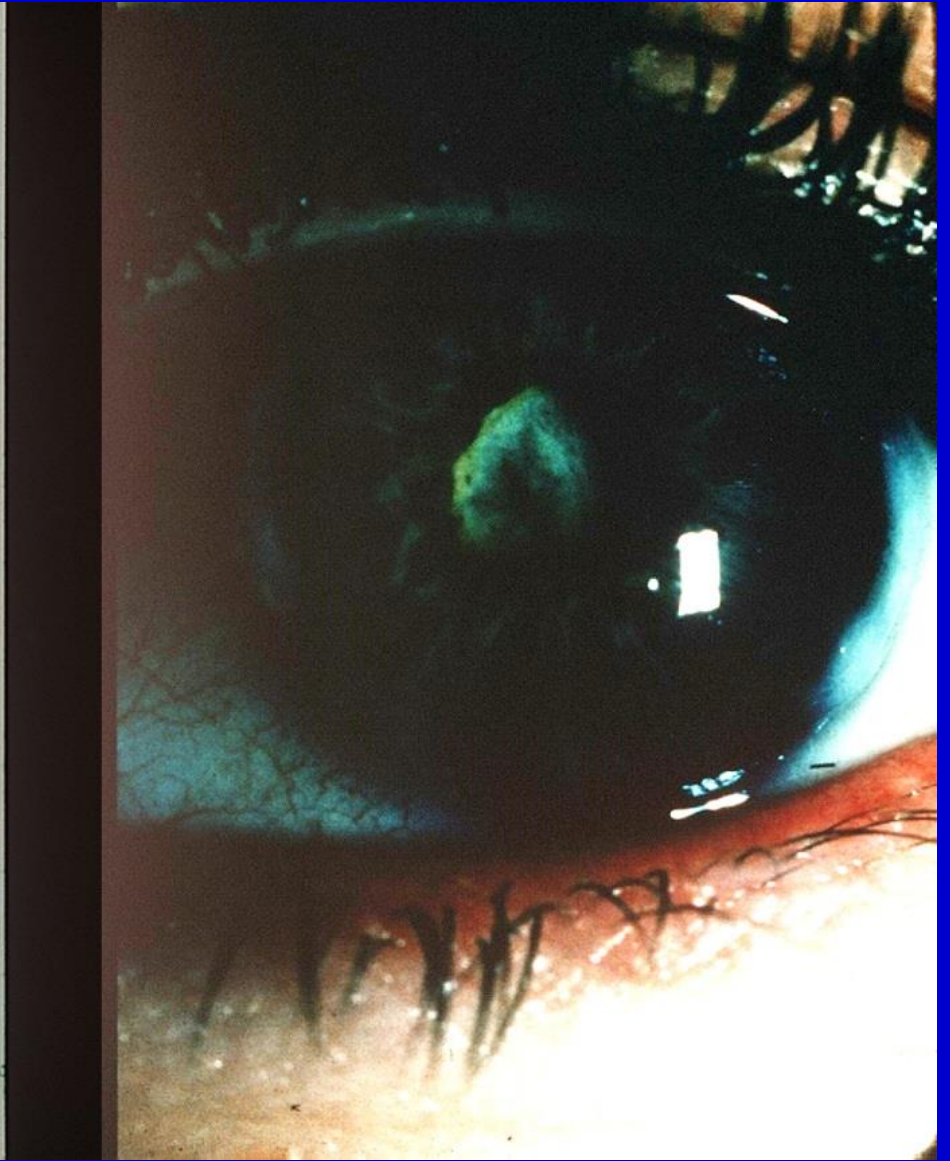
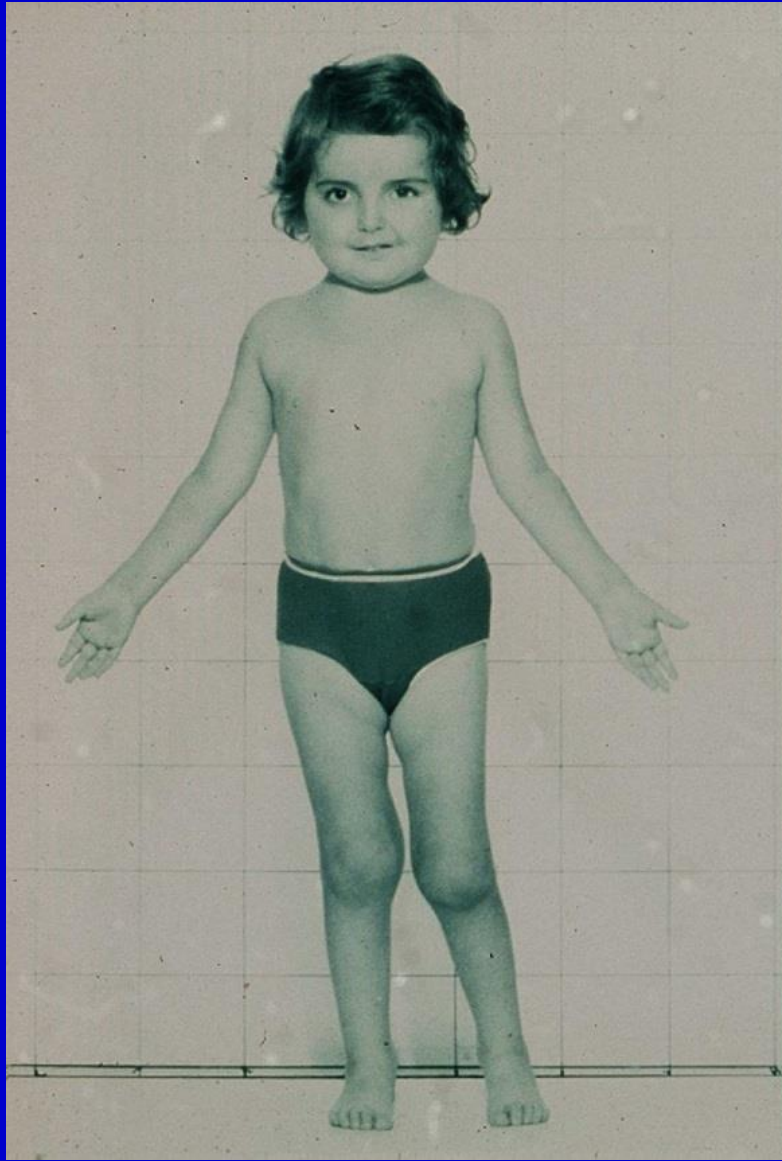




## EYE AND SYSTEMIC DISEASE

### JUVENILE CHRONIC ARTHRITIS “Juvenile rheumatoid arthritis”

- Systemic onset: “Still’s disease”  
uveitis is extremely rare
- Polyarticular onset: Uveitis is fairly rare
- Pauciarticular onset: About 20%  
develop uveitis



