

GORING AND WOODCOTE MEDICAL PRACTICE PATIENT PARTICIPATION GROUP (PPG)

Open Meeting

Looking after Your Eyesight

14 April 2018

Agenda

- The New Practice Website
 - Julia Beasley
- Ophthalmology from the GP perspective
 - Dr Jessica Reed
- The Consultant view
 - Mr Martin Leyland

The New Practice Website

The new website is at the same URL as before:

<https://www.goringwoodcotemedicalpractice.nhs.uk/>



OPEN PPG MEETING

OPHTHALMOLOGY

SATURDAY 14TH APRIL 2018

Mr Martin Leyland BSc MB ChB MD FRCOphth

Dr Jessica Reed MB BS BSc DRCOG MRCGP

OPHTHALMOLOGY IN PRIMARY CARE

- Blepharitis
- Conjunctivitis
- Orbital cellulitis
- Ophthalmic Shingles
- Red flags

Minor Eye Conditions Service (MECS) Oxfordshire

- ✓ Foreign bodies
- ✓ Red/gritty/watery eyes
- ✓ Flashes/floaters
- ✓ Ingrowing eyelashes
- ✗ Painful red eyes
- ✗ Significant ocular trauma
- ✗ Transient loss of vision
- ✗ Problems following recent ocular surgery

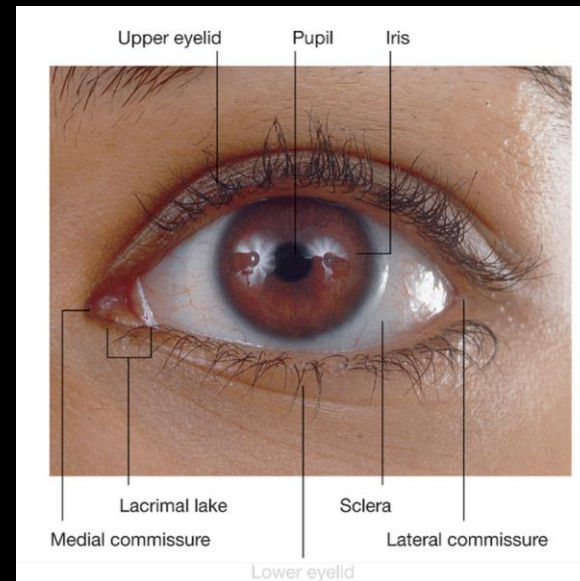
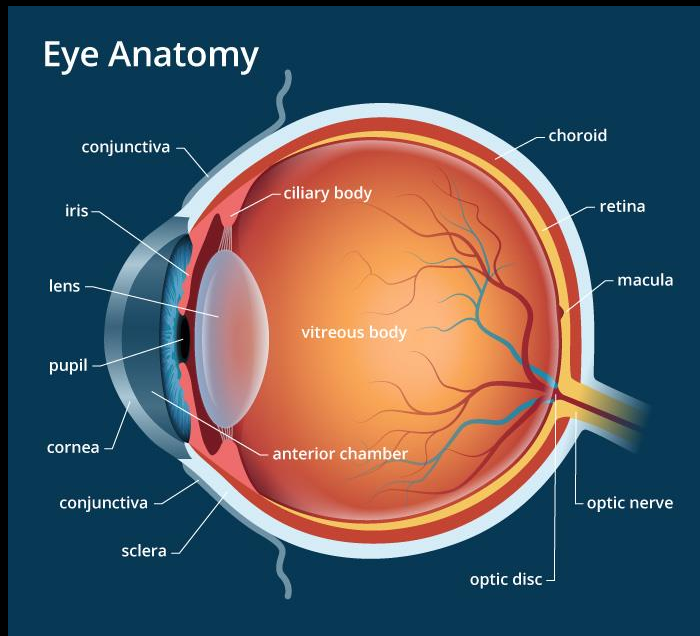
Robert Stanley in Wallingford
Hayselden and Partners in Wallingford

ASSESSMENT IN PRIMARY CARE

- Take a history and identify symptoms
- Observation – asymmetry, redness, pupils
- Check visual acuity
- Check ocular movements
- Stain the surface of the eye
- Direct ophthalmoscopy



