The Sclera and Episclera

Objectives:

1.Identify the anatomy of sclera and episclera.

2.Difrentiate between scleritis and episcleritis clinically.

3.Identify the clinical presentation ,associations, and treatment of episceritis.

3. Classify scleritis.

4 Identify the clinical presentation ,assoiations, and treatment of sceritis.

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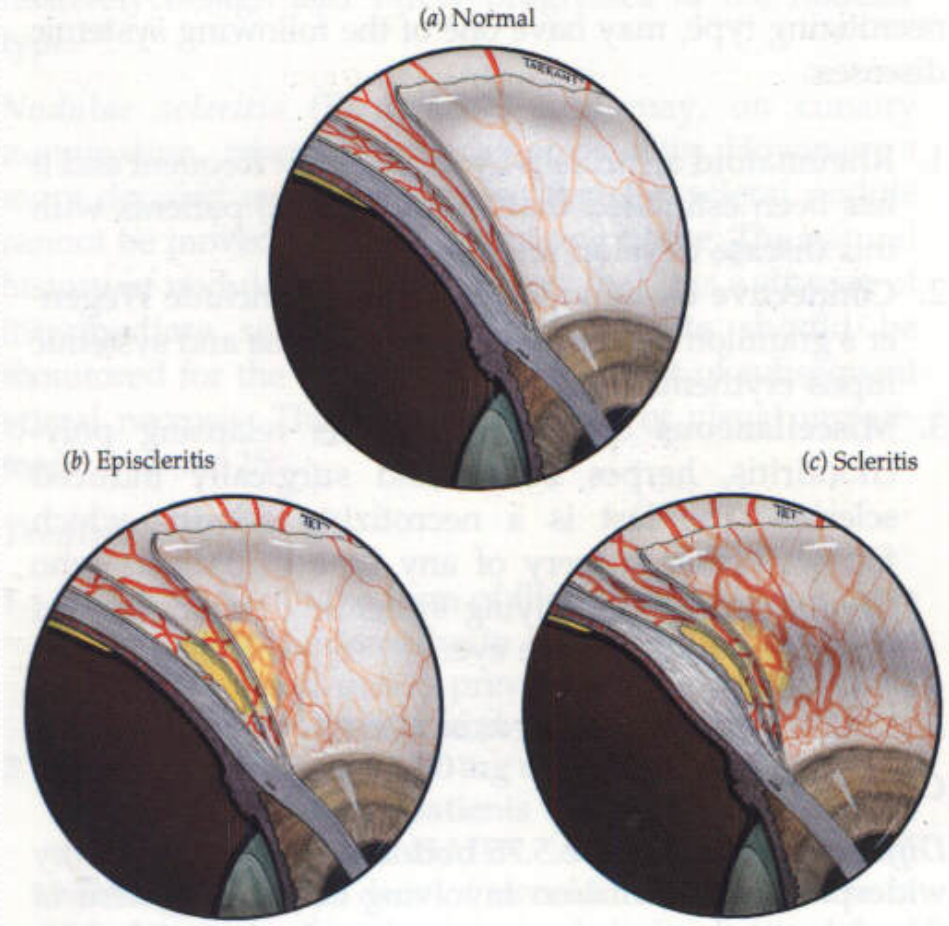
- The vascular layers which cover the anterior sclera are:
- 1.The conjunctival vessels, the most superficial; arteries tortuous, the viens striat.
- 2.Vessels within the tenon capsule which congest in episcleritis, which is radia.
- 3.The deep vascular plexus lies in the superficial part of the sclera.

