

الحمد لله رب العالمين

Eye inflammation as first presentation of rheumatologic diseases

Lecturer :

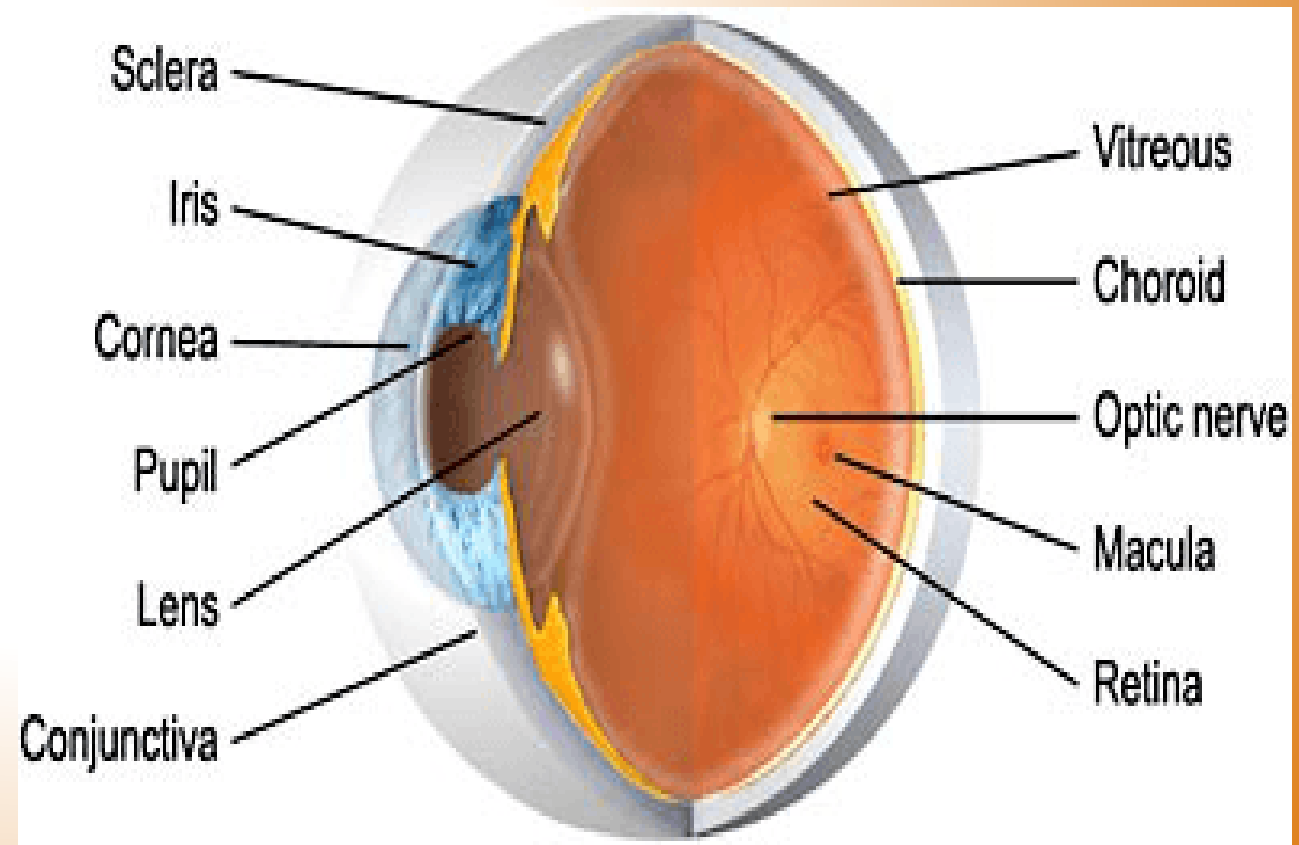
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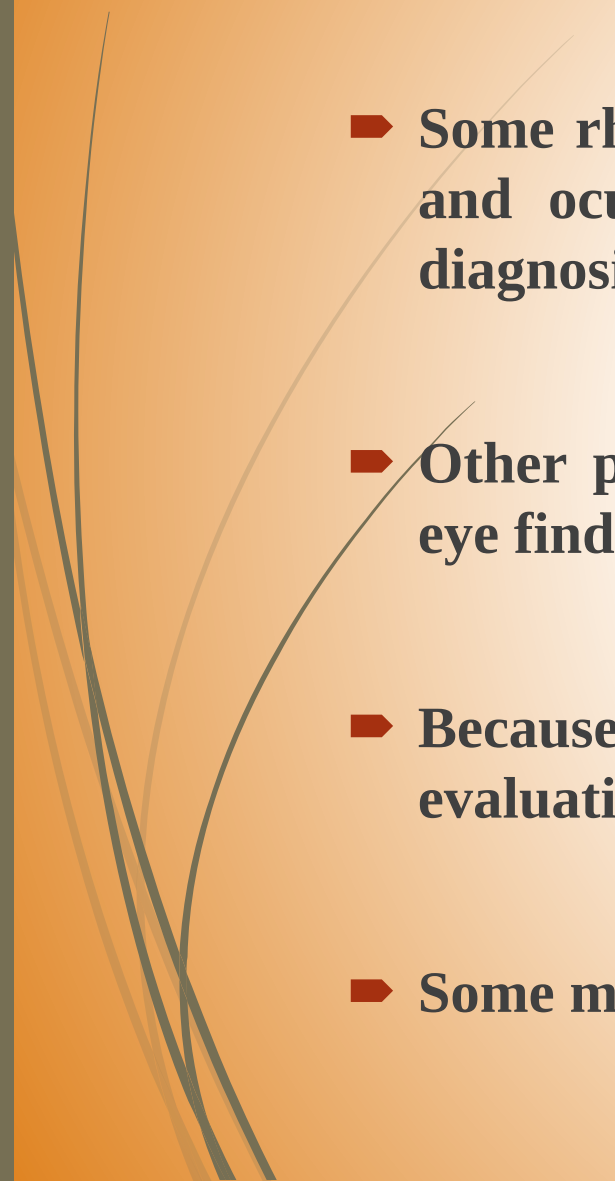
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- **The eye is an especially sensitive barometer for the onset of, or reactivation of, autoimmune phenomena in many rheumatologic diseases.**
 - **Some rheumatology patients may present with obscure signs and symptoms, and ocular manifestations may be the only clue for making a difficult diagnosis.**
 - **Other patients may present with well-documented rheumatic diseases, and eye findings may add to the severity of their illness.**
 - **Because many of these ocular complications may result in loss of vision, evaluation by an ophthalmologic specialist is needed.**
 - **Some medications used to treat rheumatic diseases have ocular side effects.**

