AHMED M. ABU EL-ASRAR, MD, PhD

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College of Medicine
King Saud University

Diabetes Mellitus

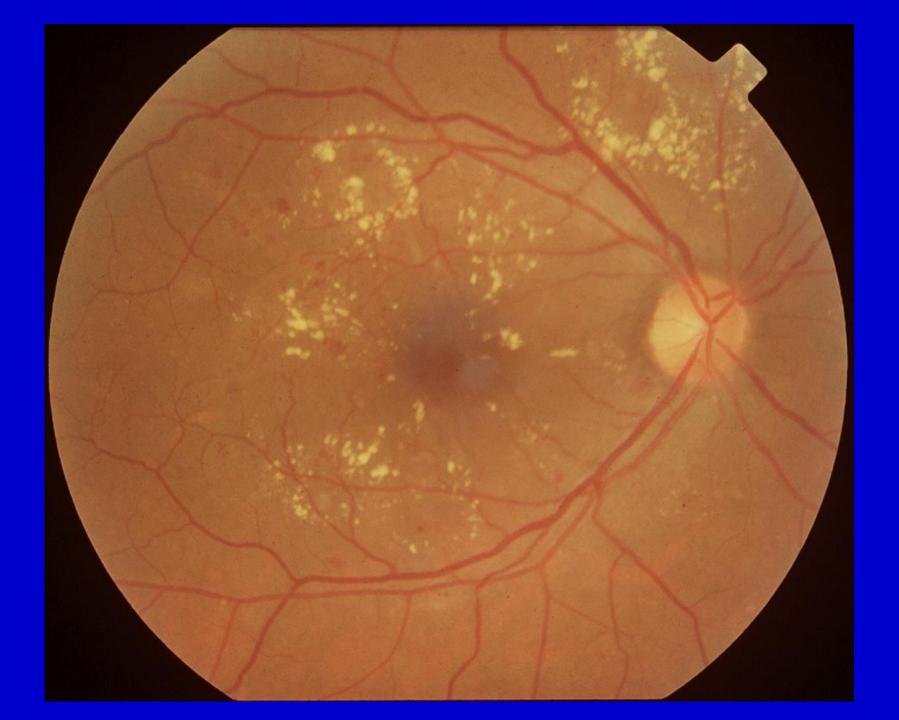
- The risk of blindness is about 25 times greater in diabetic than in non-diabetics.
- DR is the commonest cause of legal blindness in individuals between the ages of 20 and 65 years.
- The incidence of DR is related more to the duration of diabetes than to any other factor.

