

Ögontrauma

<http://extw.ophtalmology.uu.local/Teaching/DiseaseRepairNeuroOphthalmology/index.html>



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Mekanisk skada

□ Trubbigt våld

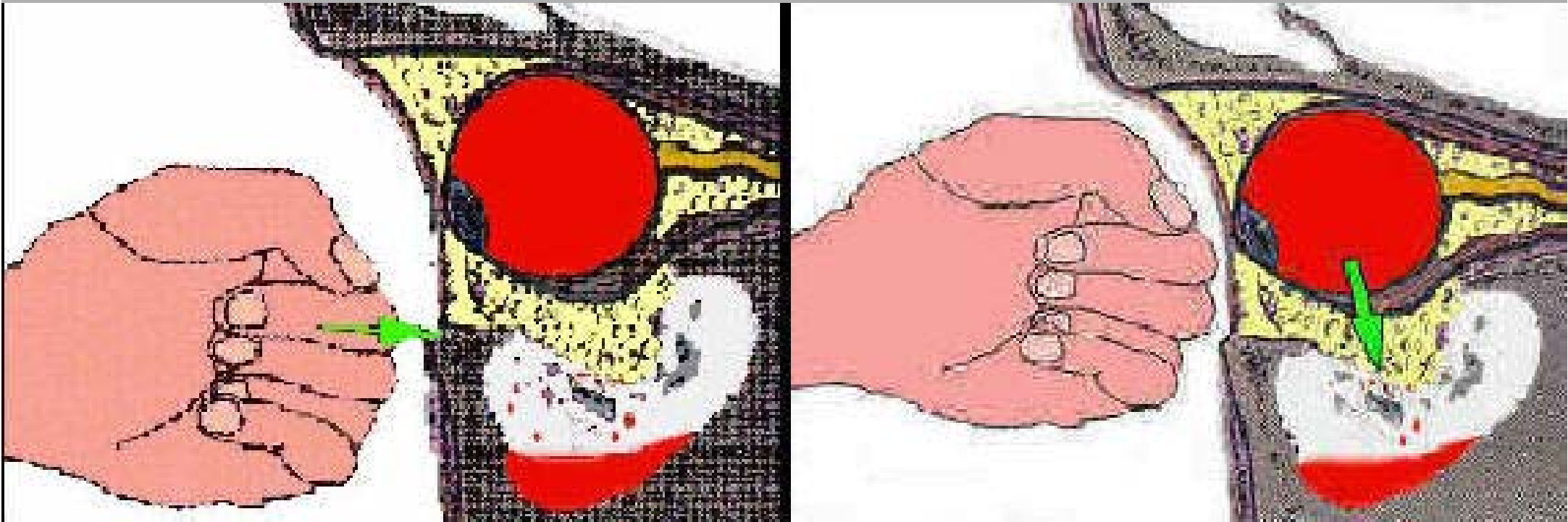
□ Penetrerande våld

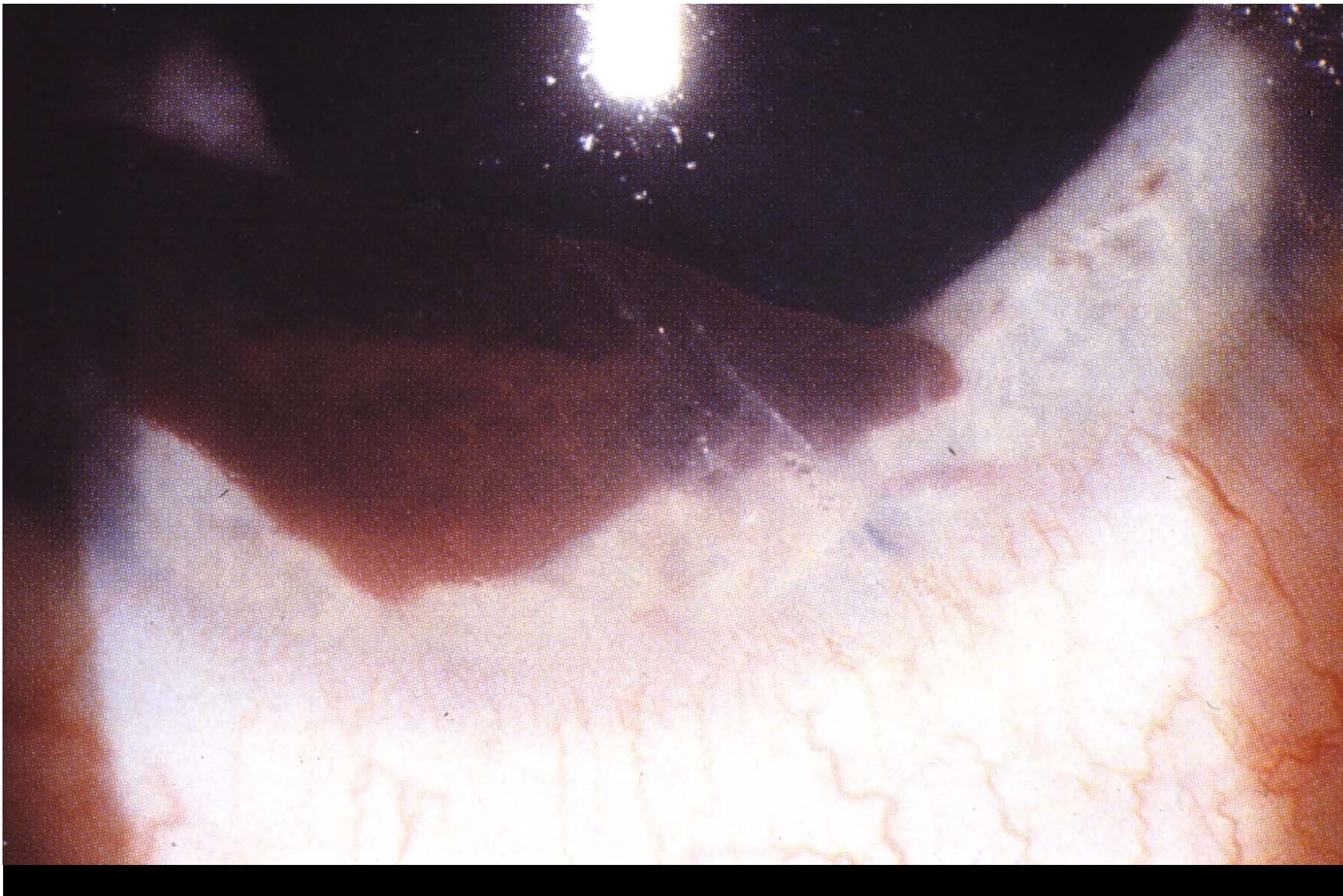
Trubbig våld

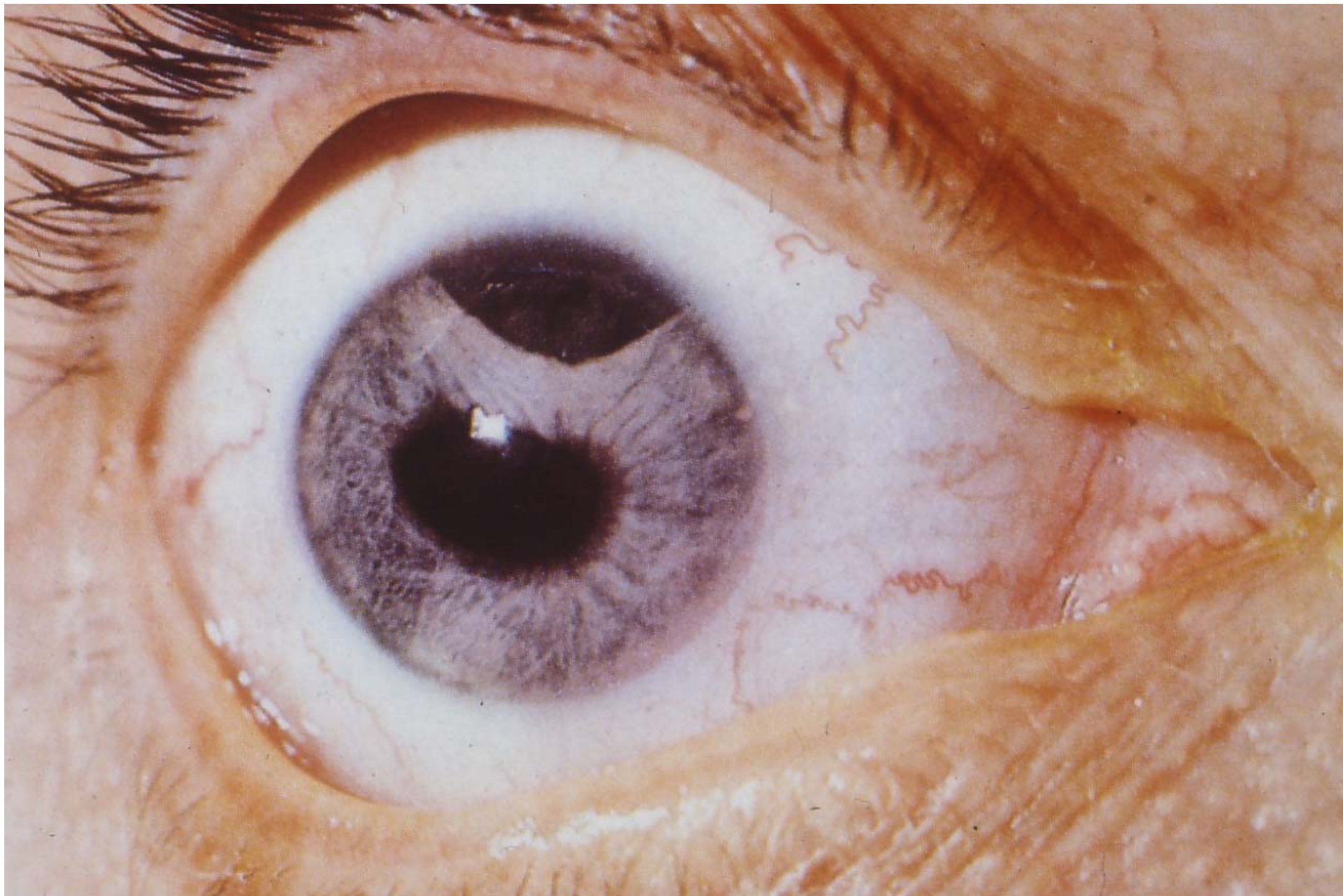
□ Trubbigt slag mot ögat

- Orbitabottenfraktur – Blow out fraktur
Nedsatt elevation – diplopi vid blick uppåt
Utredn.: Rtg orbitagolv, CT
Beh: Kirurgisk reposition
- Blod i främre kammaren
Nedsatt syn
Beh: Resorberas spontant
- Irisdialys
Ev. diplopi
Beh: Ev. kir. Reparation