Symptoms of Uveitis

Redness

Pain

Photophobia

Epiphora

Visual disturbances

Diffuse blur, caused by:

Myopic or hyperopic shift

Inflammatory cells

Cataract

Scotomata (central or peripheral)

Floaters

Table 2: Ocular Disorders and Their Frequently Associated Rheumatic Diseases

Ocular Disorder	Rheumatic Disease
Dry eyes (sicca syndrome)	Rheumatoid arthritis ³⁷ Systemic lupus erythematosus ¹³⁵ Scleroderma ¹⁶⁶ Primary Sjögren's syndrome ¹⁵
Uveitis	
Acute anterior uveitis	Spondyloarthropathies ⁸² Behcet's disease ² Inflammatory bowel disease ⁹⁰
Chronic anterior uveitis	Inflammatory bowel disease ⁹⁰ Relapsing polychondritis ²⁰
Panuveitis	Behcet's disease ²
Scleritis	Rheumatoid arthritis ⁴² Vasculitis, especially Wegener's granulomatosis ²⁰⁵ Inflammatory bowel disease ⁹² Relapsing polychondritis ²⁰



Keratitis

Non-necrotizing corneal melt

Necrotizing keratitis

Retinal vasculopathy

Microvasculopathy

Diffuse vaso-occlusive disease

Optic nerve disease

Ischemic optic neuropathy

Sjogren's syndrome¹⁵

Rheumatoid arthritis⁴¹

Rheumatoid arthritis⁴⁸

Vasculitis²⁵⁵

Systemic lupus erythematosus¹⁴⁴

Systemic lupus erythematosus¹⁴⁴

Antiphospholipid antibody syndrome¹⁵⁹

Behcet's disease²

Vasculitis, especially giant cell arteritis²¹⁶

Acute anterior uveitis is the most common extra-skeletal involvement in patients with ankylosing spondylitis (AS), occurring in 25% to 40% of patients at some time in the disease course.