ANATOMY

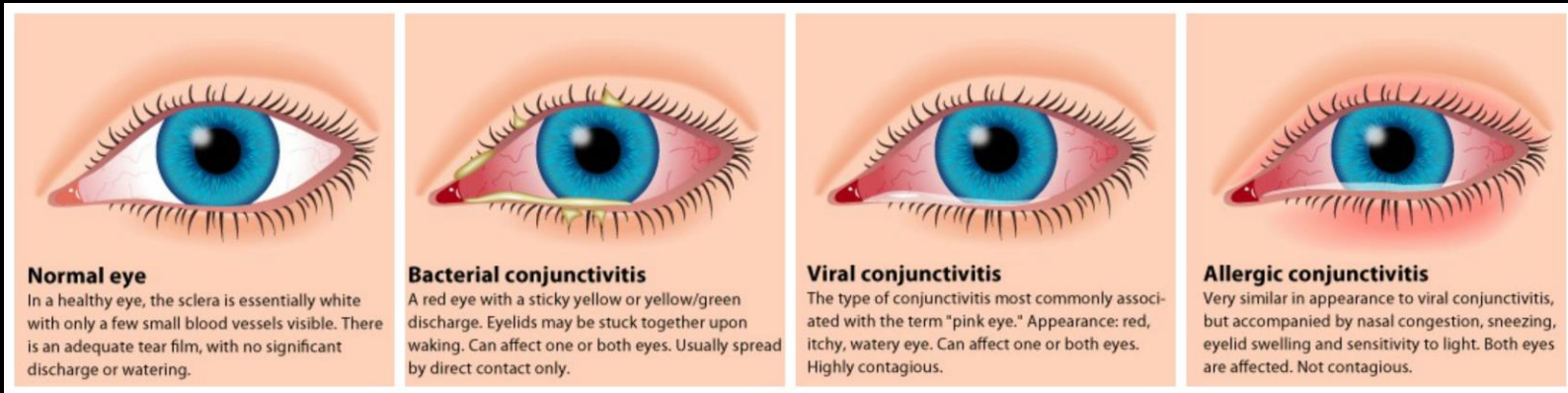


BLEPHARITIS

- Inflammation of the eyelids
- Causes crusting, itchy and redness/swelling of lid margins
- Anterior (base of eyelashes) or posterior (meibomian glands)
- Not an infection/contagious, possibly a reaction to normal bacteria growing on the skin
- Associated with seborrhoeic dermatitis and rosacea
- Lid hygiene
- Topical antibiotics, oral antibiotics
- May cause infections (keratitis)/ulcers



CONJUNCTIVITIS



- Very common!
- Seek advice from the pharmacist
- Usually viral... and contagious
- Should not be painful and should not affect your vision
- If bacterial – chlormaphenicol/levofloxacin
- If allergic – sodium cromoglicate



PRESEPTAL (PERIORBITAL) CELLULITIS



- Quite common, less serious than orbital cellulitis
- Infection anterior to the orbital septum
- Eye lids are red and swollen
- More common in young children

- Can be caused by upper respiratory tract or sinus infection
- Commonly a streptococcus infection
- Treatment with co-amoxiclav
- Not to be confused with orbital cellulitis....



ORBITAL CELLULITIS



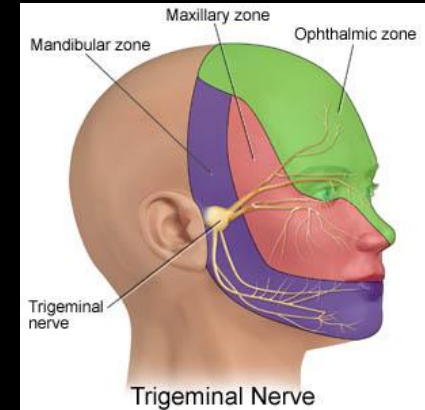
- Much more serious
- Again, predominantly affects children
- Infection has spread beyond the septum into the orbit

- ! Reduced vision
- ! Chemosis
- ! Painful eye movements
- ! Restricted eye movements
- ! Proptosis

- Requires urgent assessment by eye casualty or ENT for IV antibiotics

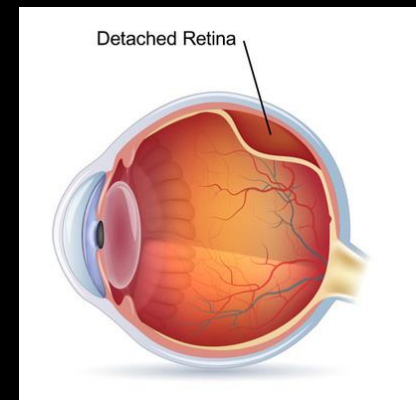
OPHTHALMIC SHINGLES

- Shingles is caused by reactivation of Varicella Zoster (Chicken pox virus)
- Ophthalmic branch of the trigeminal nerve (15% of all cases of shingles)
- Blistering rash with numbness, pain and tingling, does not cross the midline
- Hutchinson's sign – nasociliary branch of the trigeminal nerve is affected, making eye involvement more likely (50%)
- Complications – iritis, scleritis, keratitis and glaucoma
- Treatment is with antivirals eg. Aciclovir
- If the eye is involved, eye casualty assessment is needed