Blow out fracture

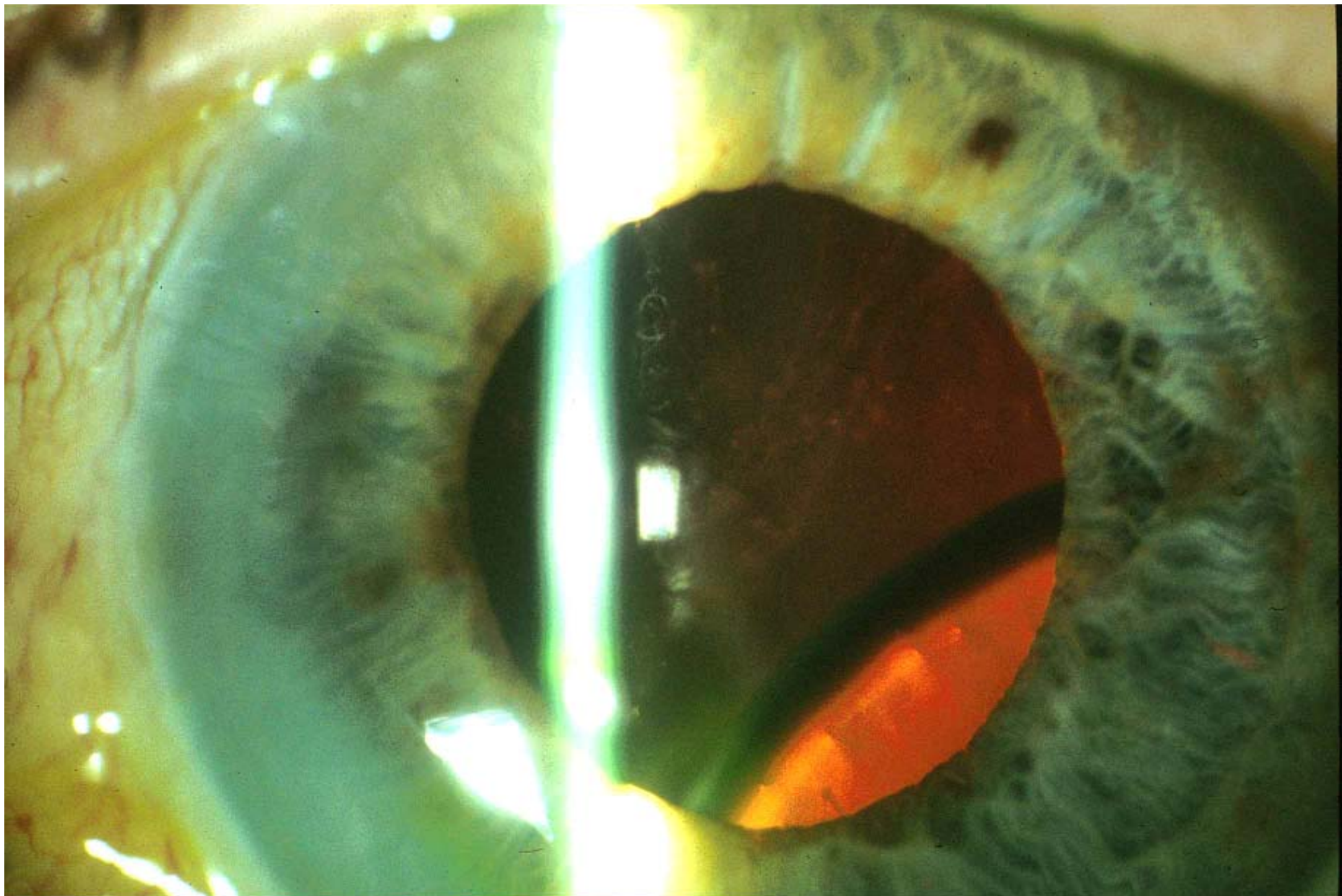


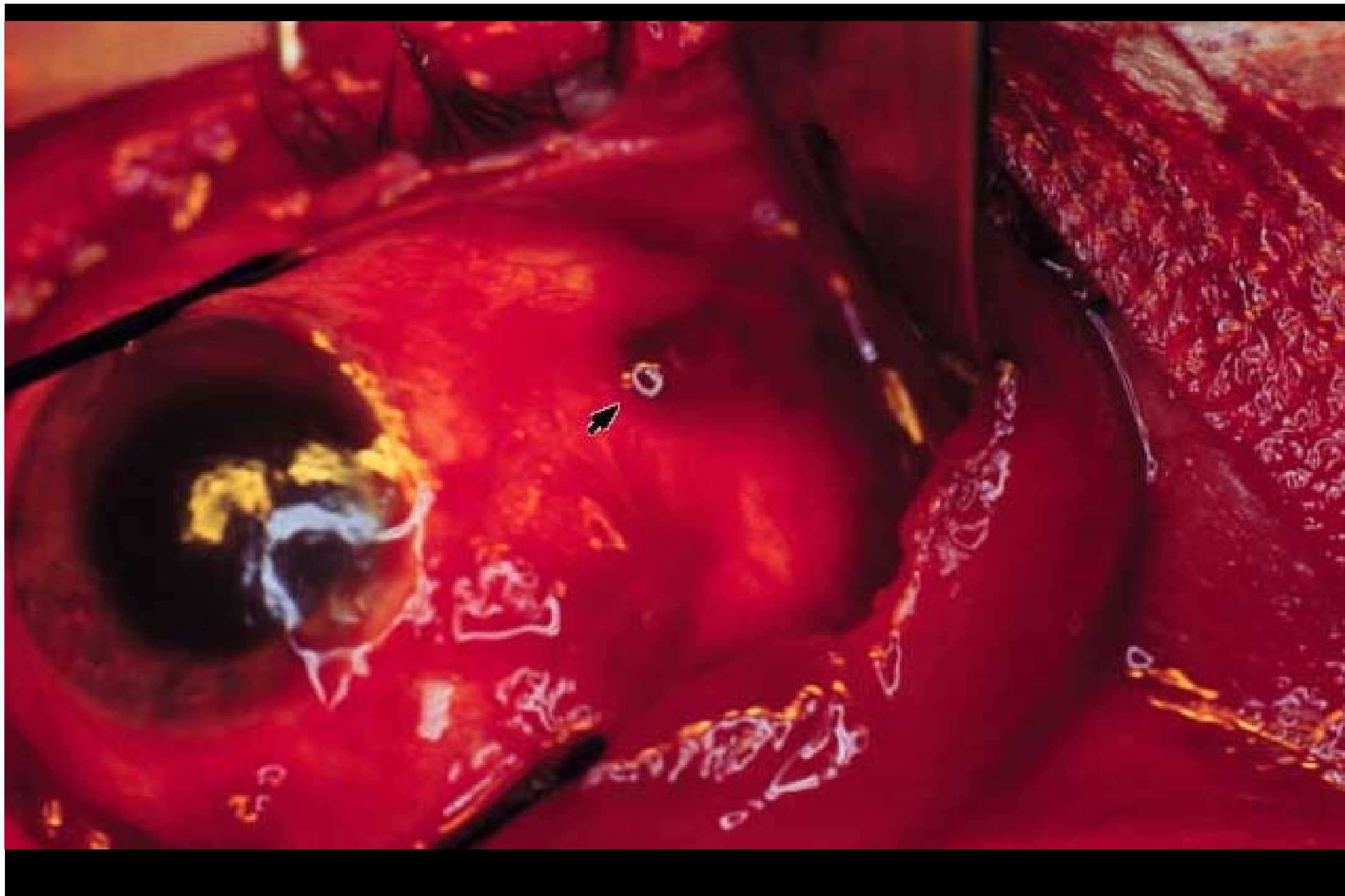


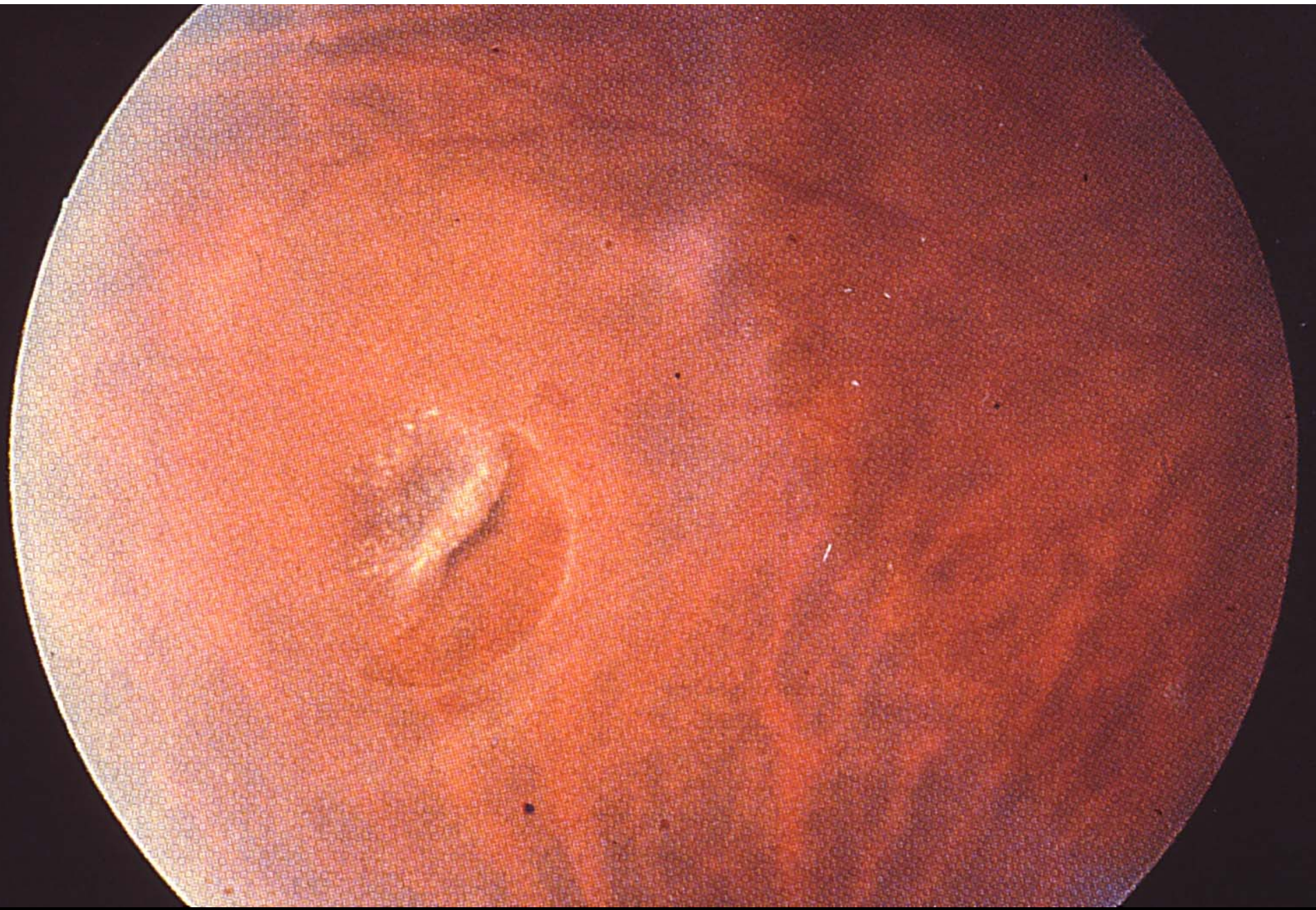


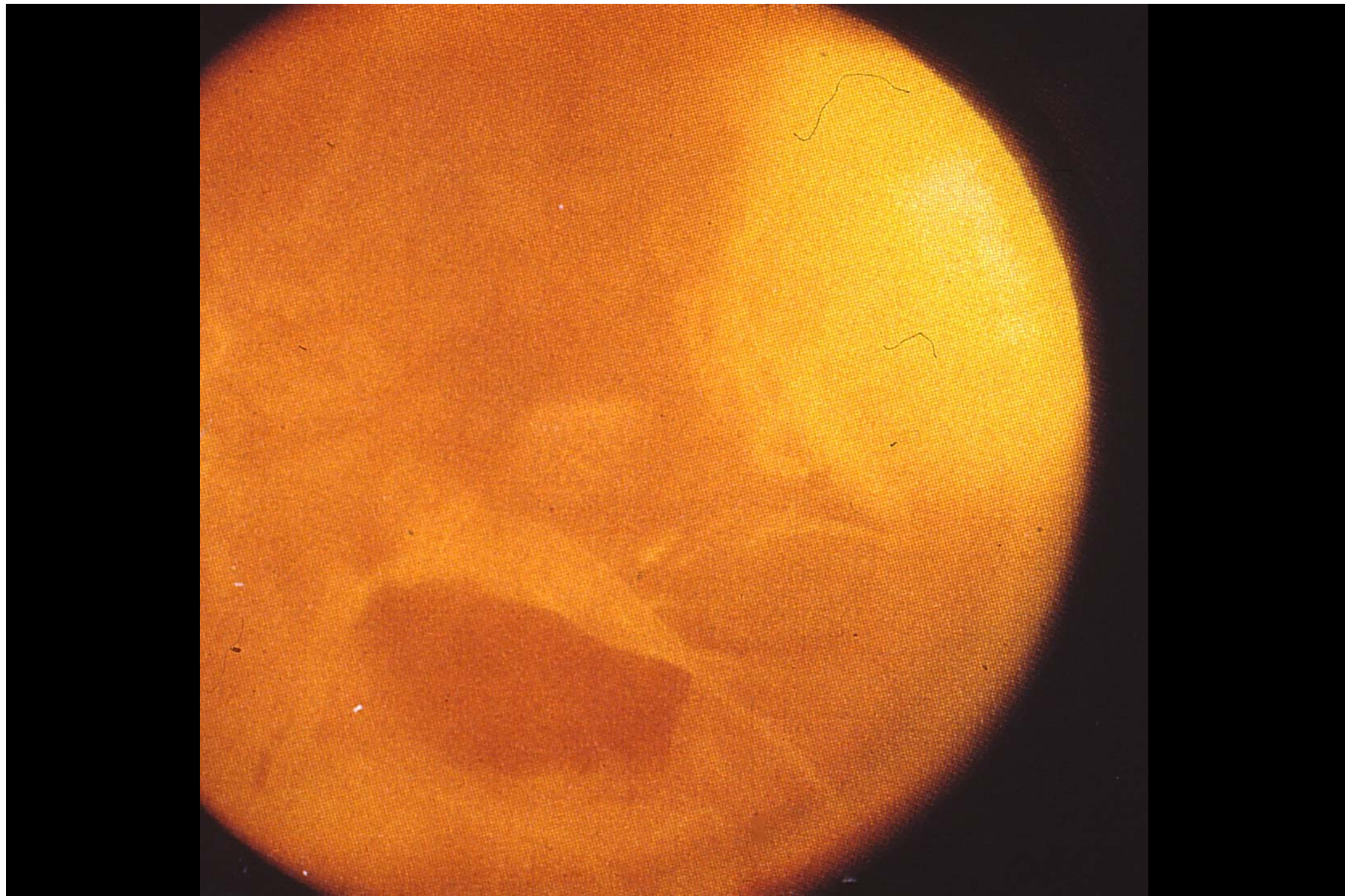
Trubbig våld

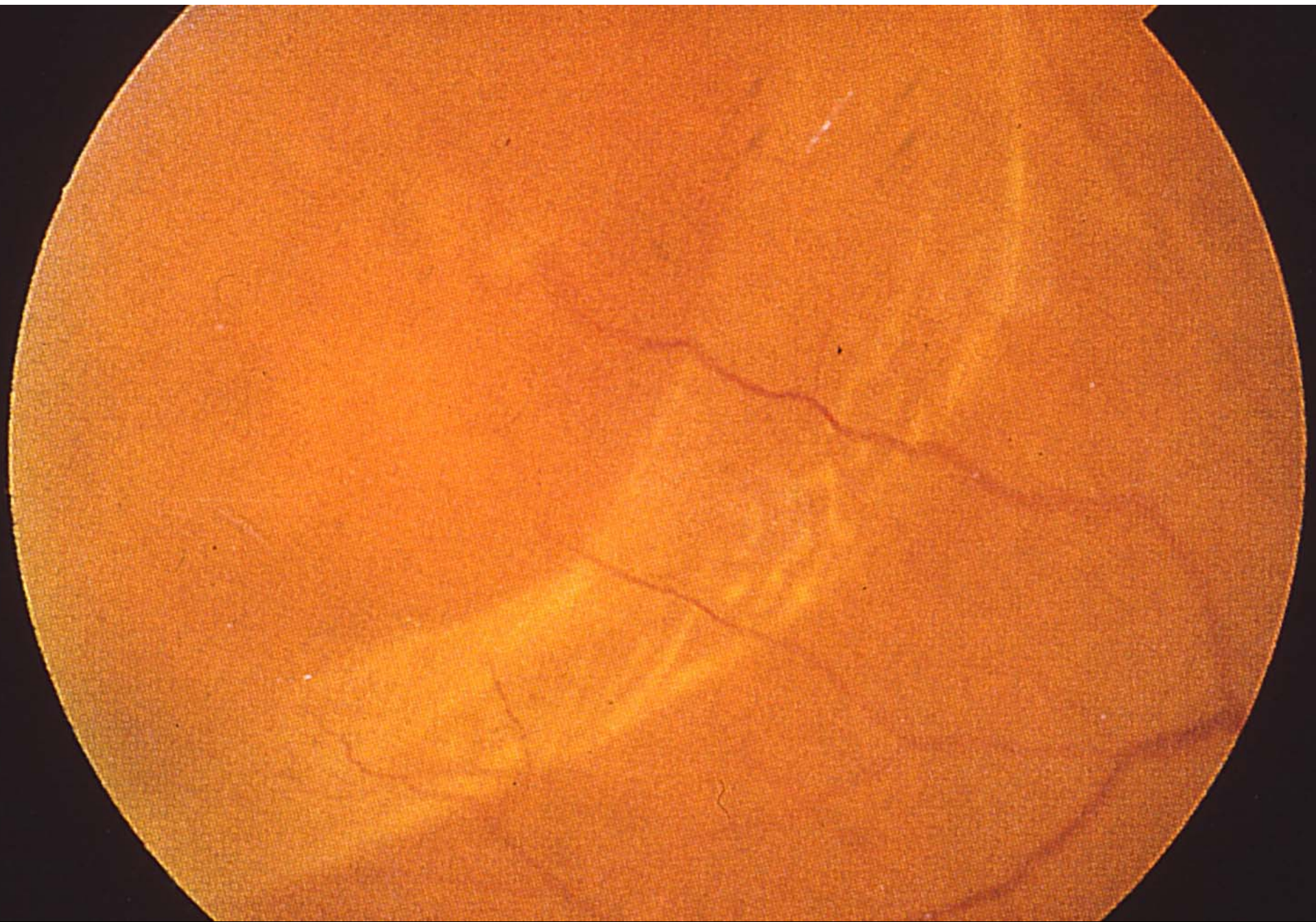
- **Trubbigt slag mot ögat**
 - **Makulaödem**
Nedsatt syn
Beh: Vanligen spontan regress
 - **Linsluxation**
Suddig syn som förbättras med + 12 D
Beh: Kataraktoperation med implantation IOL
 - **Scleralruptur**
Hypotont öga
Generell blödning till konjunktiva
Beh: Kirurgisk reparation
 - **Amotio**
Nedsatt syn
Beh: Kirurgiskkorrektio













Cornea erosion