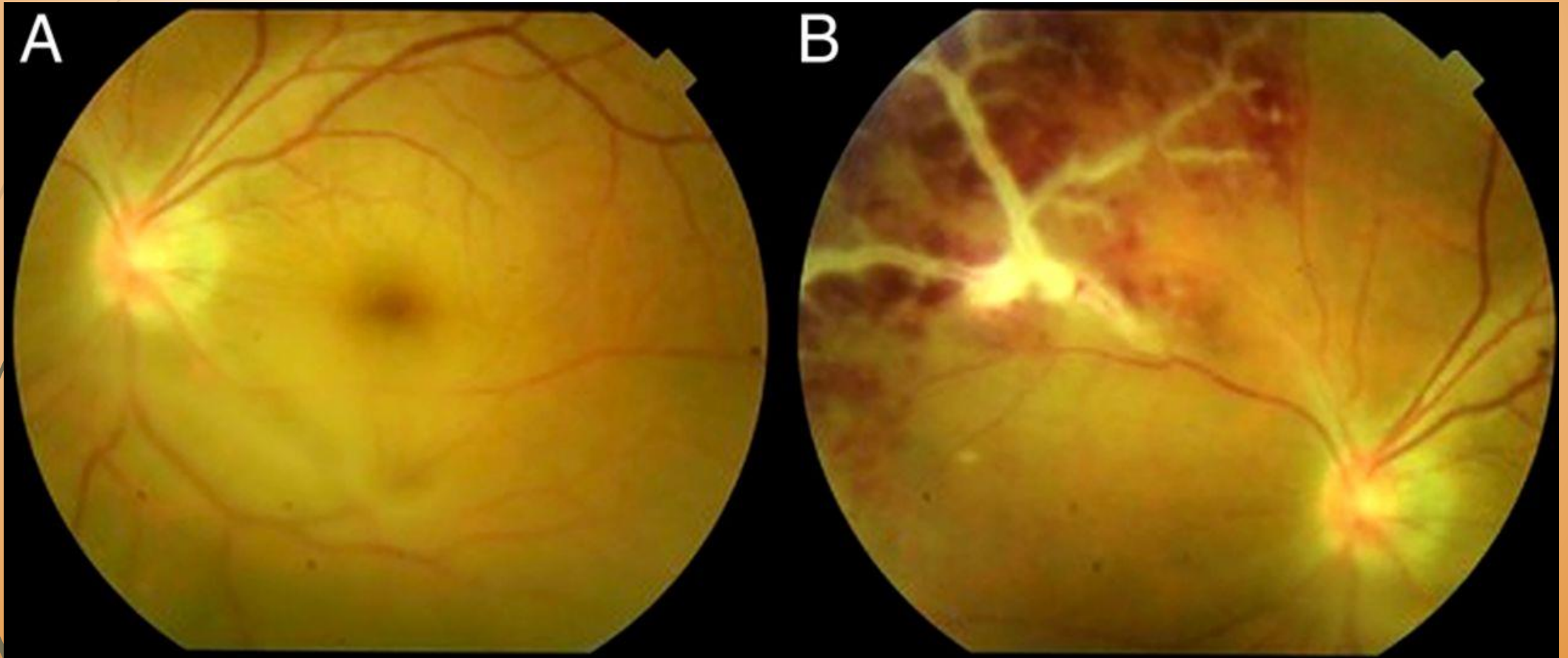


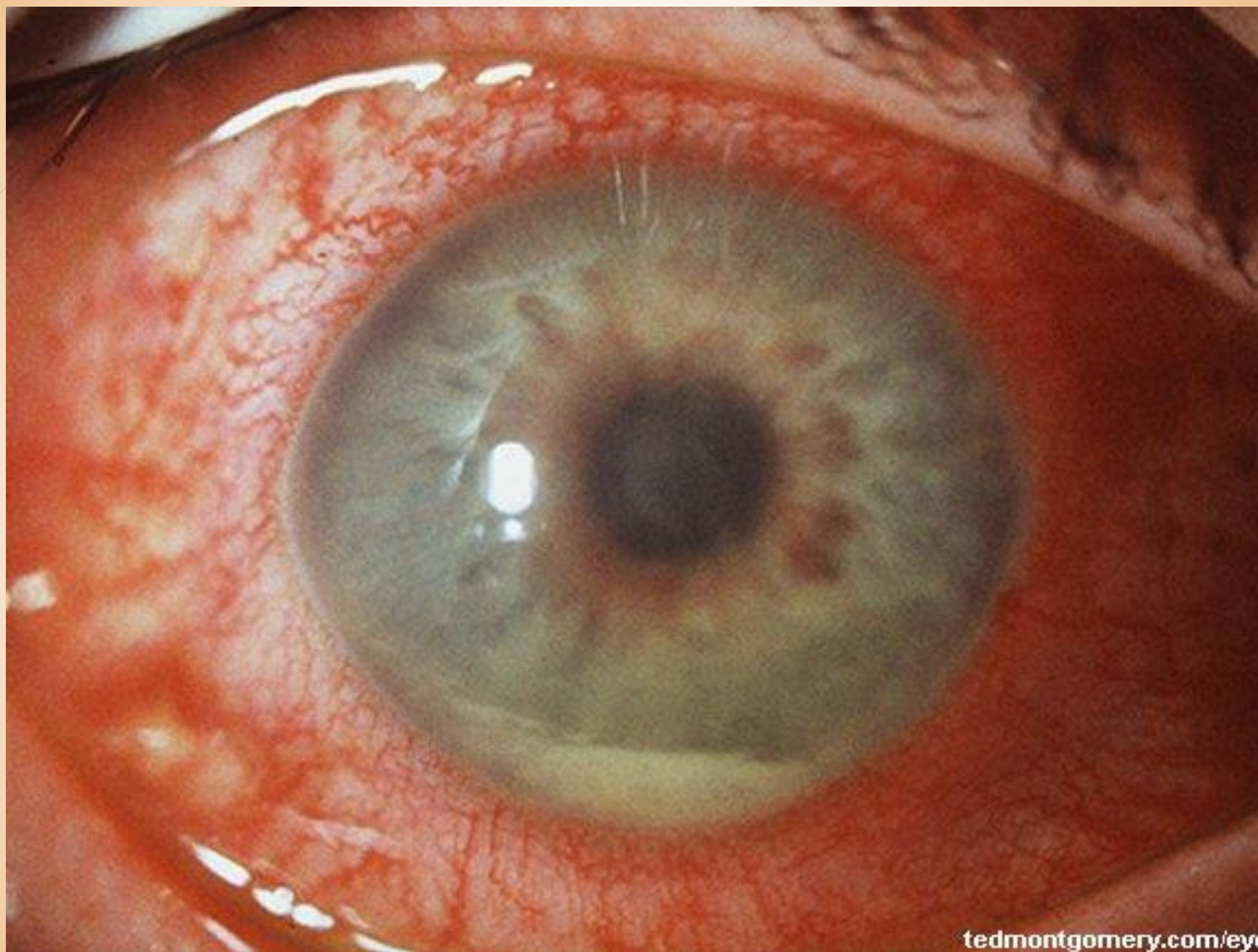
- ✓ **Conjunctivitis with sterile discharge is the most frequent manifestation. Acute uveitis, especially anterior uveitis (iritidocyclitis), also is common. The ocular lesions may be the first or the only manifestation of this reactive arthritis**



The most common ocular manifestation is anterior uveitis (also includes acute iritis or iridocyclitis), which may present either with or without a hypopyon.

The most characteristic posterior segment lesion of Behcet's disease is retinal vasculitis.





tedmontgomery.com/eye

The incidence of uveitis in juvenile idiopathic arthritis (JIA) is estimated to be about 21% in pauciarticular type.

There is usually little or no correlation between ocular and joint inflammation.