RED FLAGS IN PRIMARY CARE

- ! Painful, red eye
- ! Sudden loss of vision
- ! Significantly reduced visual acuity
- ! Painful eye movements
- ! Loss of colour vision
- ! Photophobia



USEFUL RESOURCES

- Patient UK
- Moorfields Eye Hospital
- NHS Choices



A close-up photograph of a human eye. A black contact lens is fitted over the cornea. The iris is a light brown color, and the pupil is visible through the center of the lens. The sclera is white, and the eyelids are partially visible at the top and bottom edges. The lighting is bright, creating some reflections on the surface of the lens and the eye.

Ophthalmology

Martin Leyland

Consultant Ophthalmologist Royal
Berkshire and Oxford Eye Hospitals

www.berkshireeyesurgery.co.uk

Content

- Ophthalmology referral
- The big 4:
 - Glaucoma
 - Diabetes
 - Age-related macular degeneration
 - Cataract
- Looking after your eyes

Referral: who's who?

- Ophthalmologists
 - medical doctors specialising in eyes; usually surgeons
- Ophthalmic opticians = Optometrists
 - prescribe, fit and sell glasses; also have training in eye disease
- Orthoptists
 - specialise in assessment of eye movement abnormalities (e.g. squint) and children's vision measurement

Referral: how?



Ophthalmic A&E

Urgent referral
[Main A&E 'after
hours']
RBH by referral
OEH 'walk-in'