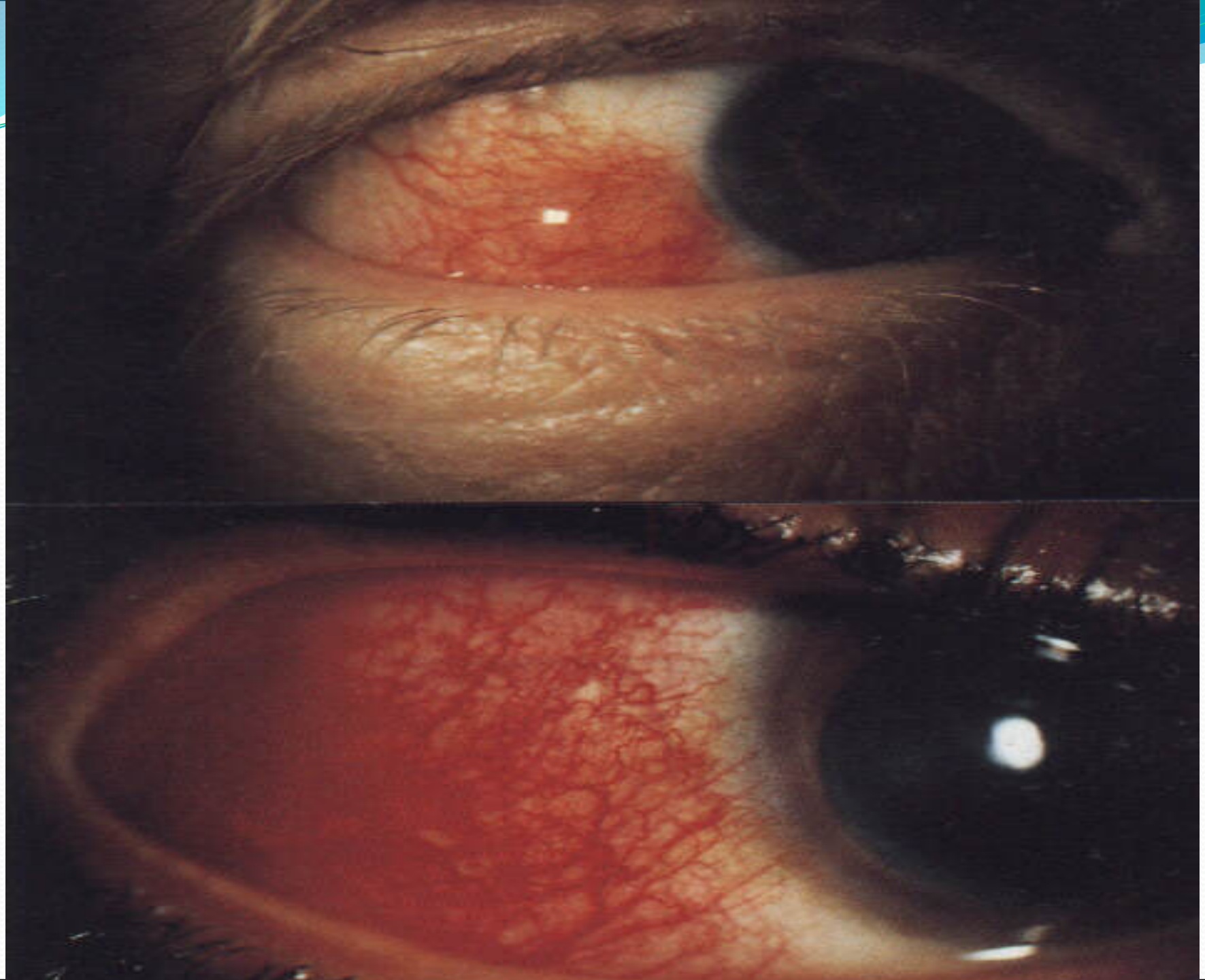

(a) Normal
(b) Episcleritis
(c) Scleritis

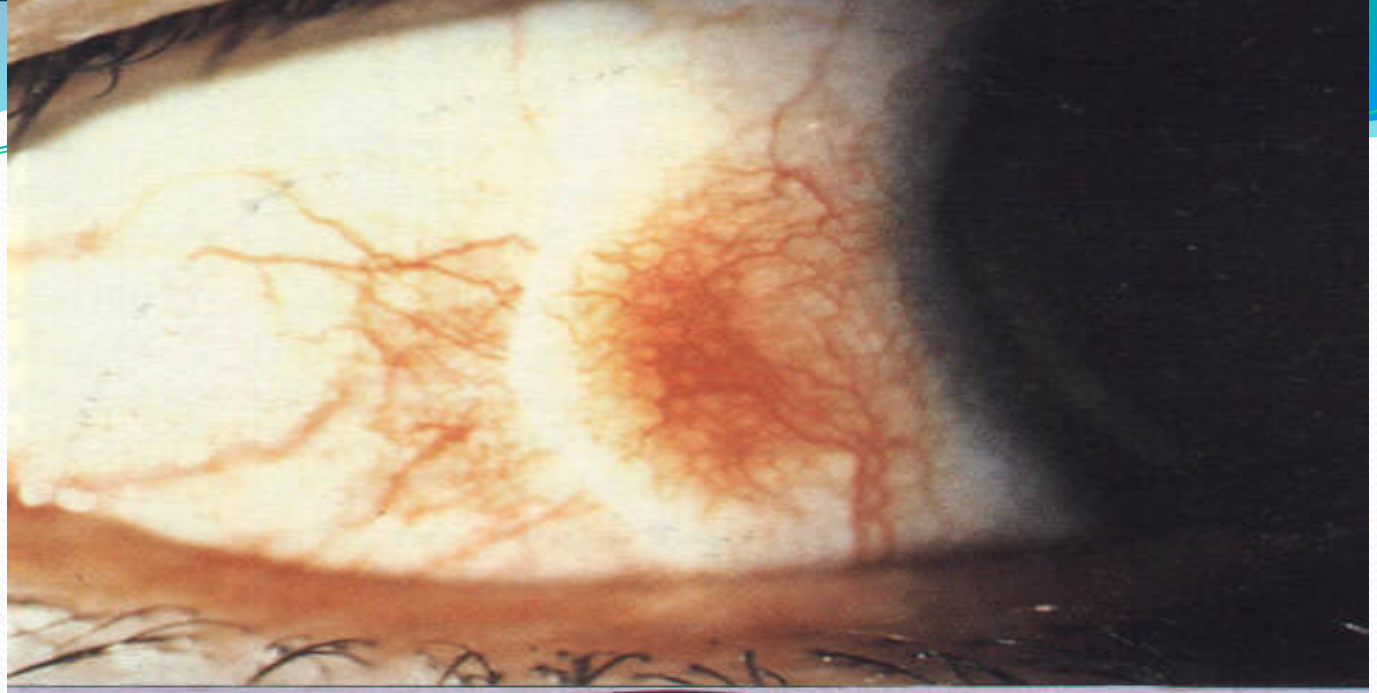
- Clinically we can diffirentiat scleritis from episcleritis by:
- 1.Day light examination.
- 2.Phenylphrine or epihprine eye drops lead to decongestion in episcleritis while not in scleritis.
- 3.Episcleritis is movable lesion on examination while scleritis is fixed.