Symtom

- Smärta, ljuskänslighet, nedsatt syn

Beh

- Vanligen spontan regress inom 1 dygn

Komplikationer

- Infektion
- Recurrent ulcer

Pentererande våld



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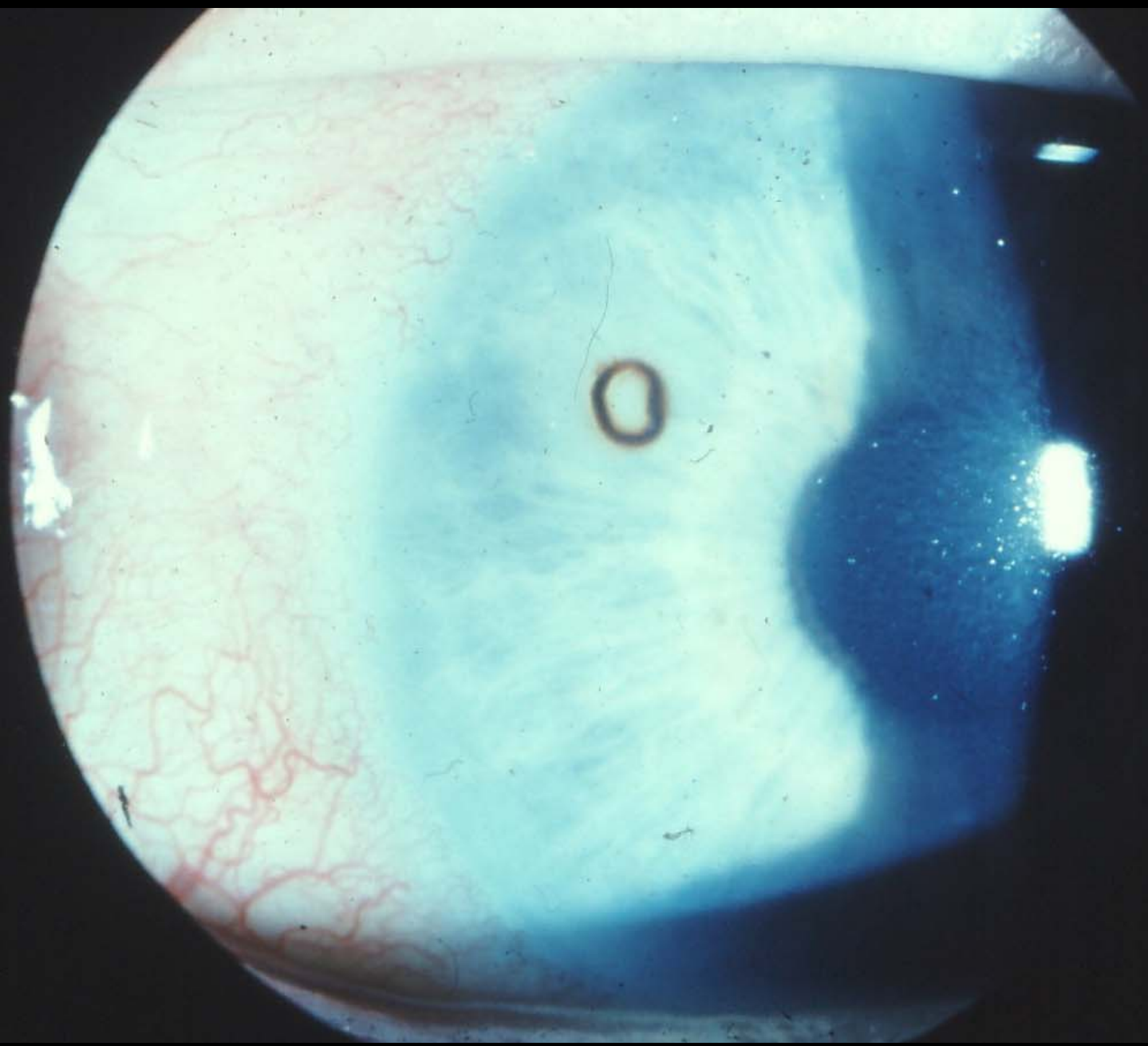
Främmande kropp

Ljuskänslighet, synned sättning, skavskänsla

Behandling

Avlägsnande i ytanestesi

Viktigt att göra ordentligt rent!



Perforation

Anamnes!

Slagit med stål mot stål, känt att något slog mot ögat

Utredning!

Slätrtg

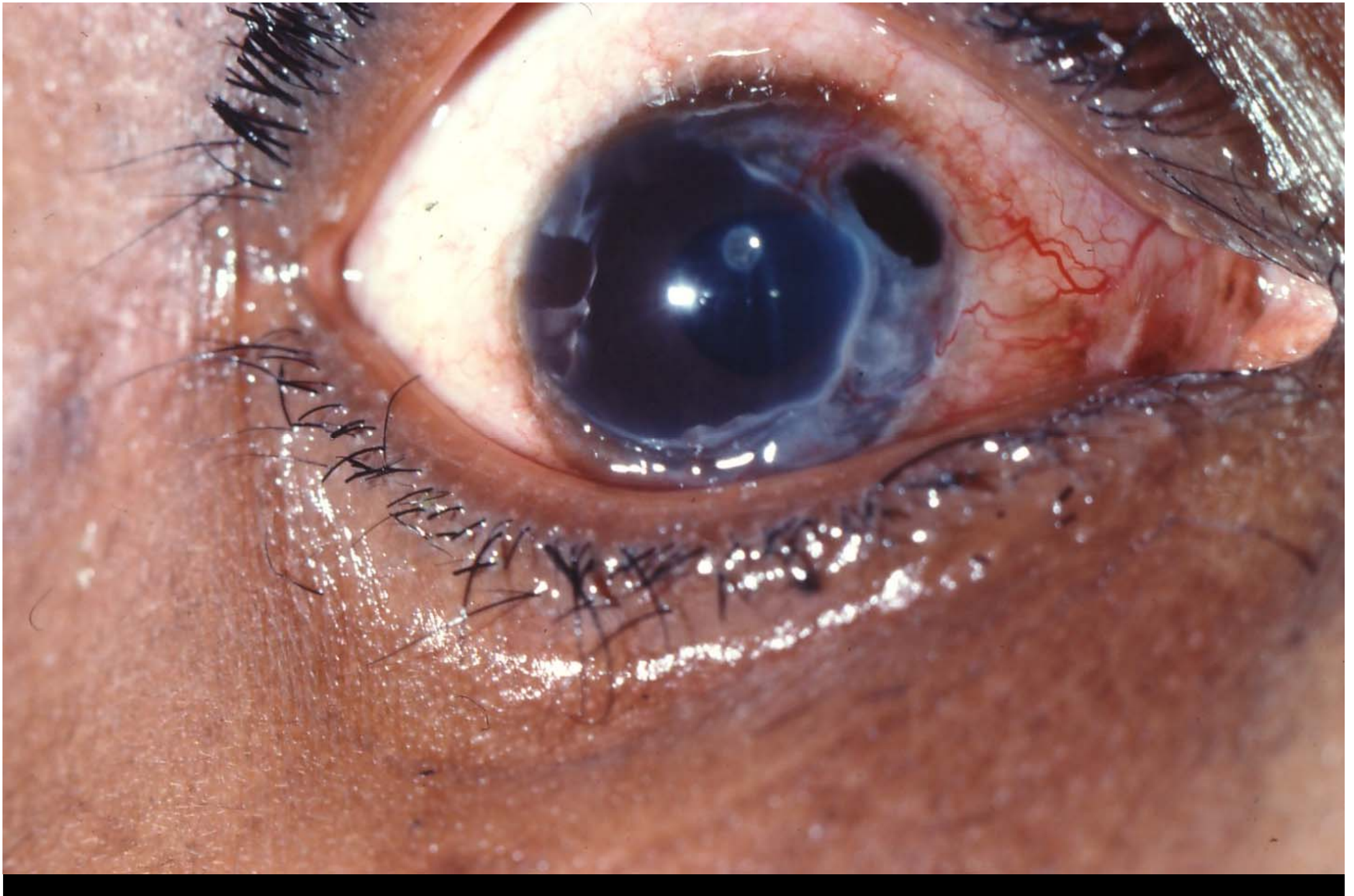
Behandling

Extraktion främmande kropp

Kir. reparation

Antibiotika i.v.