# EYE AND SYSTEMIC DISEASE

## BEHÇET'S DISEASE

- Recurrent oral ulceration
- Genital ulceration
- Skin lesions
- Uveitis









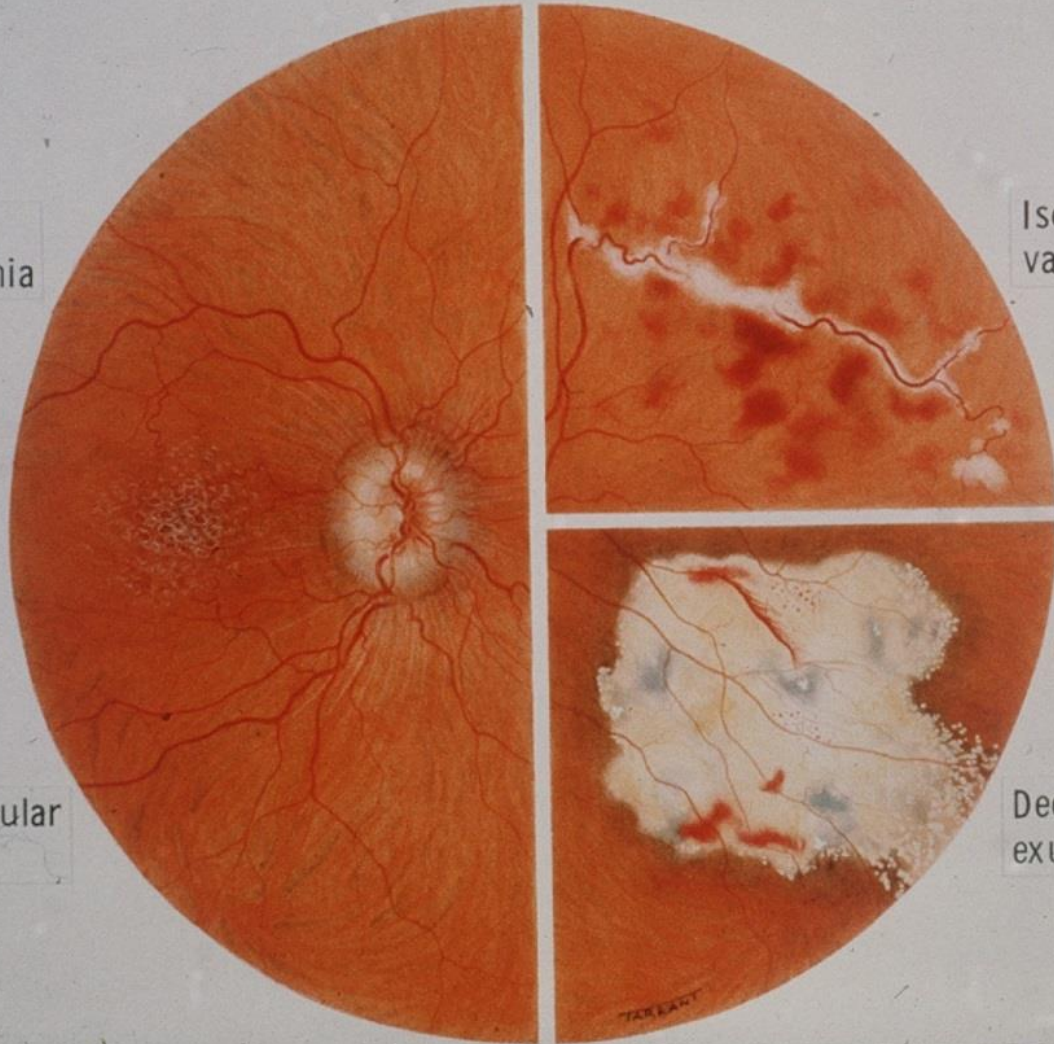
BEHÇET'S SYNDROME

Disc  
hyperaemia

Ischaemic  
vasculitis

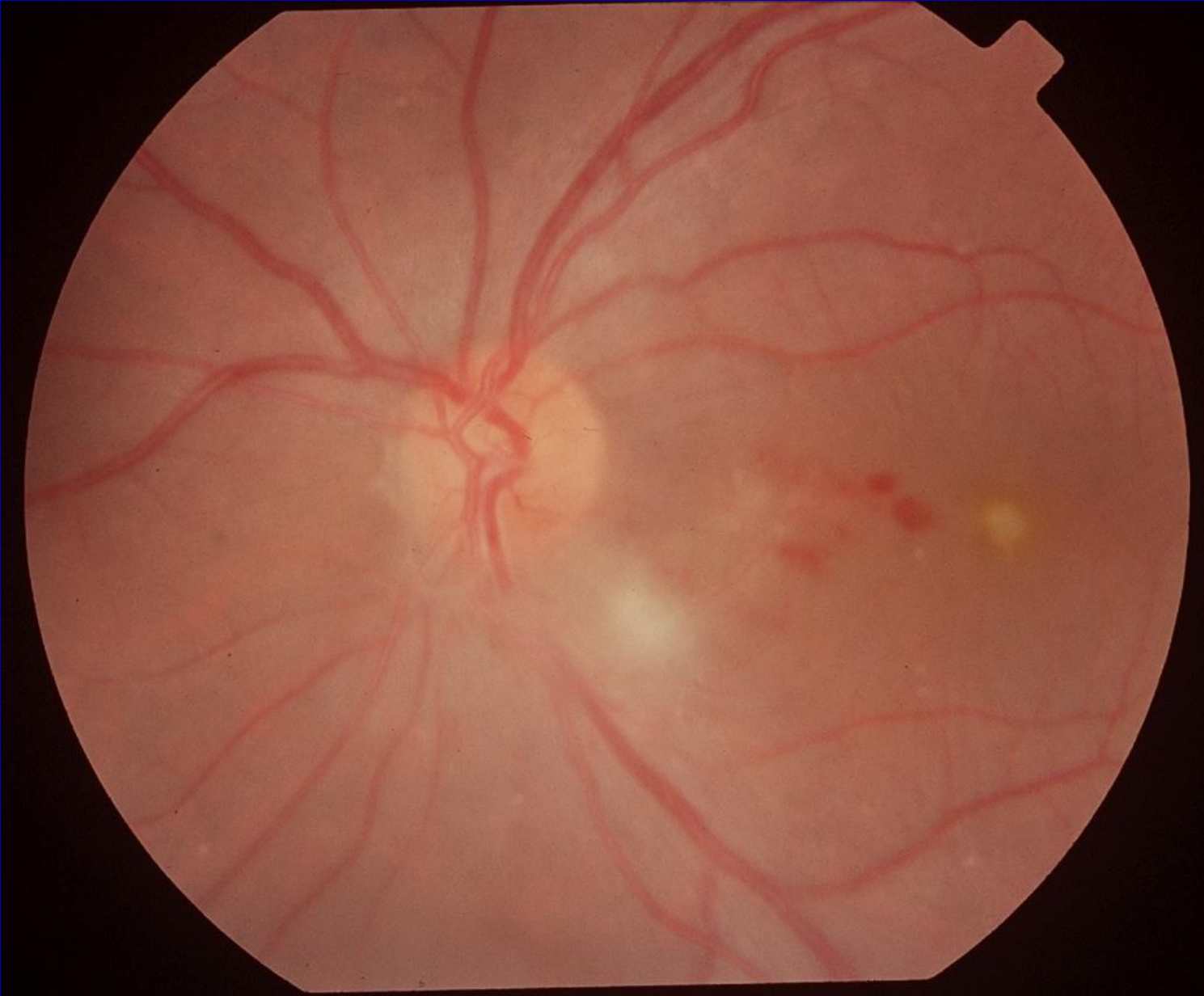
Cystoid macular  
oedema

Deep retinal  
exudation









# EYE AND SYSTEMIC DISEASE

## REITER'S SYNDROME

### A triad:

- Urethritis
- Conjunctivitis
- Seronegative arthritis

### Ocular features:

- Conjunctivitis
- Keratitis
- Iridocyclitis



# EYE AND SYSTEMIC DISEASE

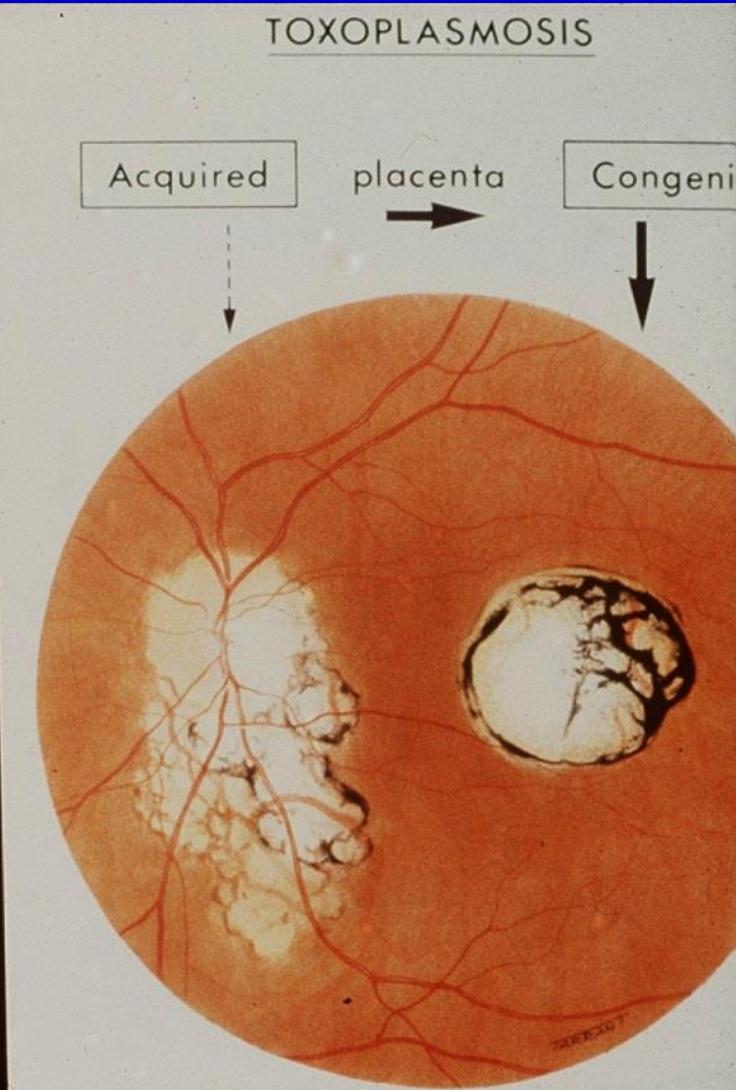
## SJOGREN'S SYNDROME

- Autoimmune disease
- Involvement of salivary glands
- Involvement of bronchial epithelium, vagina
- Ocular features: K.C.S.