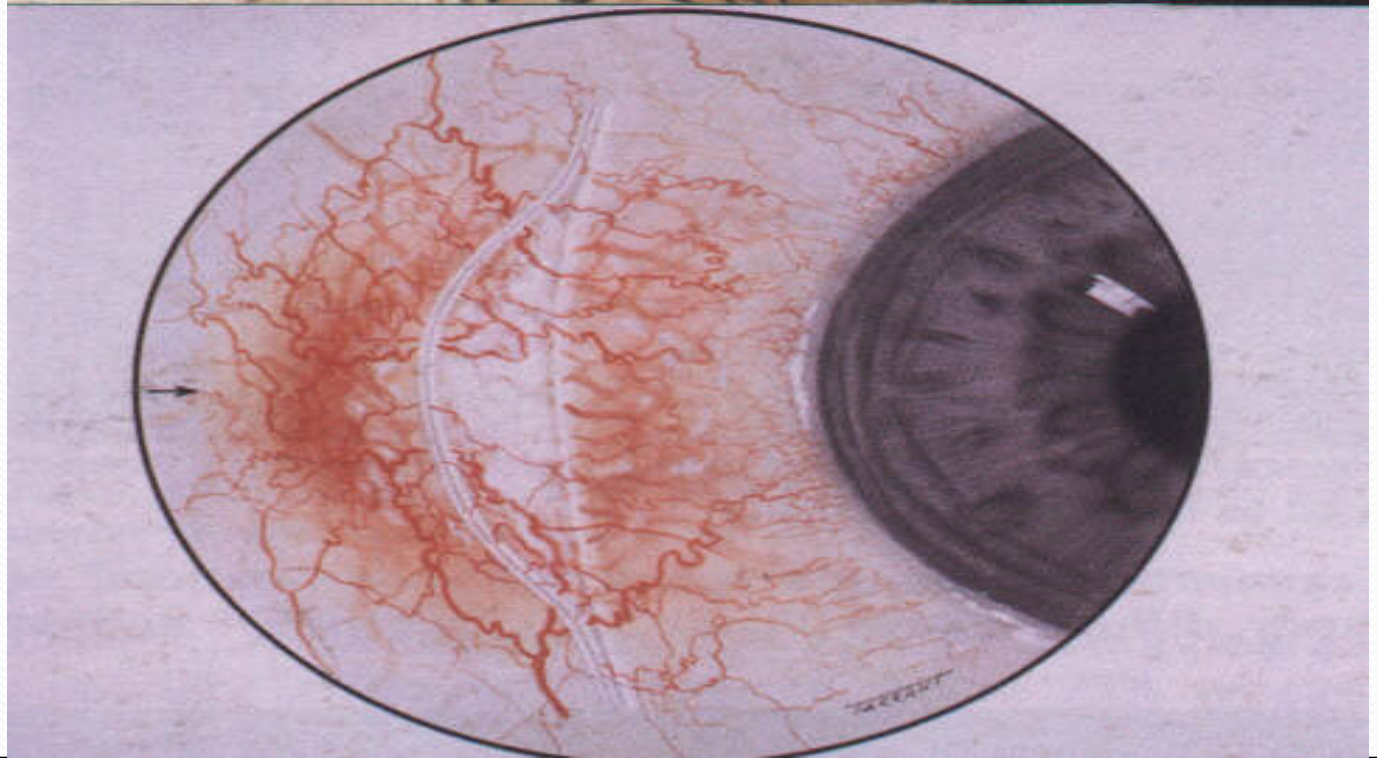
- **Episcleritis:**
- It is a common, benign self-limiting, and frequently recurrent disorder, which typically affects young adults mostly female. Occasionally may be associated with systemic diseases but never progress into scleritis.