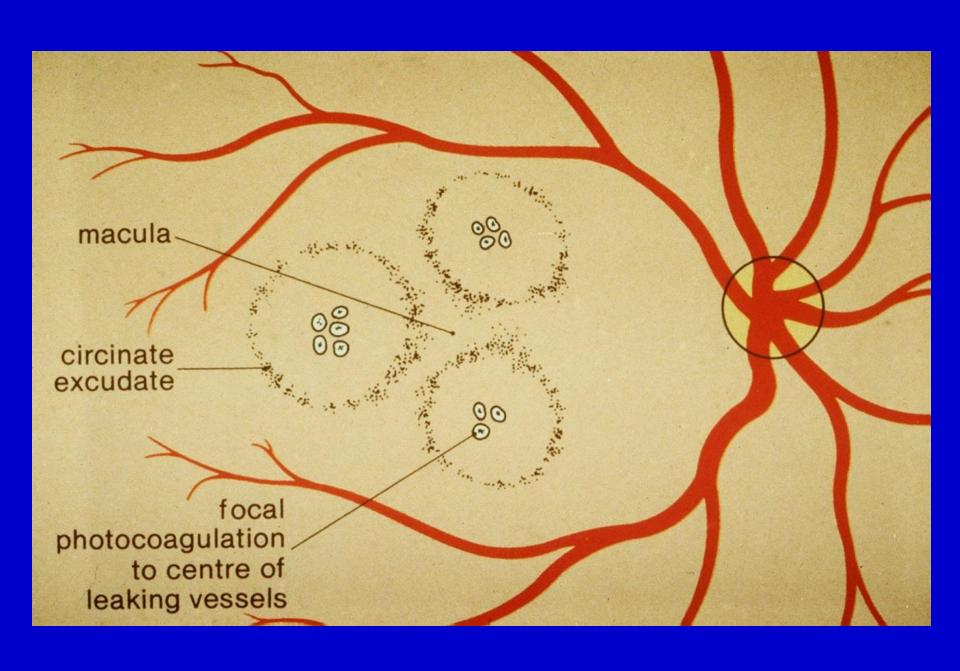
Ocular Manifestations

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



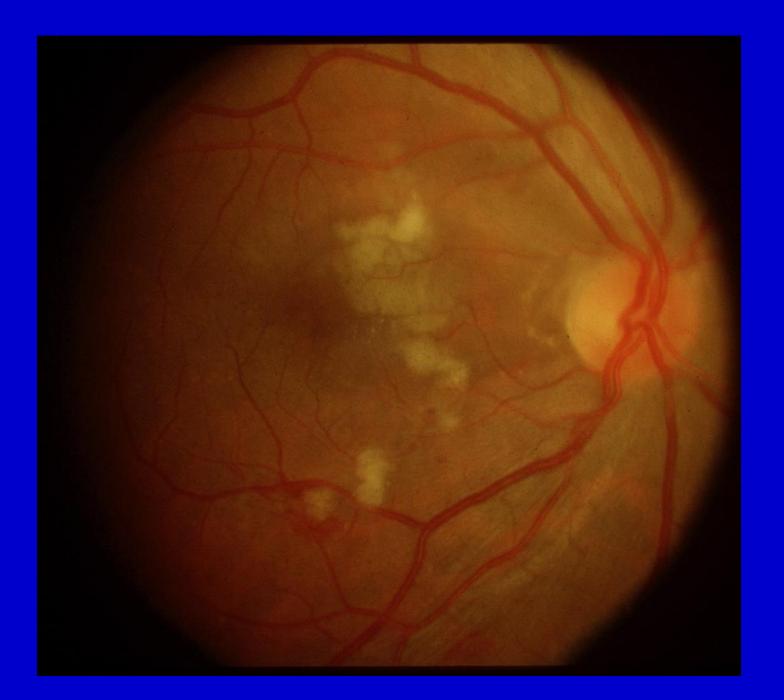




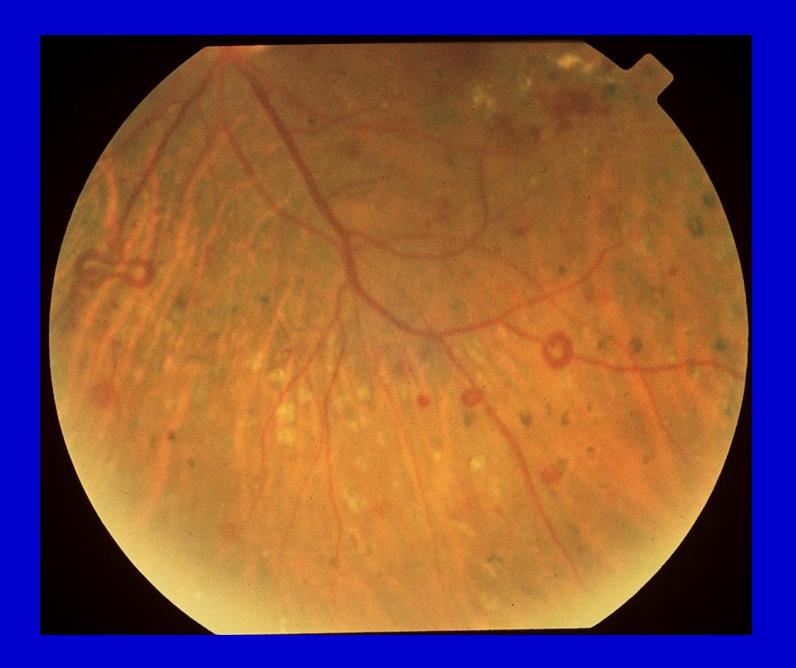


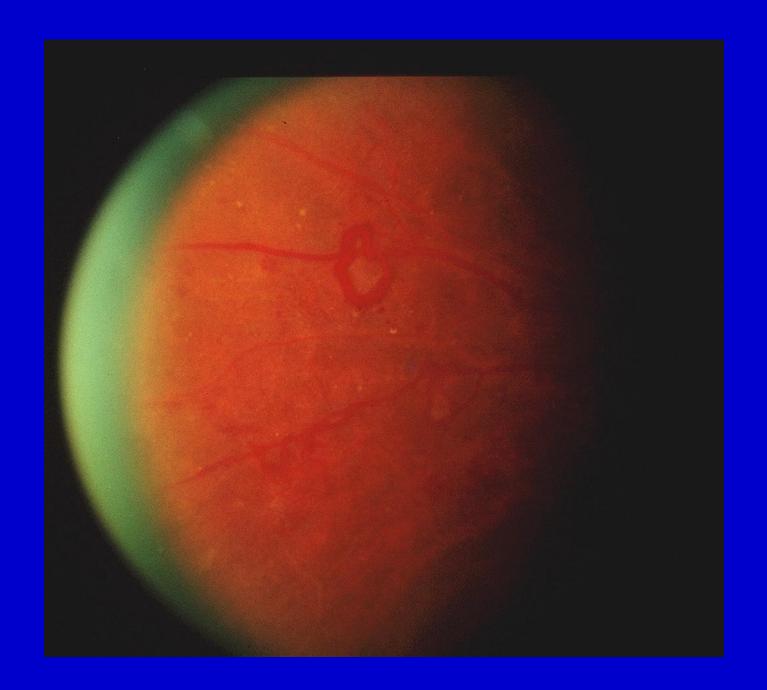
















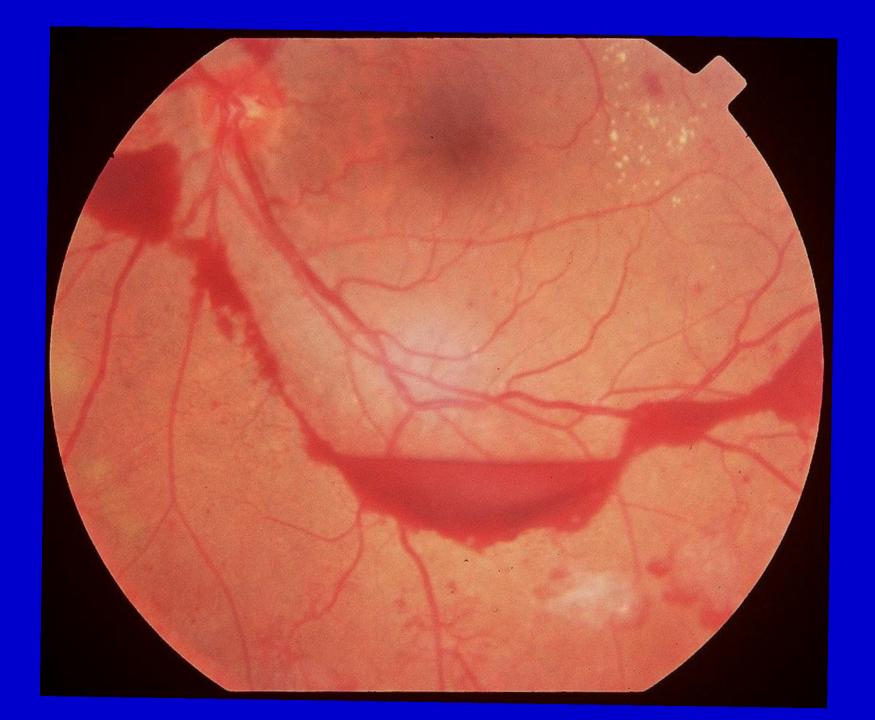




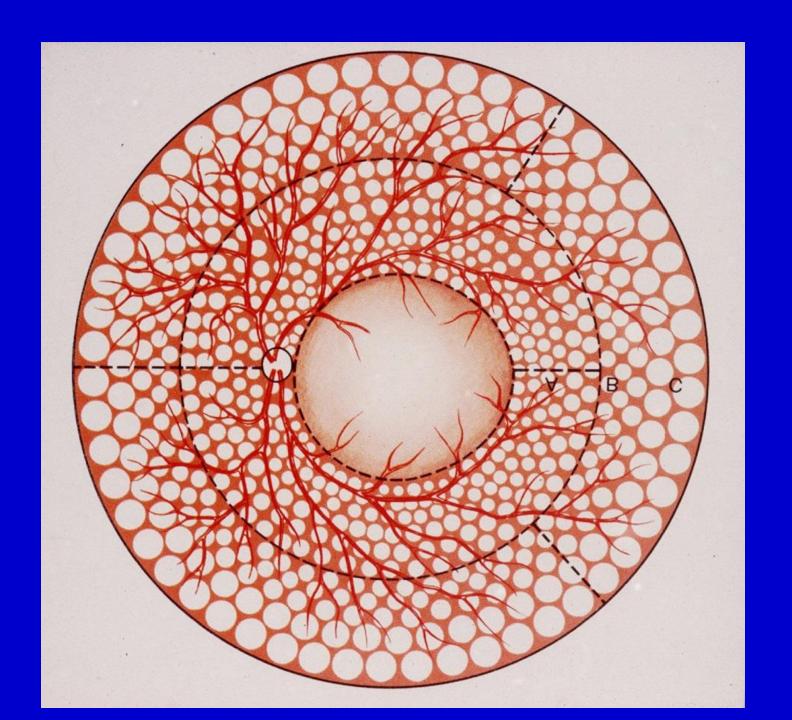




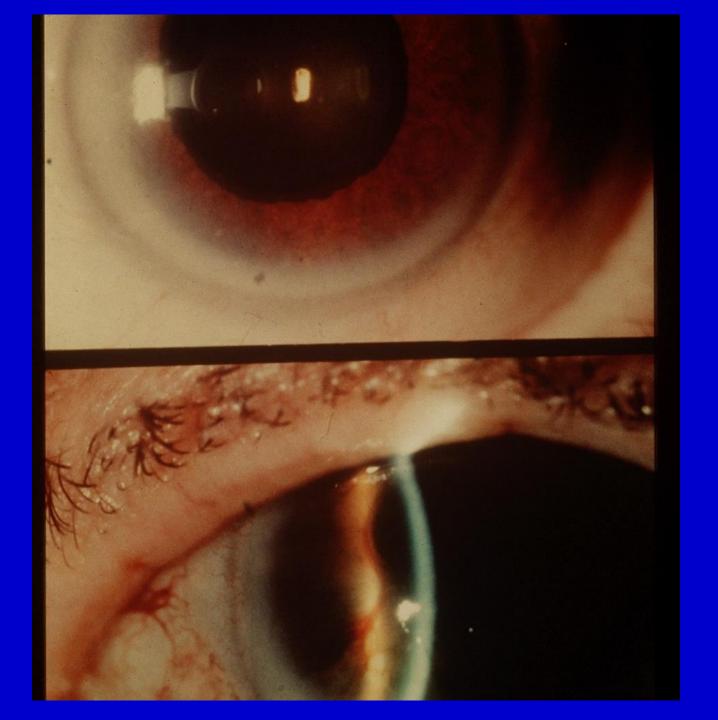








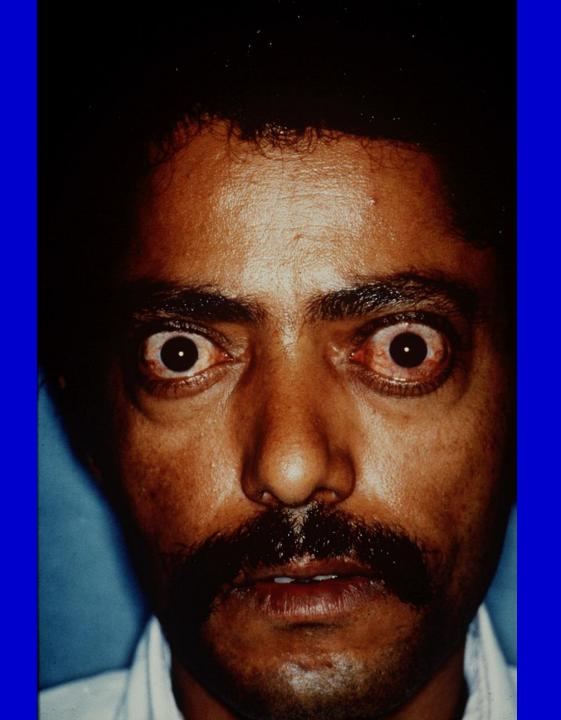


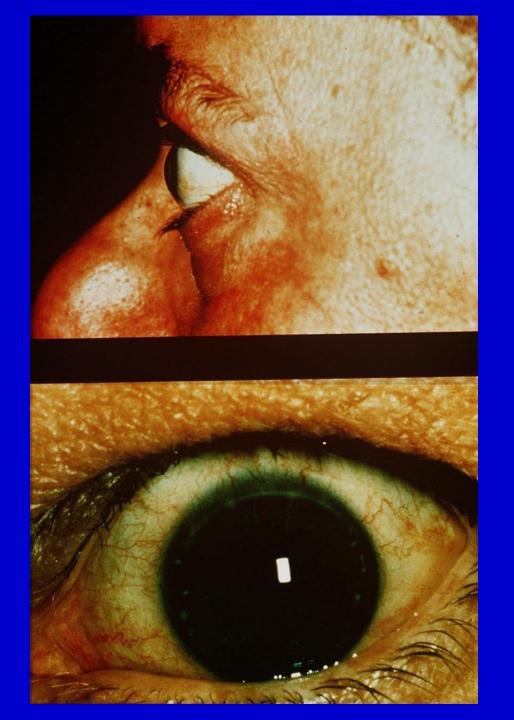


GRAVES' DISEASE

Ocular features:

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



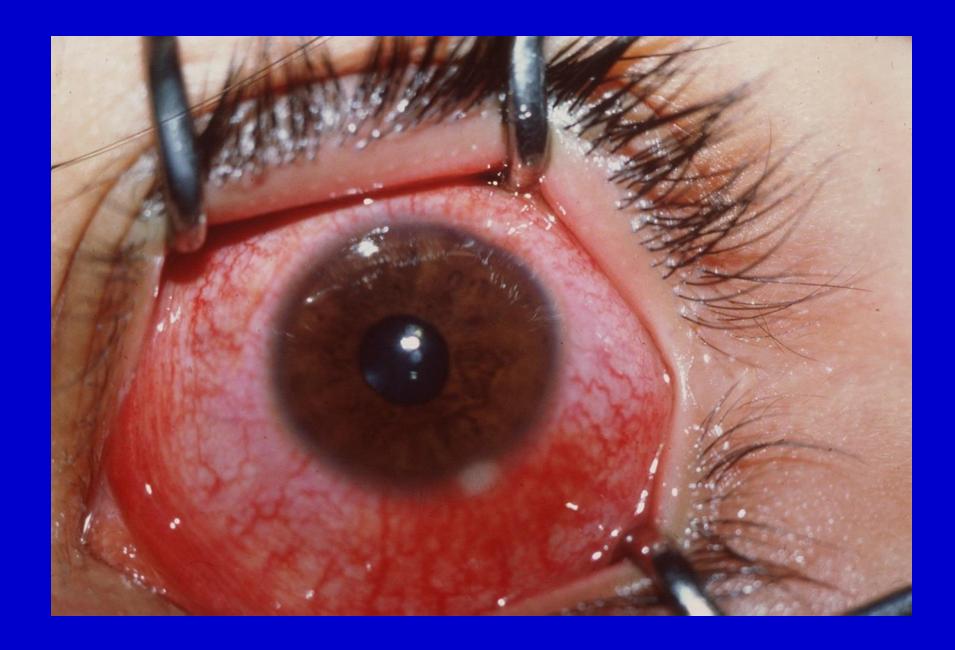


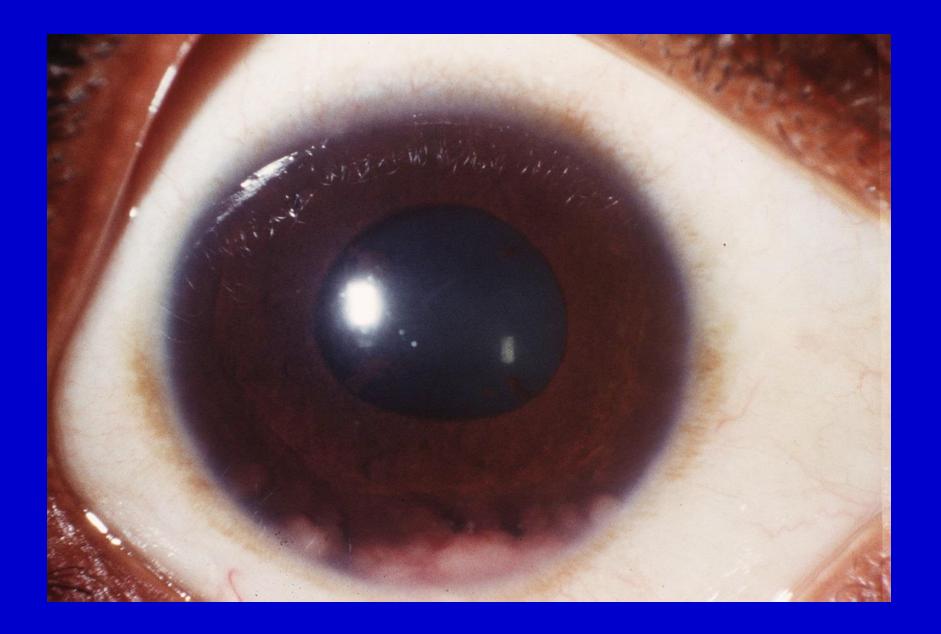




TUBERCULOSIS

- Phlyctenular keratoconjunctivitis
- Interstitial keratitis
- Uvea
- Retinal vasculitis









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

Syphilis

Congenital:

- Interstitial keratitis
- Chorioretinitis

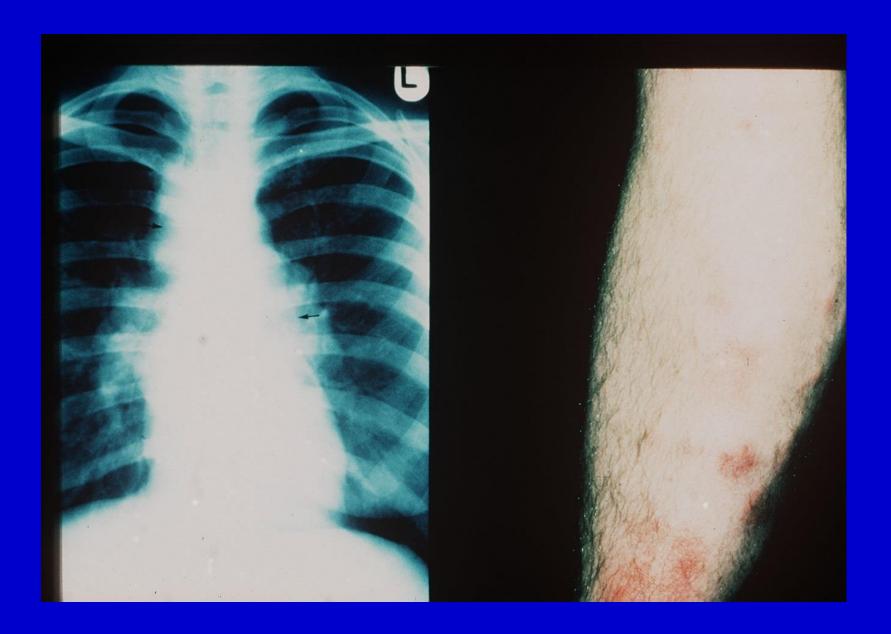
Acquired:

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

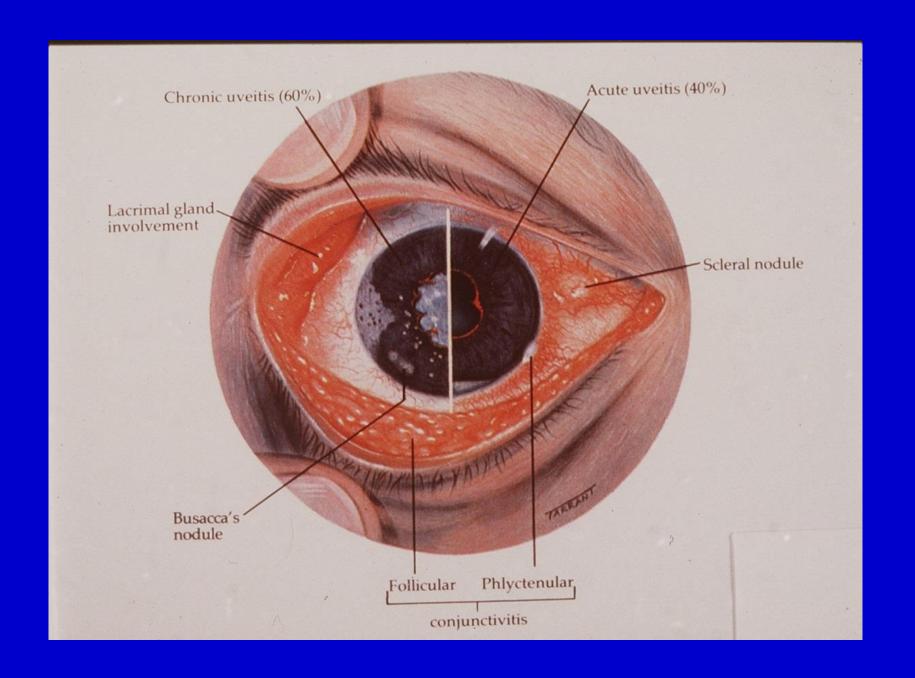
Sarcoidosis

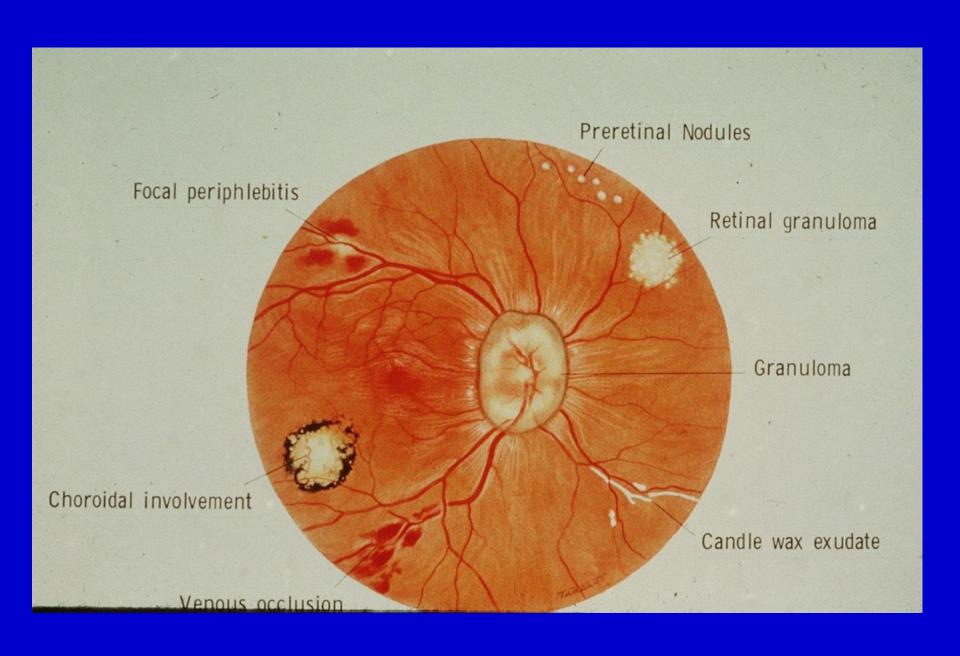
Eye lesions:

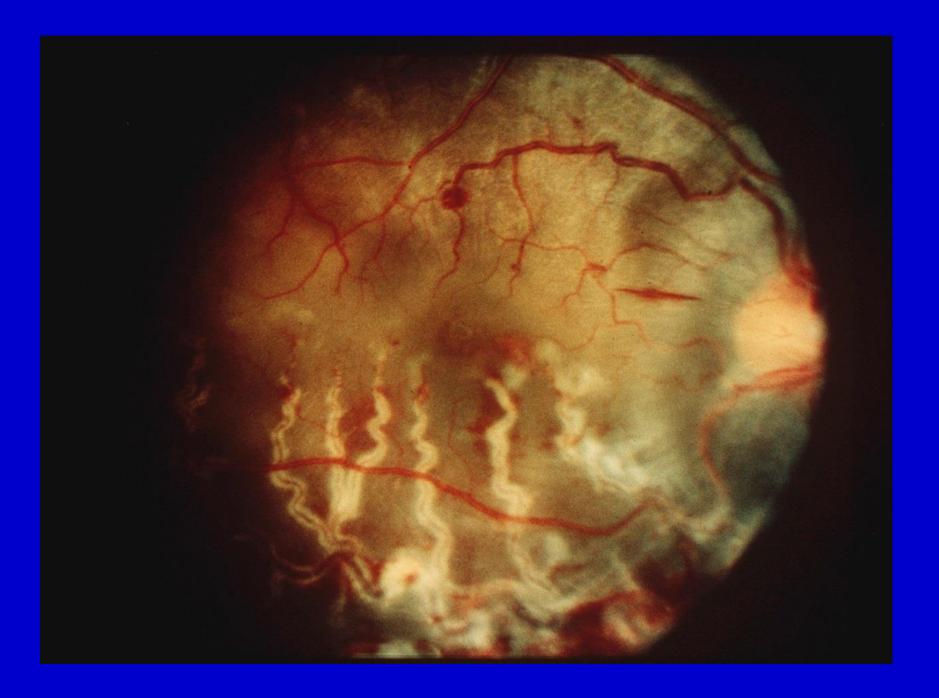
- Lid margin and conjunctival granuloma
- Acute iridocyclitis
- Chronic granulomatous iridocyclitis
- Peripheral retinal periphlebitis
- Choroidal granulomas
- Retinal granulomas
- Optic nerve granulomas











RUBELLA

- Cataract
- Microphthalmos
- Retinopathy
- Glaucoma



WILSON'S DISEASE (Hepatolenticular degeneration)

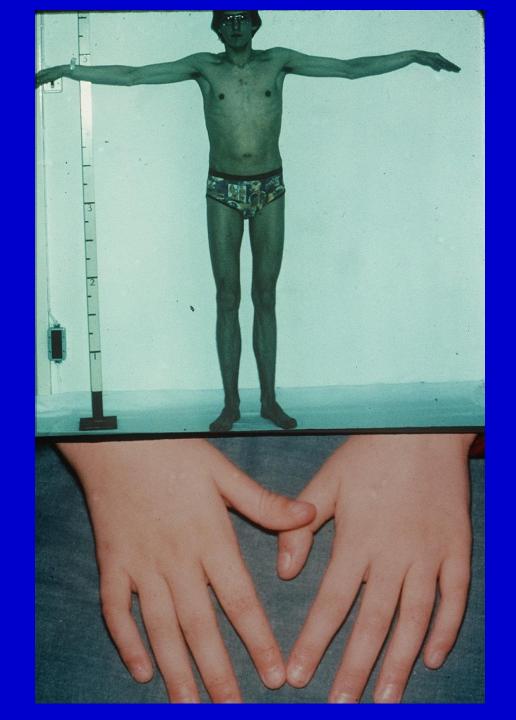
Ocular features:

- Kayser-Fleischer ring
- Green sunflower cataract

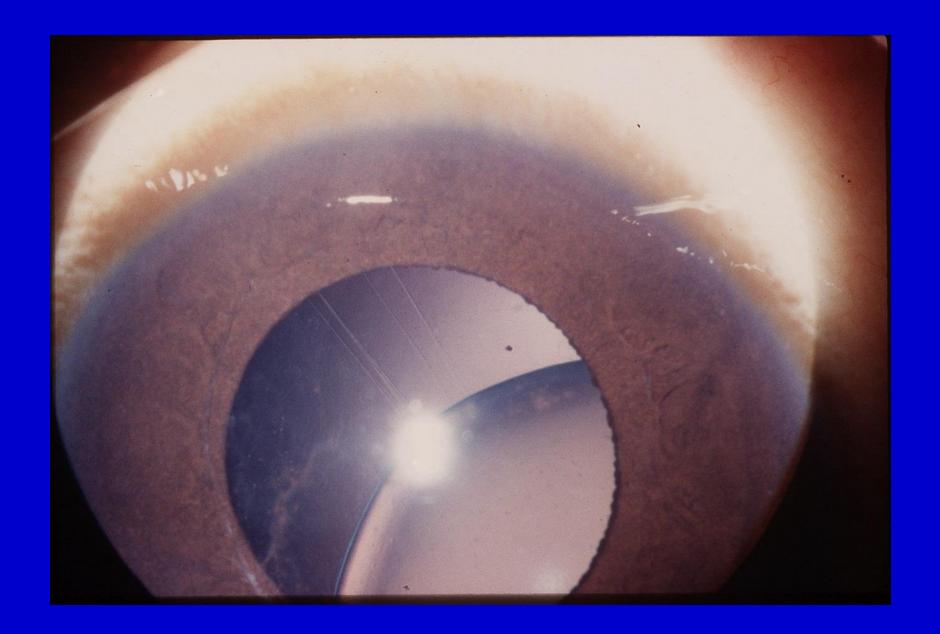
MARFAN'S SYNDROME

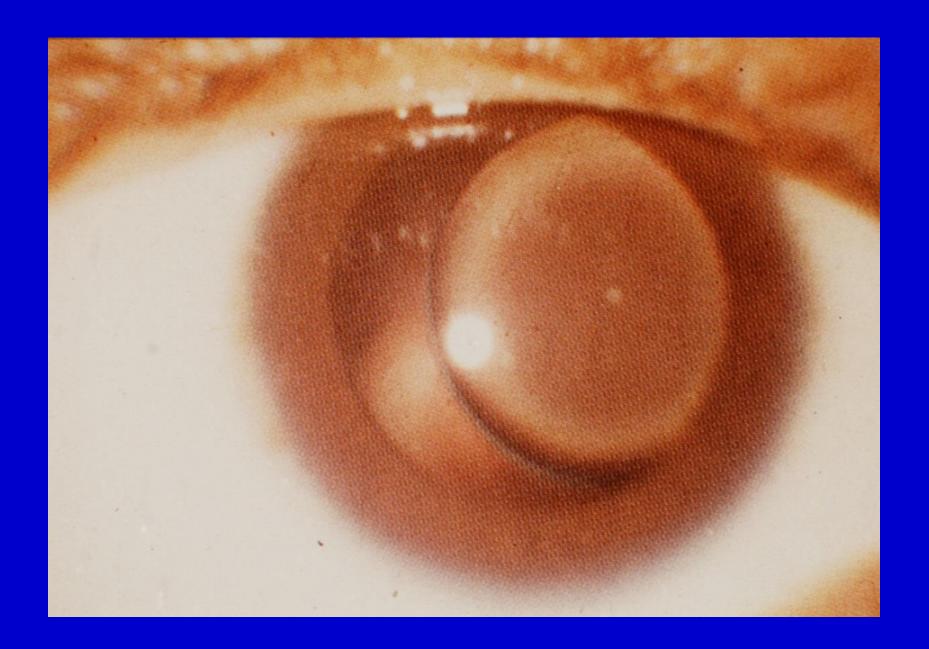
Ocular features:

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











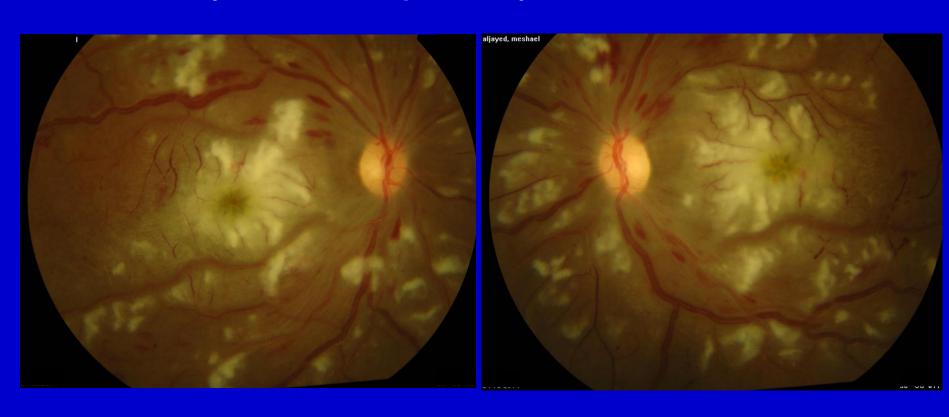




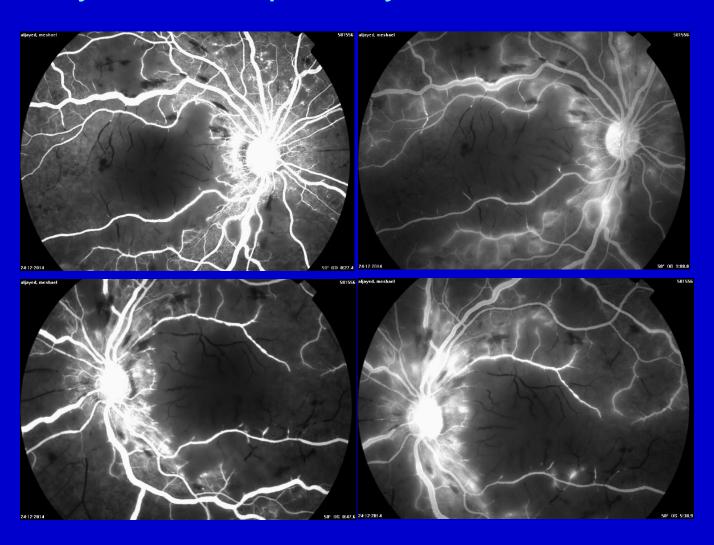




Systemic Lupus Erythematosus



Systemic Lupus Erythematosus



RHEUMATOID ARTHRITIS

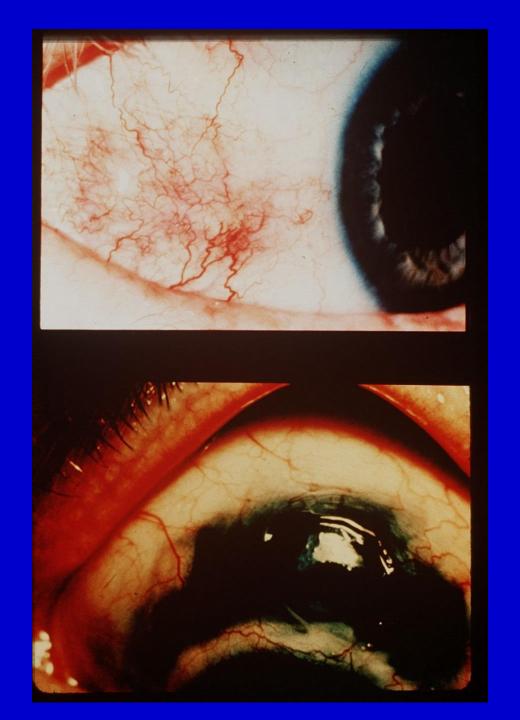
Seropositive

Ocular:

- K.C.S.
- Scleritis
- Keratitis

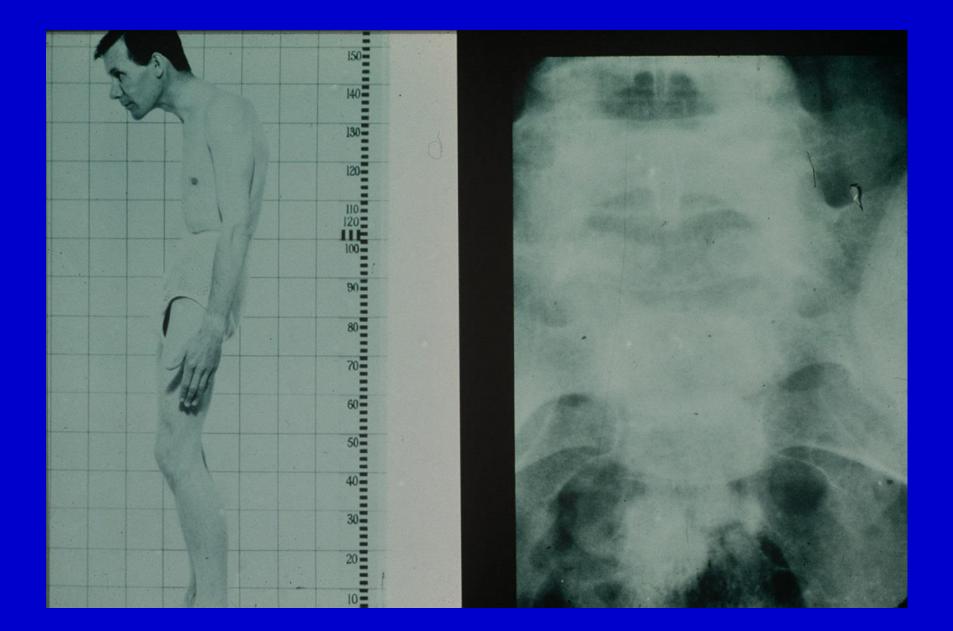






ANYLOSING SPONDYLITIS

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



JUVENILE CHRONIC ARTHRITIS "Juvenile rheumatoid arthitis"

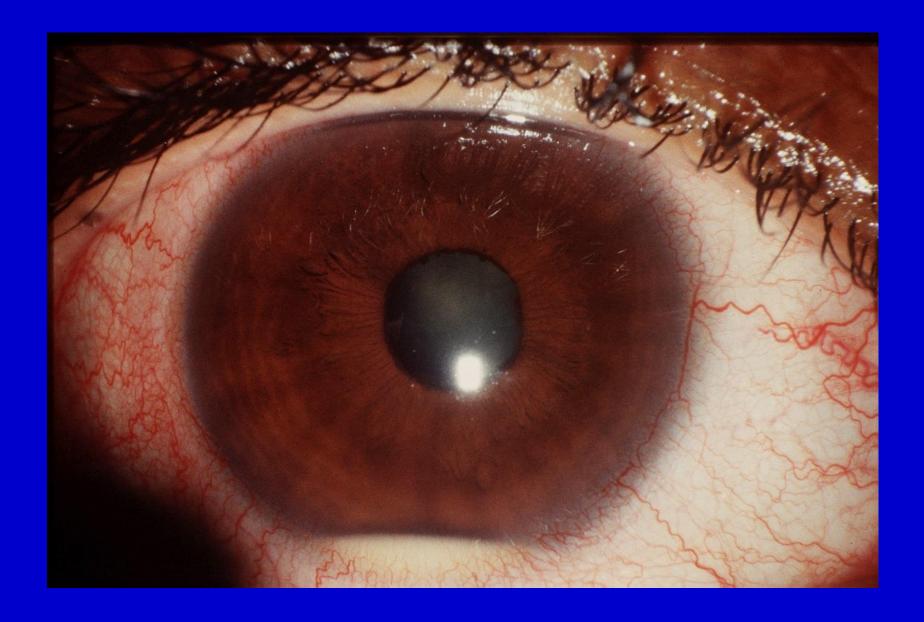
- Systemic onset: "Still's disease" uveitis is extremely rare
- Polyarticular onset: Uveitis is fairly rare
- Pauciarticular onset: About 20% develop uveitis