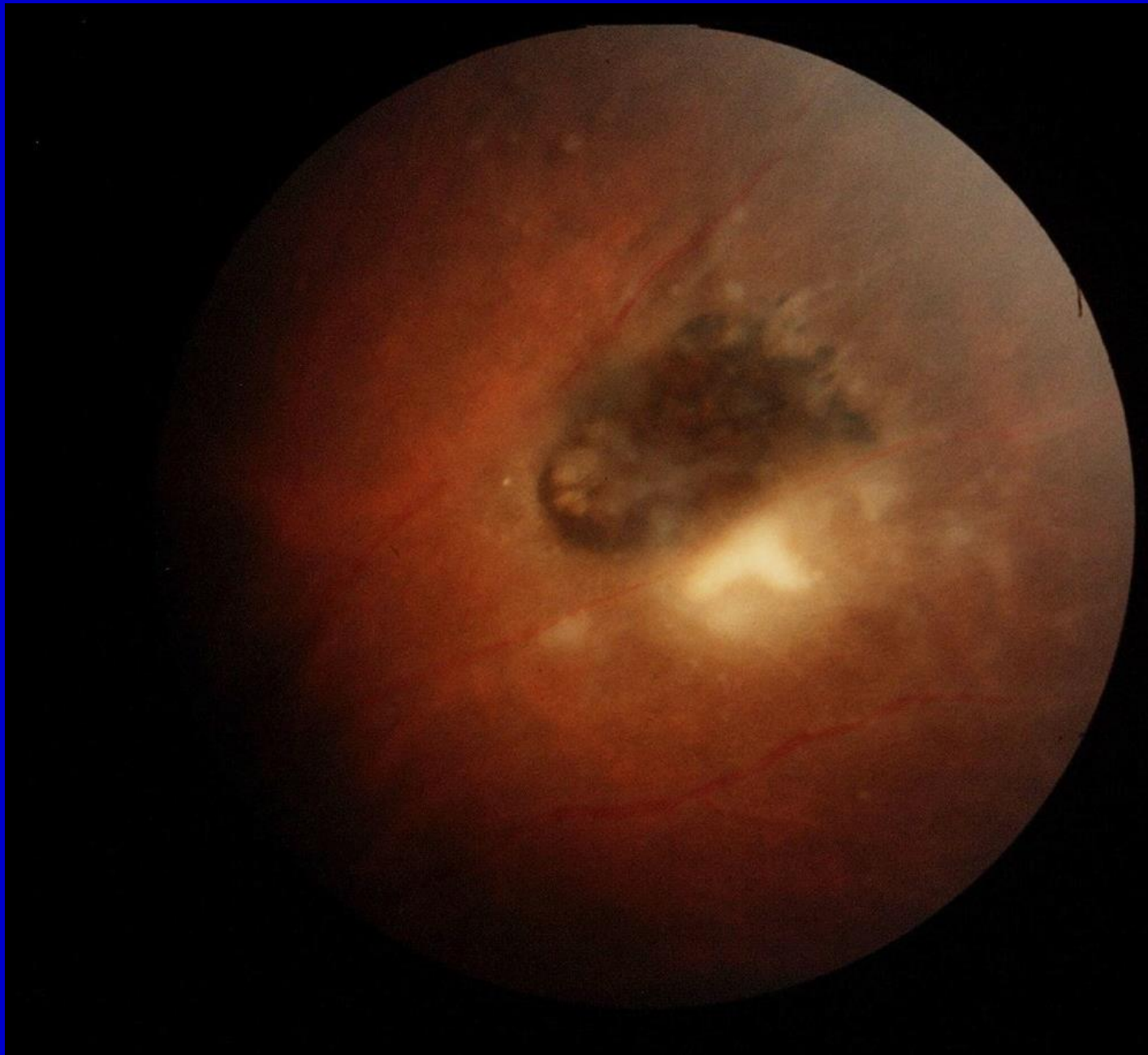
# EYE AND SYSTEMIC DISEASE

## TOXOPLASMOSIS

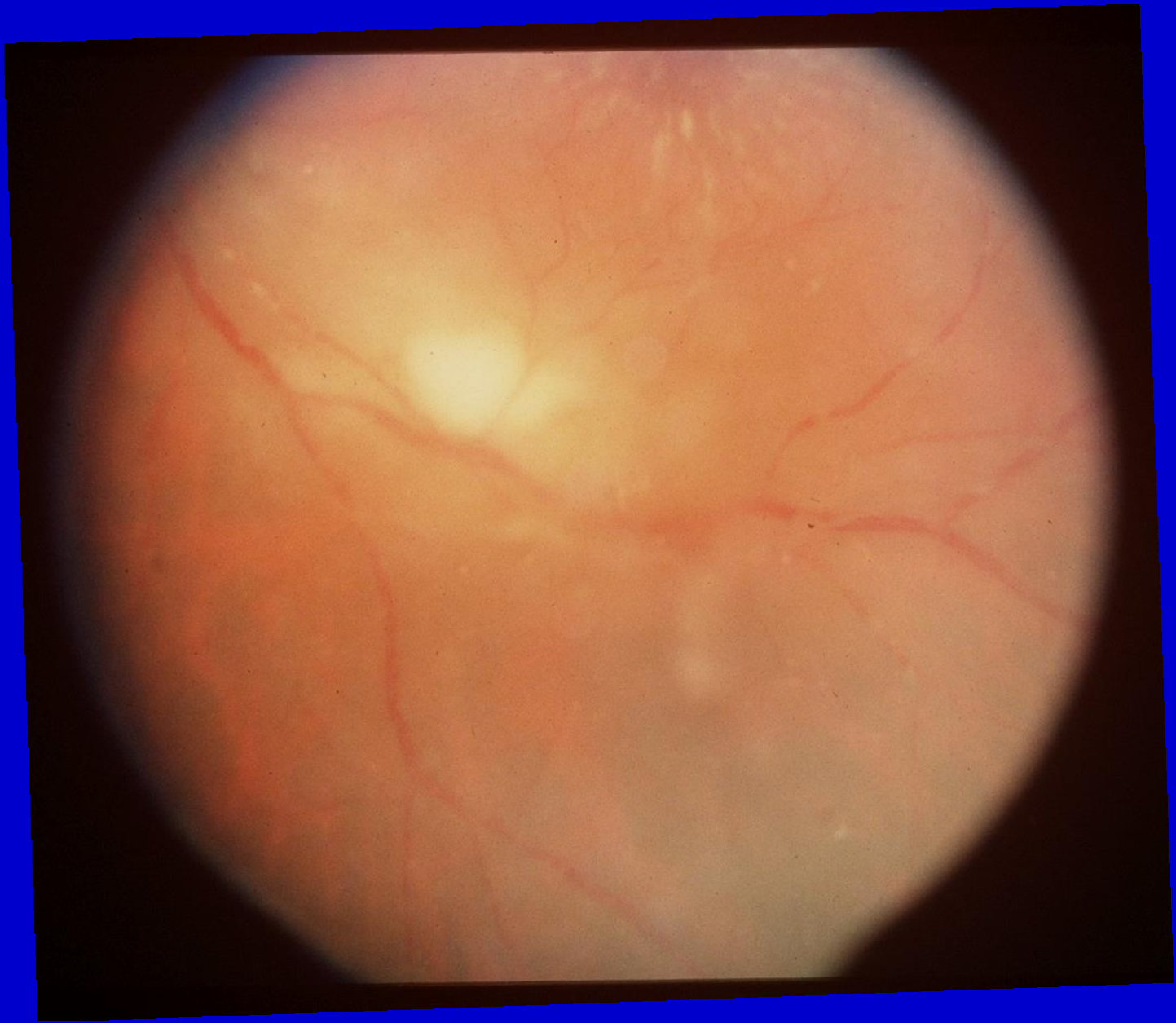
- Toxoplasma gondii, obligatory intracellular protozoan parasite
- **Congenital:**
  - Convulsions, chorioretinitis, intracranial calcification
- **Acquired:**
  - Reactivation of old lesion, retinitis
- Clindamycin, Sulphonamides, Pyrimethamine (Daraprim) steroids













