



CHRONIC VISUAL LOSS


BY


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Chronic = slowly progressive visual loss

Major causes:

- e.g.
- cataract
 - glaucoma
 - macular degeneration
 - diabetic retinopathy
- 



One should recognize the normal 1st to be able to identify the abnormal.

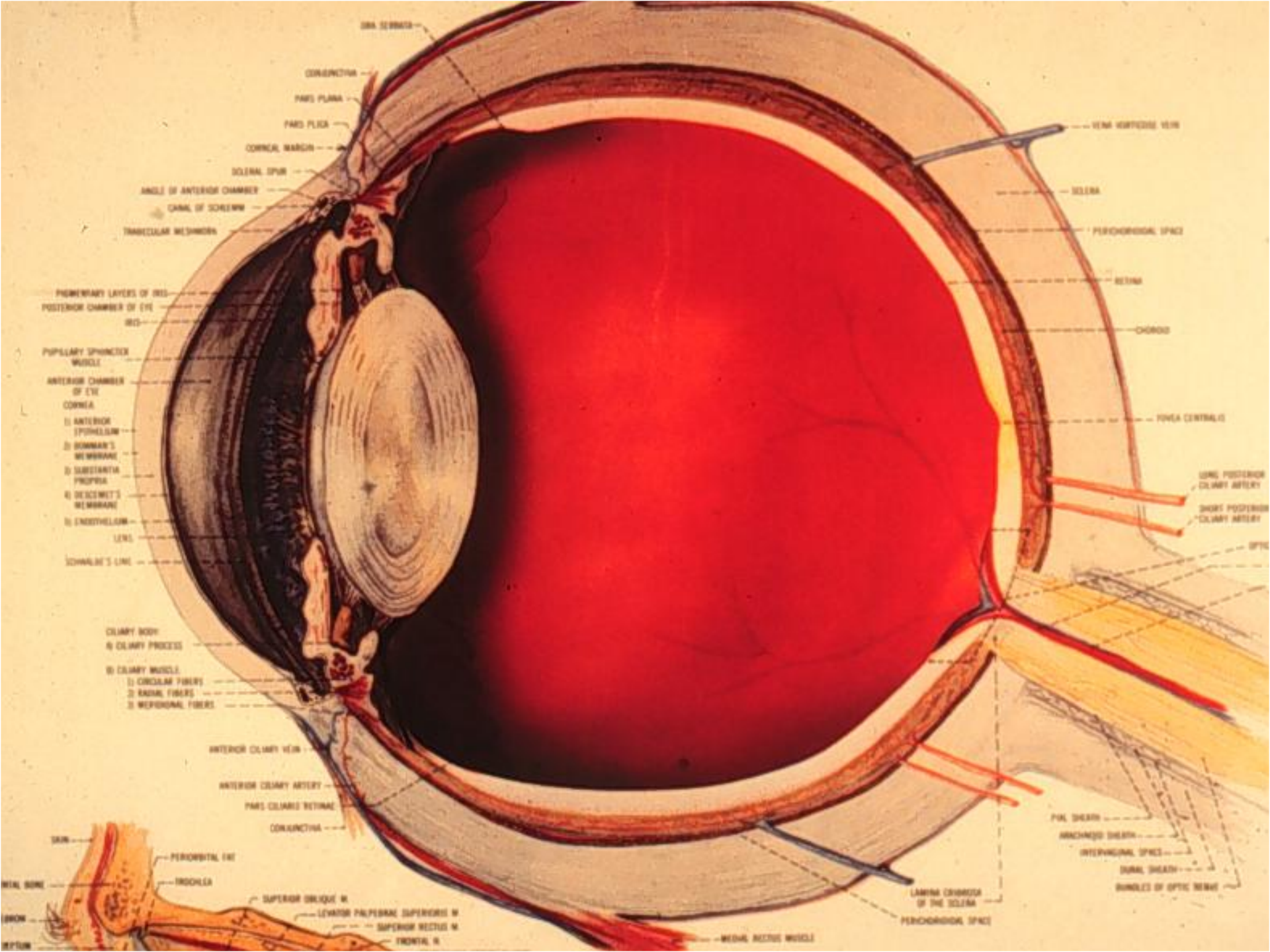
- e.g.
- Normal macula
 - Lens clarity
 - Optic nerve head
 - Normal retina
- etc.
- 



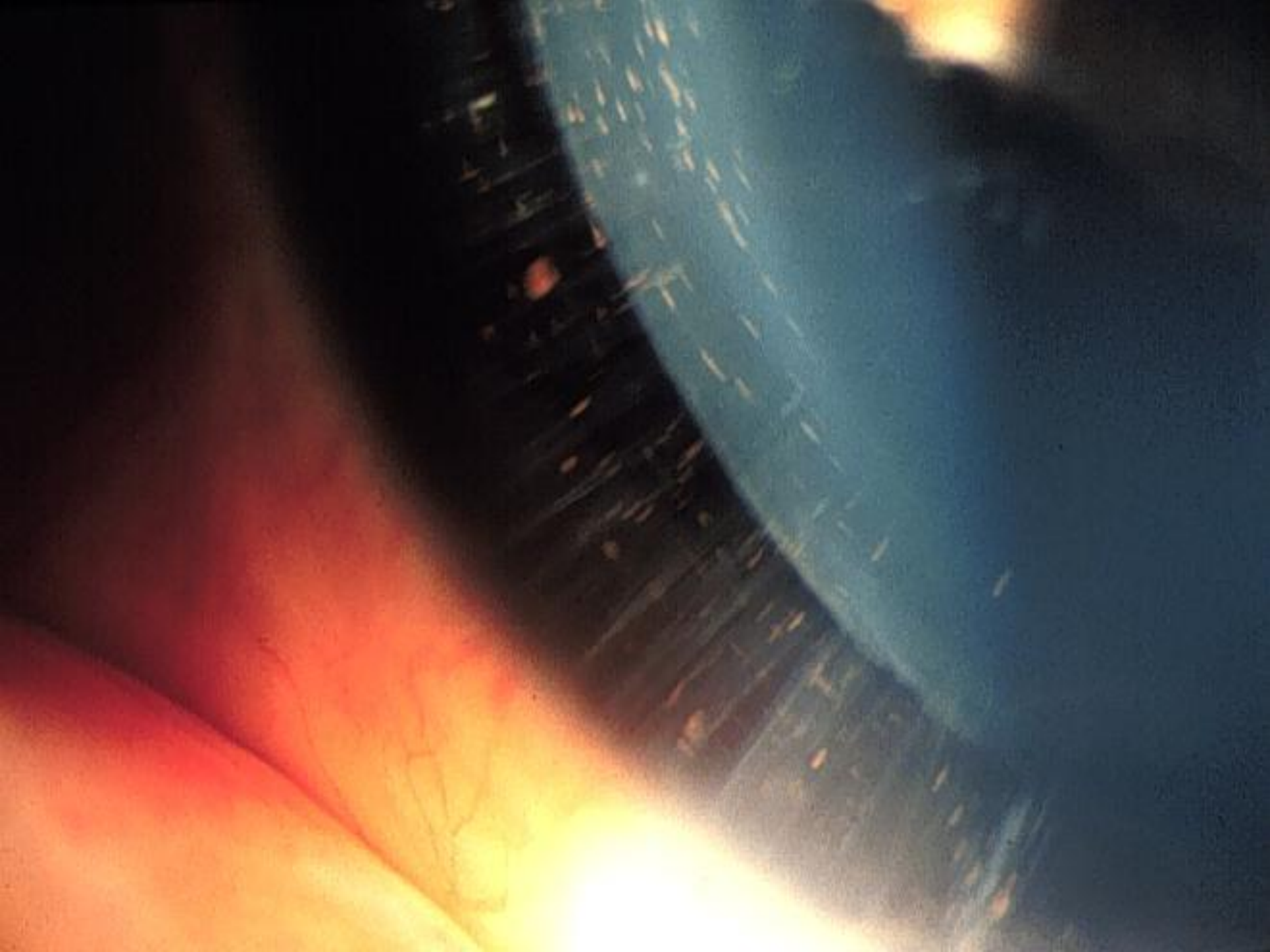
Cataract



WHAT IS CATARACT?



