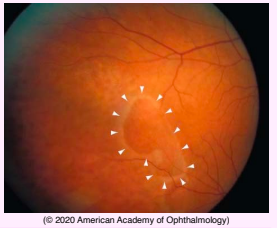
Degenerative Retinoschisis

Introduction
- 50-80% bilateral
- complications of posterior extension and progression to retinal detachment are associated with the reticular form
- inferotemporal quadrant
- commonly associated with hyperopia
- clinical differentiation between typical & reticular is difficult

typical degenerative retinoschisis
- split in outer plexiform layer
- outer layer — irregular and appears pockmarked on scleral depression
- inner layer — thin and appears clinically as smooth, oval elevation
- inferotemporal quadrant — sometimes superotemporal
- small, irregular white dots ("snowflakes") — footplates of Müller cells and neurons that bridge schisis cavity
- retinal vessels appear sclerotic
- peripheral cystoid degeneration with a typical "bubbly" appearance is visible anterior to the schisis
- may extend posteriorly to the equator,
- complications such as hole formation, retinal detachment, or marked posterior extension are rare
  - almost never extends to macula

reticular degenerative retinoschisis
- split in nerve fiber layer
- outer layer — appears pockmarked on scleral depression
- inner layer — very thin inner layer may be markedly elevated — *bullous retinoschisis*
- retinal vessels appear sclerotic
- 23%
- may be large and have rolled edges
- outer layer holes



(© 2020 American Academy of Ophthalmology)

schisis-related detachments
- ≈ 3% of RDs are associated with retinoschisis
- type 1 RD
  - holes in outer but not inner wall of schisis cavity
  - usually does not progress or progresses slowly
  - seldom requires treatment
  - demarcation lines and degeneration of the underlying RPE are common
- type 2 RD
  - holes in both inner and outer layers
  - schisis cavity may collapse
  - RD can progress rapidly
  - usually requires treatment
  - causative breaks may be located very posteriorly
  - vitrectomy may be required
- demarcation line in an eye with retinoschisis suggests full-thickness RD

Differentiation of Retinoschisis From RRD
- retinoschisis
  - absolute scotoma
  - vitreous tobacco dust or hemorrhage are rare
  - smooth dome-shaped surface
  - underlying RPE is normal
  - shifting fluid absent
  - white reaction to photocoagulation
  - in long-standing RRD retina may appear smooth and thin
- RRD
  - relative scotoma
  - vitreous tobacco dust or hemorrhage are common
  - corrugated, irregular surface
  - long-standing RRD
    - atrophy of the underlying RPE
    - demarcation line(s)
    - degenerative retinal schisis (macrocysts)
  - shifting fluid usually absent
  - no reaction to photocoagulation