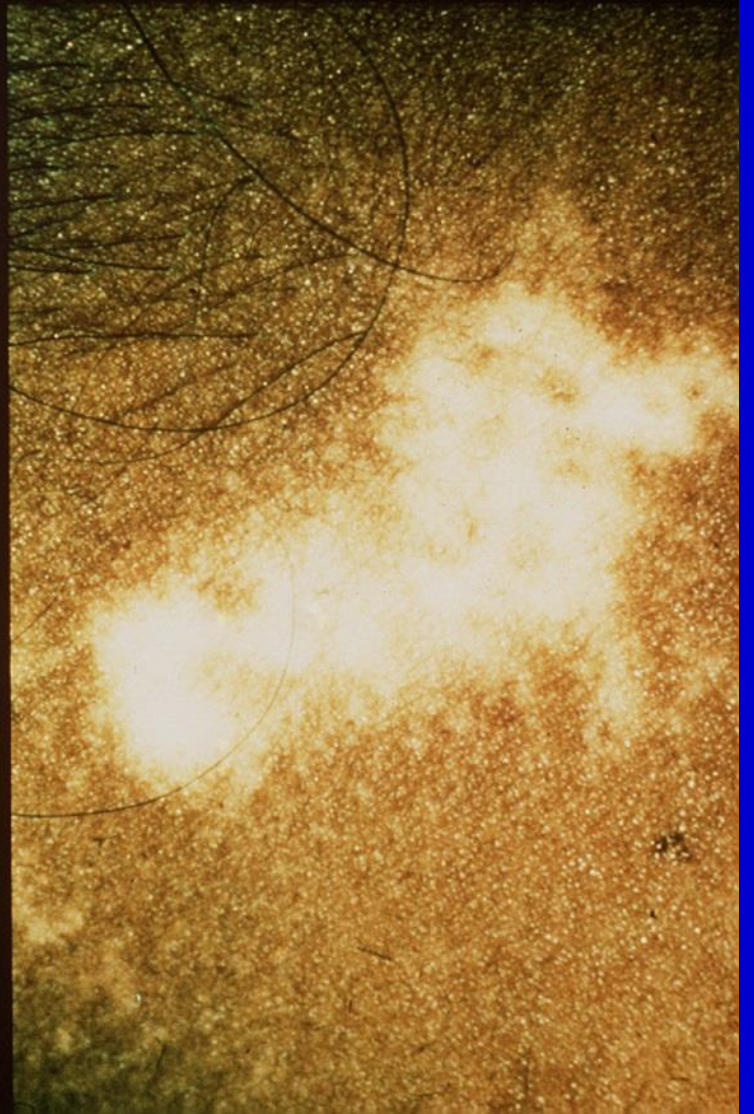
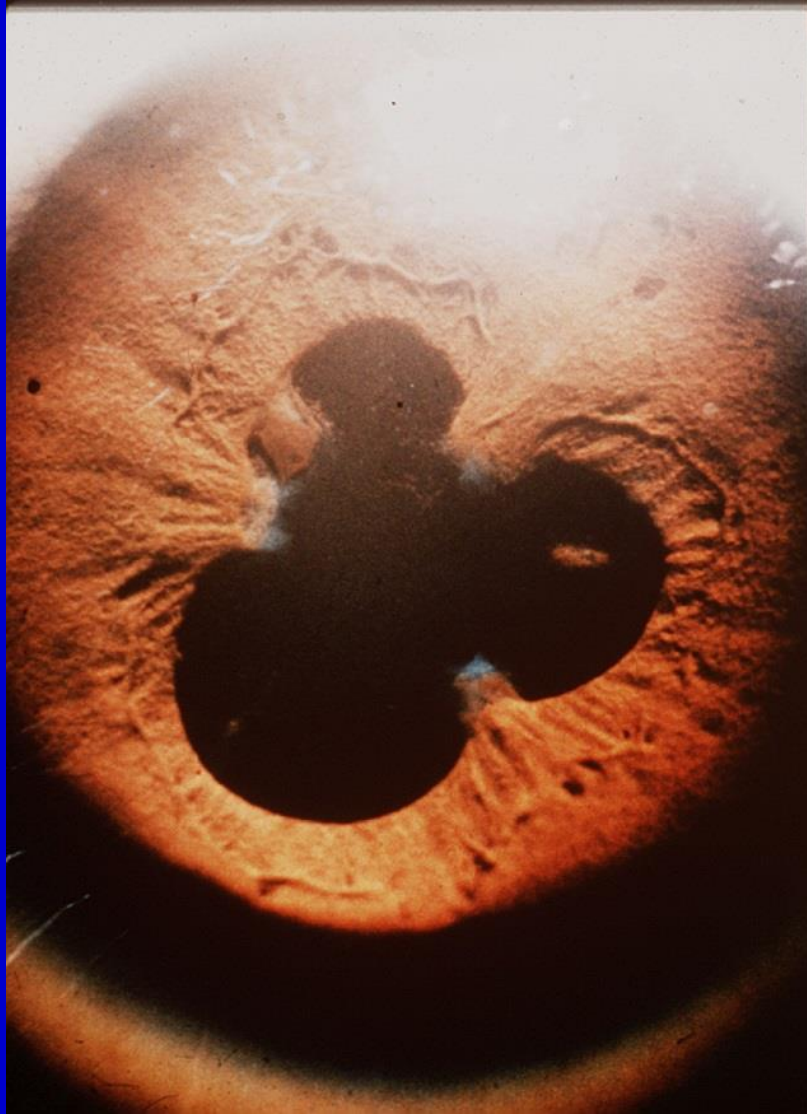
# EYE AND SYSTEMIC DISEASE

## VOGT-KOYANAGI-HARADA SYNDROME

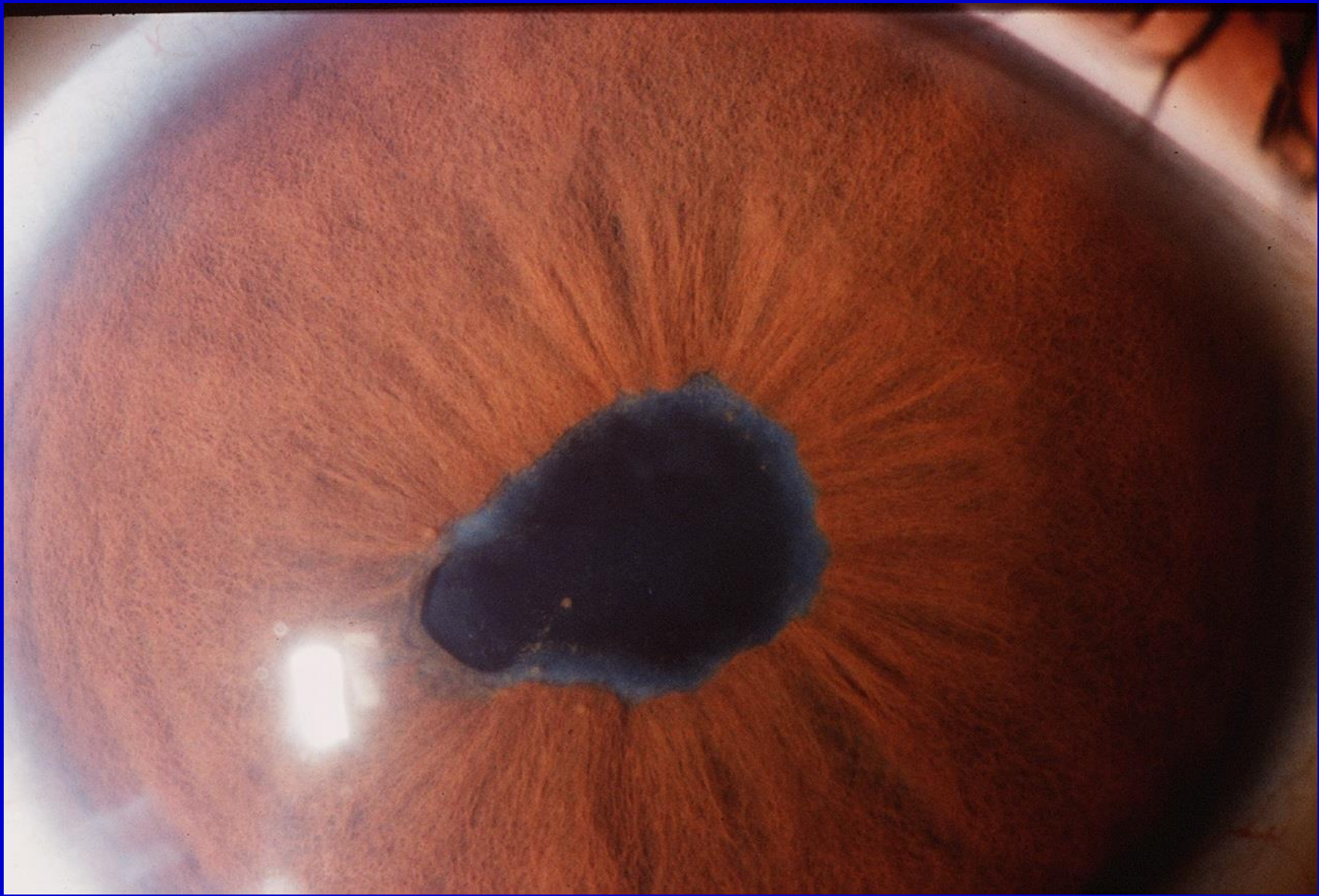
- Pigmented individuals
- Cutaneous signs
- Neurological signs
- Anterior uveitis
- Posterior uveitis.