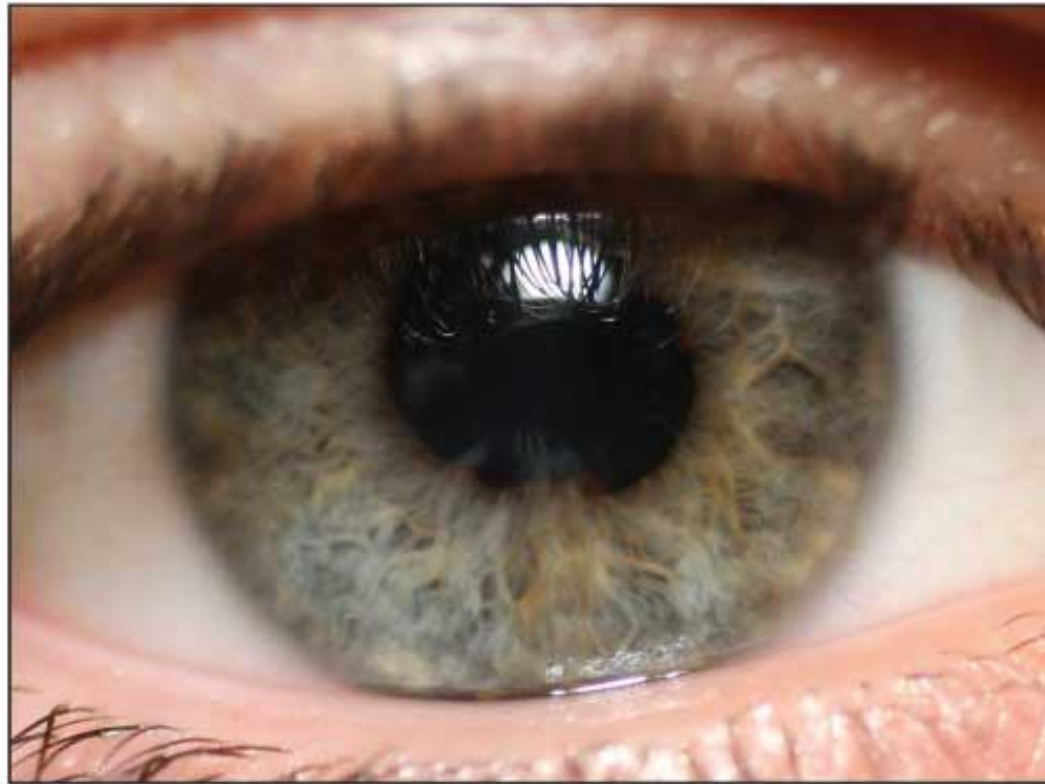
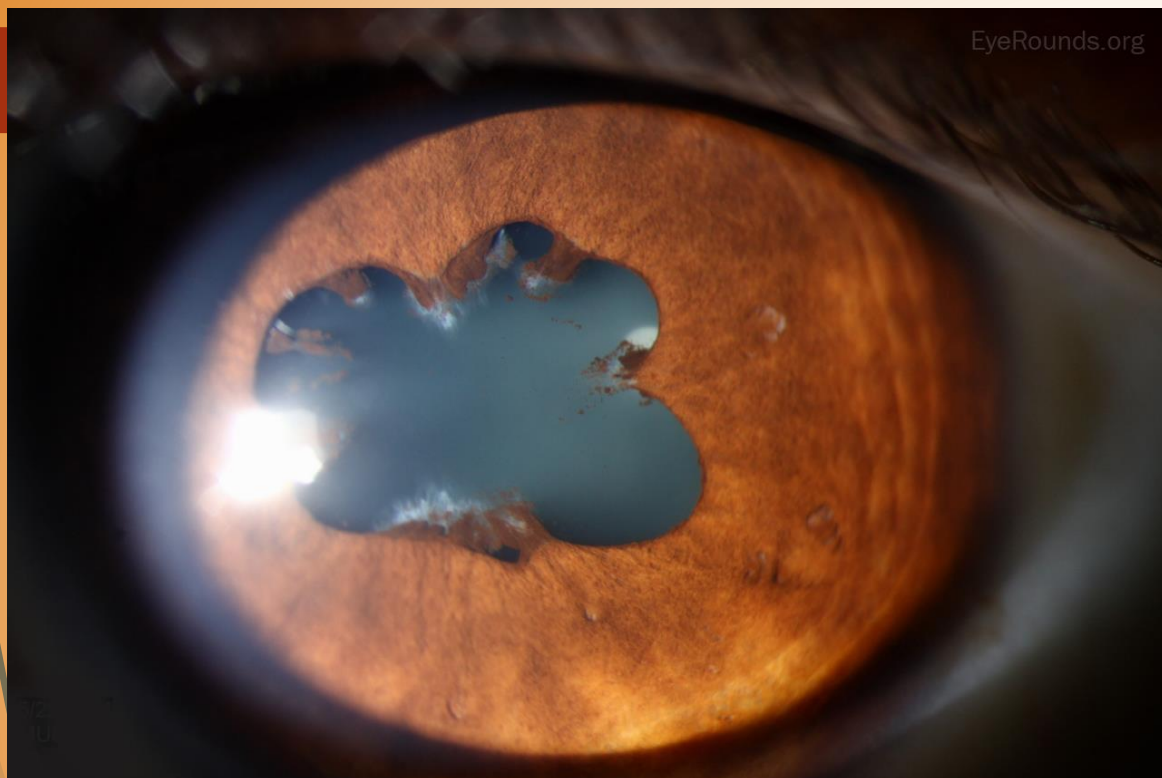


Figure 1 – *Synechiae are seen in a patient with uveitis who has juvenile idiopathic arthritis. Other complications of uveitis include keratotic bands, cataracts, and vision impairment.*

