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OCULAR DISEASE

SCLERITIS



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Introduction

- Scleritis refers to a chronic inflammation of the sclera proper.
- It is a comparatively serious disease which may cause visual impairment and even loss of the eye if treated inadequately.
- It usually occurs in elderly patients (40-70 years) involving females more than the males.



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Etiology

- *Autoimmune collagen disorders*
 1. Rheumatoid arthritis.
 2. about 5% cases of scleritis are associated with connective tissue disease.
 3. About 0.5 percent of patients (1 in 200) suffering from seropositive rheumatoid arthritis develop scleritis.
 4. Other associated collagen disorders are
 - Wegener's granulomatosis,
 - polyarteritis nodosa (PAN),
 - Systemic lupus erythematosus (SLE)



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2. *Metabolic disorders like gout and thyrotoxicosis* have also been reported to be associated with scleritis.
3. *Some infections, particularly herpes zoster ophthalmicus, chronic staphylococcal and streptococcal infection.*
4. *Granulomatous diseases like tuberculosis, syphilis, sarcoidosis, leprosy can also cause scleritis.*
5. *Miscellaneous conditions like irradiation, chemical burns, Vogt-Koyanagi-Harada syndrome, Behcet's disease*



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Pathology

- Histopathological changes are that of a chronic granulomatous disorder characterised by fibrinoid necrosis, destruction of collagen together with infiltration by polymorphonuclear cells, lymphocytes, plasma cells and macrophages



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Classification

I. *Anterior scleritis (98%)*

1. Non-necrotizing scleritis (85%)

(a) Diffuse

(b) Nodular

2. Necrotizing scleritis (13%)

(a) with inflammation

(b) without inflammation (scleromalacia perforans)

II. *Posterior scleritis (2%)*



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Clinical features-*Symptoms.*

- Patients complain of moderate to severe
 - *pain which is deep and boring in character and often wakes the patient early in the morning .*
 - Ocular pain radiates to the jaw and temple.
 - Localised or diffuse *redness,*
 - *Mild to severe photophobia and lacrimation.*
 - *Occasionally there occurs diminution of vision.*



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Signs

1. ***Non-necrotizing anterior diffuse scleritis:*** Widespread inflammation involving a quadrant or more of the anterior sclera. The involved area is raised and salmon pink to purple in colour



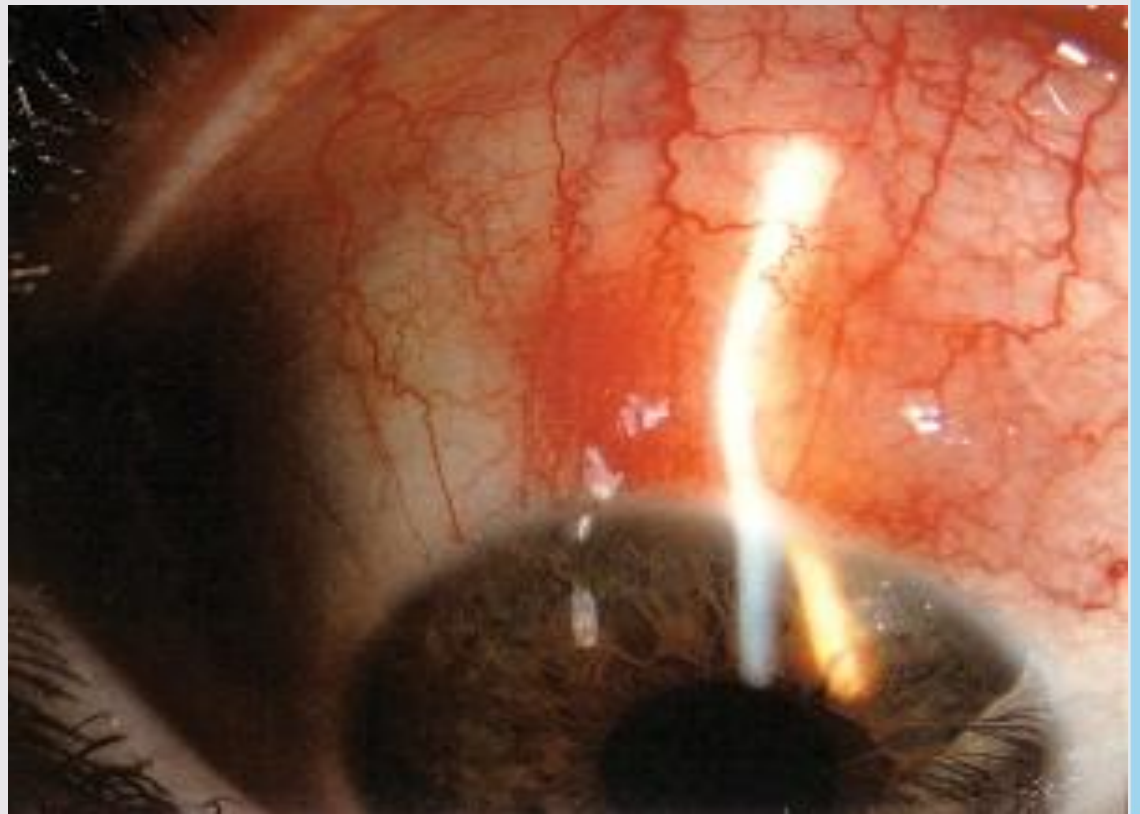


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- **2. *Non-necrotizing anterior nodular scleritis.*** It is characterised by one or two hard, purplish elevated scleral nodules, usually situated near the limbus