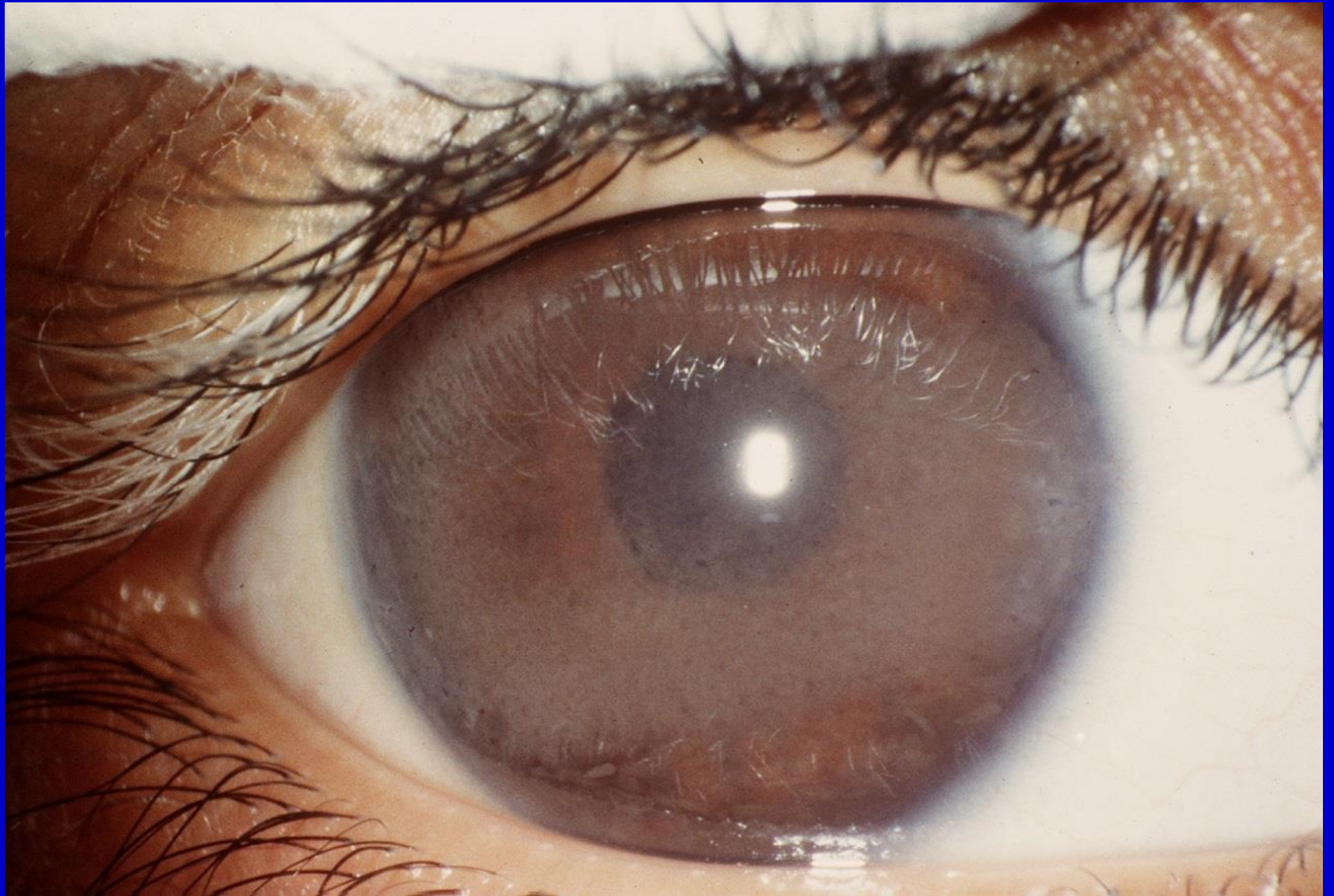










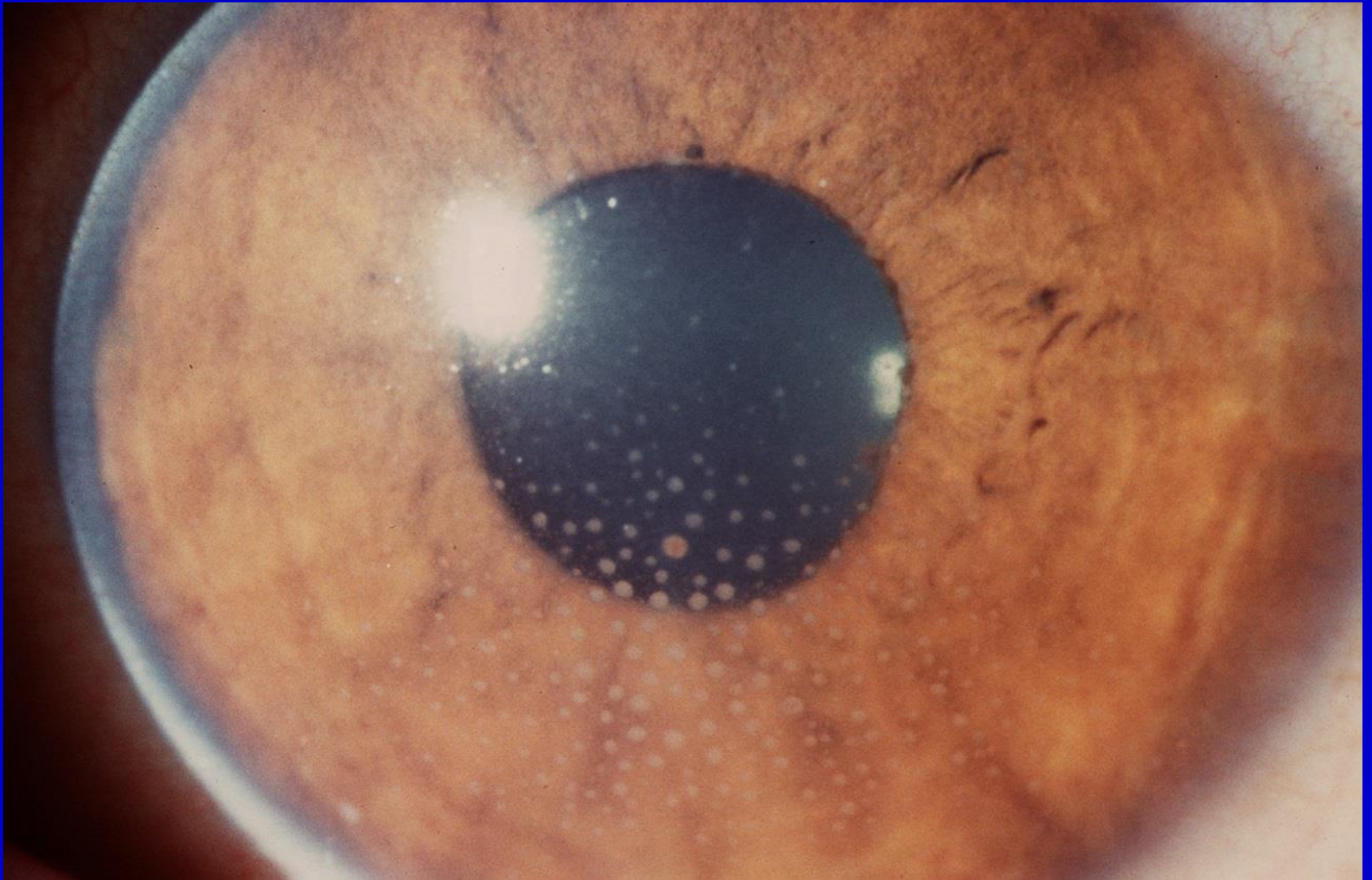




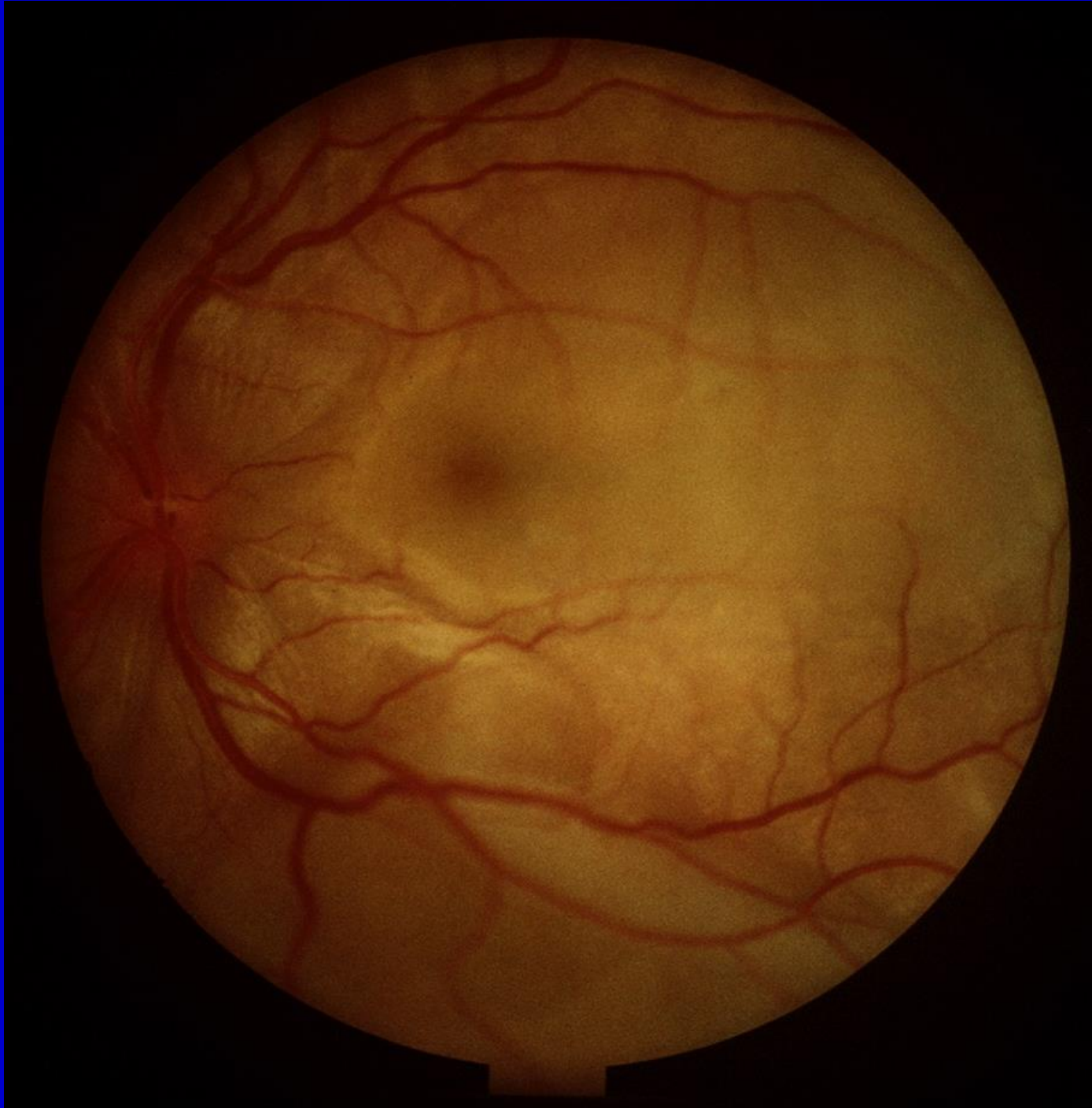








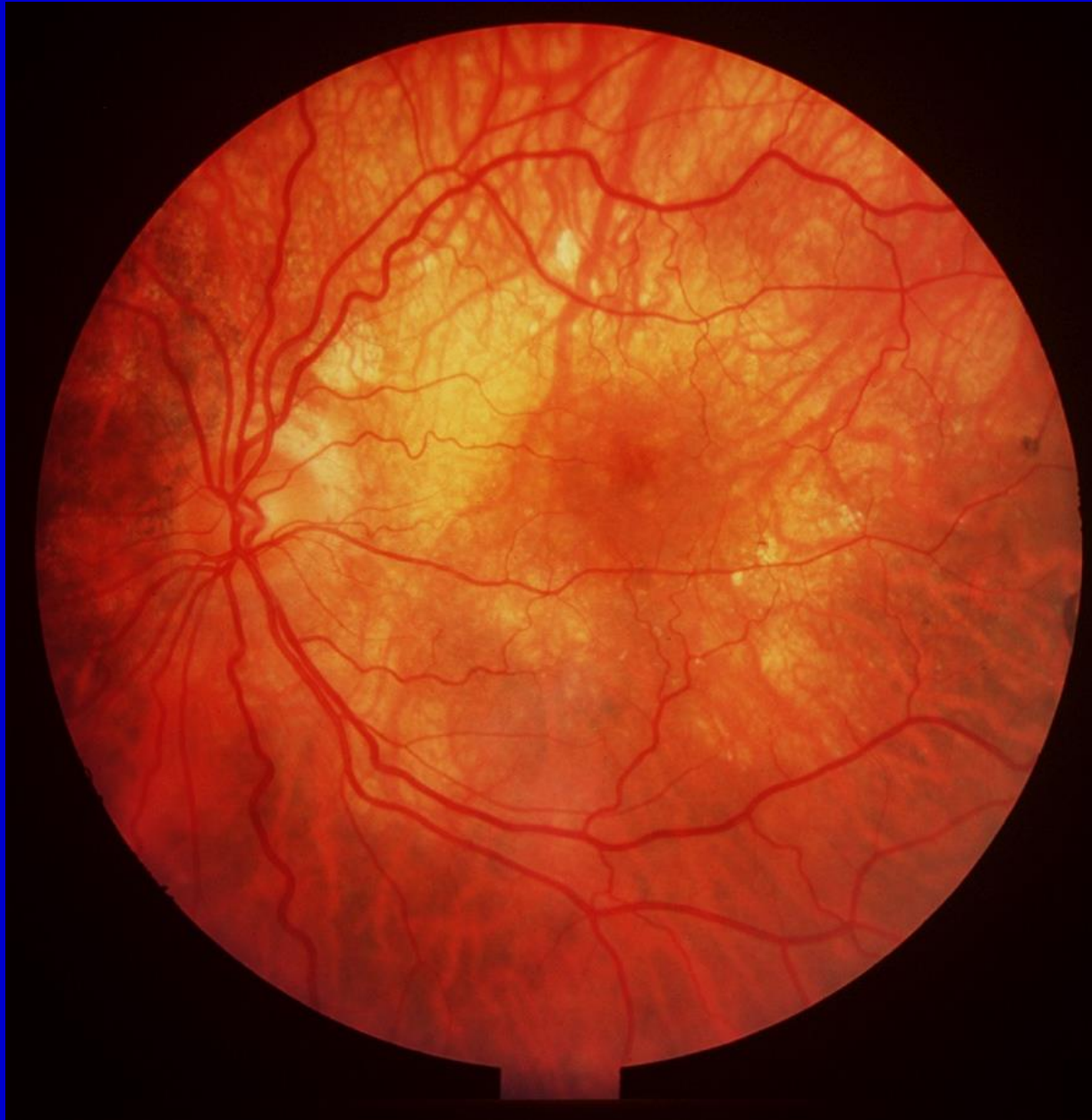


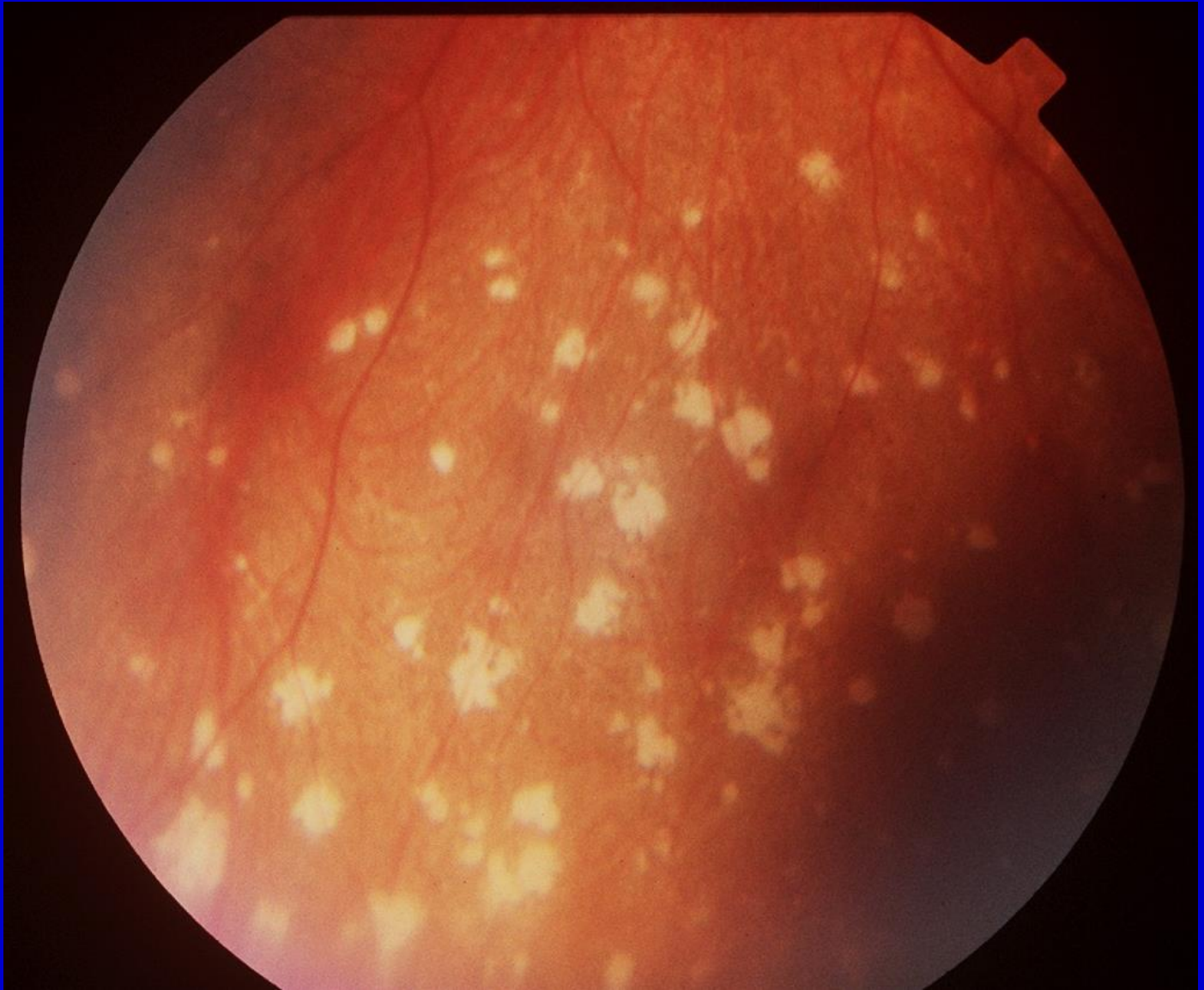










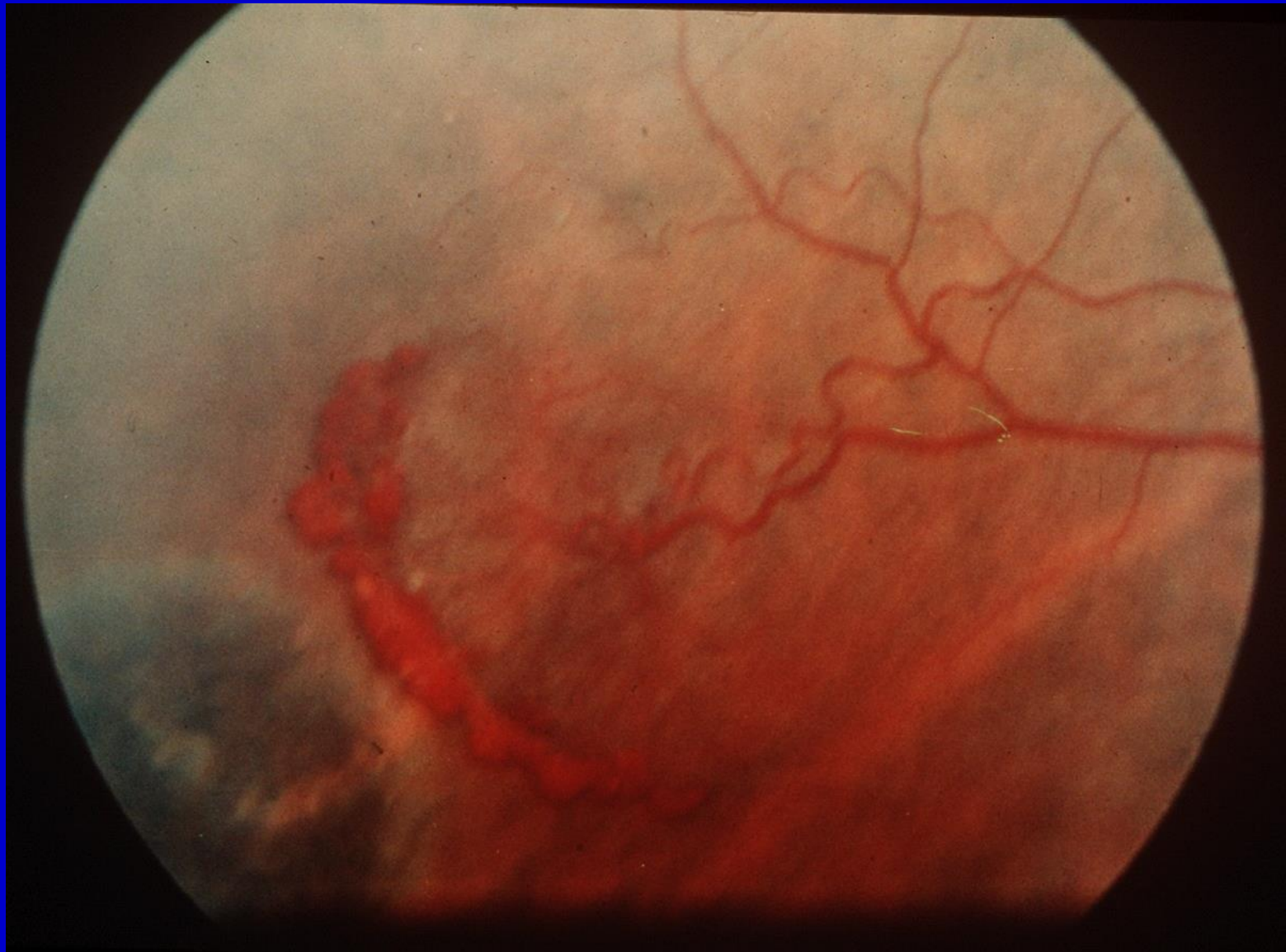


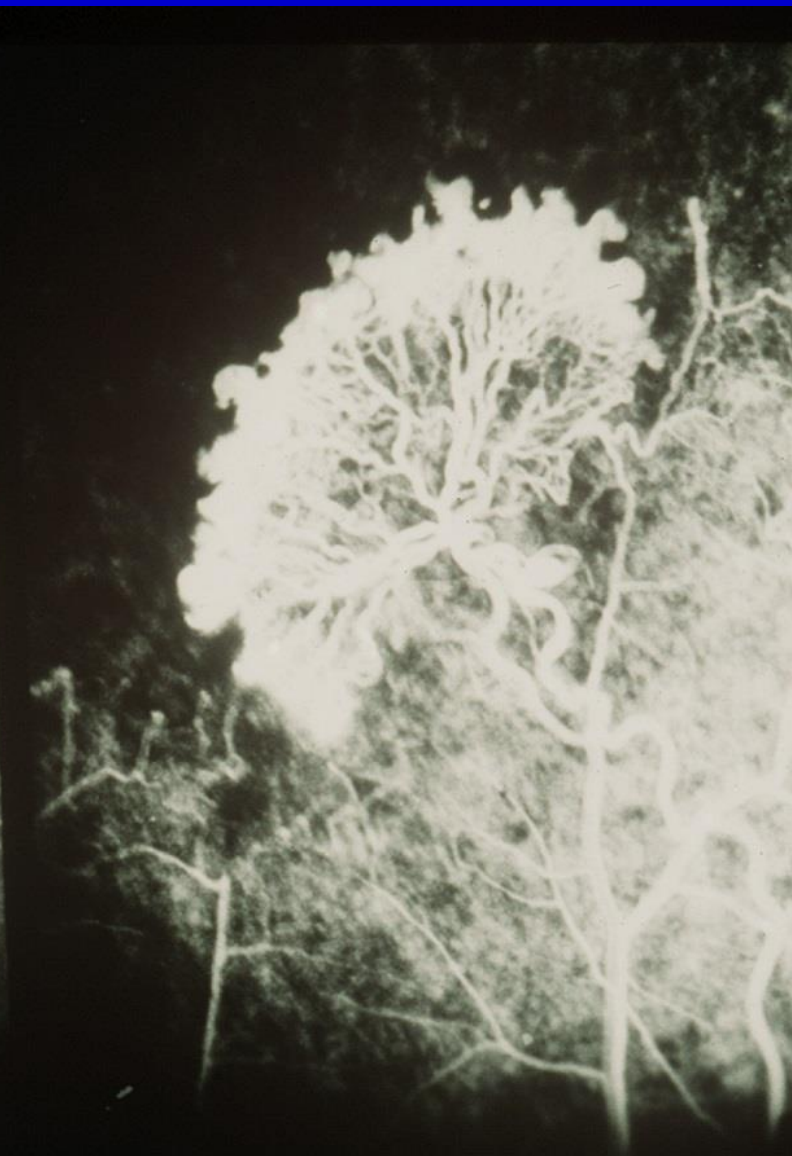