- Signs:
- Simple episcleritis, it is the commonest type three quarters of cases, characterized by sectoral or less commonly diffuse redness resolves spontenously within 1-2 weeks, mostly affects female
- Normal visual acuity

- Rx: -in mild cases cool compresses, refrigerated artificial tears
- -weak topical steroid 1-2weeks four times daily
- -oral NSAID (e.g. Ibuprofen 200mg three times daily.
- Nodular episcleritis, characterized by a localized, red congested nodule , which takes more than 1-2 weeks to resolve. IOP may be elevated.
- Rx: same of simple eiscleritis but more indicated







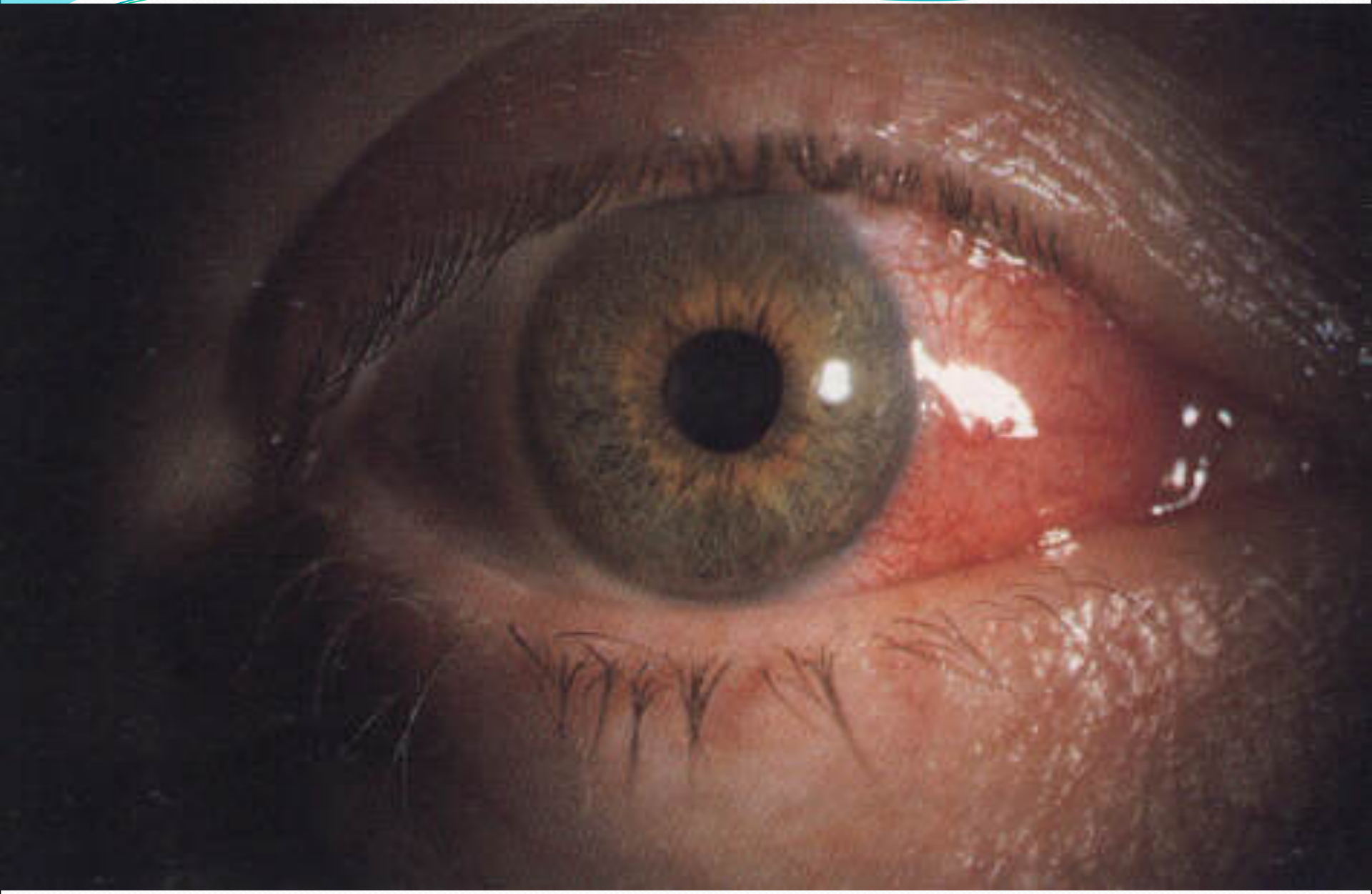
Secleritis:

1. Anterior-98%:

-Non necrotizing-85%

-Necrotizing-13%

2. Posterior-2%

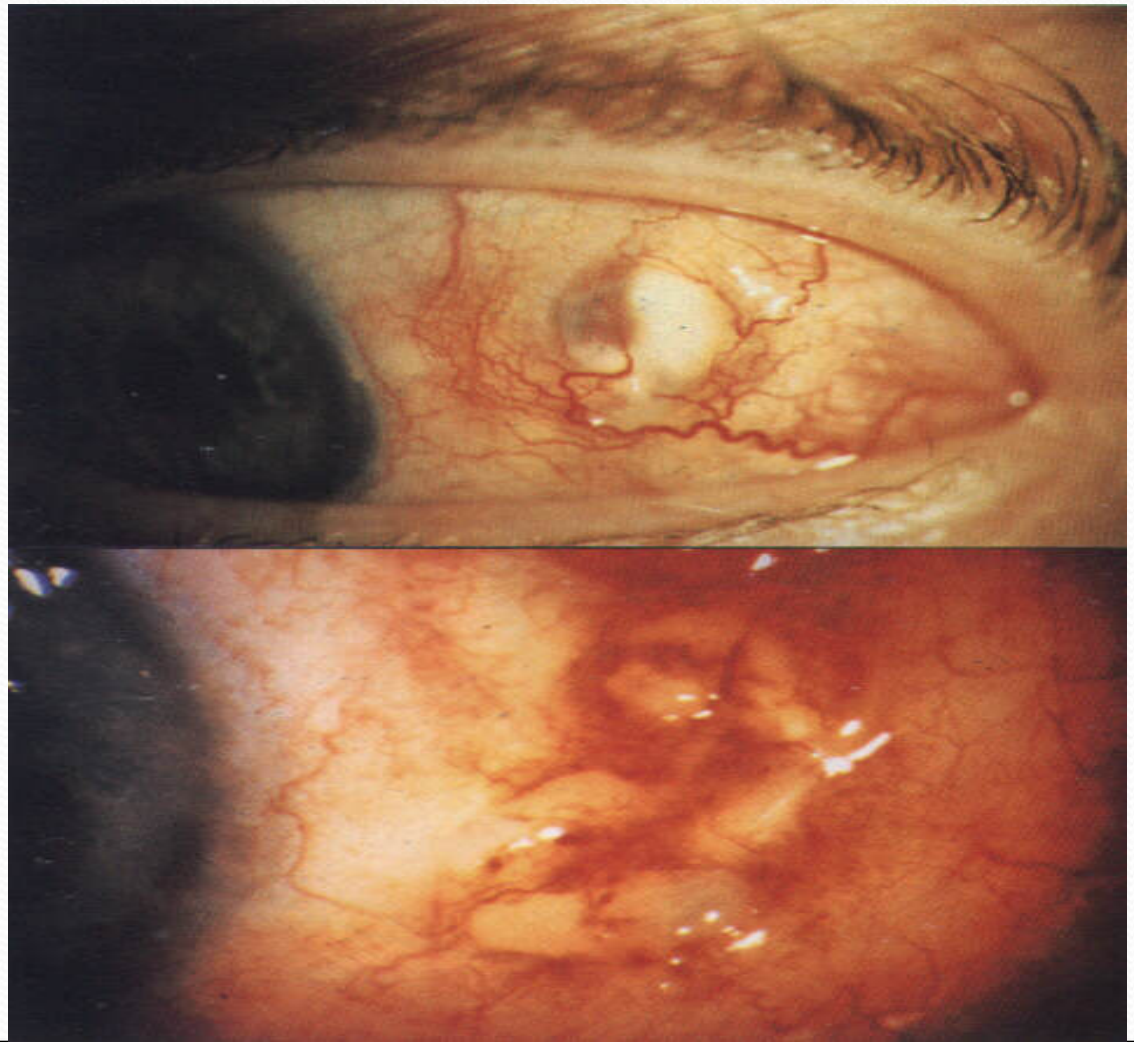


- **Causes and associations:**
- 1.Systemic associations: in 50% of cases. Rheumatoid arithritis is the commonest one (Only 1% of them develop scleritis).Other diseases :Wegner granulomatosis, relapsing polychondritis, and poly arteritis nodosa.
- 2.Surgically induced, within the 1st 6 post op. months.
- 3. Infectious: most frequently from corneal ulcer, trauma, excision of pteregium with adjunctive Beta irradiation or mitmycin C.