BEHÇET'S DISEASE

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











EYE AND SYSTEMIC DISEASE REITER'S SYNDROME

A triad:

- Urethritis
- Conjunctivitis
- Seronegative arthritis

Ocular features:

- Conjunctivitis
- Keratitis
- Iridocyclitis

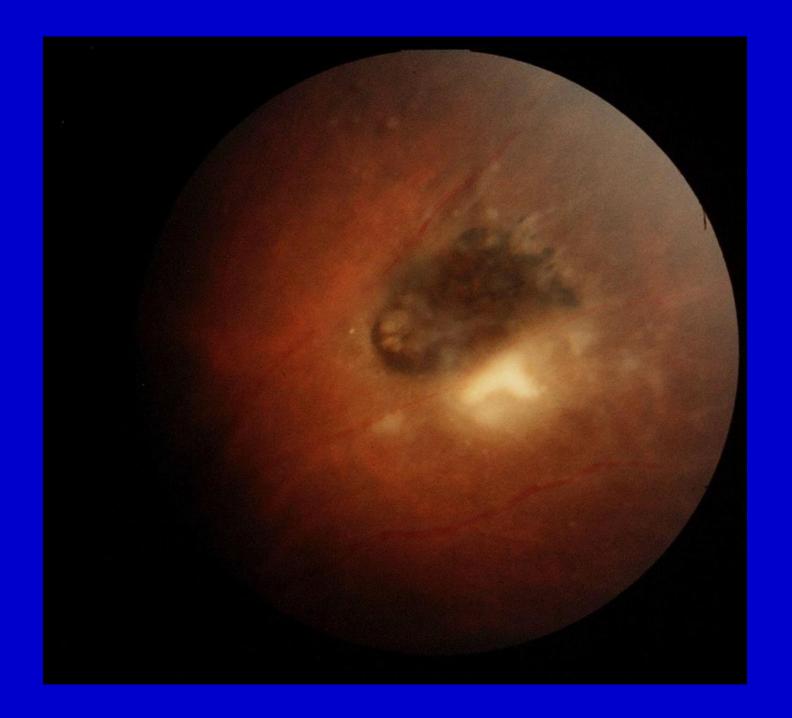
SJOGREN'S SYNDROME

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

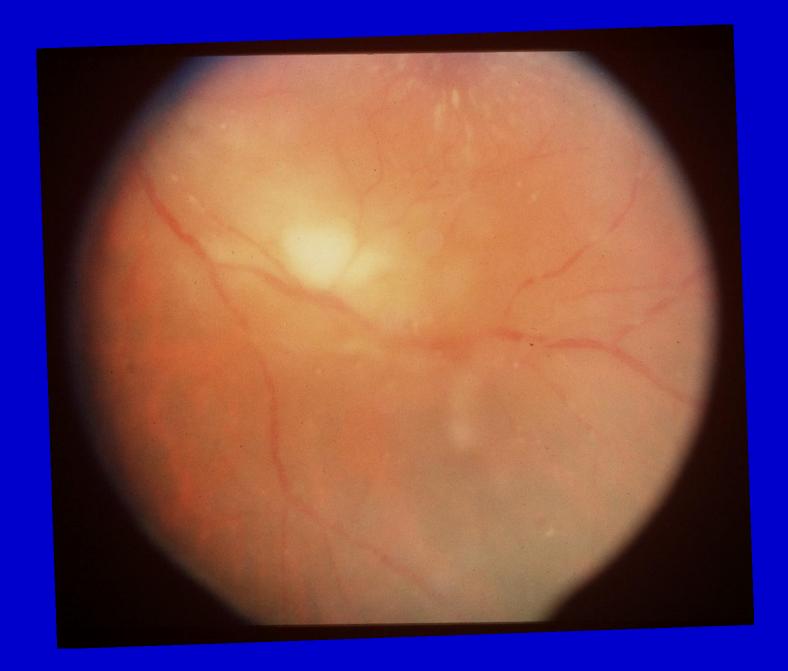
TOXOPLASMOSIS

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





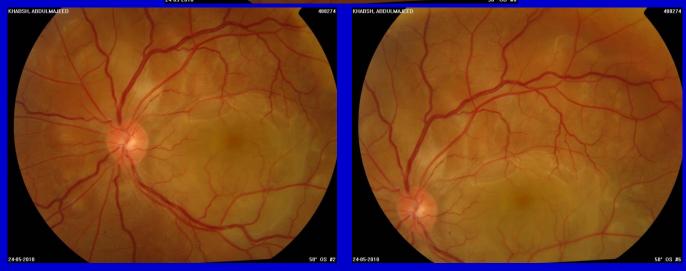


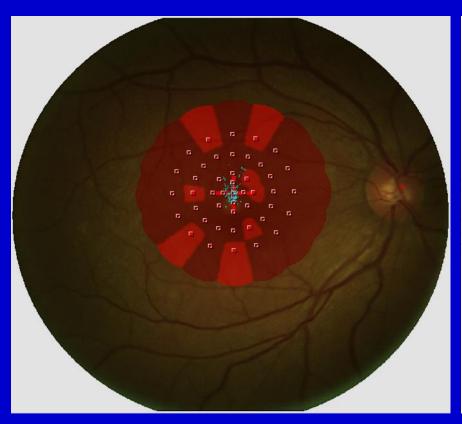


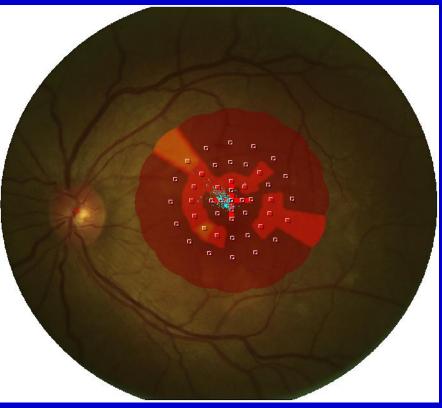
VOGT-KOYANAGI-HARADA SYNDROME

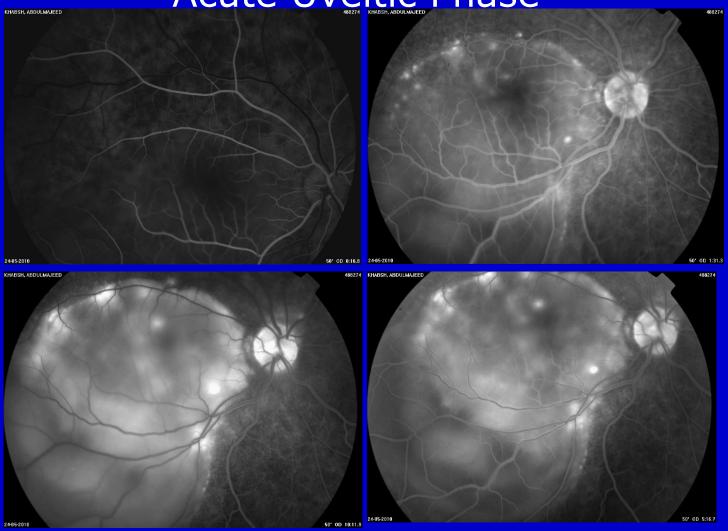
- Pigmented individuals
- Cutaneous signs
- Neurological signs
- Anterior uveitis
- Posterior uveitis.