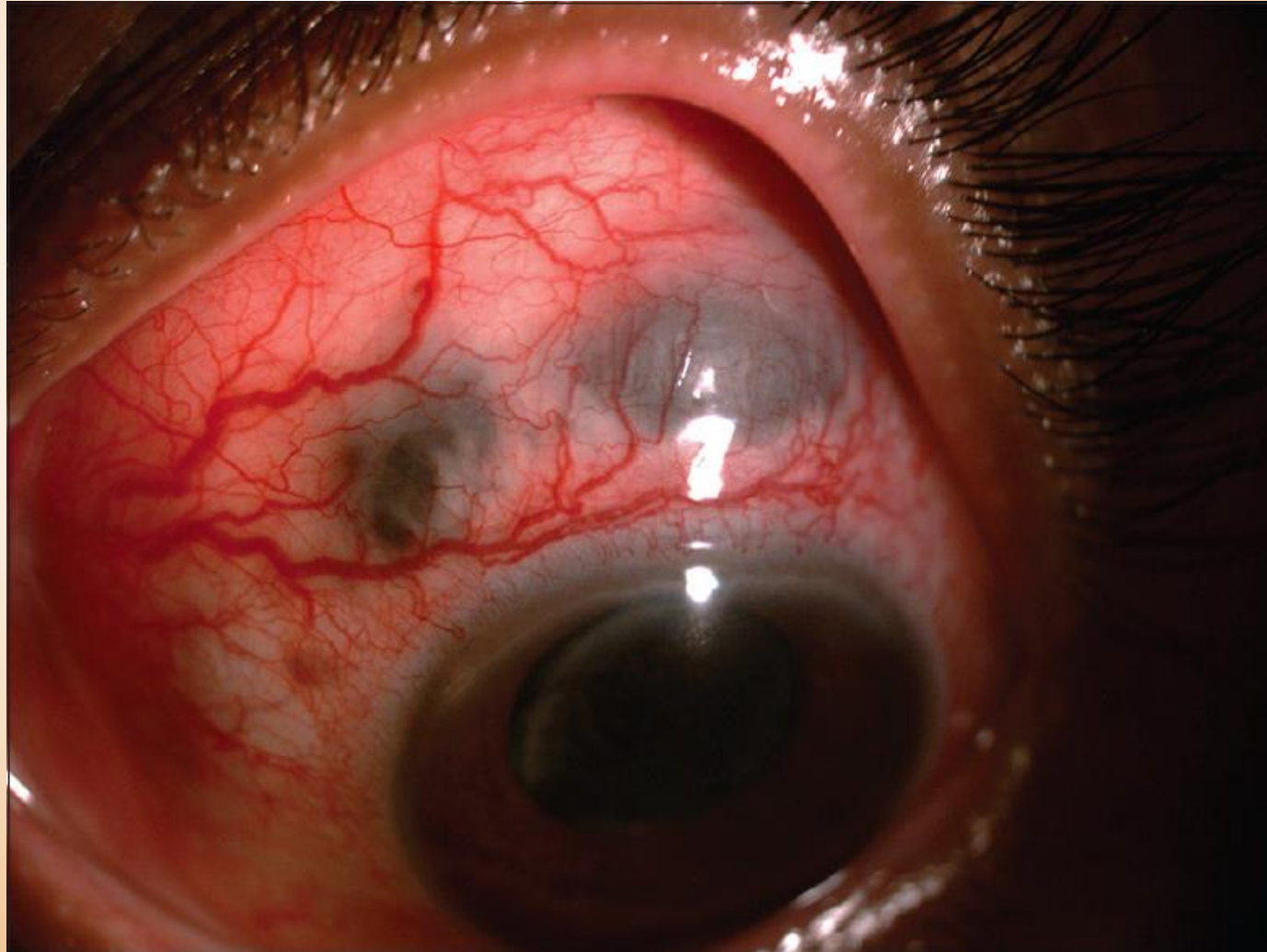


If not diagnosed...



Ocular or orbital involvement is seen in 15% of patients with Wegener granulomatosis at presentation and in up to 50% of patients during the course of the disease.

Scleritis affects up to 40% of patients.



Dry eyes or KCS is the most common ophthalmic manifestation of RA, with a reported prevalence as high as 25%.

The overall prevalence of scleritis in RA patients is reported to range from 0.67 to 6.3%, although as many as 33% of all patients presenting to an ophthalmologist with scleritis may have associated RA.