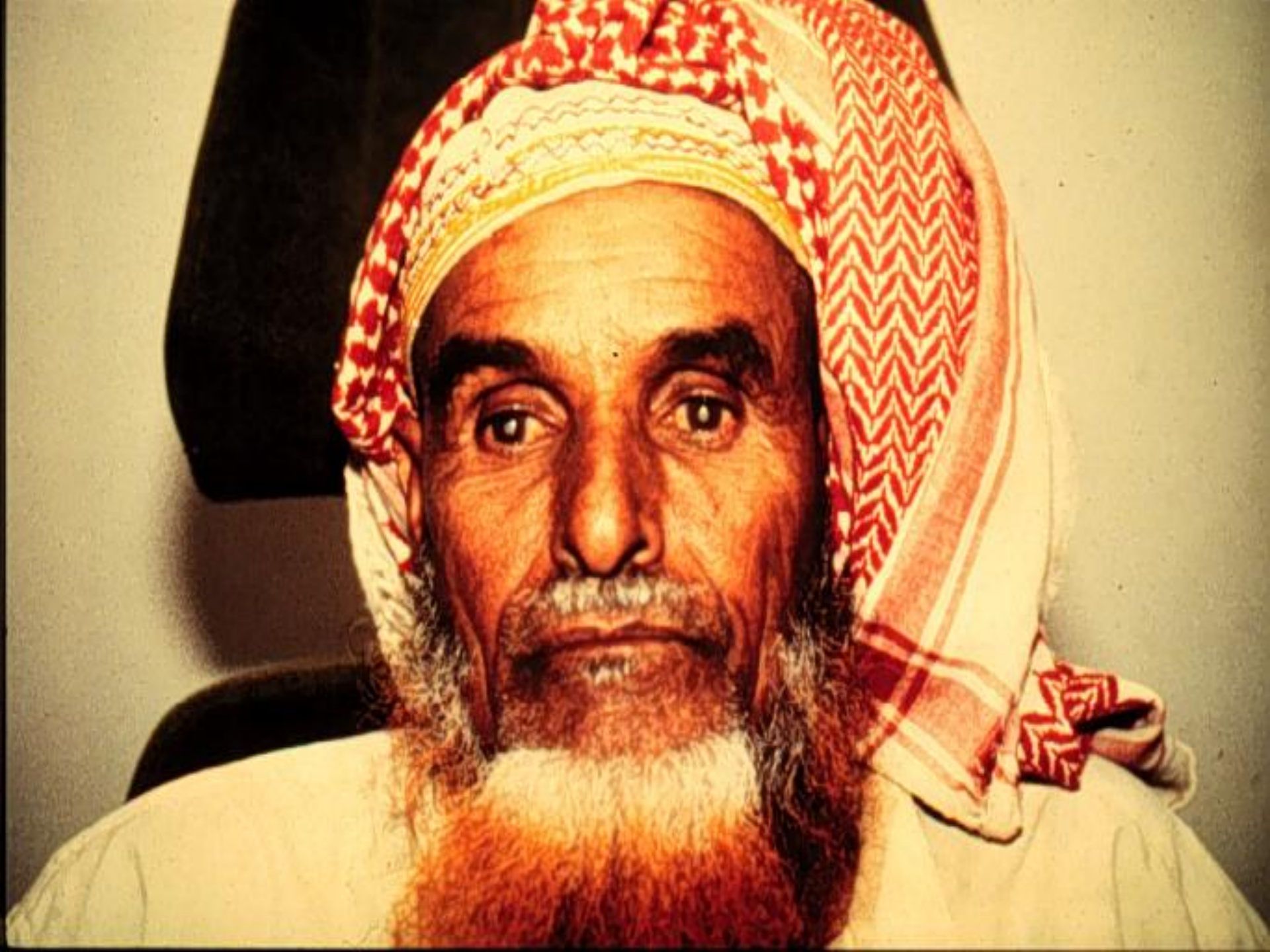




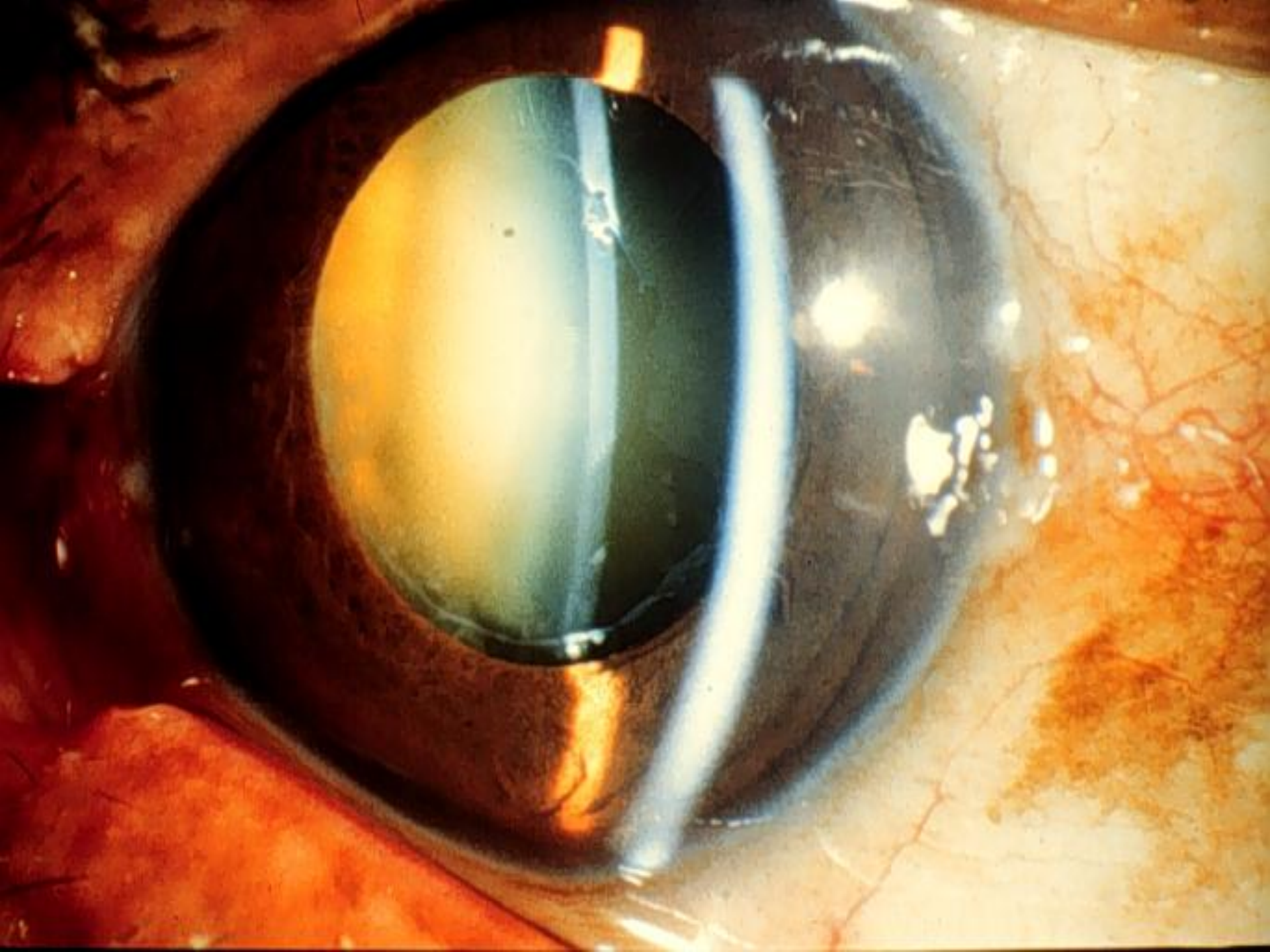


CONGENITAL CATARACT

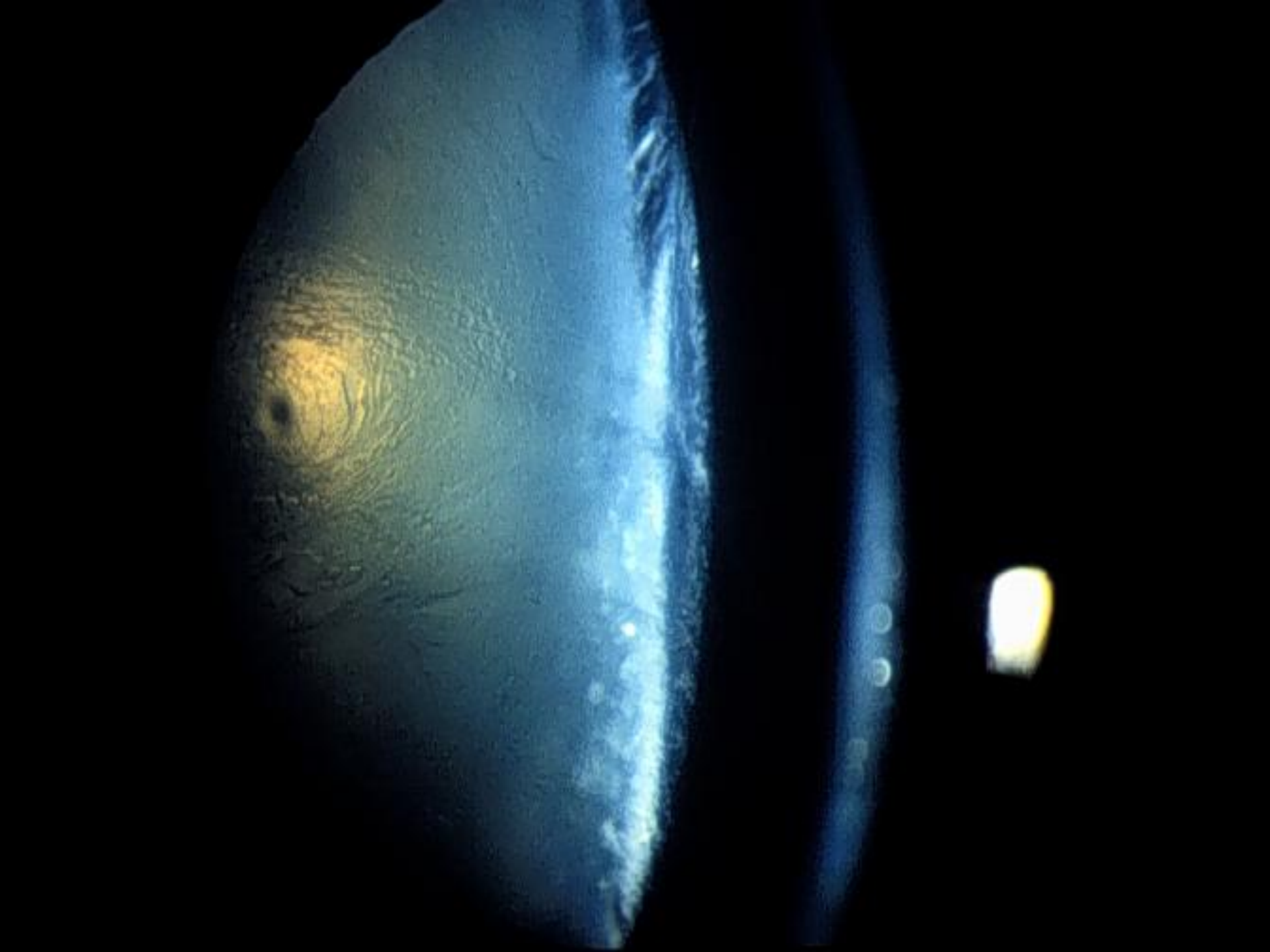
- GALACTOSEMIA
- HYPOGLYCEMIA
- MYOTONIC DYSTROPHY
- CONGENITAL ICHTHYOSIS
- RUBELLA CATARACT