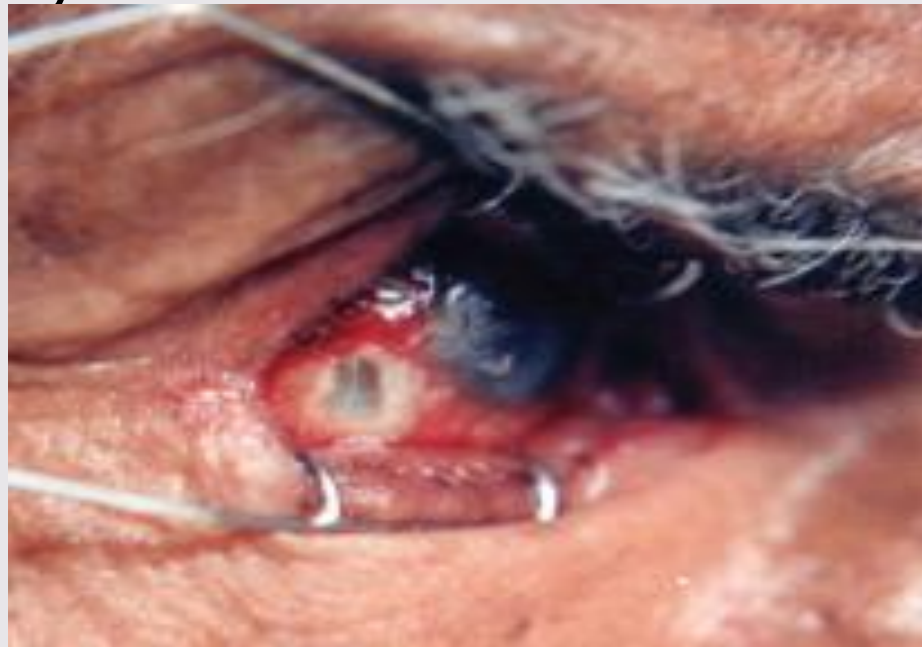
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3. *Anterior necrotizing scleritis with inflammation.*

- localised inflammation associated with areas of infarction due to vasculitis.
- The affected necrosed area is thinned out and sclera becomes transparent and ectatic with uveal tissue shining through it. It is usually associated with anterior uveitis.

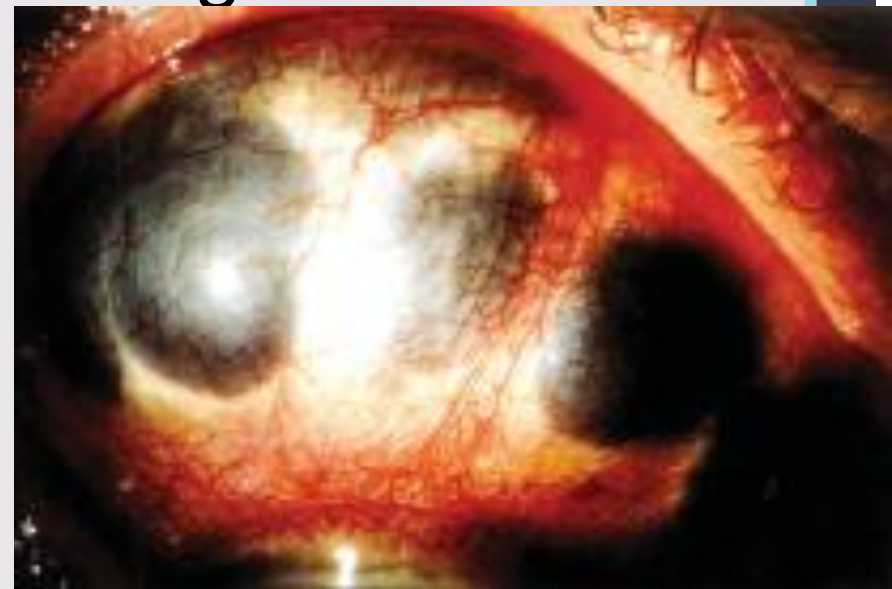




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4. ***Anterior necrotizing scleritis without inflammation (scleromalacia perforans)***. This specific entity typically occurs in elderly females usually suffering from long-standing rheumatoid arthritis.
- It is characterised by development of yellowish patch of melting sclera





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Complications

- These are quite common with necrotizing scleritis and include
 - sclerosing keratitis
 - keratolysis
 - Complicated cataract
 - Secondary glaucoma.



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Investigations

1. TLC, DLC and ESR
2. Serum levels of complement (C3), immune complexes, rheumatoid factor, antinuclear Antibodies
3. FTA - ABS, VDRL for syphilis.
4. Serum uric acid for gout.
5. Urine analysis.
6. Mantoux test.
7. X-rays of chest, paranasal sinuses, sacroiliac joint and orbit to rule out foreign body especially in patients with nodular scleritis.



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Treatment

- **(A) Non-necrotising scleritis.** *It is treated by topical steroid eyedrops and systemic indomethacin 100 mg daily for a day and then 75 mg daily until inflammation resolves.*
- **(B) Necrotising scleritis.** *It is treated by topical steroids and heavy doses of oral steroids tapered slowly.*
- In non-responsive cases, immuno-suppressive agents like methotrexate or cyclophosphamide may be required.
- Subconjunctival steroids are contraindicated because they may lead to scleral thinning and perforation.