Corneal laceration

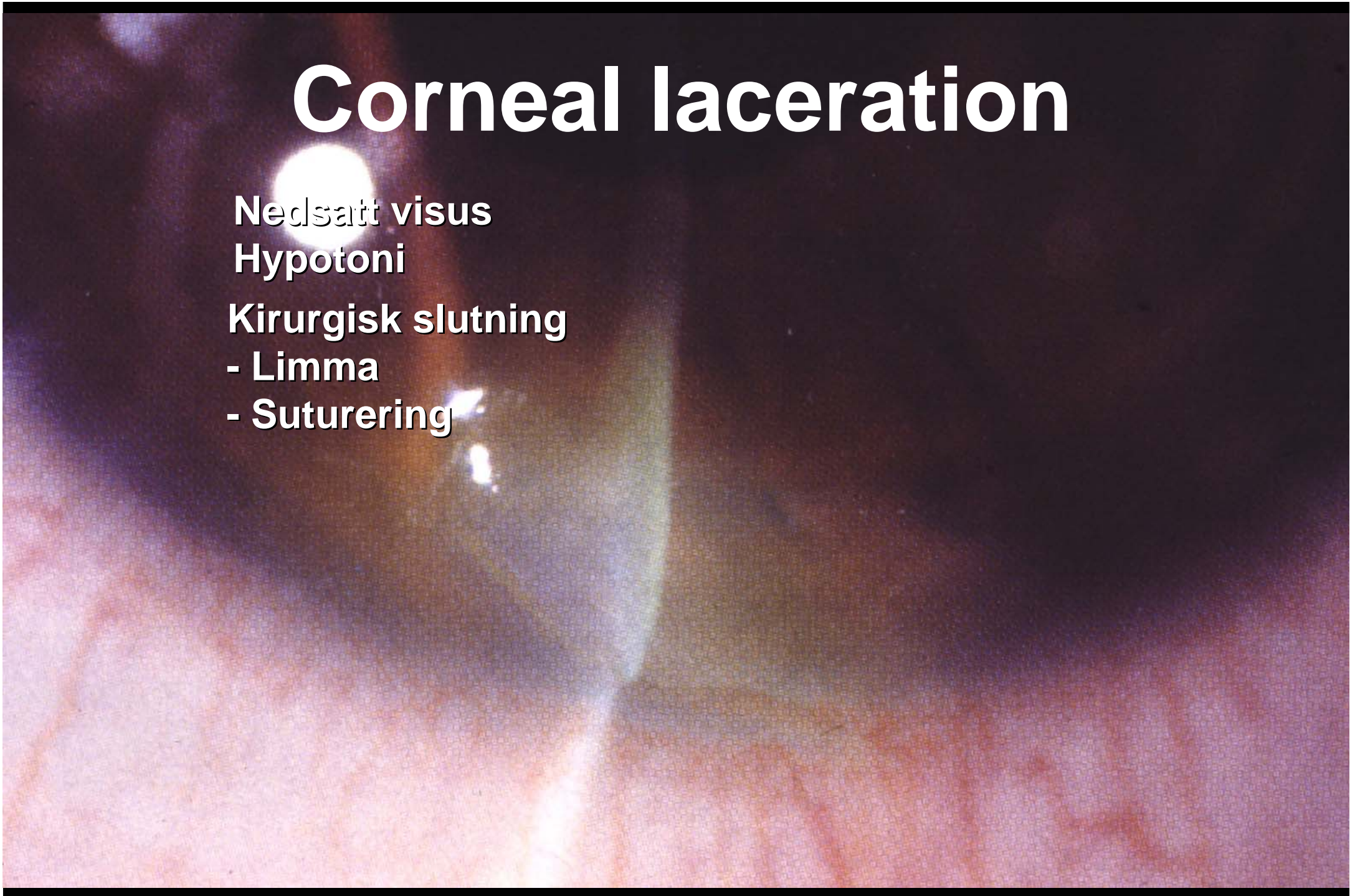
Nedsatt visus

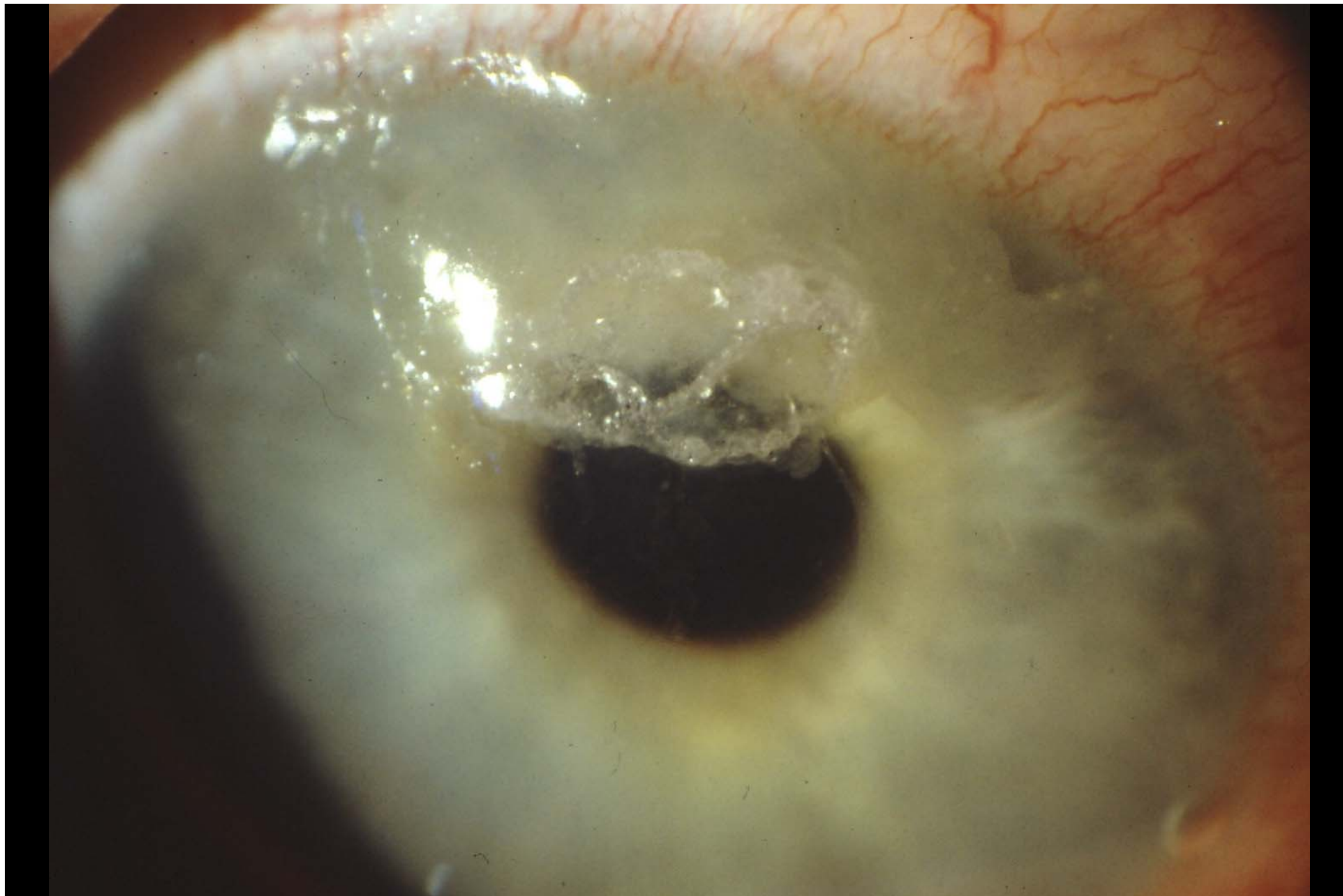
Hypotoni

Kirurgisk slutning

- Limma

- Suturering





Strålningskada



100 280 315 1400 3000

Far-UVR UVR-C UVR-B UVR-A IRR-A IRR-B IRR-C

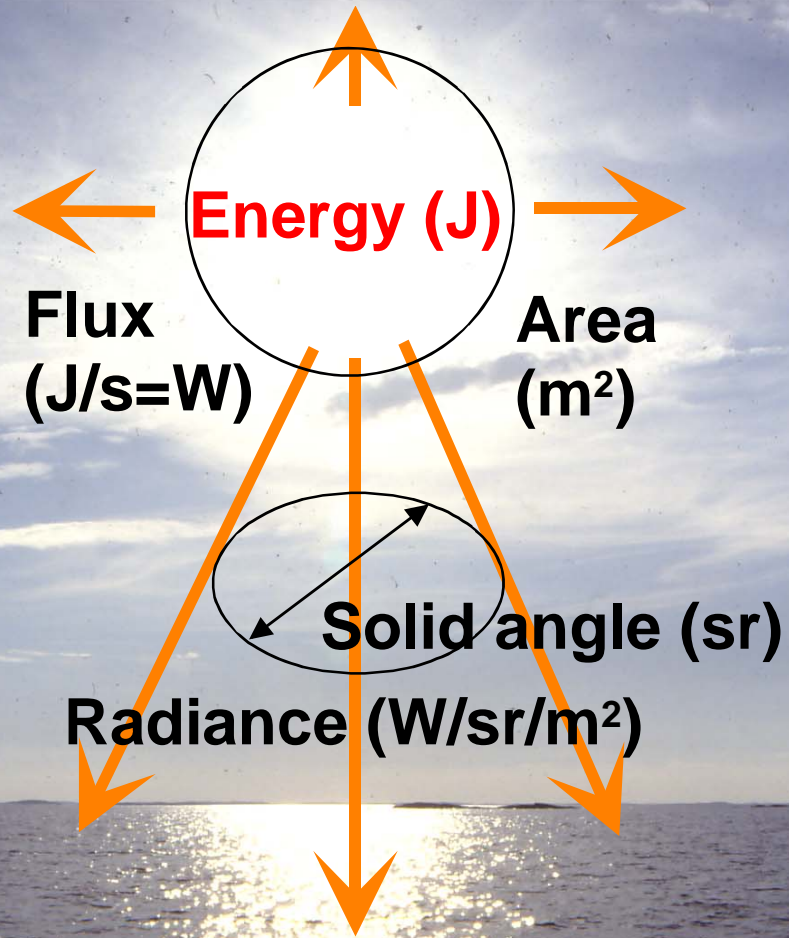
1 400 760 1 000 000

Wavelength (nm)