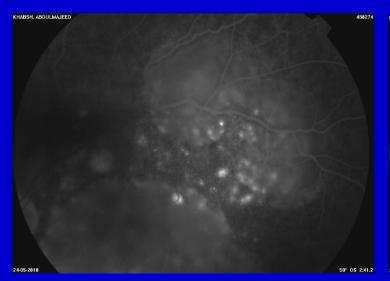


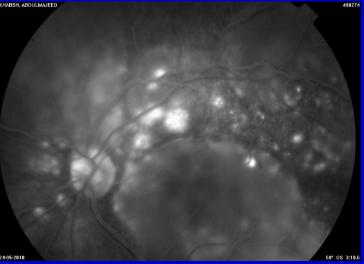


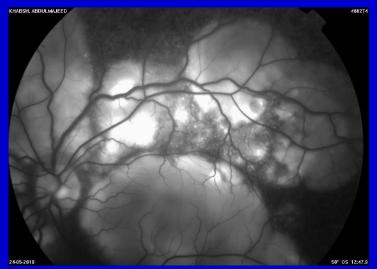


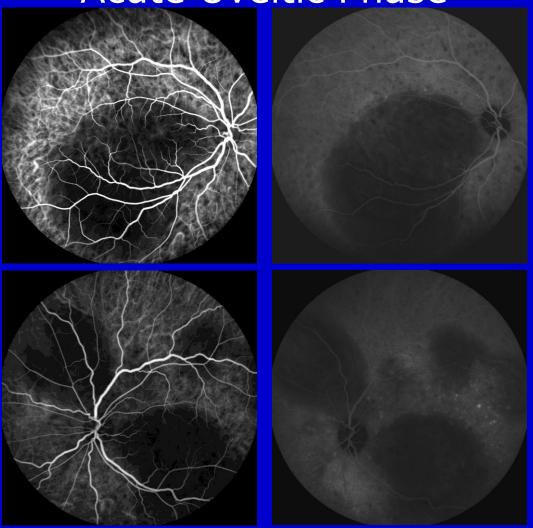




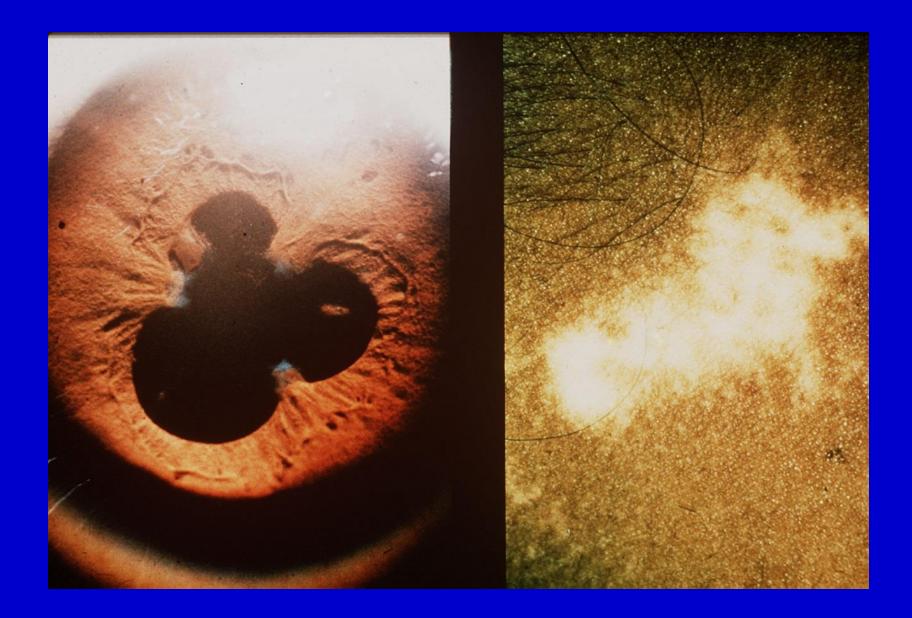


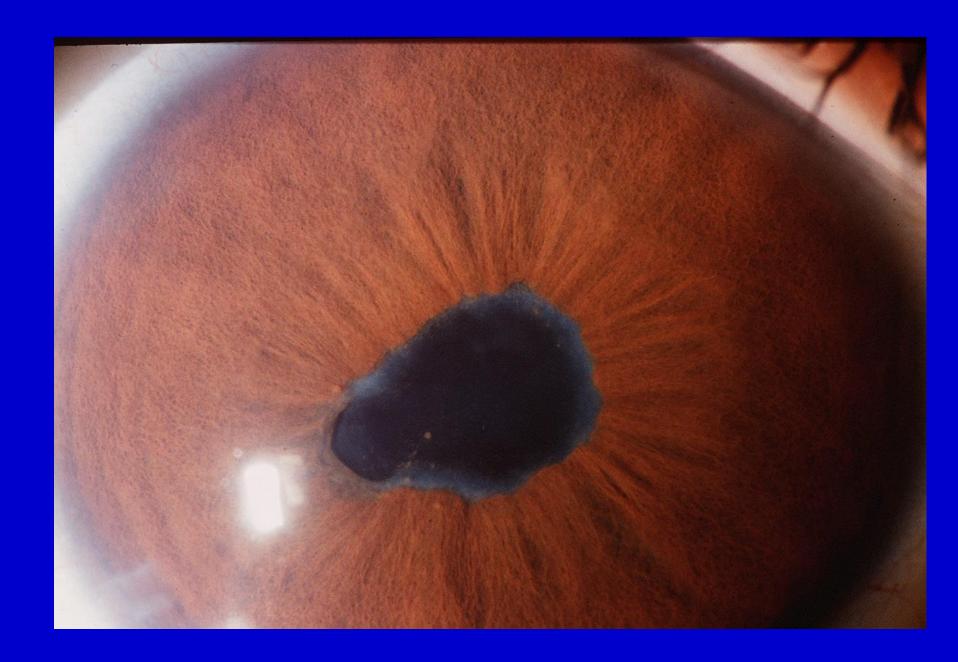


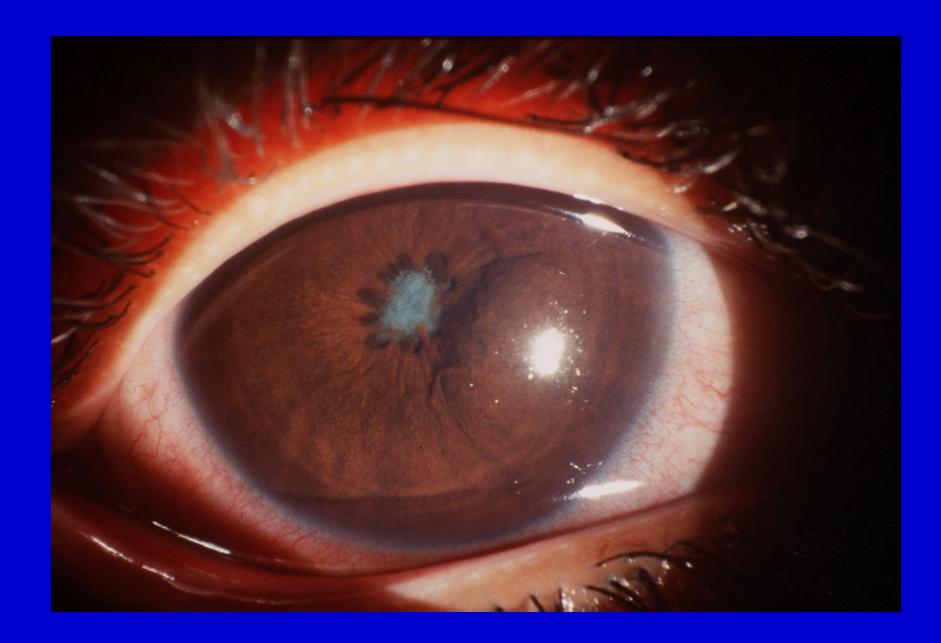


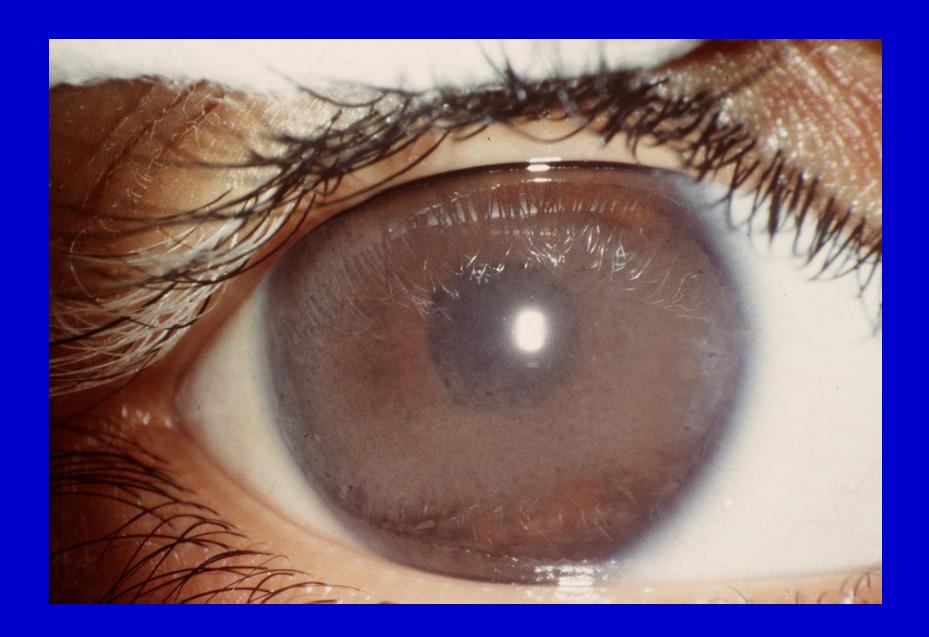






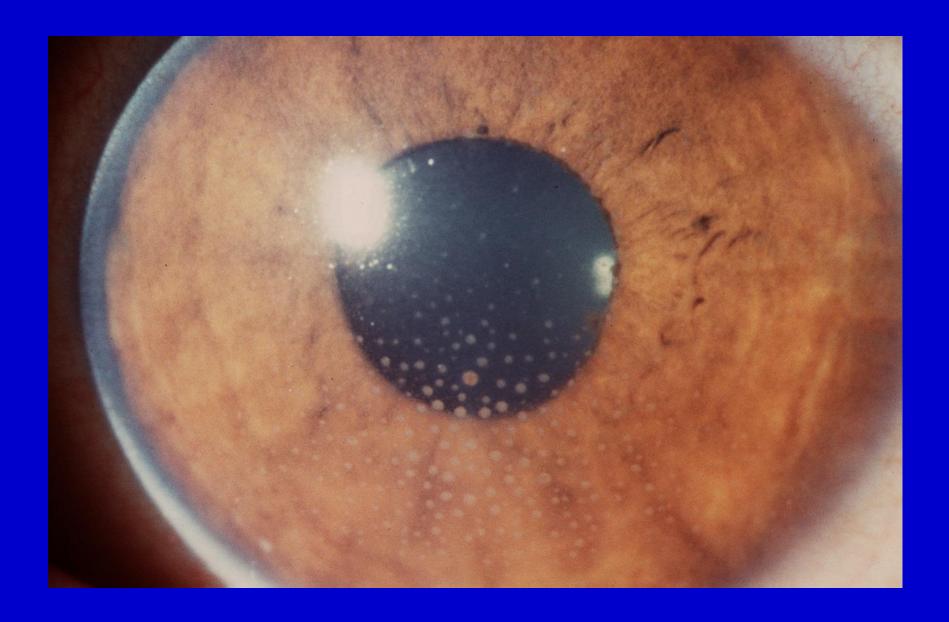