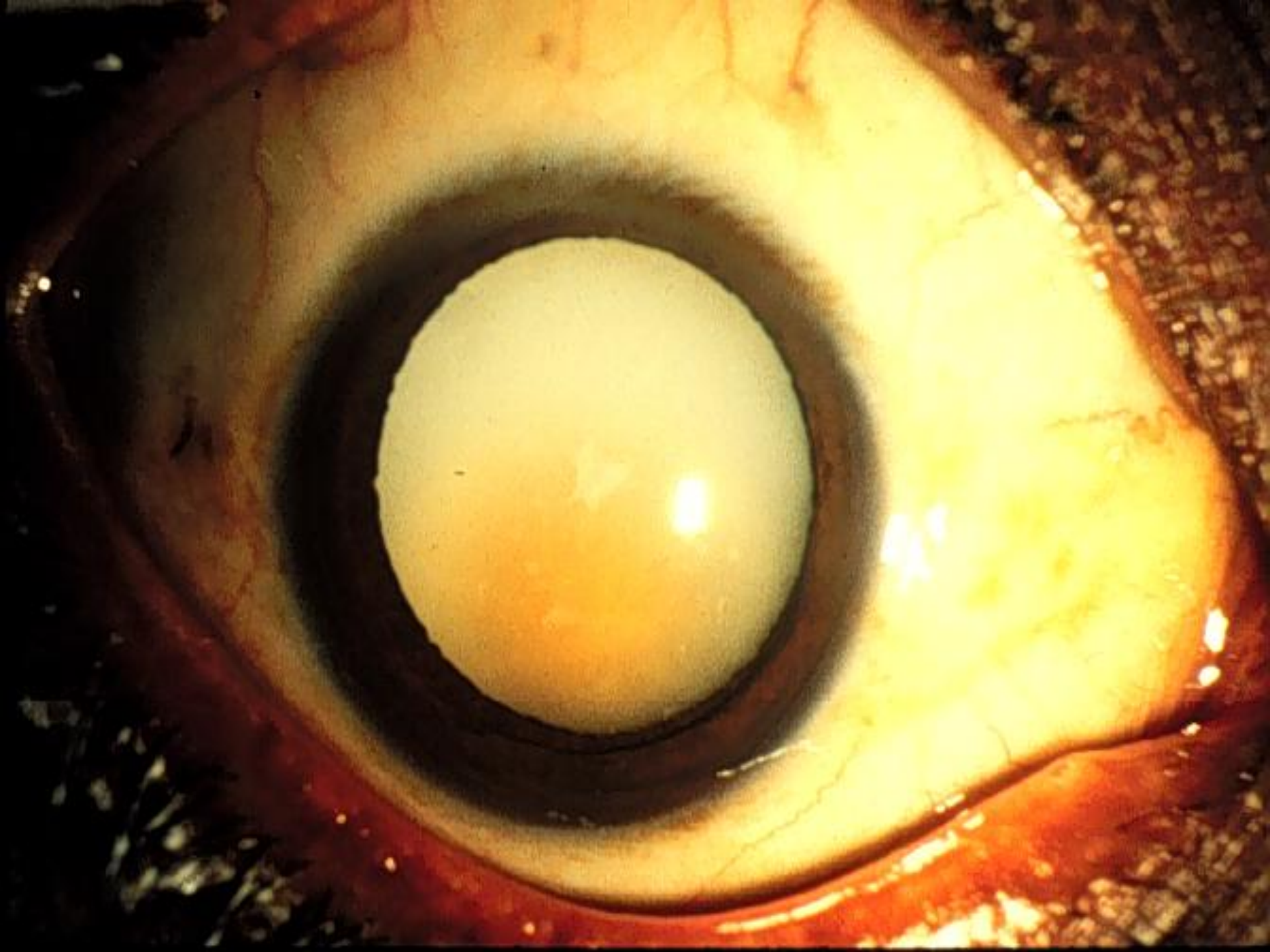


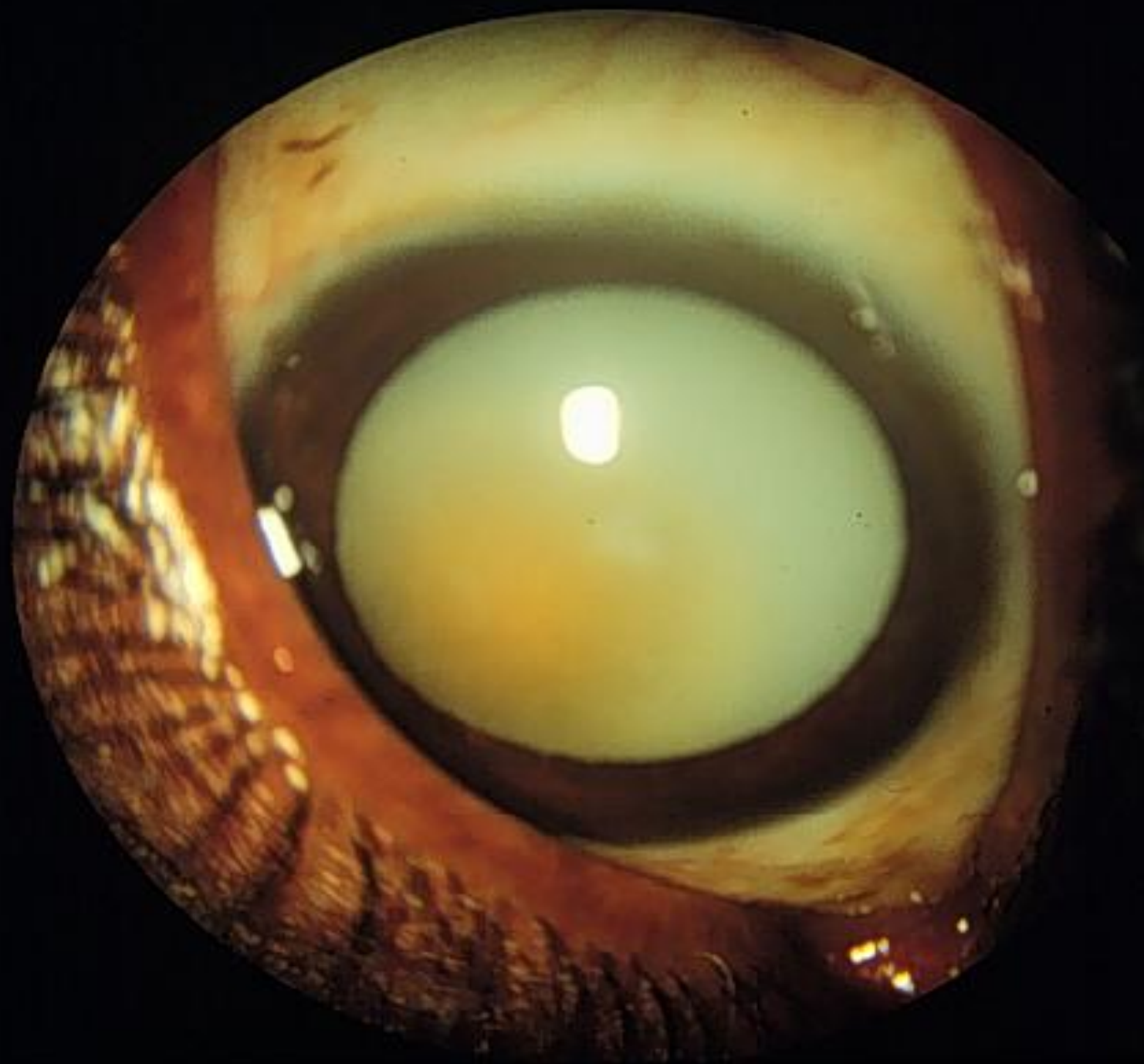


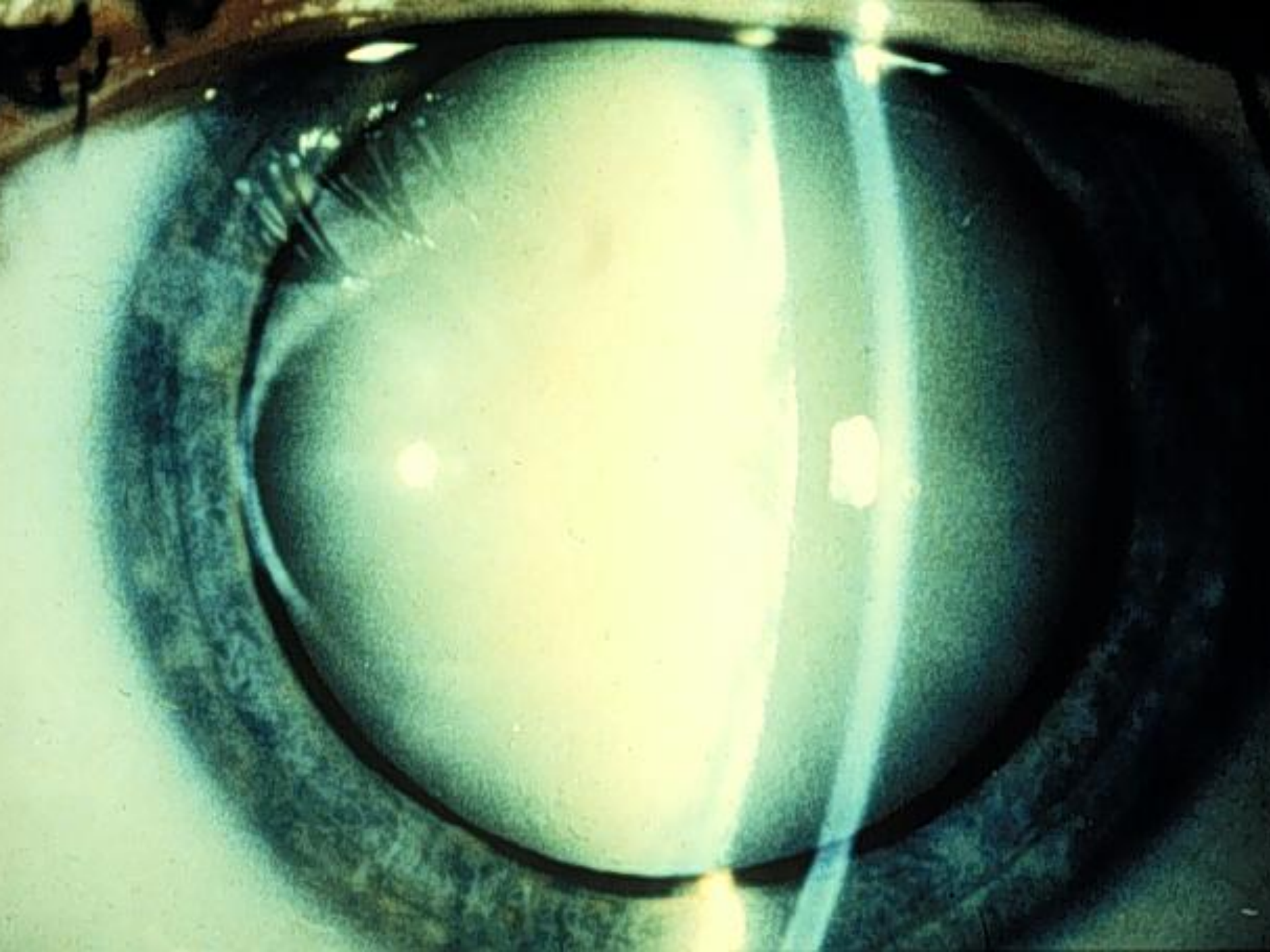








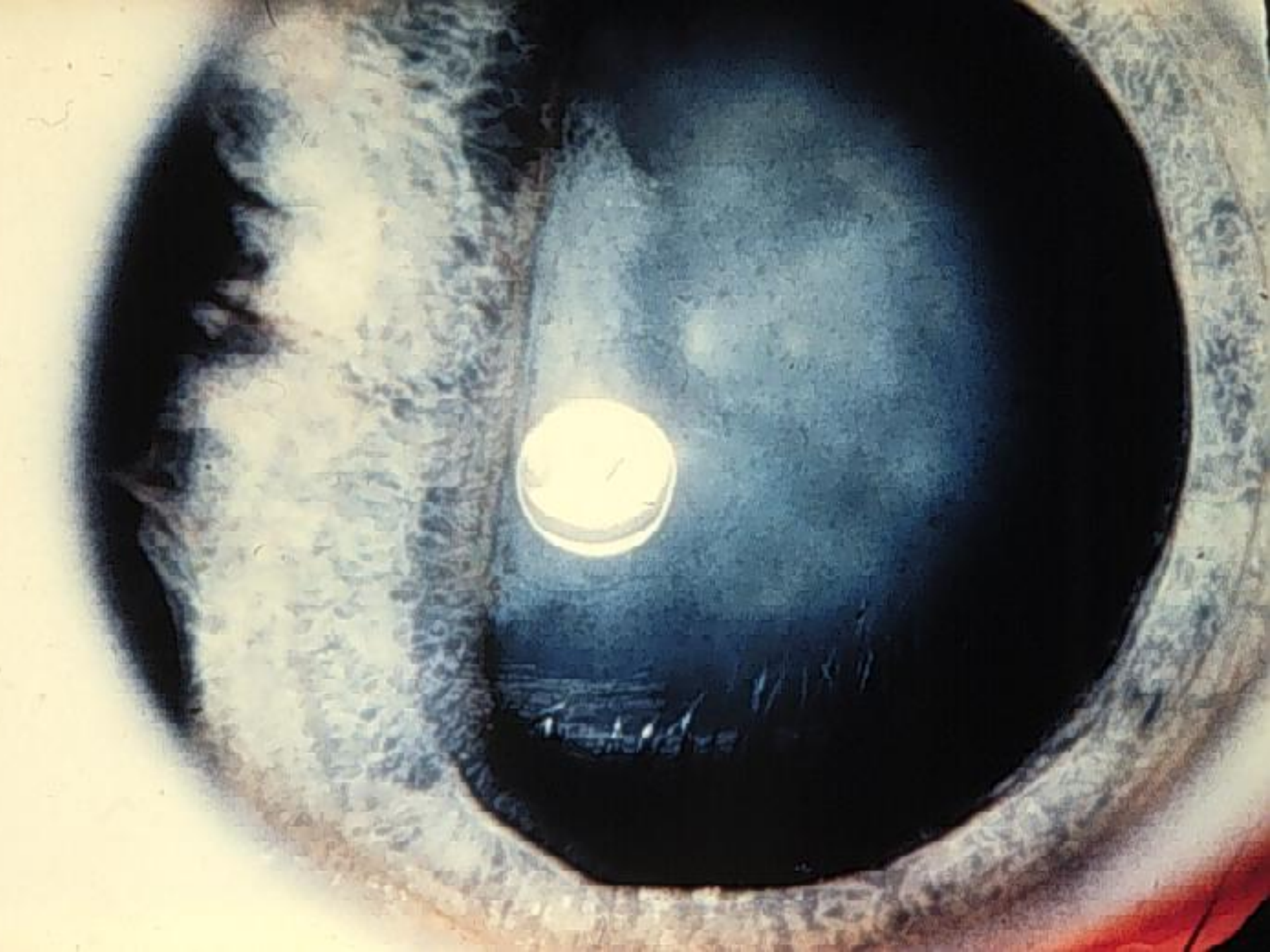






SECONDARY CATARACT

- **TRAUMATIC**
- **INFLAMMATORY**
- **NEOPLASM**
- **TOXIC**

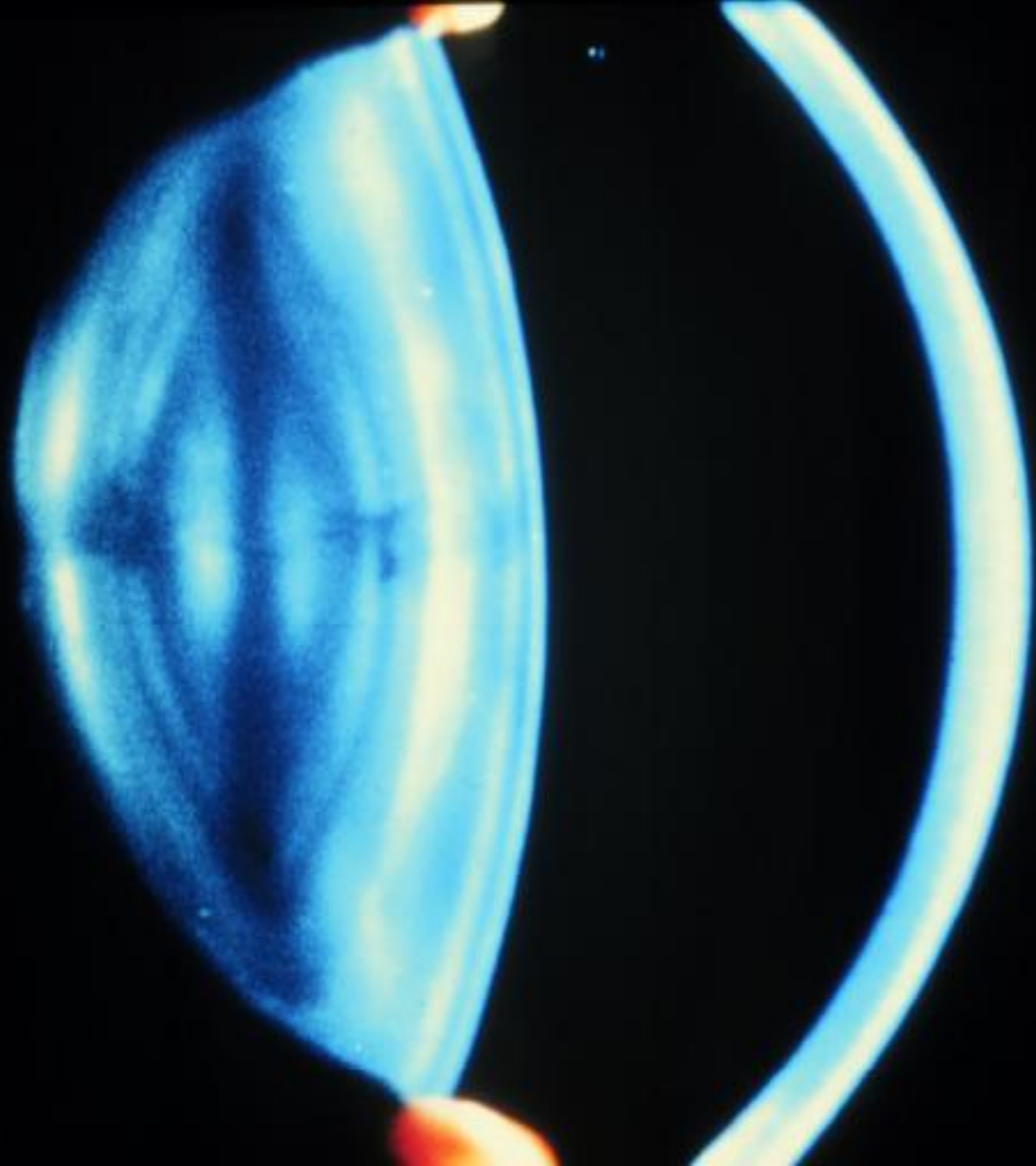


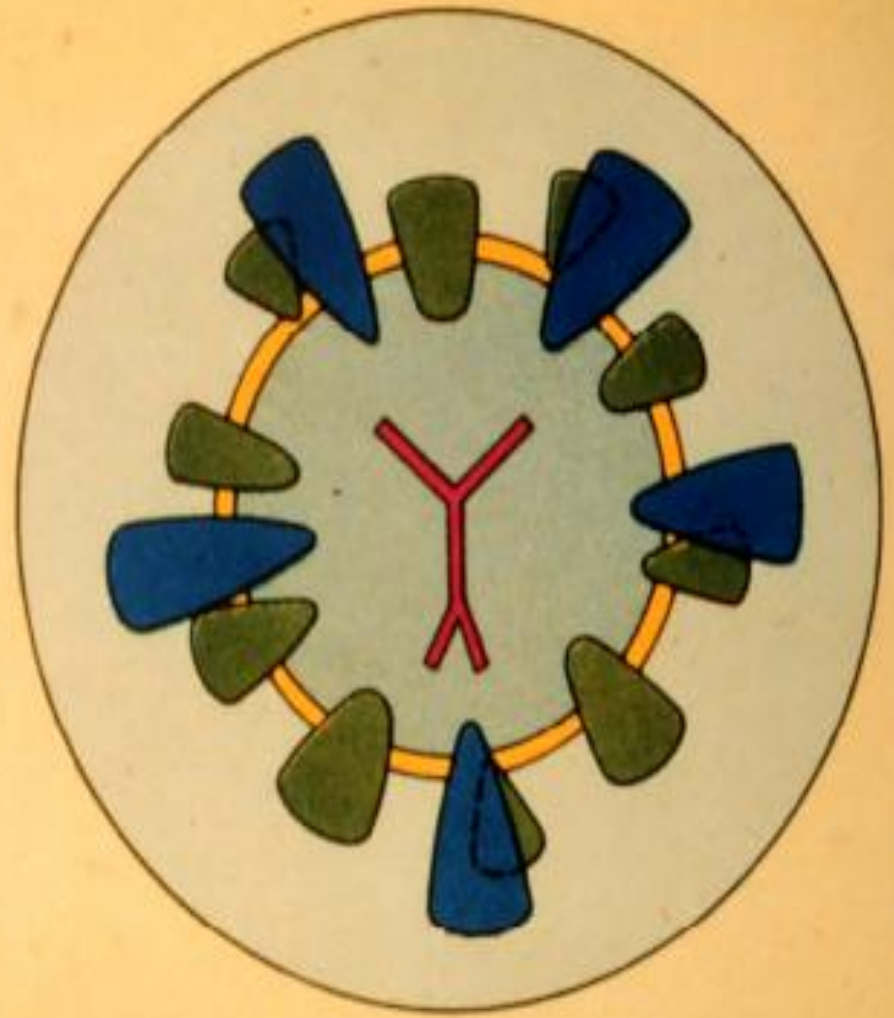






SITE OF CATARACT





- capsular (polar)
- subcapsular (cupuliform)
- supranuclear (coronary)

- cortical (cuneiform)
- nuclear (lamellar)

- sutural
- nuclear

DIAGNOSTIC TESTS

- VISUAL ACUITY
- FLASHLIGHT EXAMINATION
- DIRECT OPHTHALMOSCOPE
- SLIT LAMP
- REFRACTION AND RETINOSCOPE
- RED AND GREEN LIGHT
- ULTRASONOGRAPHY