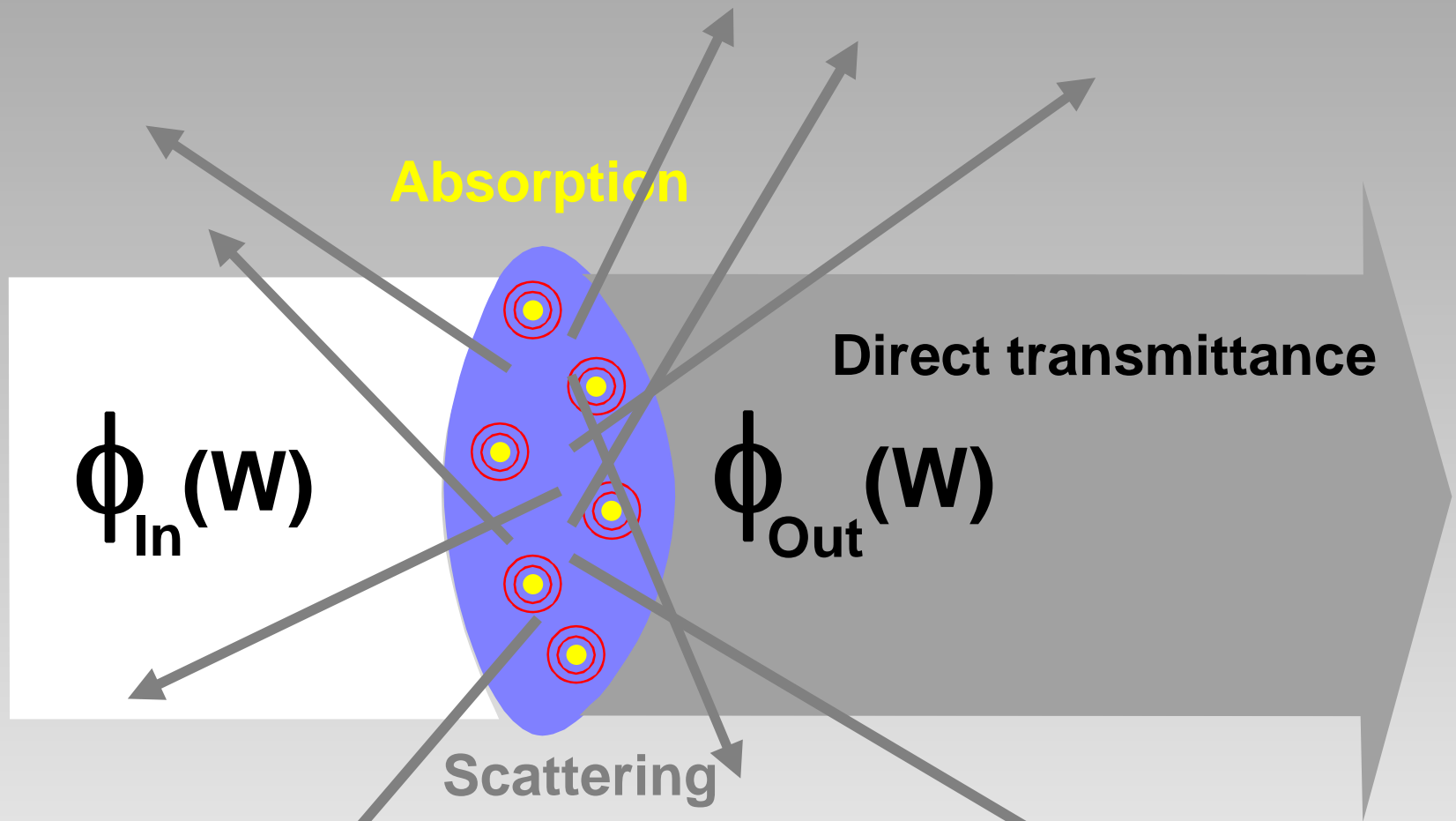
Ultraviolet
radiation

Visible
radiation

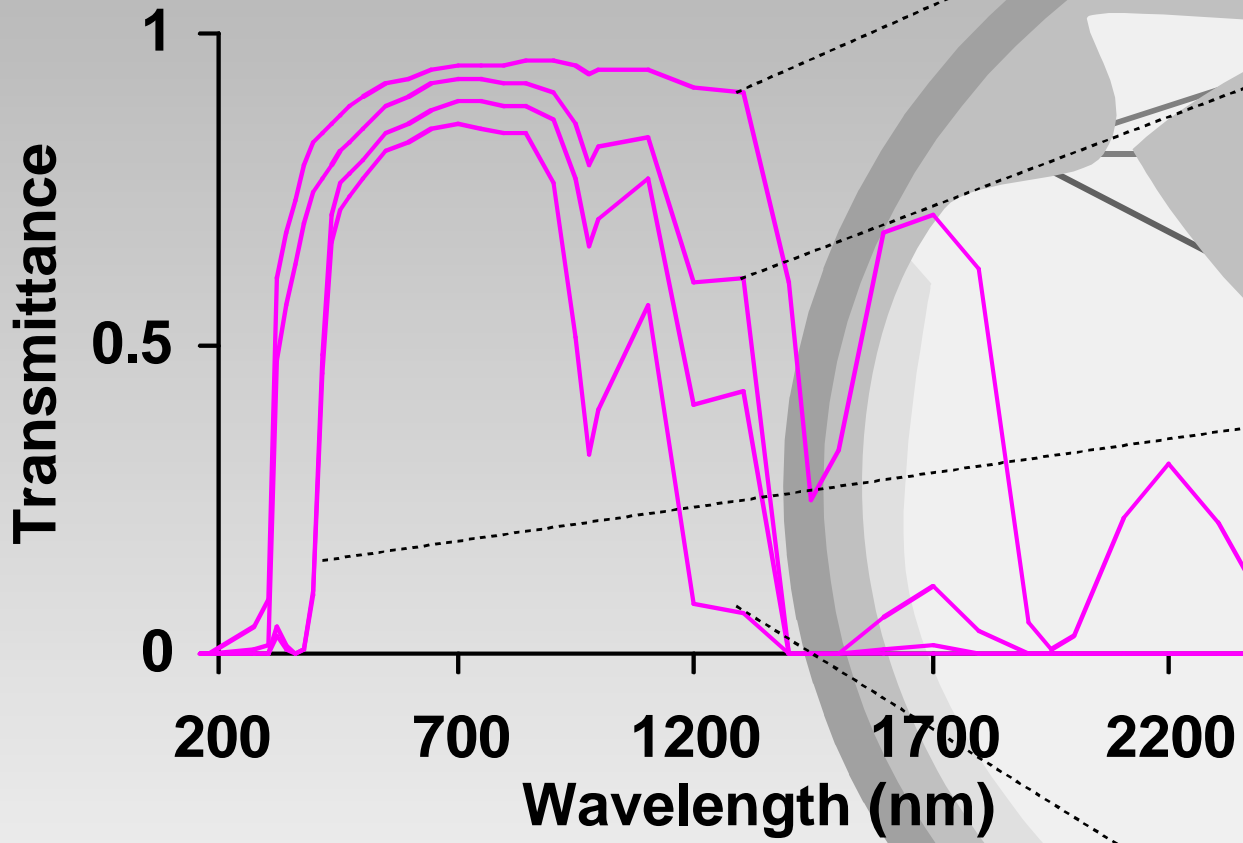
Infrared
radiation



Irradiance (W/m²)
x time (s)
= Dose (J/m²)



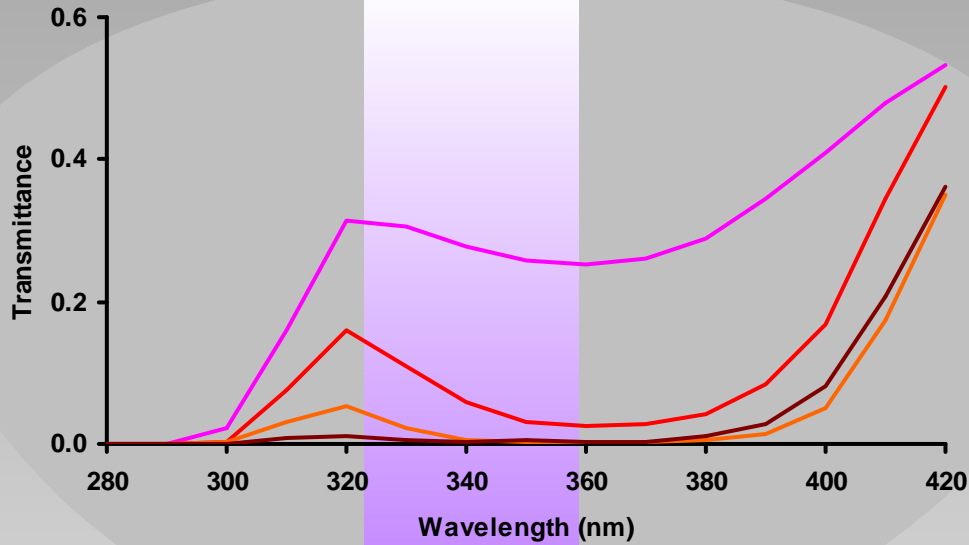
Transmittance, T (%) = $\frac{\phi_{Out}}{\phi_{In}}$; $10^{-\text{Absorbance}}$; $10^{-\text{O.D.}}$