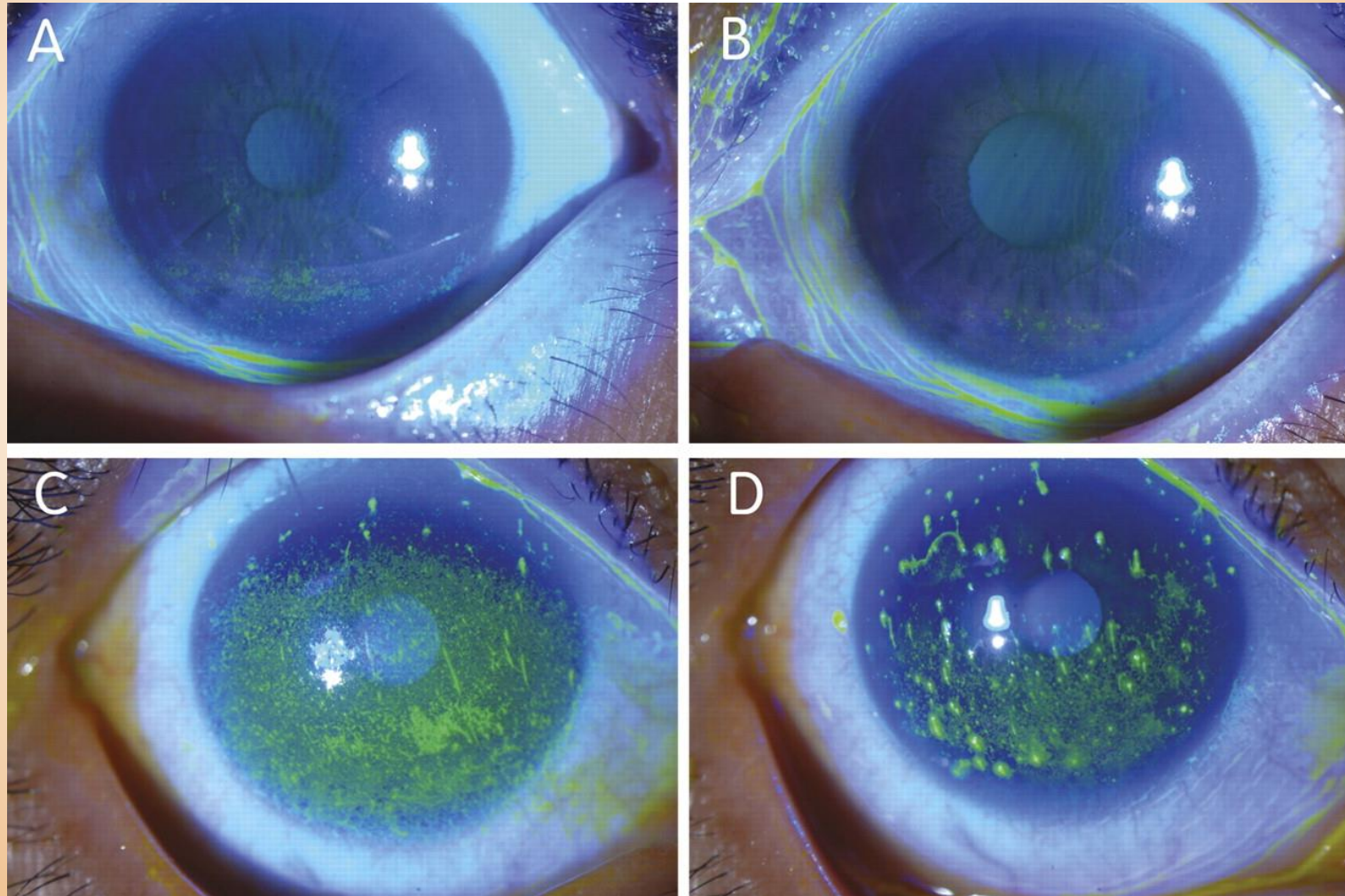


Peripheral ulcerative keratitis

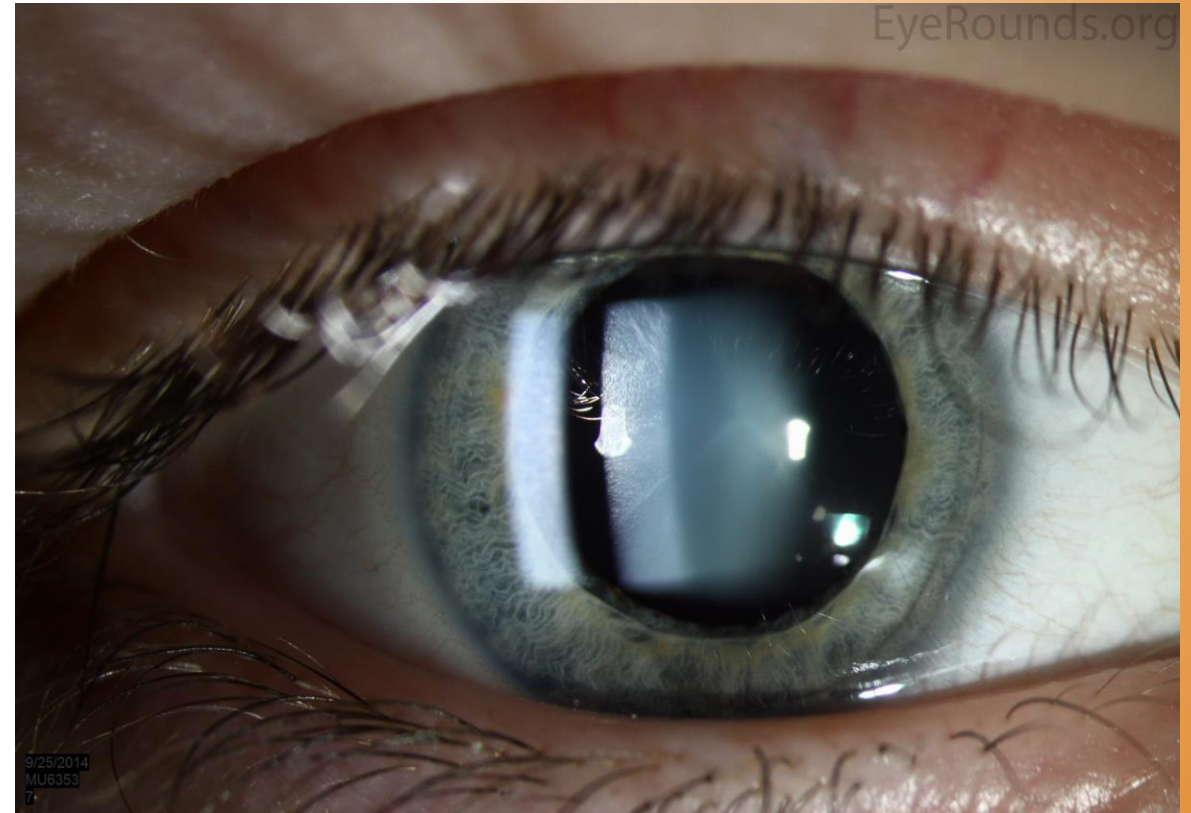
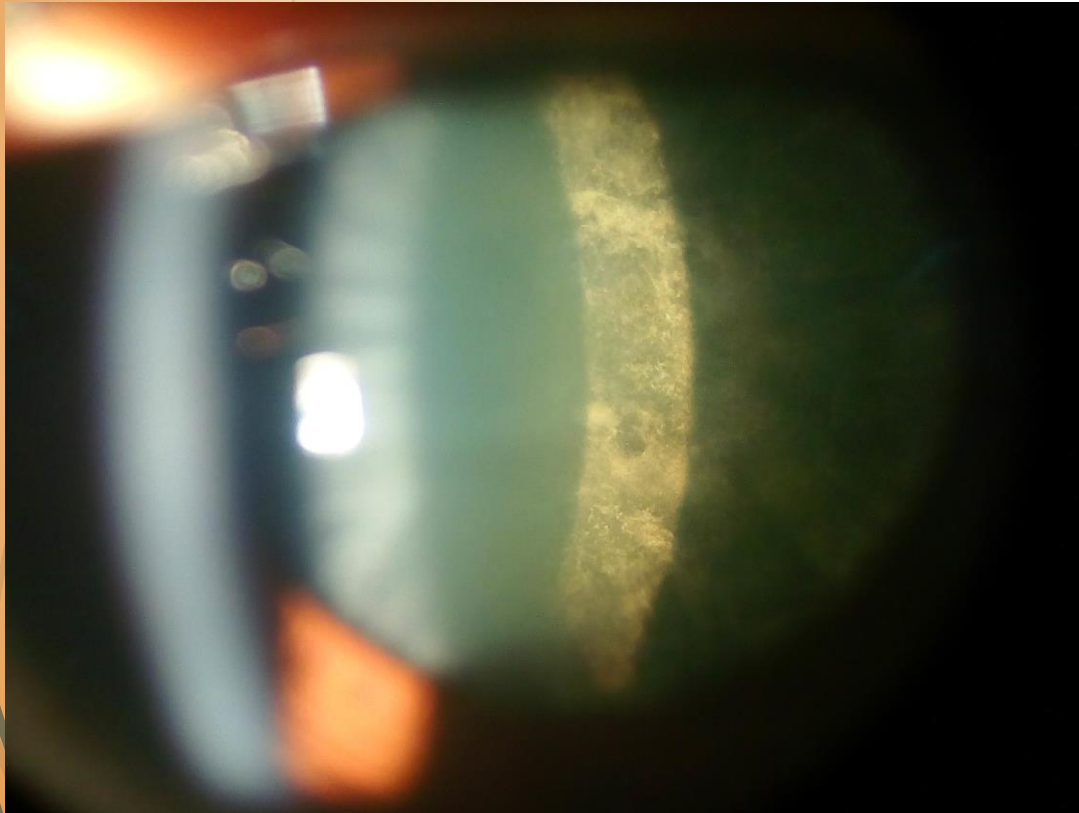