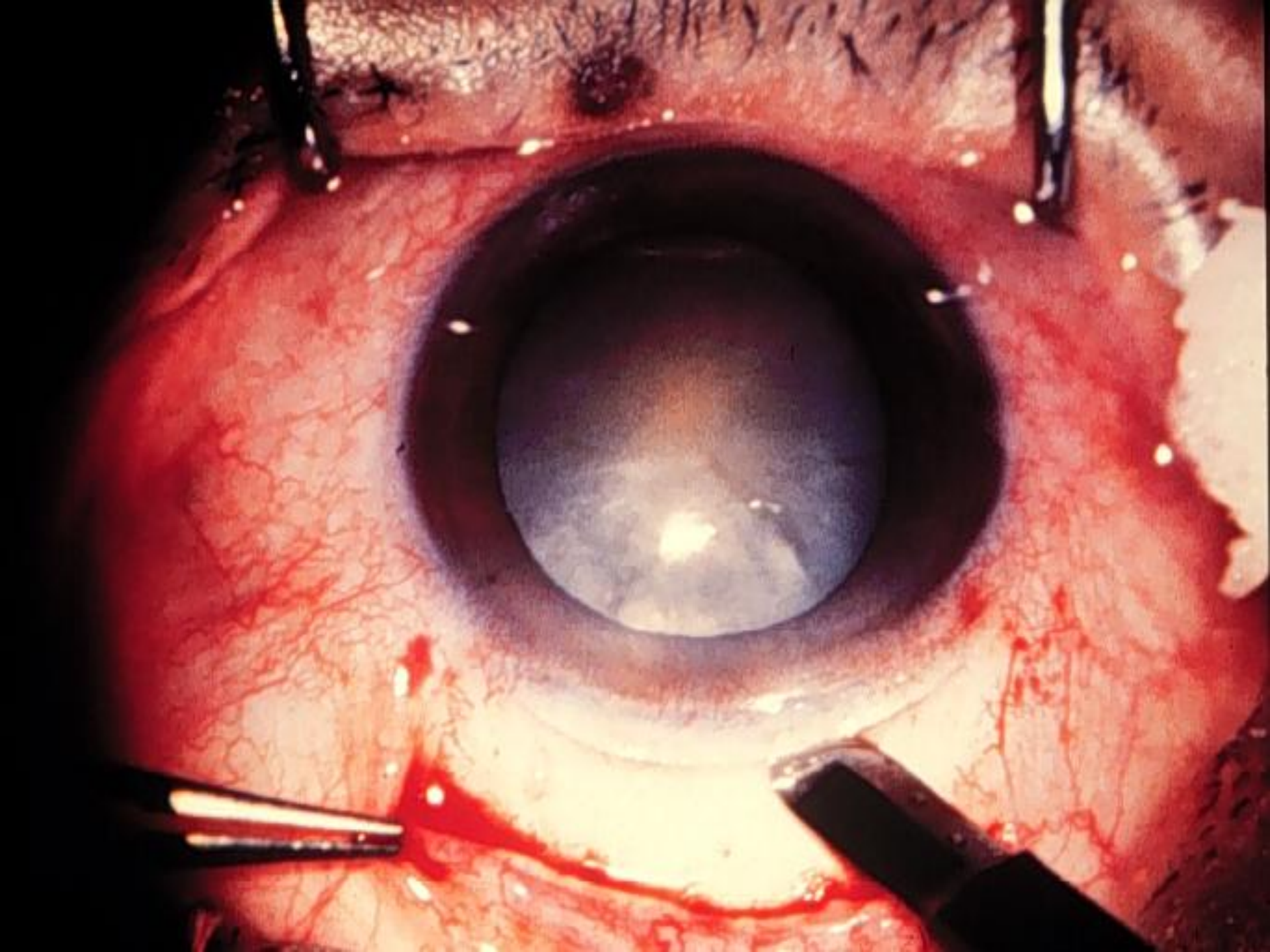


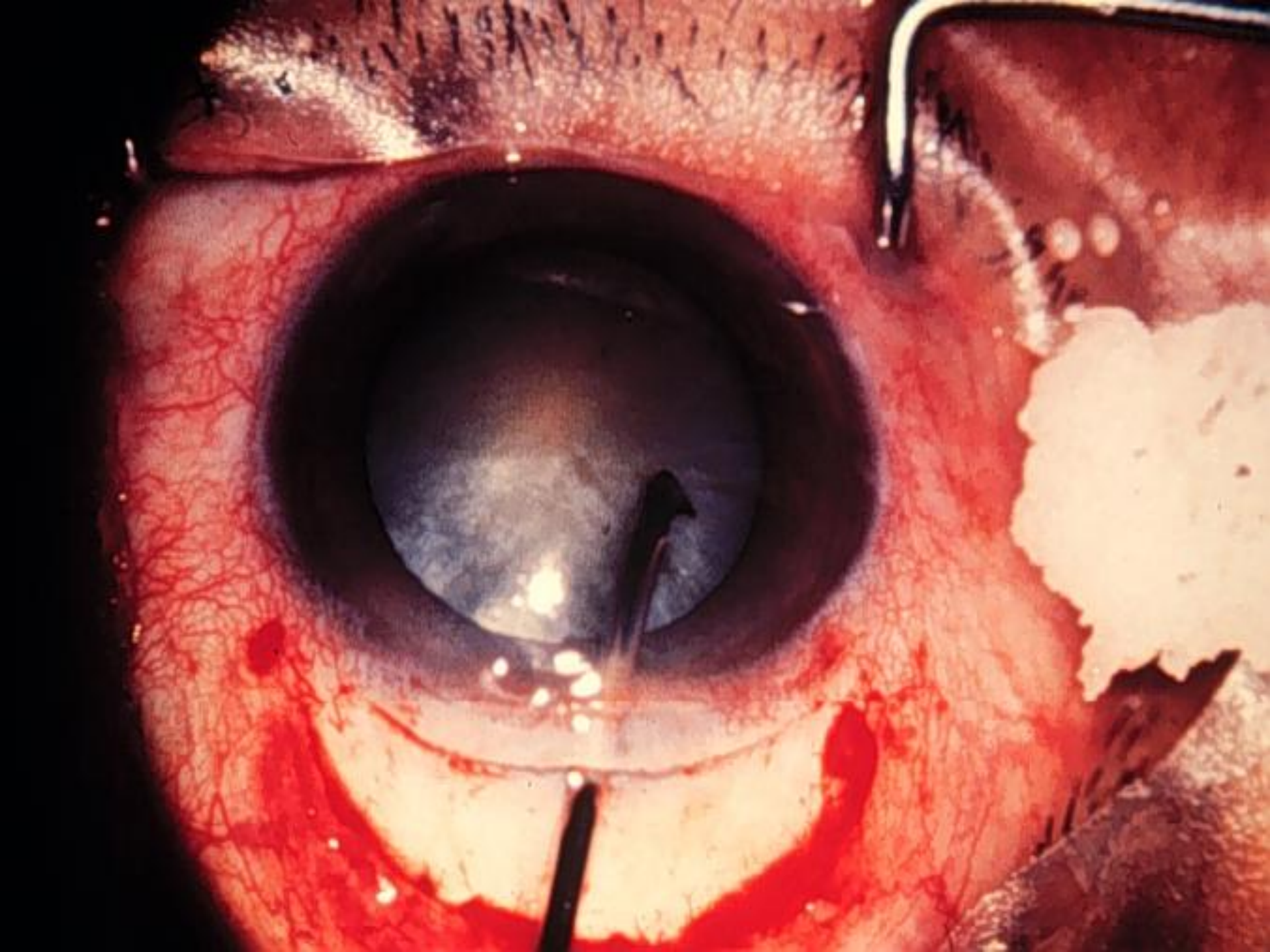
TREATMENT

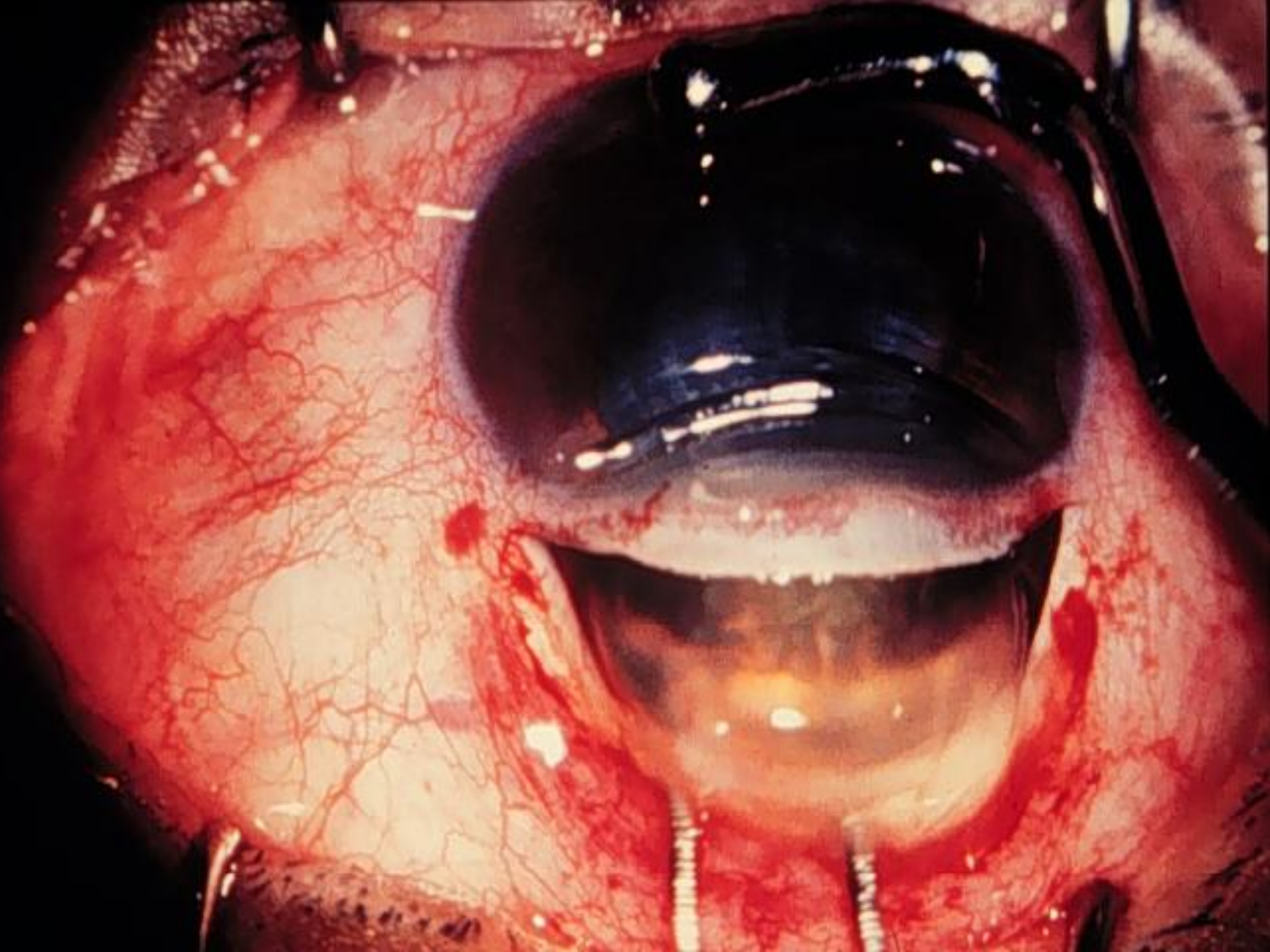
- MEDICAL
- SURGICAL

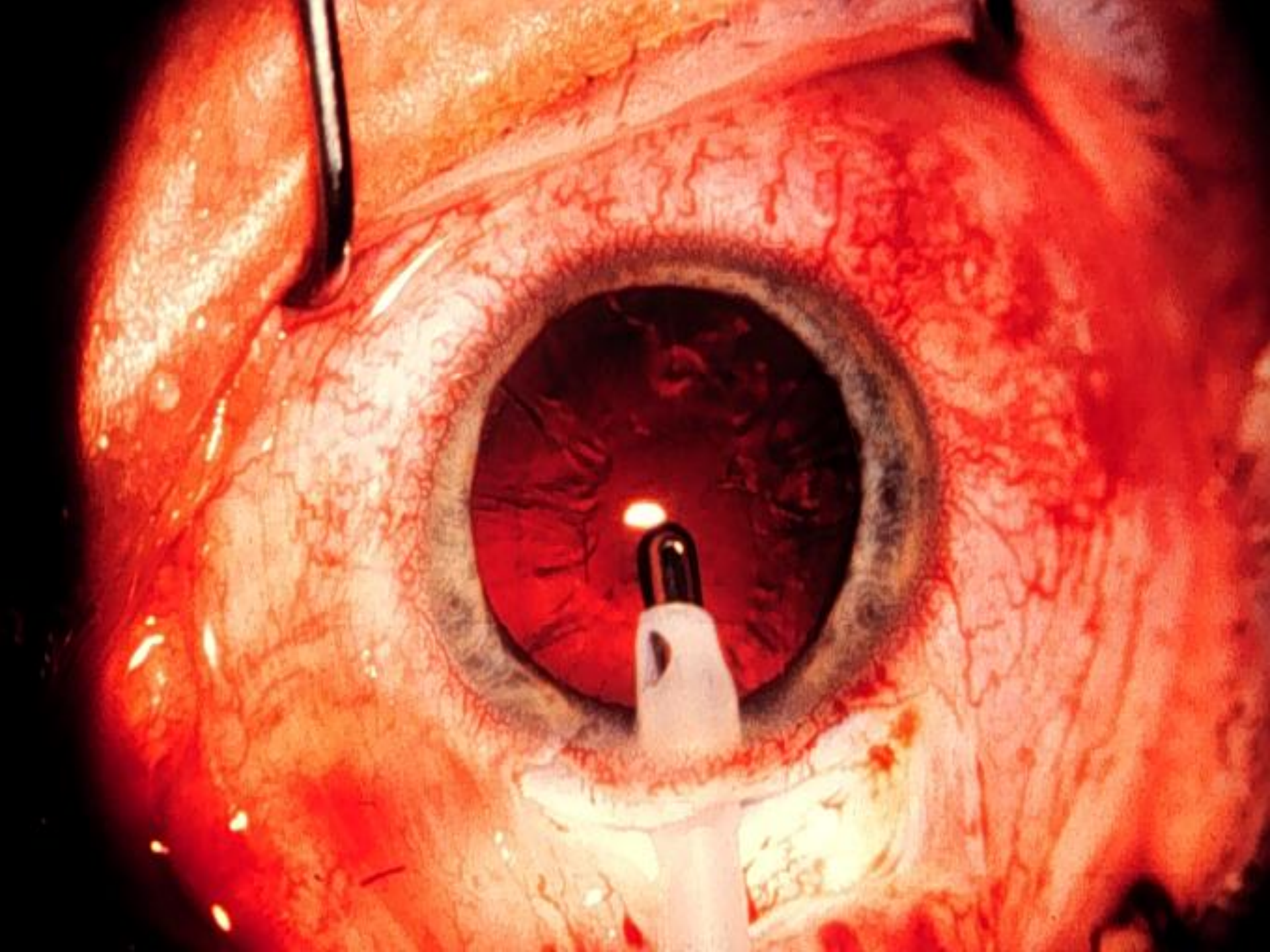
TYPES OF SURGICAL TECHNIQUE

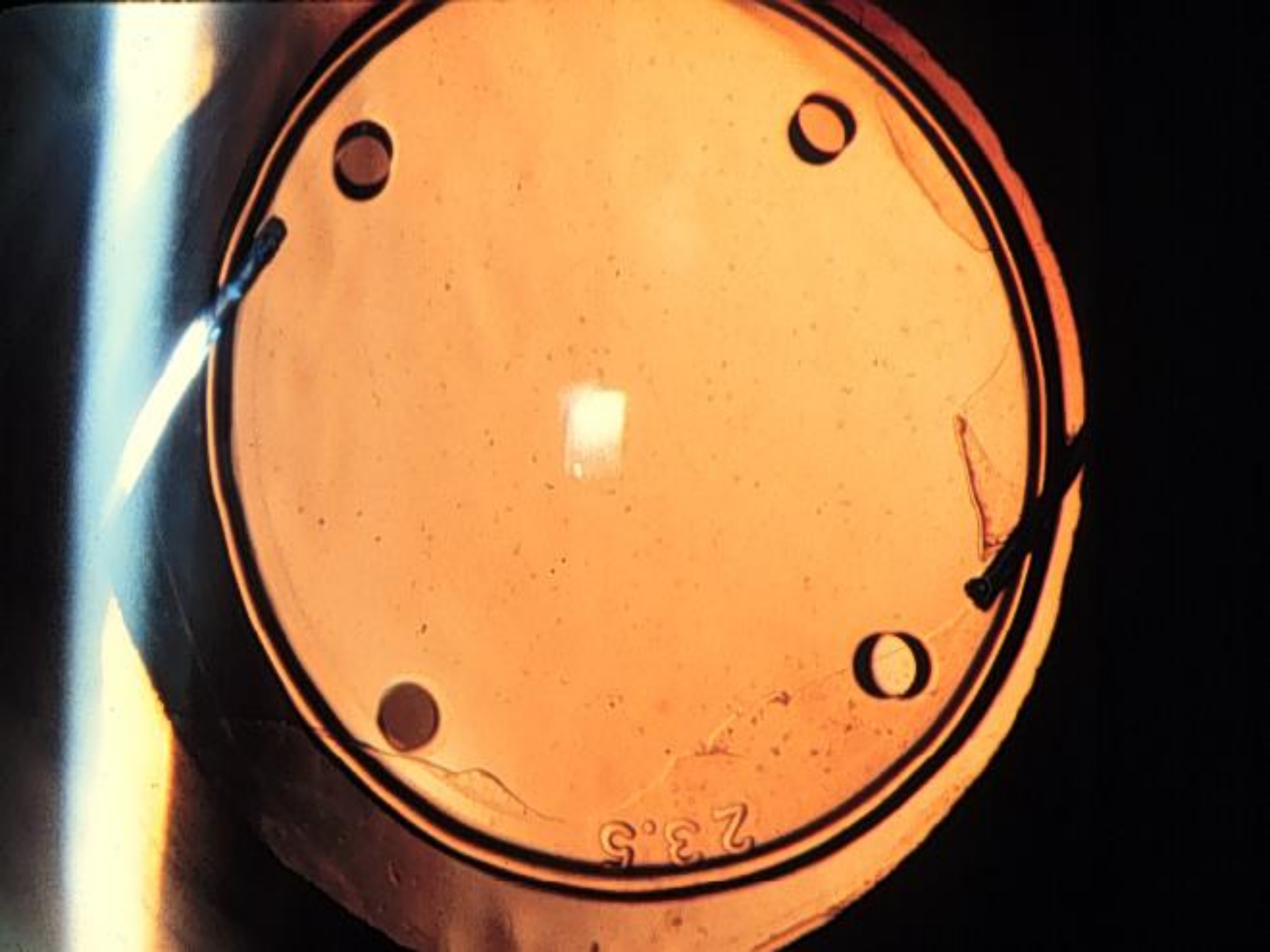
- **COUCHING**
- **IRRIGATION ASPIRATION**
- **ICCE**
- **ECCE**
- **PHACOEMULSIFICATION**
- **PHACOFRAGMENTATION**