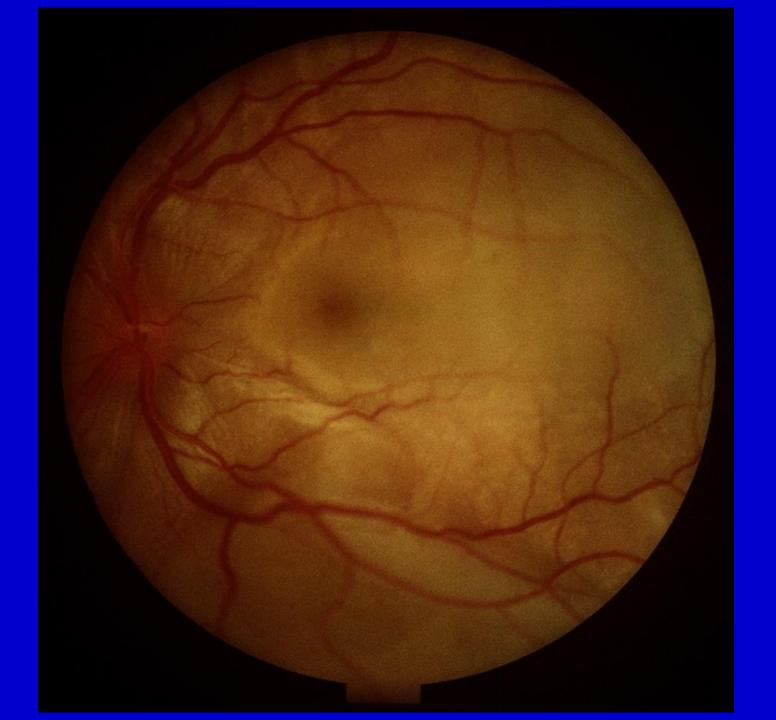


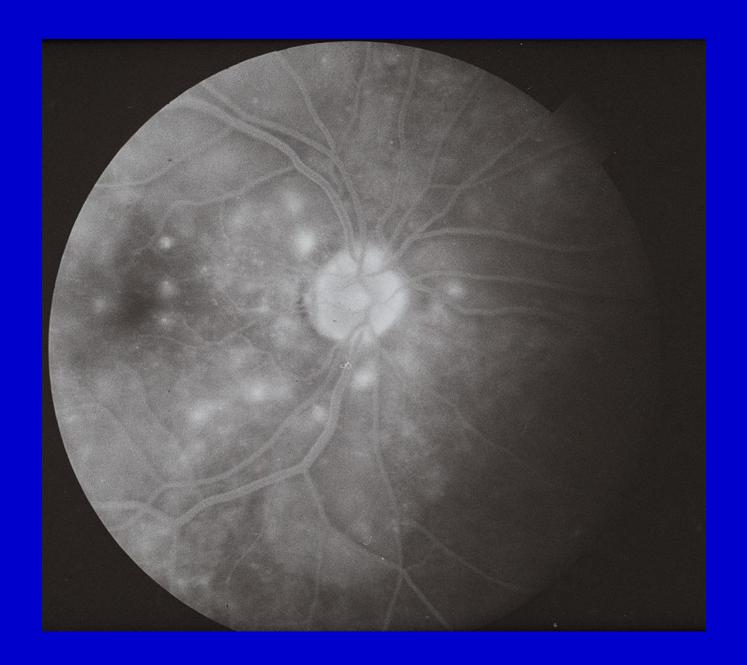




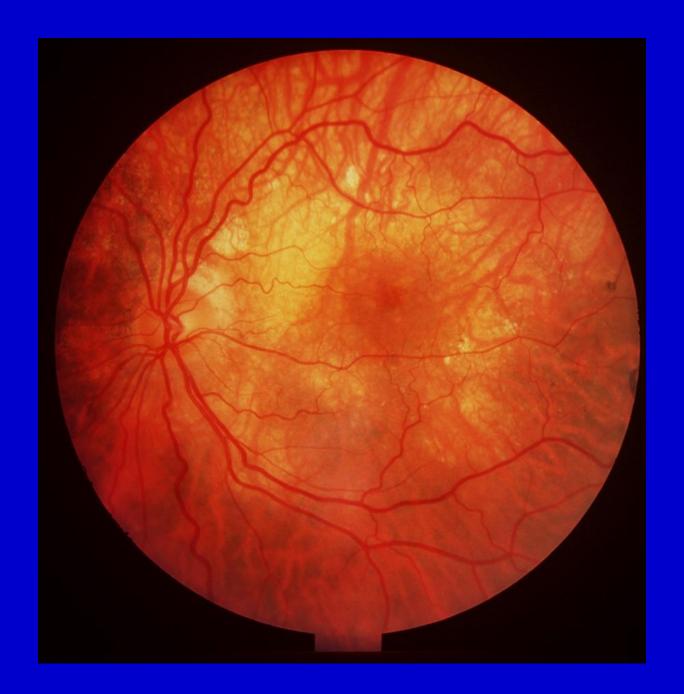










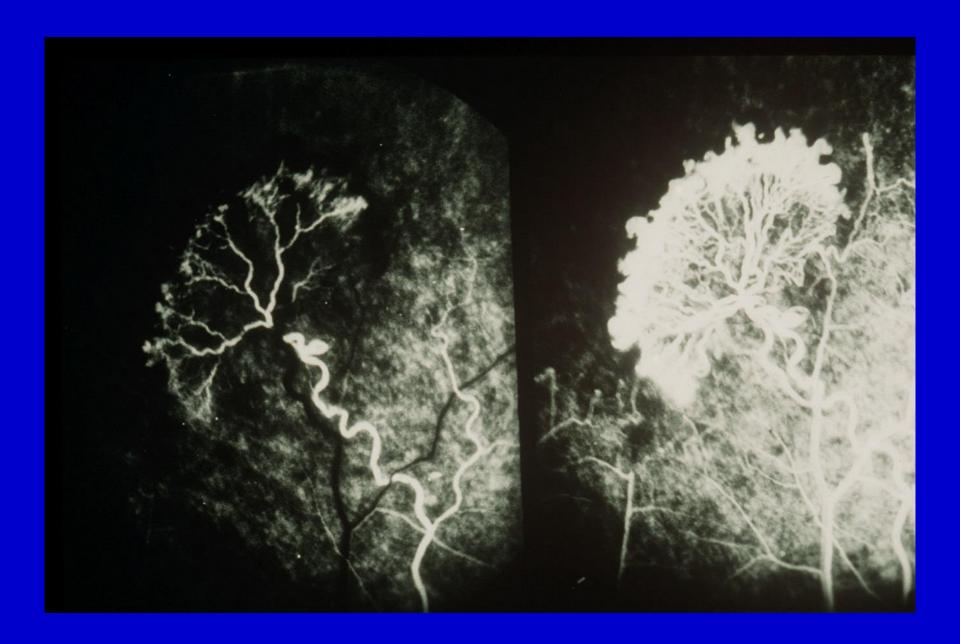




SICKLE CELL DISEASE

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





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









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