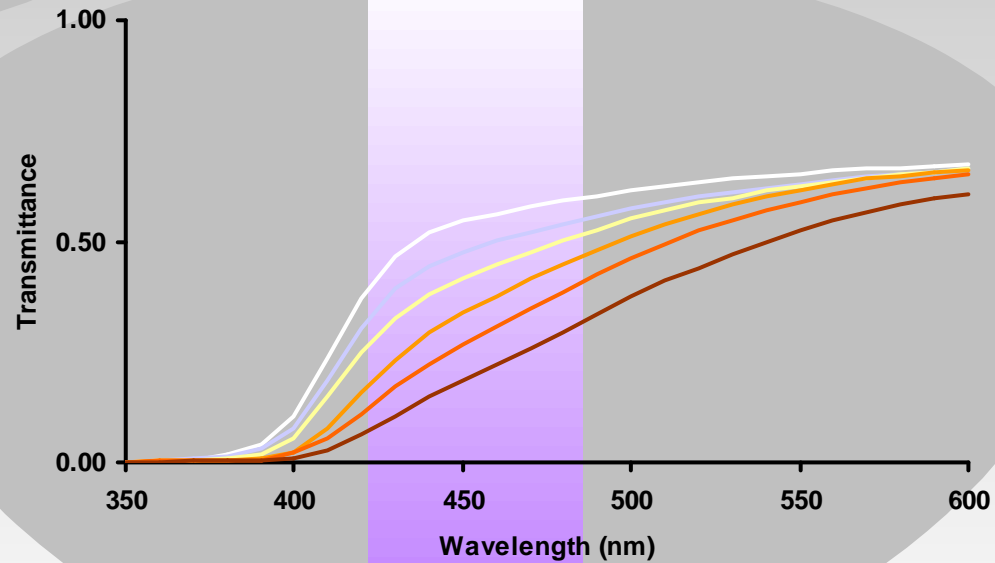
PS

Boettner et al, 1962

S:TERIKS
ÖGON
SJUKHUS



Prenatal
 Birth
 0-2 yrs
 10-19 yrs



20-29 yrs
 30-39 yrs
 40-49 yrs
 50-59 yrs
 60-69 yrs
 70-79 yrs

Barker, unpublished

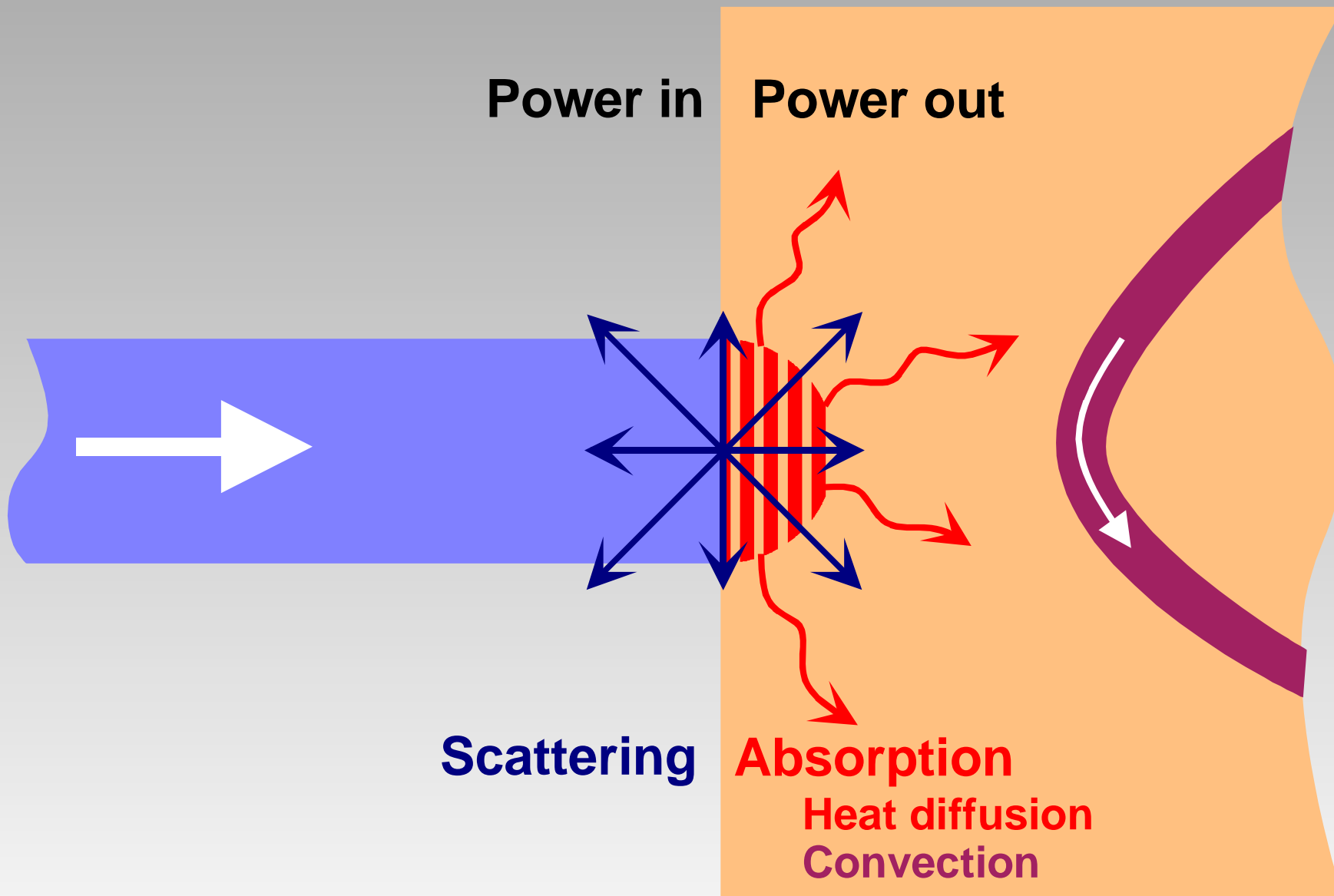


Fotobiologisk reaktion

En biologisk effekt som uppkommer pga förändrade egenskaper hos en biomolekyl som har ändrats av optisk strålning

- **Förutsättning: (Fotokemins första lag)**

Optisk strålning har absorberats

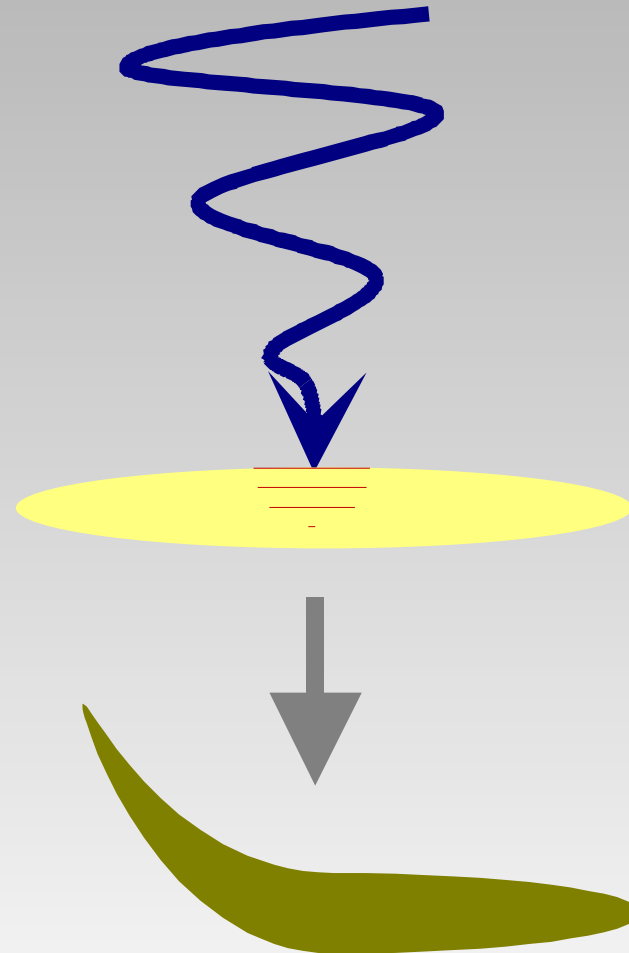


Photochemical damage

Irradiation

Absorption

Molecular change



Reciprocity condition

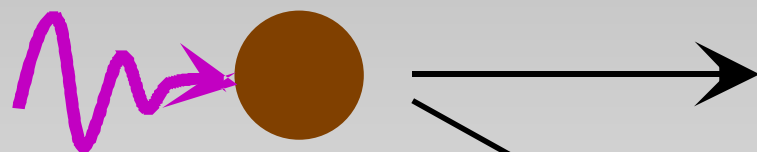
VOS ENFANTS RISQUENT DE PAYER CHER
UNE EXPOSITION PROLONGÉE AU SOLEIL.