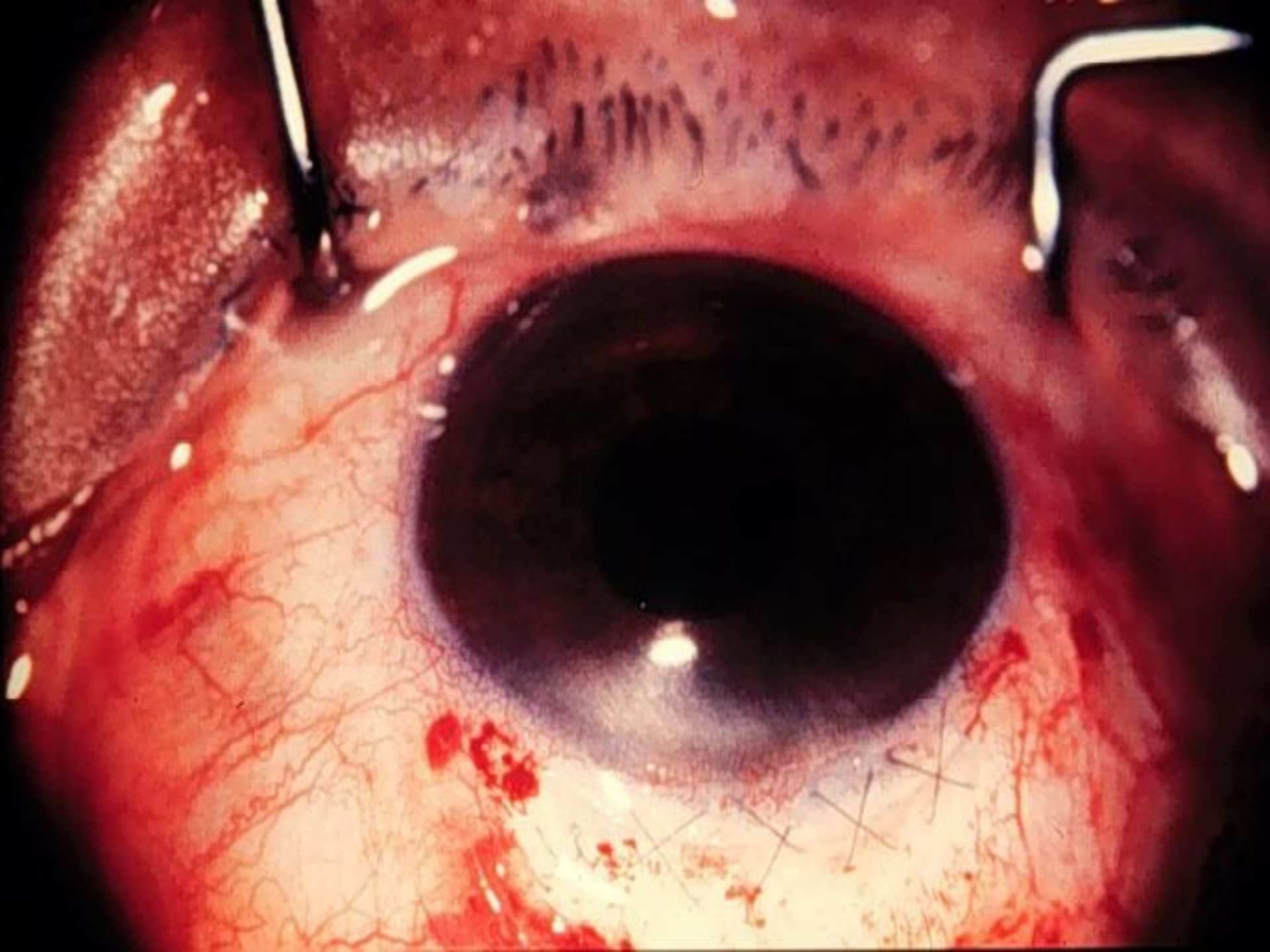






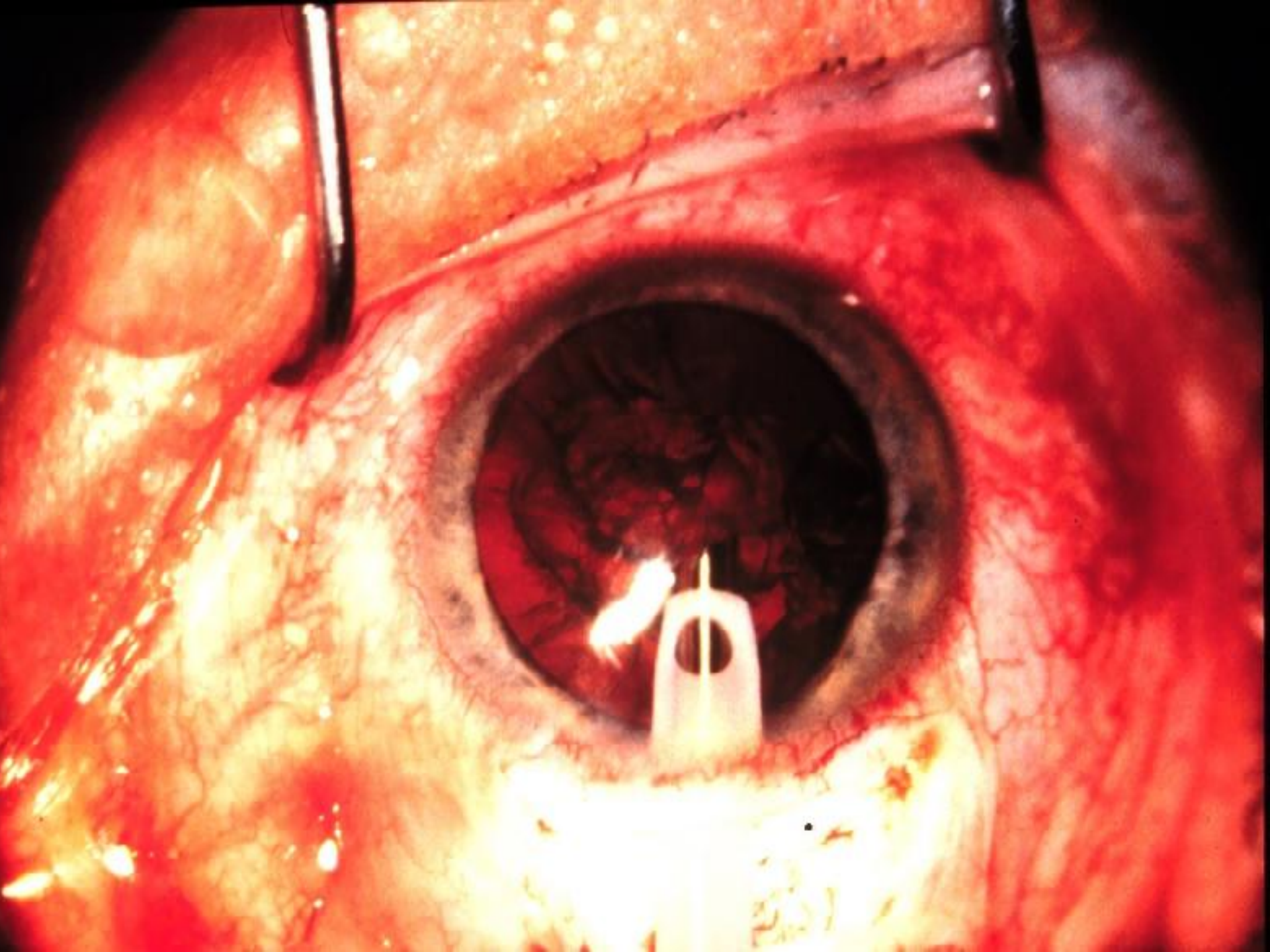


23.5



PHACOEMULSIFICATION









Glaucoma

- Definition

- NB a) If detected early and treated, blindness can be prevented.
- b) Most patients in early glaucoma are asymptomatic.
- 



Investigation:

1. IOP
 2. V.F.
 3. Exam ONH
 4. Gonioscopy
- 








Basic information

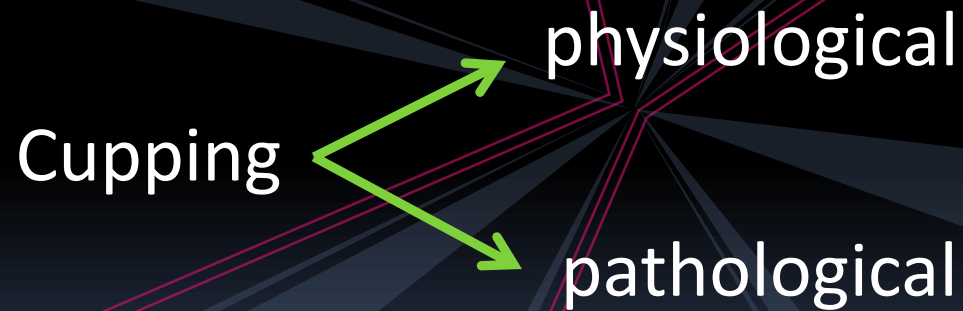
1. IOP

- Aqueous humor circulation
 - Open-angle glaucoma
 - Acute angle-closure glaucoma → symptoms
- 



Basic information

2. Optic nerve
 - Optic disc





Q: What happens when IOP \uparrow ?



Examination

Q: When? Every 2 → 4 y past age 40.

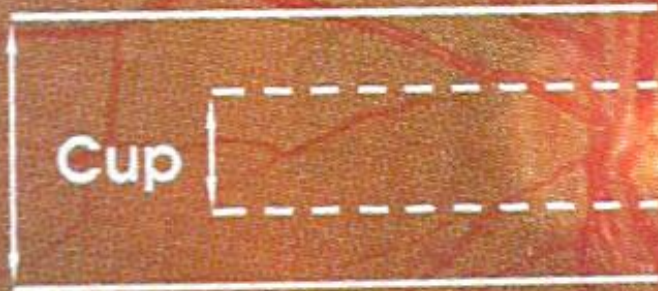
Particular attention when family history +ve.

Q: How? Tonometry / cup: disc ratio




Disc

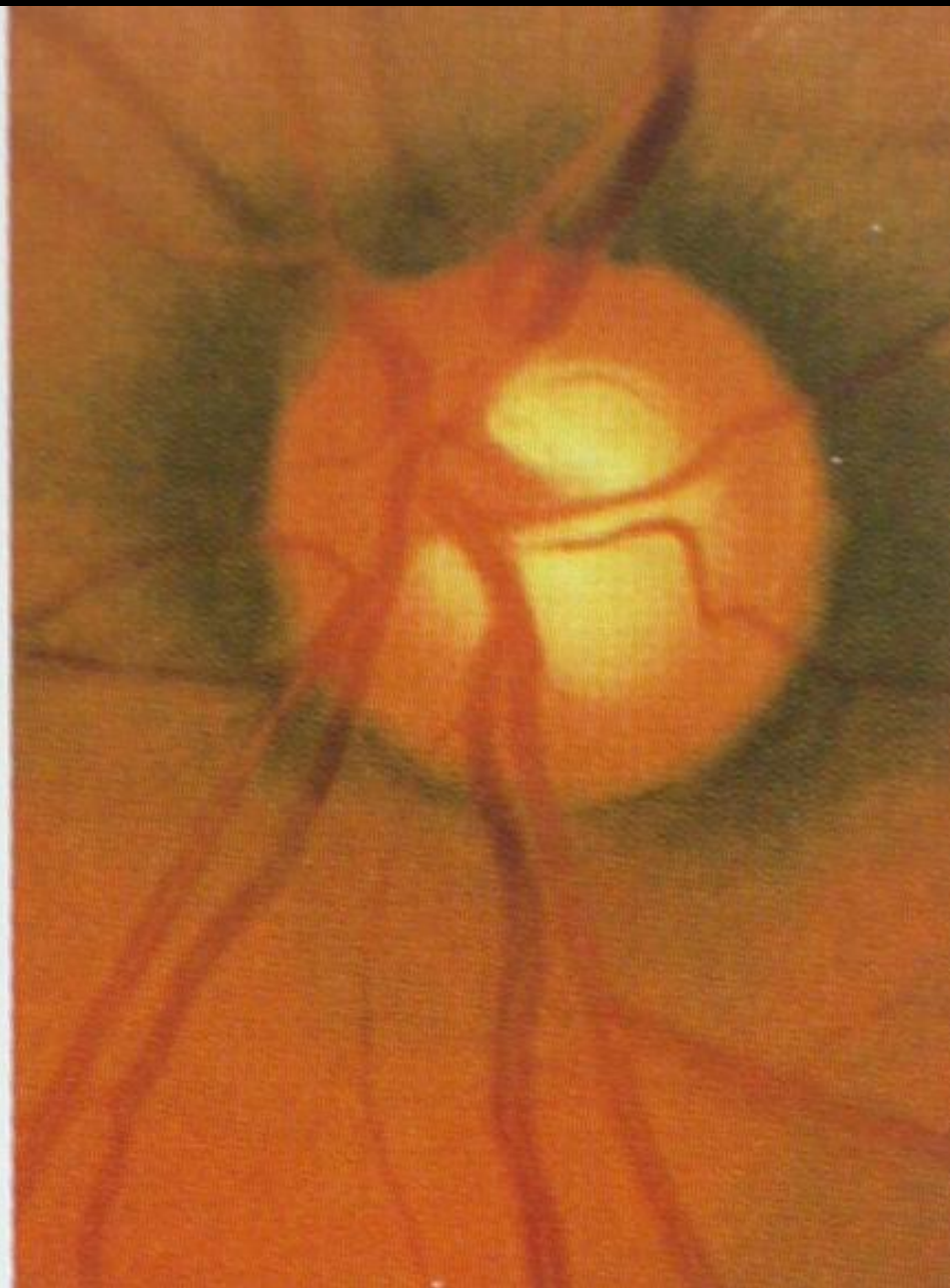
Cup





Should be referred for management if:

1. IOP over 21 mmHg.
 2. C/D ratio 0.5 or greater.
 3. One cup significantly larger in one eye.
- 







Age-Related Macular Degeneration


Changes in the macular affect

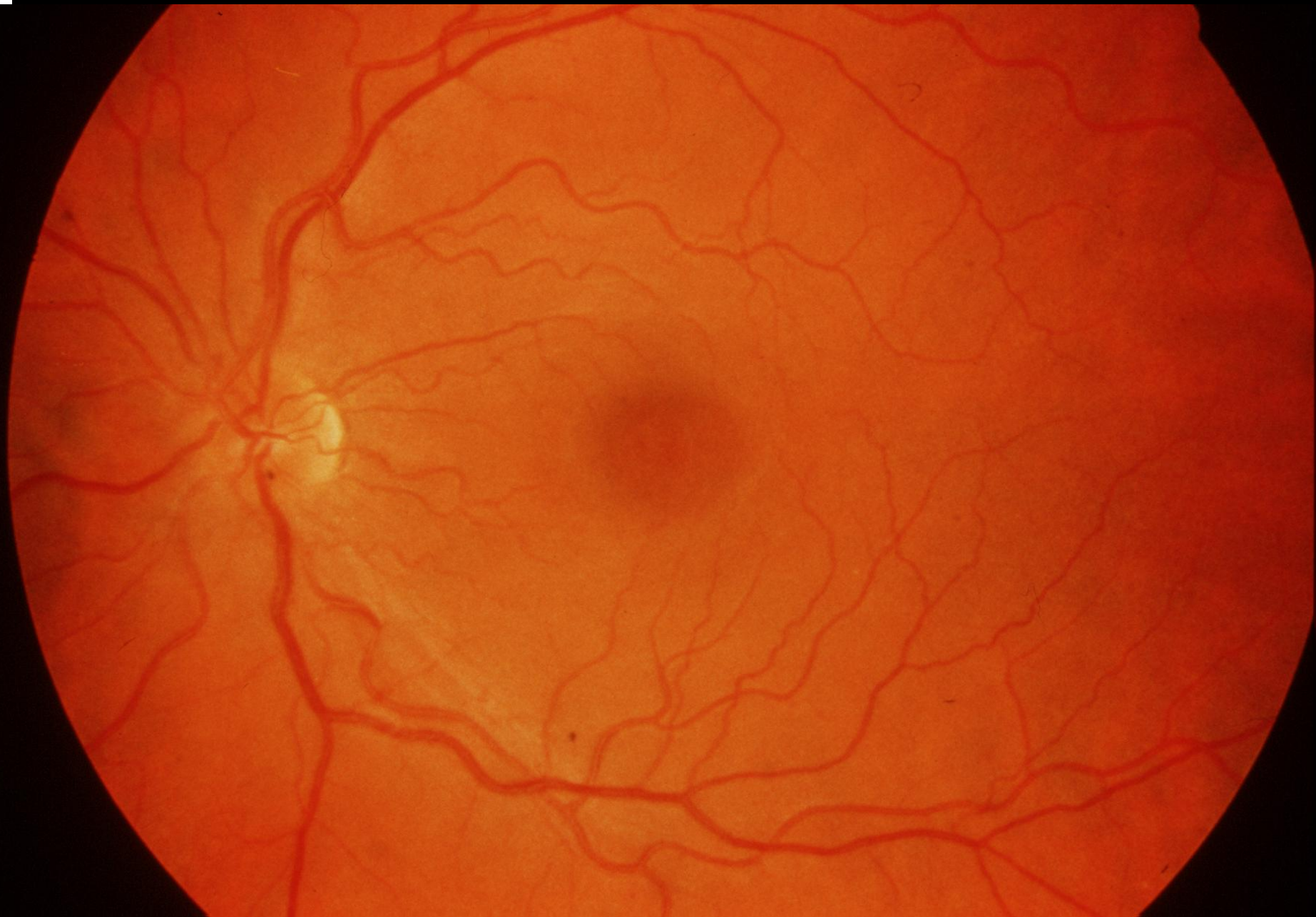
Outer retinal layer

Retinal pigment epithelium

Bruch's membrane

& chorio capillaris







Pathological changes include:

Drusen deposition

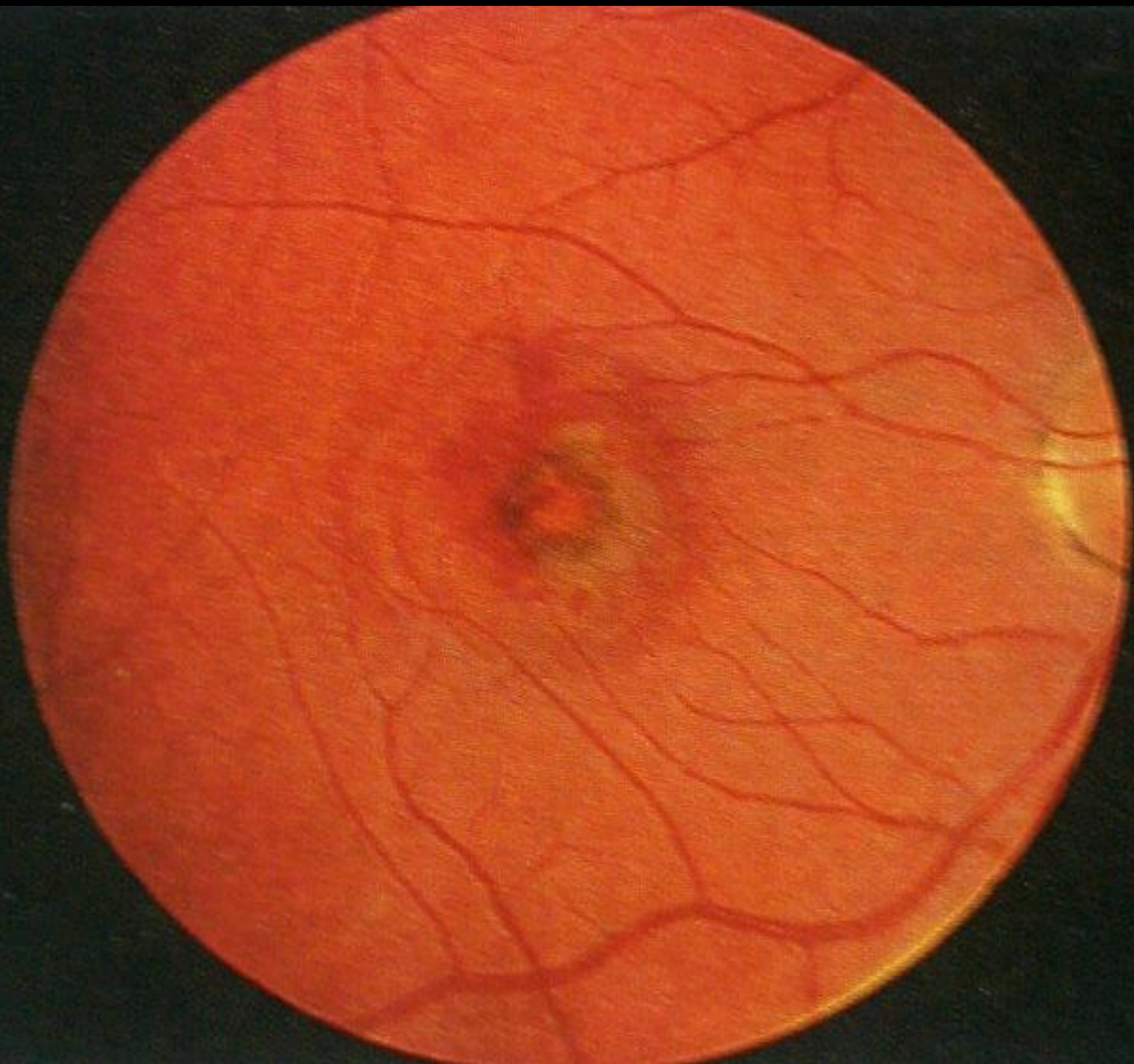
Degenerative changes

& subretinal neovascular membranes.

The background features a complex pattern of overlapping, semi-transparent geometric shapes in shades of blue and grey. Several thin, bright pink lines radiate from a central point on the right side of the slide, extending towards the left and bottom edges.






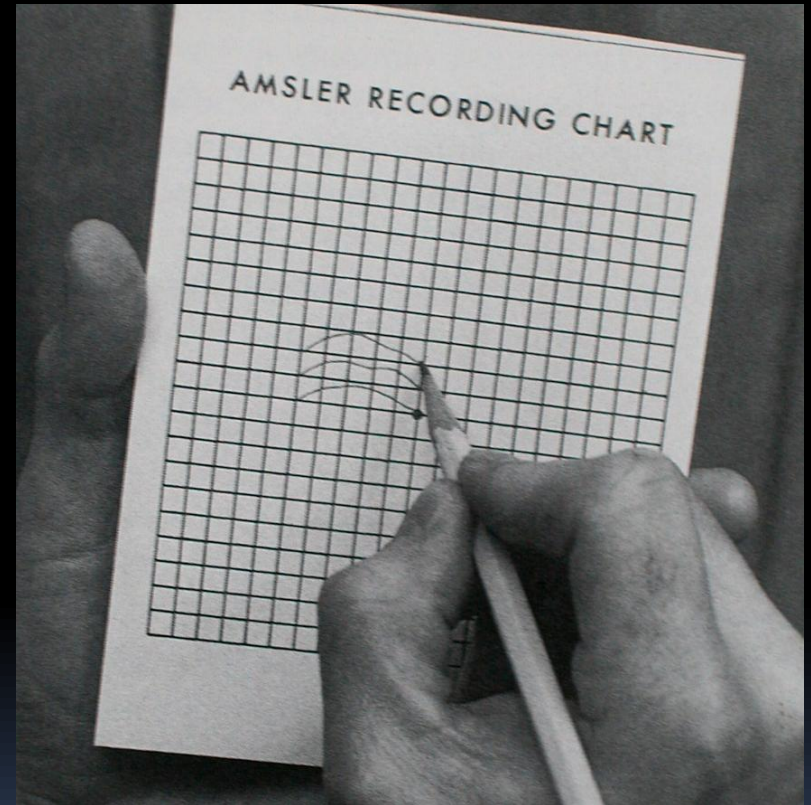
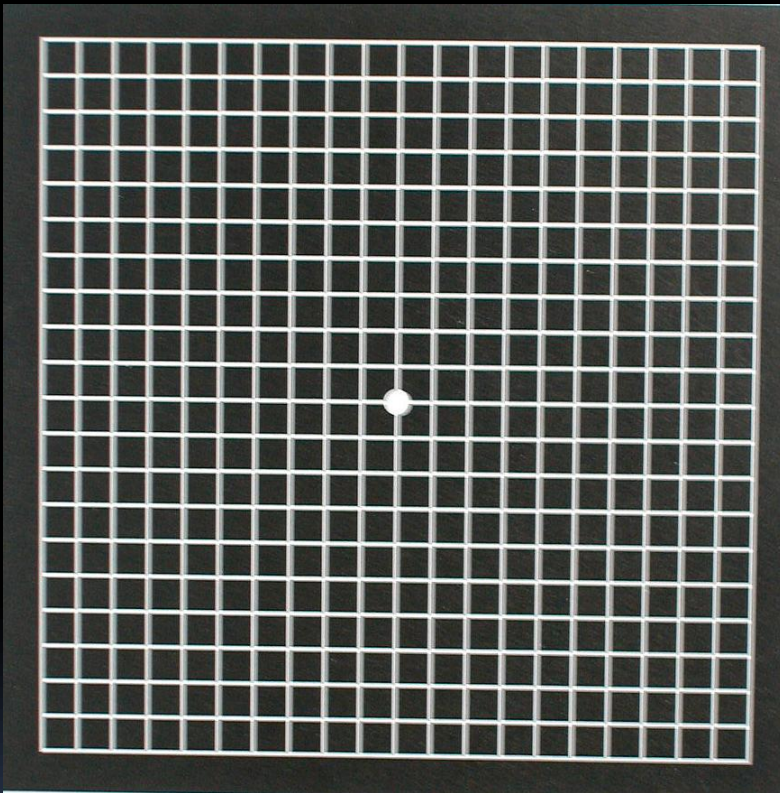