Treatment of anterior non necrotizing

1. Systemic NSAID.
2. Systemic prednisolon.
3. Combind.
4. Subconj Tiamcinolon

Anterior necrotizing with inflammation



Complications of anterior necrotizing scleritis with inflammation

- 1-Staphyloma formation: bulging of the sclera 2ndary to its progressive thinning
- 2- Anterior uveitis which may lead to secondary cataract, glaucoma, and macular edema.
- 3-Corneal complications: stromal keratitis, seclerosing keratitis, and peripheral ulcerative keratitis.

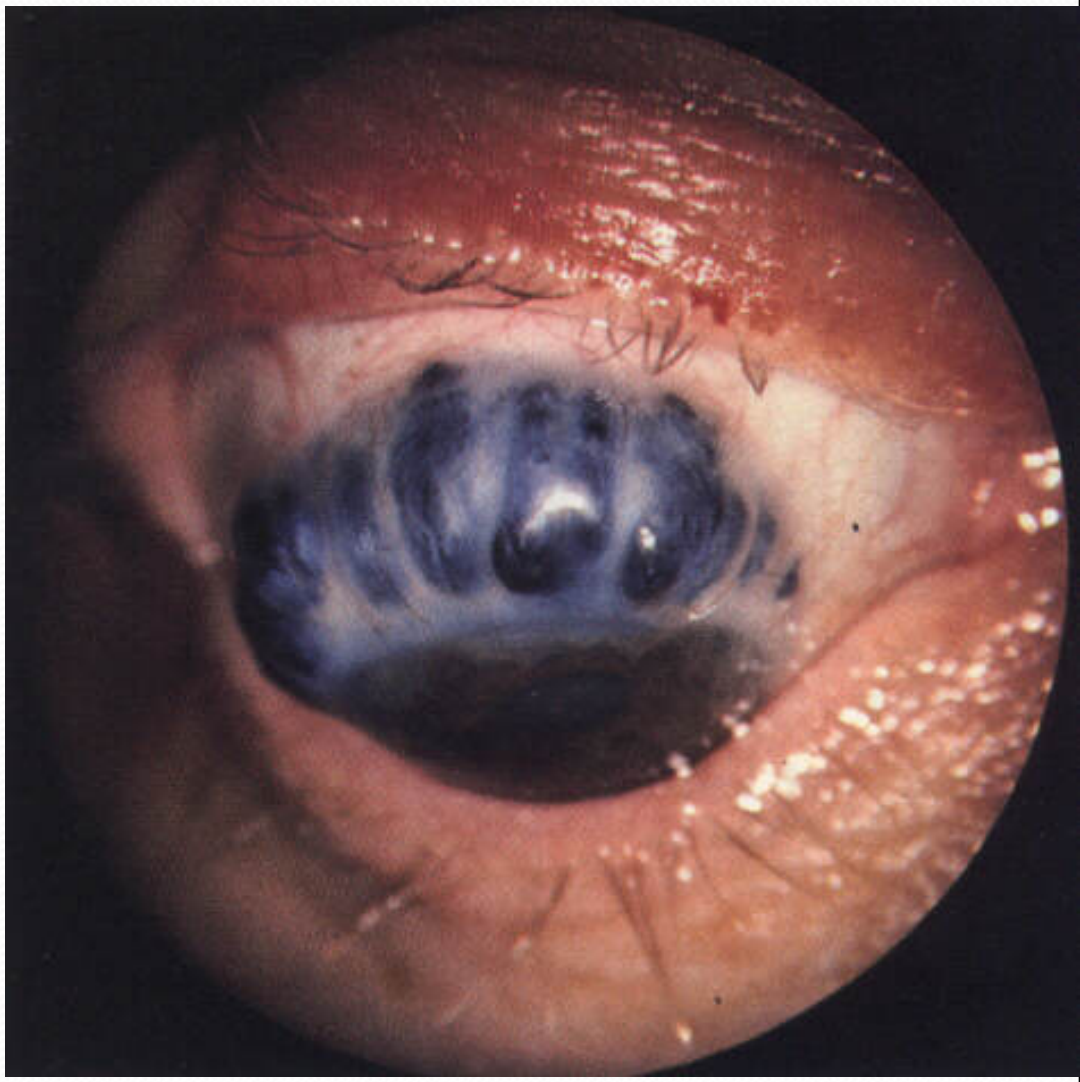
Treatment:

1. Oral prednisolon
2. Cyclophosphoid or Azathioprine.
3. Combind IV methyl prednisolon and immunosupressive agents

- **Anterior necrotizing scleritis without inflammation (sclerosromalacia Perforance)**

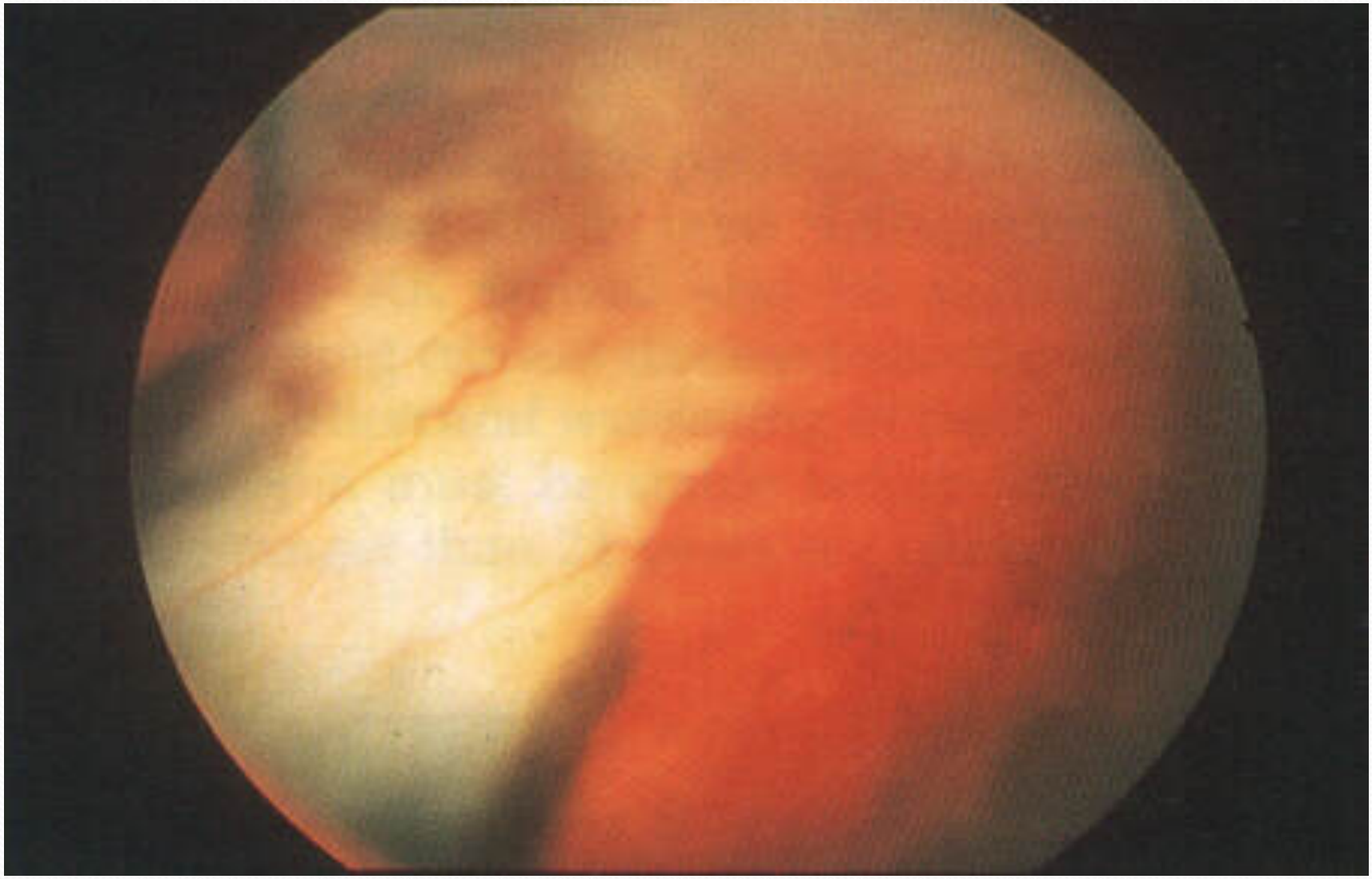
- Typically affects women with long standing rheumatoid arithritis and is usually bilateral.
- Treatment : lubricant
- Scleral patch
- Rx of underlying disorder