Damage =
k x Irradiance x Exposure time



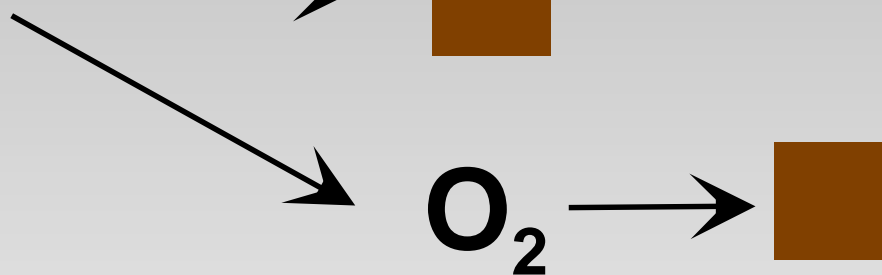


Phototoxic



Photosensitized

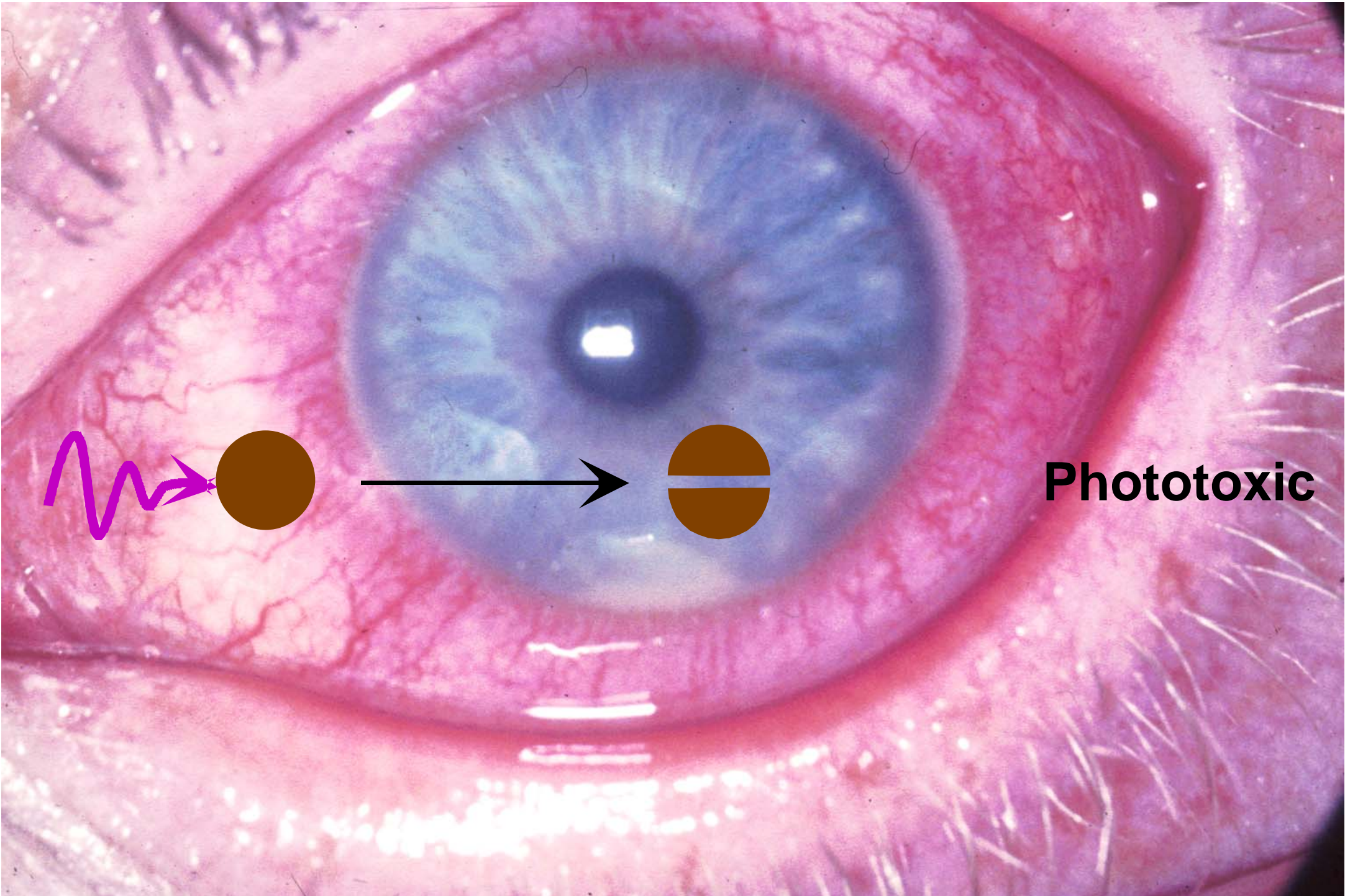
Type I



**Type II
(Photodynamic)**

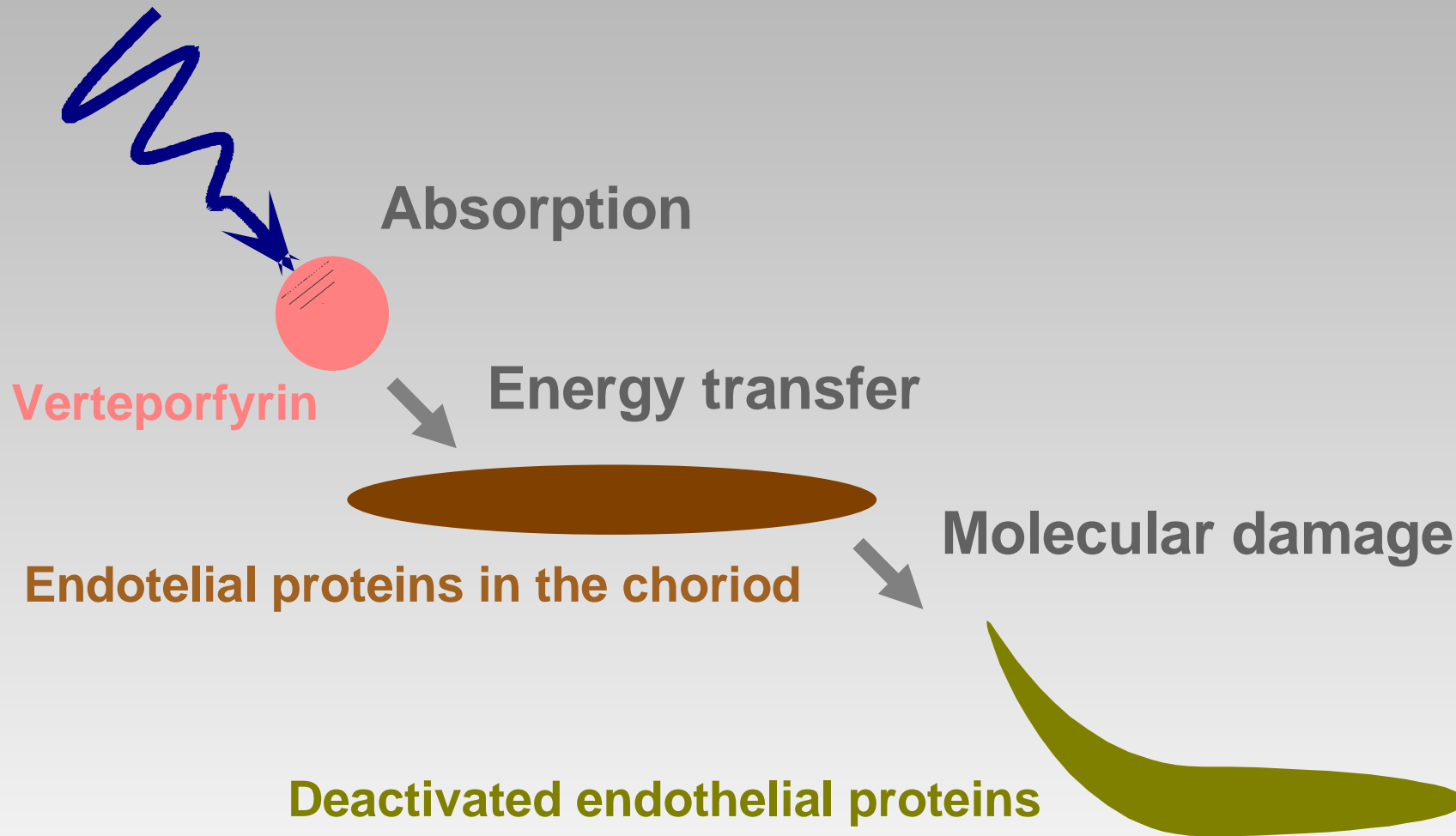


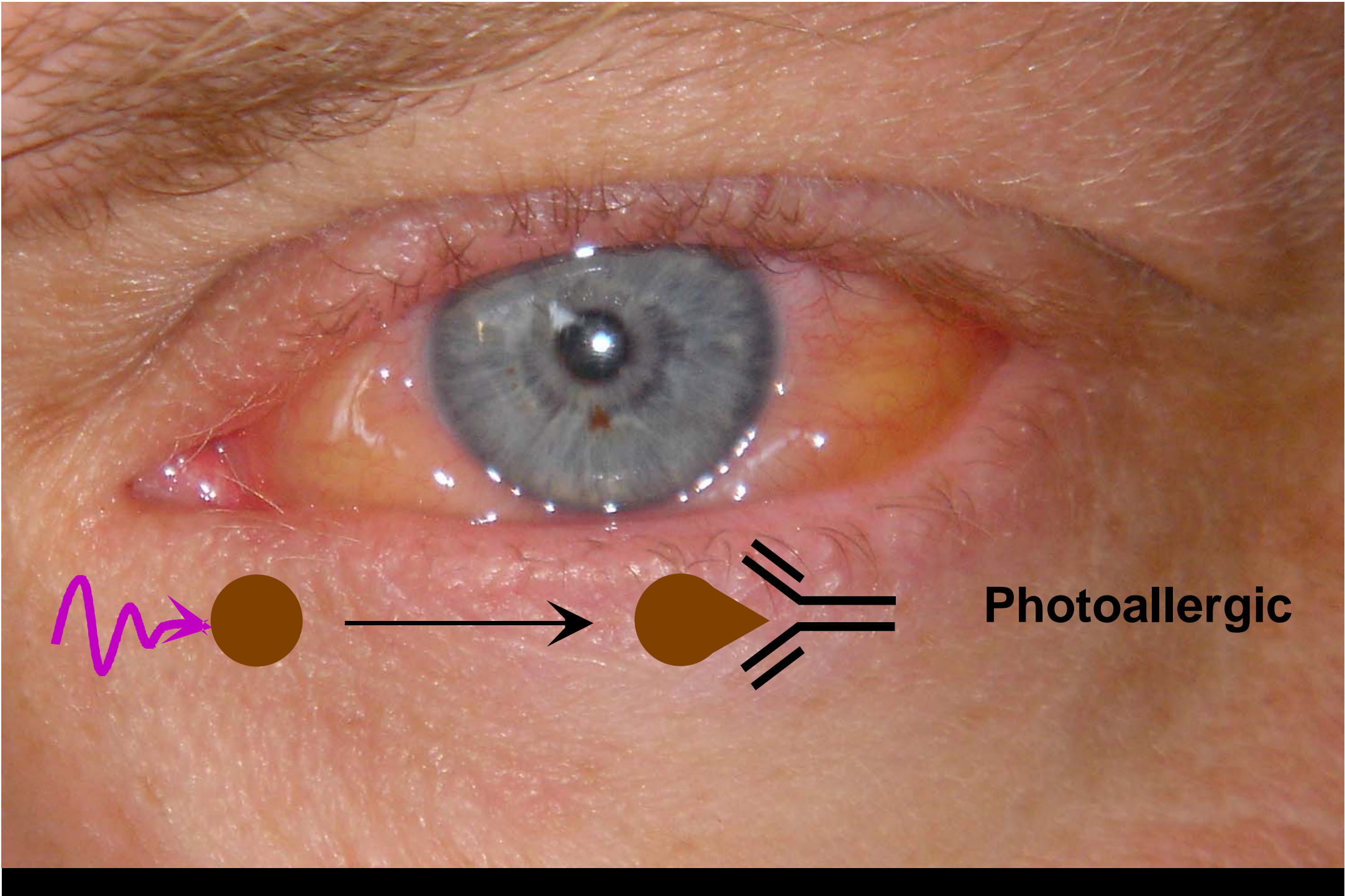
Photoallergic