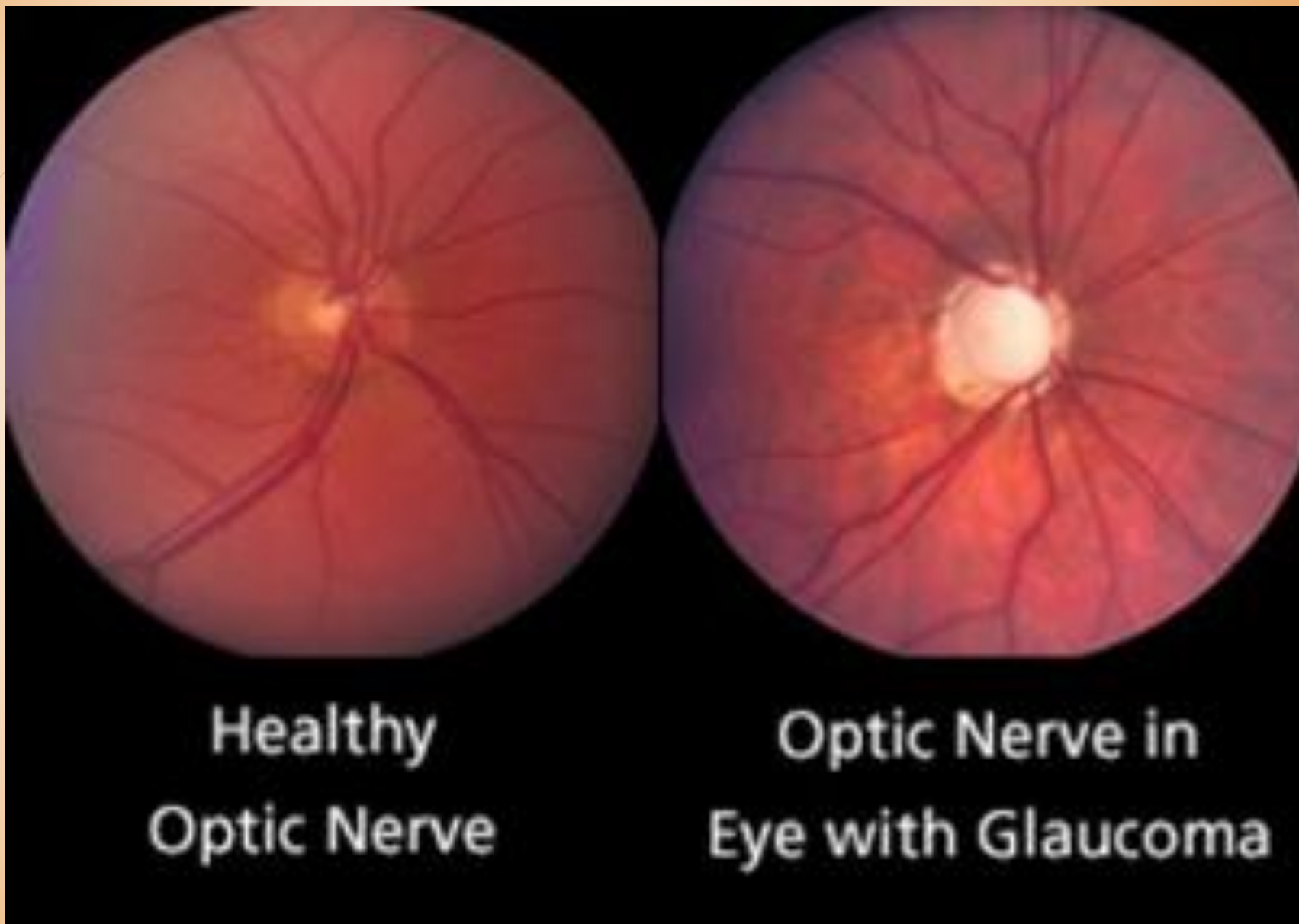


Keratoconjunctivitis sicca (dry eyes) is the hallmark sign of Sjogren's syndrome.