- Anterioe necrotizing scleritis without inflammartion (scleromalascia perforance)

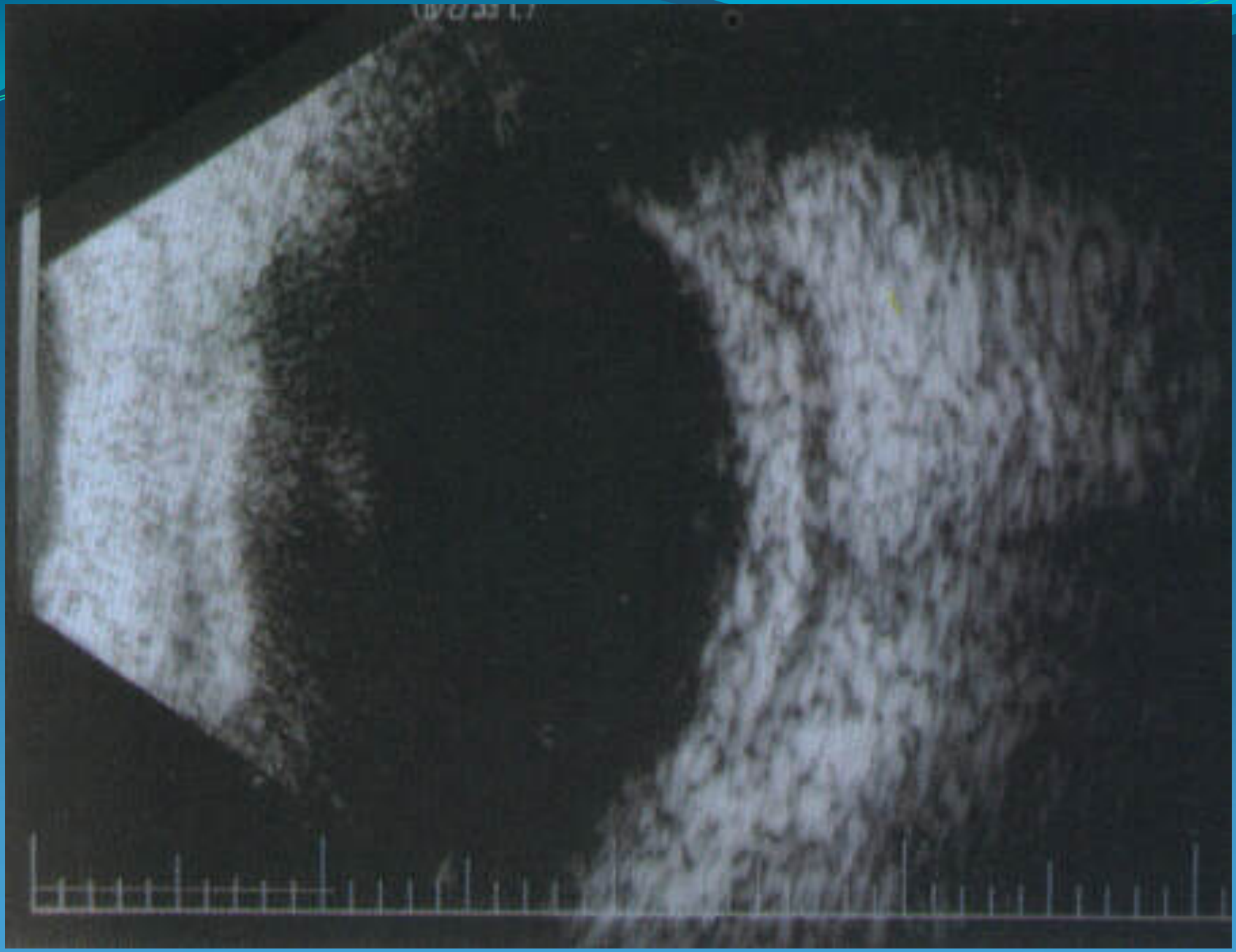


- **Posterior secleritis:**
- - It is uncommon.
- - Female/male : 2/1
- -patients > 50 years are at high risk of a systemic diseases and visual loss.
- -2/3 of cases unilateral.
- -Guarded visual prognosis.
- - (3^{rd}, 4^{th}, and 6^{th} CN) may be affected

Posterior Scleritis



- **Presentation:**
- - Pain
- -decrease vision.



- DDx:
- Optic neuritis.
- Rheugmatogenous R.D.
- Choroidal tumours.
- Orbital inflammatory diseases.
- Uveal effusion syndrome.
- Intraocular lymphoma.

Thank you