# EYE AND SYSTEMIC DISEASE

## SICKLE CELL DISEASE

- Ocular features
  - Conjunctival comma-shaped capillaries
  - Retinal changes: arterial occlusions, neovascular patterns, capillary closure
- Vitreous hemorrhage







# EYE AND SYSTEMIC DISEASE

## HYPERTENSIVE RETINOPATHY

### Keith Wagener grouping:

- Stage I & II: arteriolar attenuation, increased light reflex
- State III: Cotton wool spots, hard exudates, hemorrhages, macular star, retinal edema
- Stage IV: + edema of the optic disc

### Ischemic choroidal infacts (Elsching's spots):

- Retinal arterial macroaneurysm, ischemic optic neuropathy









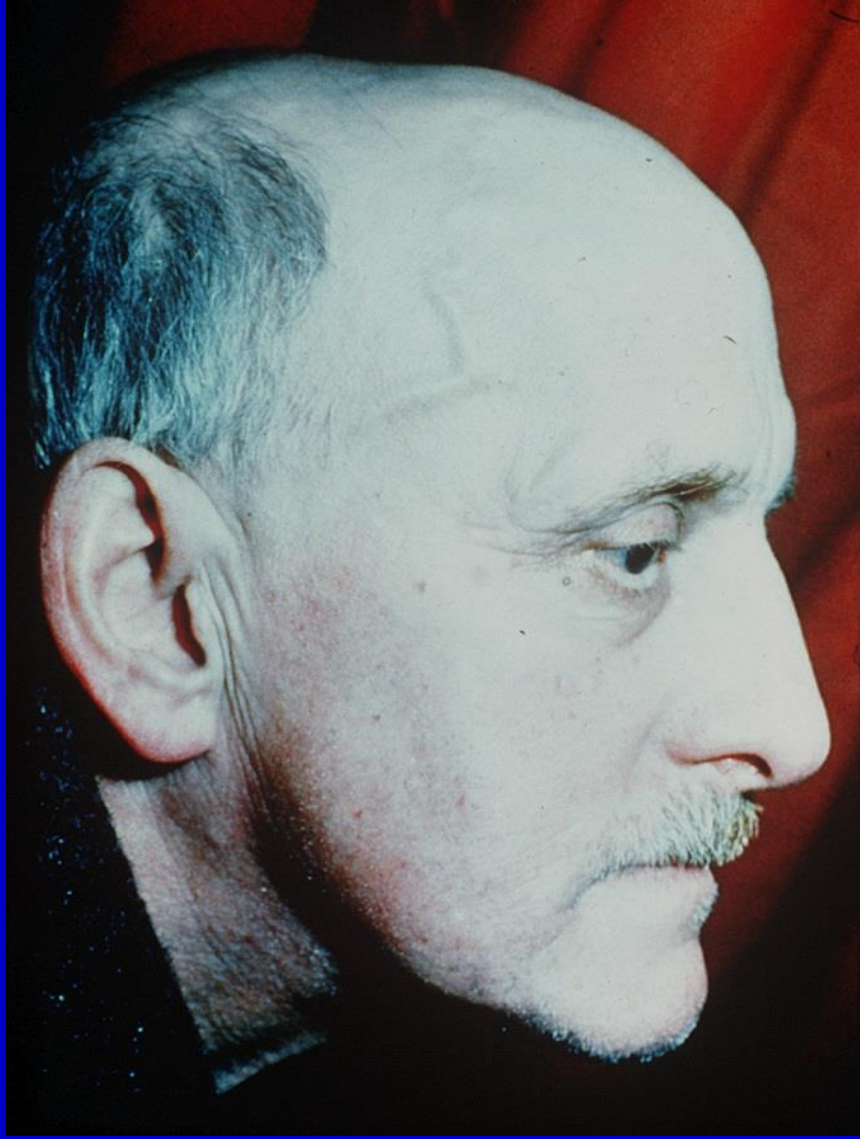