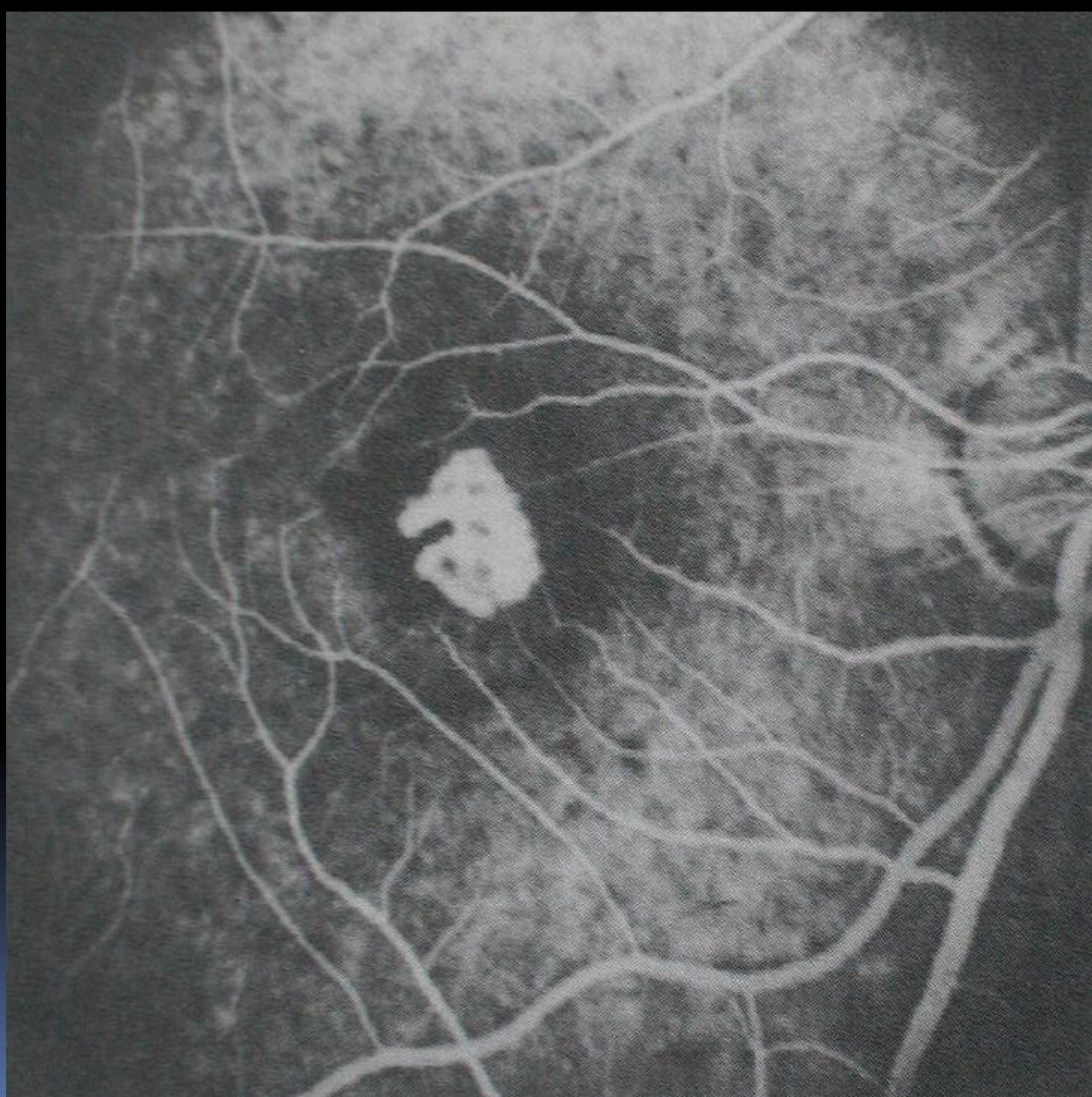
Examination & Tests

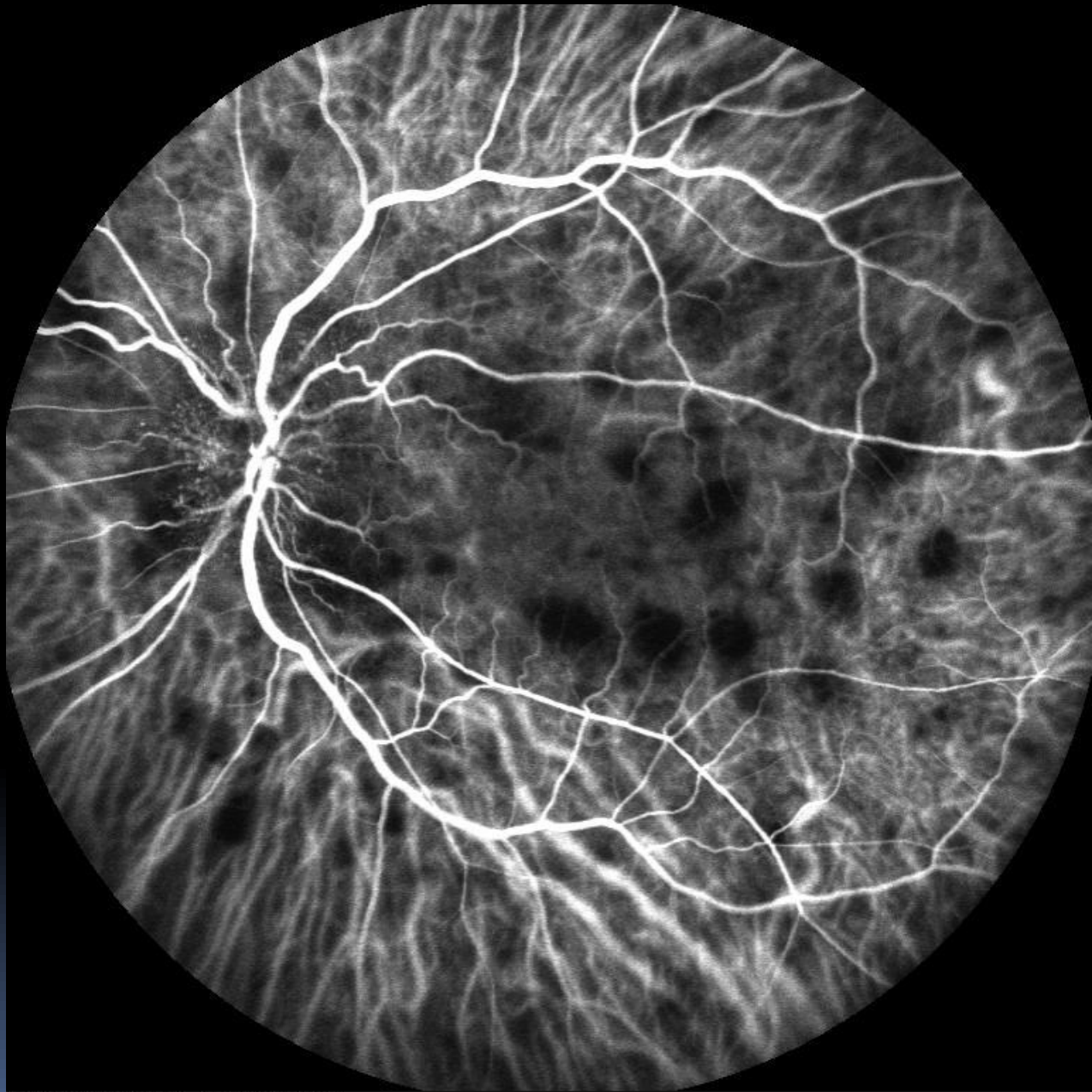
1. Visual acuity
 2. Amsler grid testing
 3. Ophthalmoscopy
 4. Others
 - Fluorescein angiography
 - Indocyanine green dye
 - OCT (Optical Coherence Tomography)
- 

Amsler Grid Testing









HRA2 04/22/2009, OS, ICGA 0:35.14 55°

Saleh, Wadah, 1/1/1965, #006621

Heidelberg Engineering

Patient: alsaeed, wadha
DOB(age): 01/01/1958 (51)
ID: 006621

Disease:
Ethnicity:
Gender: F

Operator:
Algorithm Version: A3, 5, 2, 0 --- OPTOVUE, INC. ---
Physician:

OS 04/14/2009 11:40:34

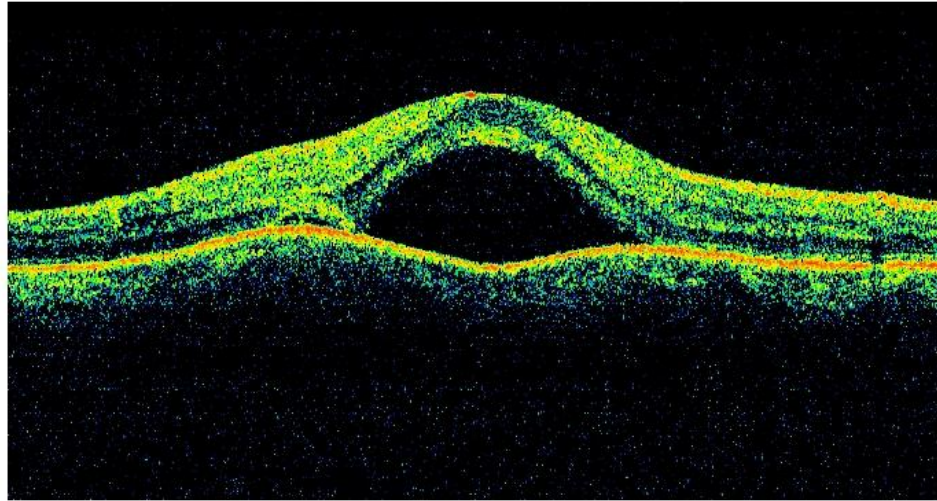
MM6 SSI= 49.9

6.00 x 6.00 Scan Size (mm)



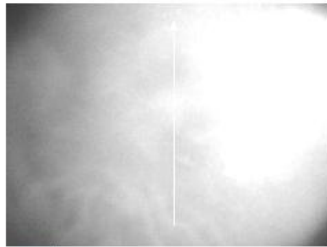
1

250 μ m



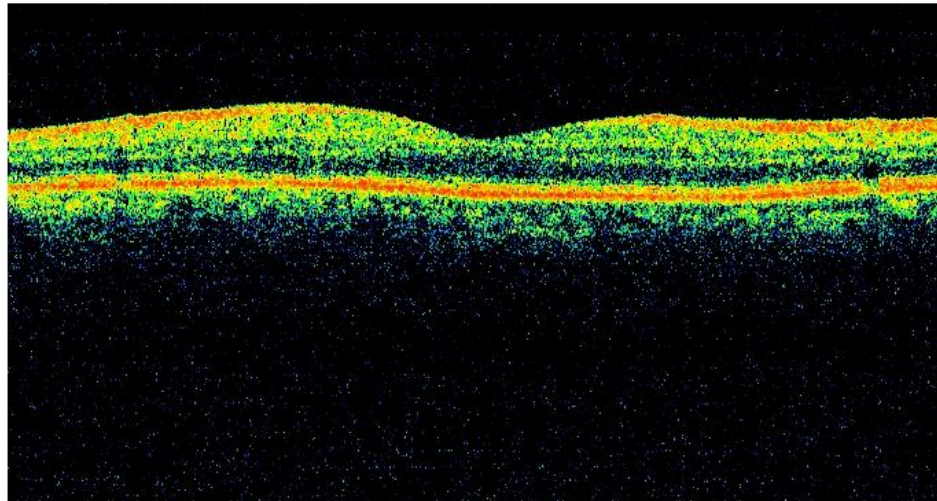
OS 05/05/2009 09:17:09

6.00 x 6.00 Scan Size (mm)




1

250 μ m






Symptoms include:

1. ↓ visual acuity
 2. Metamorphosia or distortion of vision.
 3. Scotoma or blind spot
- 



Management:

- Laser treatment of neovascular membrane
 - Low-vision aids
- 



Diabetic Retinopathy