Ophthalmologic Manifestations as Side Effects of Medications Used to Treat Rheumatic Diseases

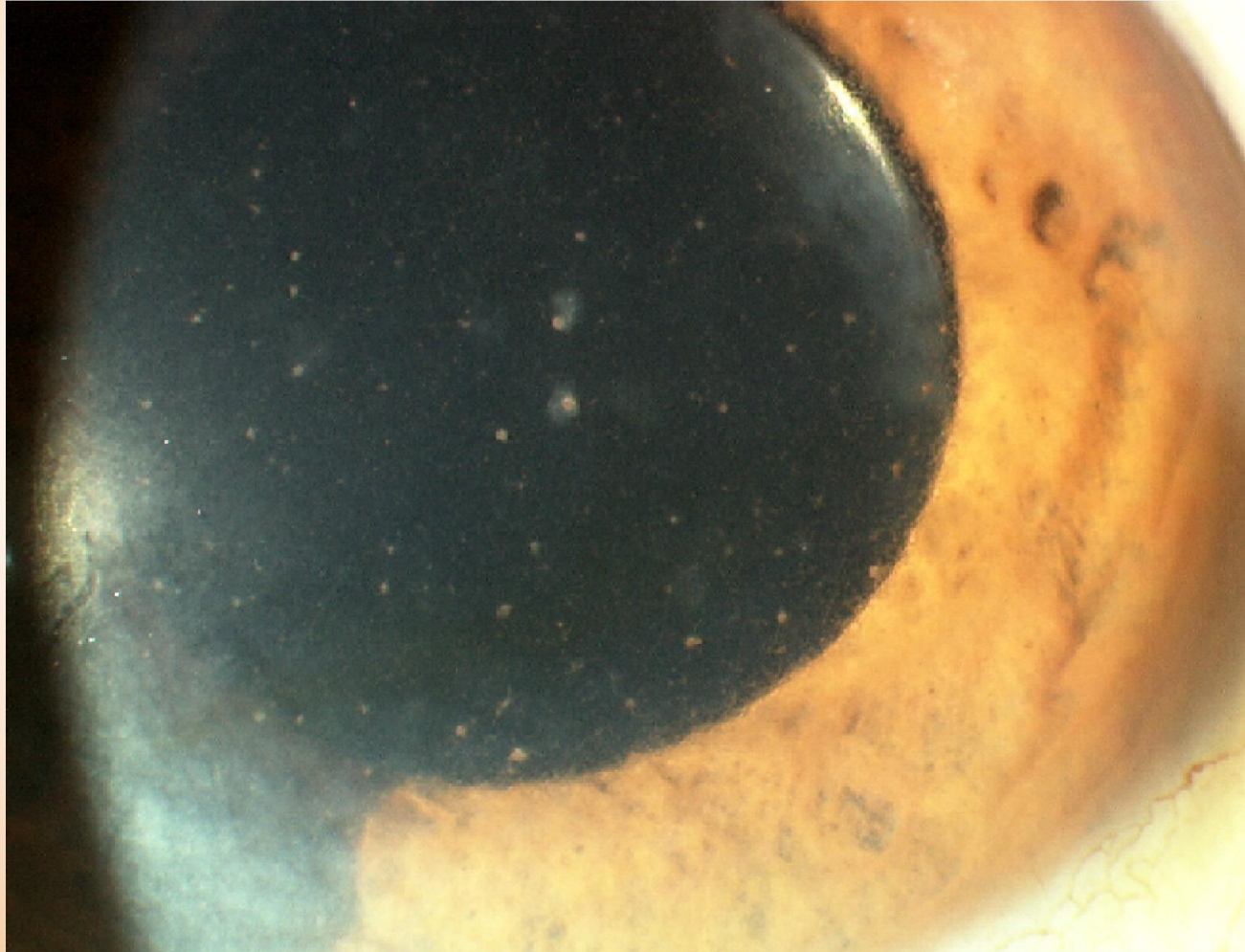




Tunnel vision



Fuchs heterochromic iridocyclitis



Conclusion

Table 3: Rheumatic Diseases and Their Most Common Ocular Disorders

Rheumatic Disease	Common Ocular Manifestations
Behcet's disease	Anterior uveitis, ⁴ retinal vasculitis ³
Sjögren's syndrome	Dry eyes ¹³
Relapsing polychondritis	Conjunctivitis, ²⁰ scleritis, ²⁰ uveitis, ²⁰ retinal vasculitis ²⁰
Rheumatoid arthritis	Dry eyes, ³⁴ Scleritis ⁴⁰ Marginal corneal ulcers ⁴¹
Juvenile rheumatoid arthritis	Acute anterior uveitis ⁵⁷ Chronic anterior uveitis ⁵⁸
Reiter's syndrome	Conjunctivitis ⁷² Acute anterior uveitis ⁷²



Ankylosing spondylitis

Inflammatory bowel disease

Systemic lupus erythematosus

Scleroderma

Polymyositis and dermatomyositis

Acute anterior uveitis⁷⁷

Acute anterior uveitis⁹⁰

Scleritis⁹²

Eyelid discoid lesions¹³⁹

Dry eyes¹³⁵

Retinal vasculitis¹⁴⁴

Neuro-ophthalmic lesions¹⁵²

Eyelid scleroderma¹⁶⁸

Conjunctival telangiectasia¹⁶⁸

Dry eyes¹⁶⁹

Heliotrope rash¹⁸

Ophthalmoplegia¹⁹²

Wegener's granulomatosis

Scleritis²¹⁶

Peripheral keratitis²¹⁶

Orbital pseudotumor²⁰⁷

Retinal vasculitis²⁰⁷

Neuro-ophthalmic lesions²⁰⁹

Giant cell arteritis

Ischemic optic neuropathy,²²¹ amaurosis fugax,²²¹
retinal vasculitis,²¹⁹ ischemia to the extraocular
muscles,²¹⁹ choroidal ischemia,²²² cortical
blindness²²³

Polyarteritis nodosa

Hypertensive retinopathy,²⁵⁵ retinal vasculitis,²⁵⁵ neuro-
ophthalmic lesions,²⁵⁵ cranial nerve palsies,²⁴⁵
scleritis,²⁵⁵ marginal corneal ulcers²⁴⁷

Allergic granulomatosis
(Churg-Strauss angiitis)

Retinal vasculitis²⁵⁸

Neuro-ophthalmic lesions²⁶¹

Cranial nerve palsies²⁶¹

Conjunctival granulomata²⁵⁷

Takayasu's arteritis

Retinal arteriovenous anastomoses²⁶²

Retinal microaneurysms²⁶²

Peripheral retinal ischemia²⁶²

Retinal neovascularization²⁶⁴

Thanks for your patience