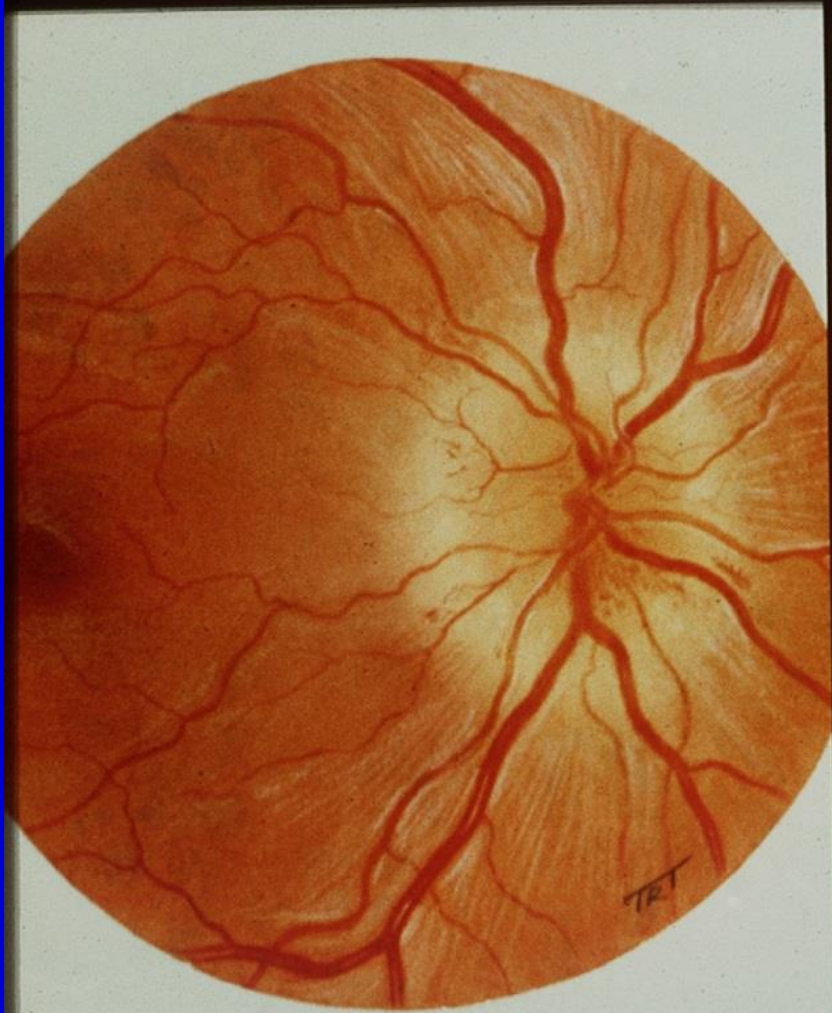
# EYE AND SYSTEMIC DISEASE

## GIANT CELL ARTERITIS

- Over 60 years
- Large and medium sized vessels
- Sudden visual loss
- Anterior ischemic optic neuropathy
- Amaurosis fugax
- CRAO, cotton wool spots, anterior segment necrosis, ocular motor palsies, cortical blindness







Ischaemic optic neuropathy