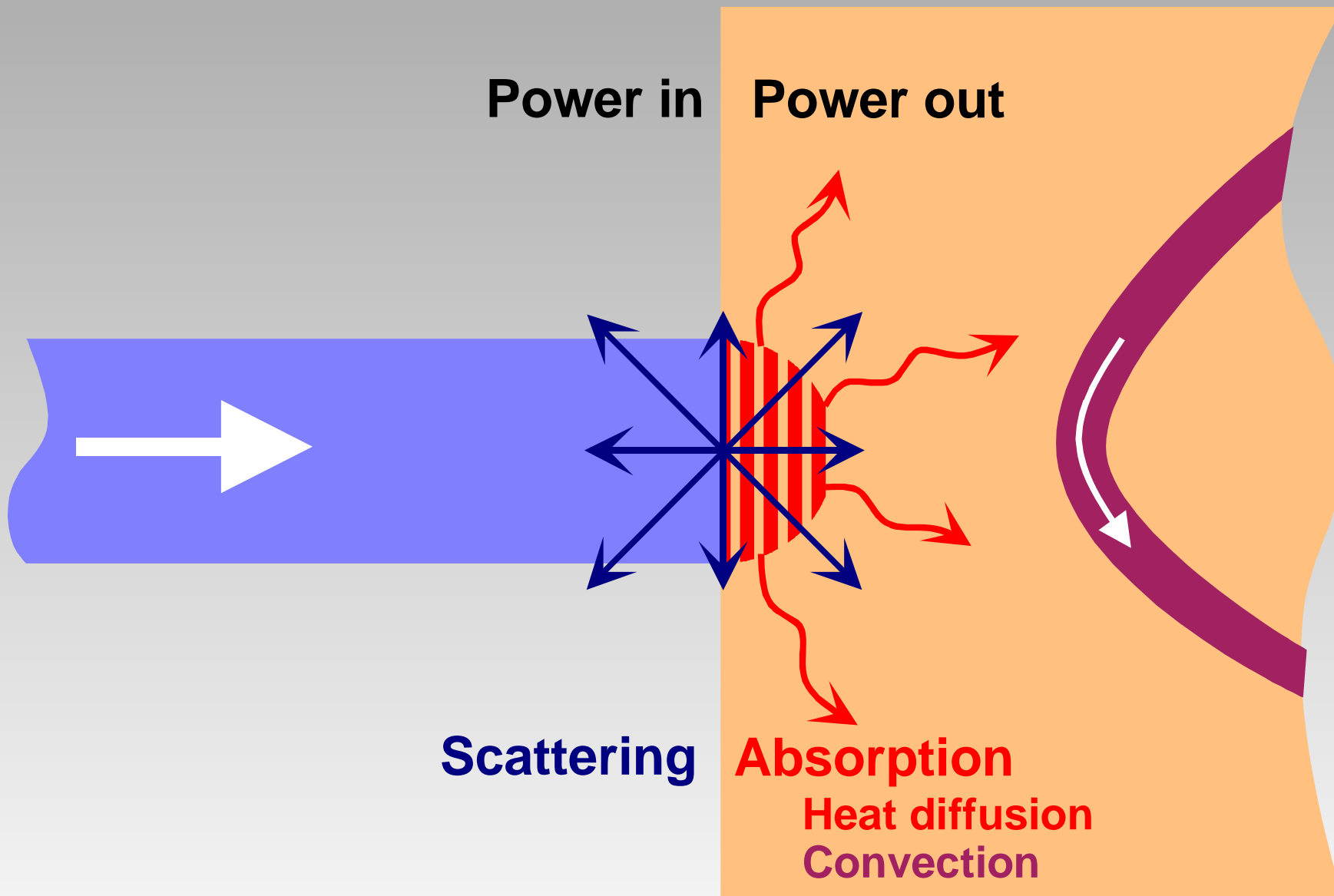
Phototoxic

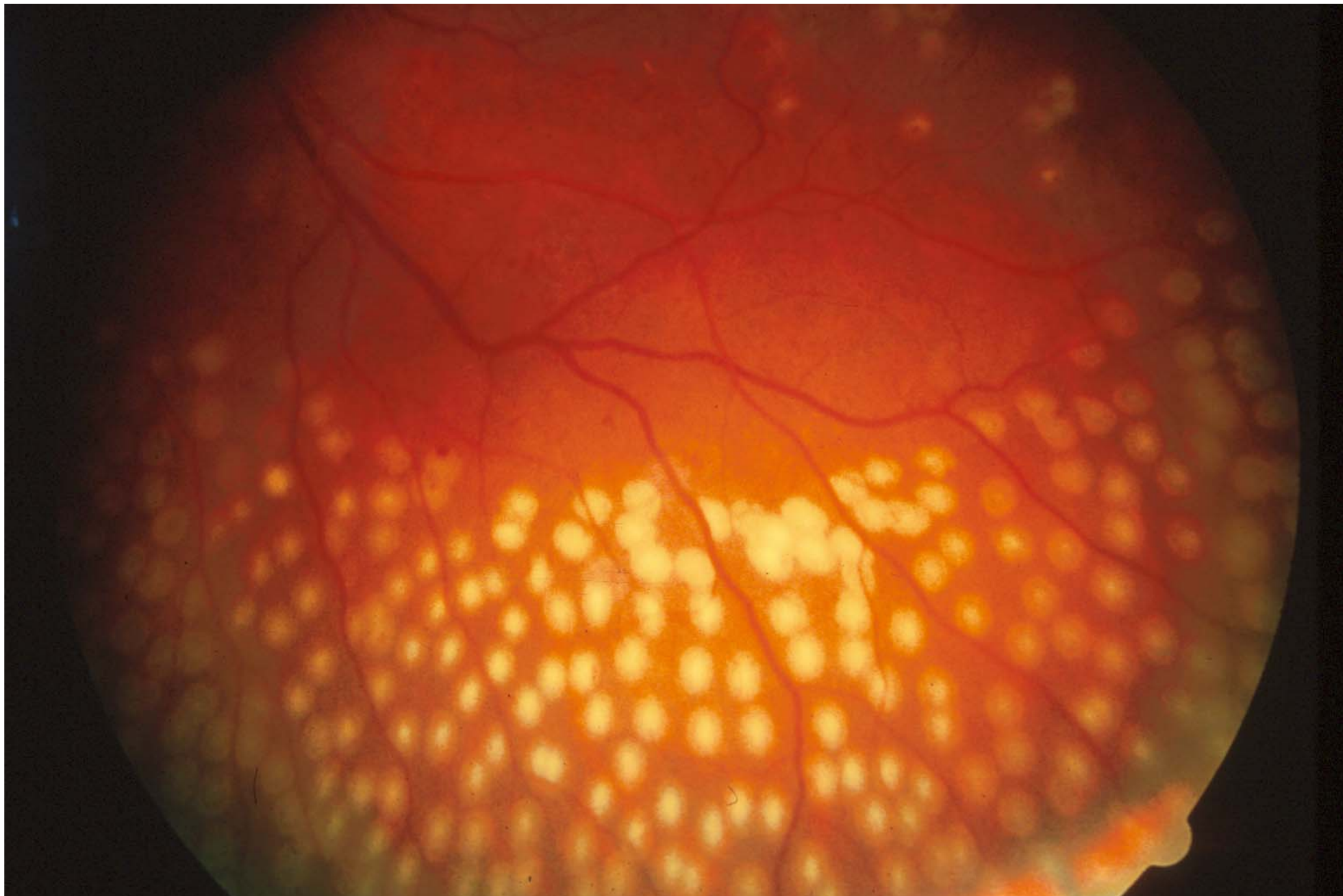
Photosensitized damage

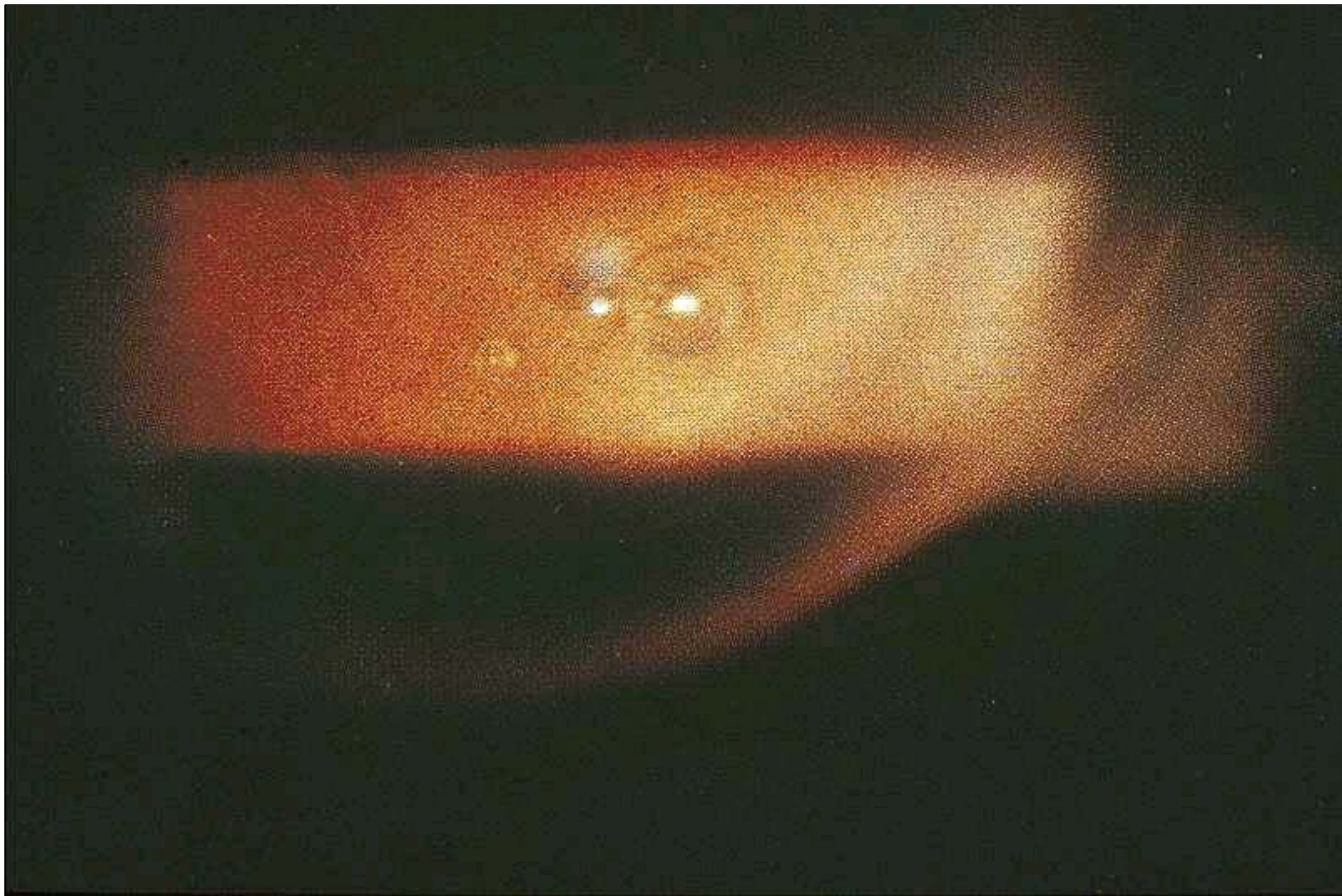




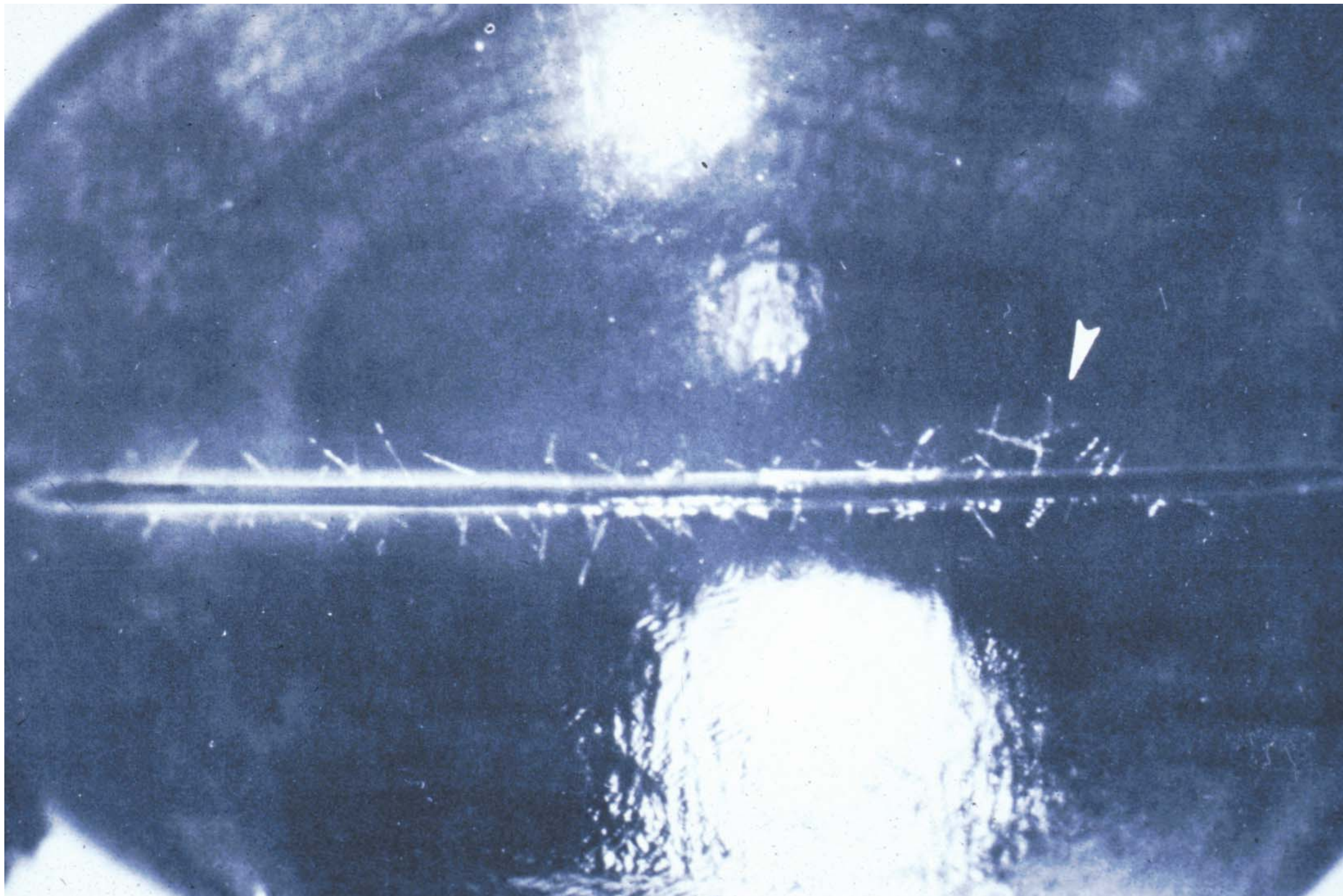
Photoallergic





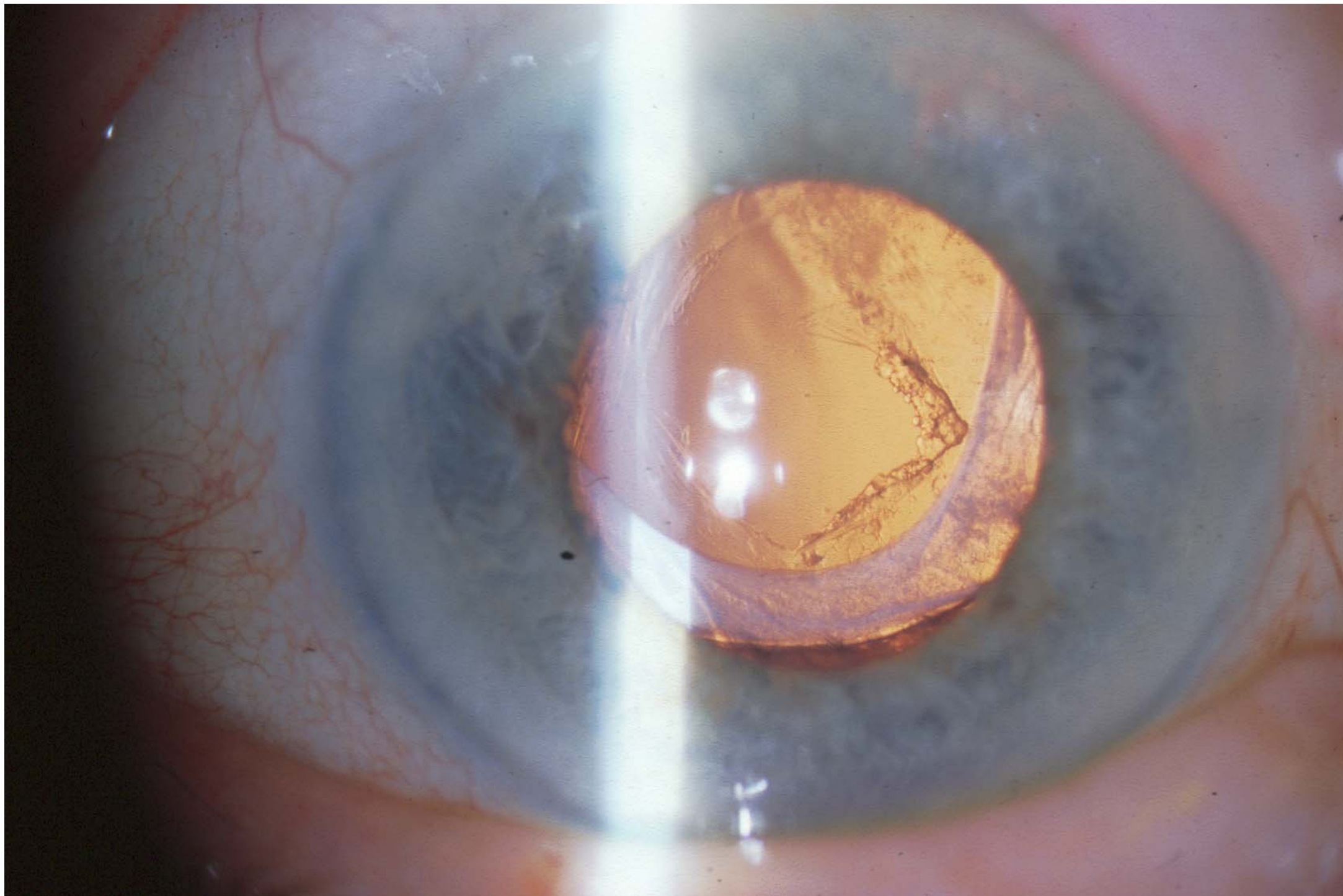












Optical radiation-tissue interaction