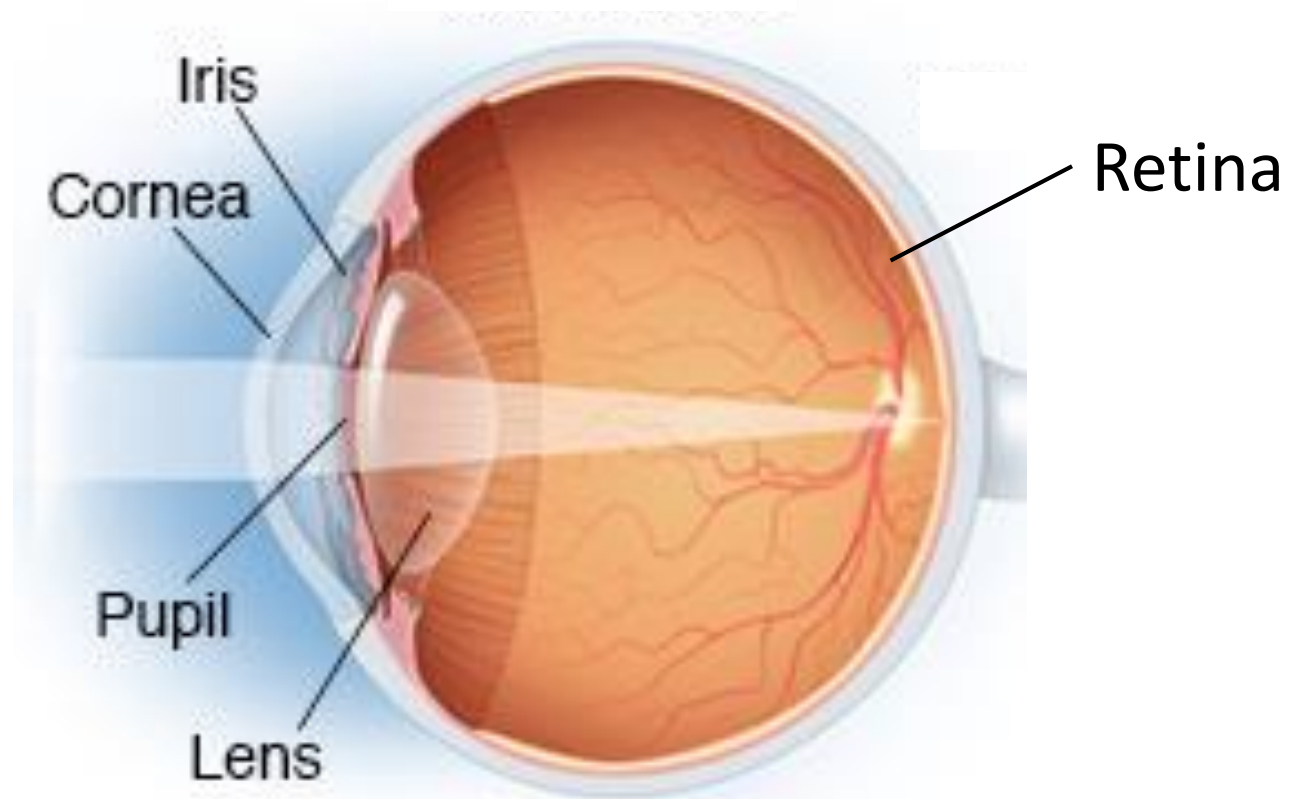
Hospital Eye Service

Routine referral
for complex
conditions &
surgery
'Choose & Book'

Intermediate care

'Soon' appointments for
minor conditions
Berkshire Harmonie by
referral
Oxford MECS referral or
self-arranged

The normal eye

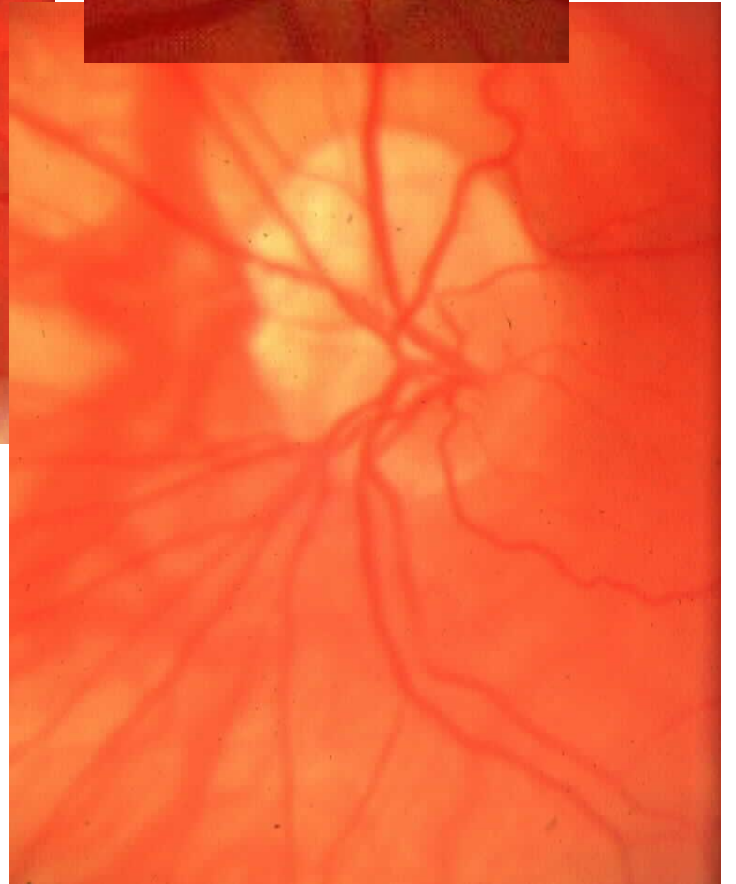
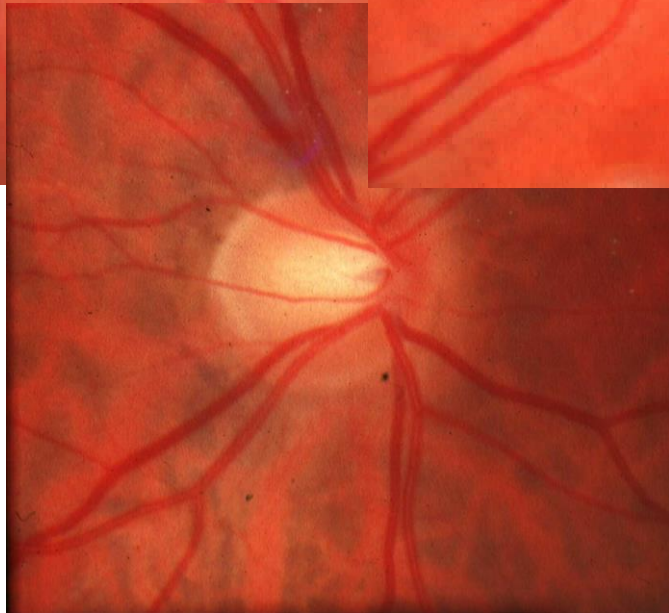
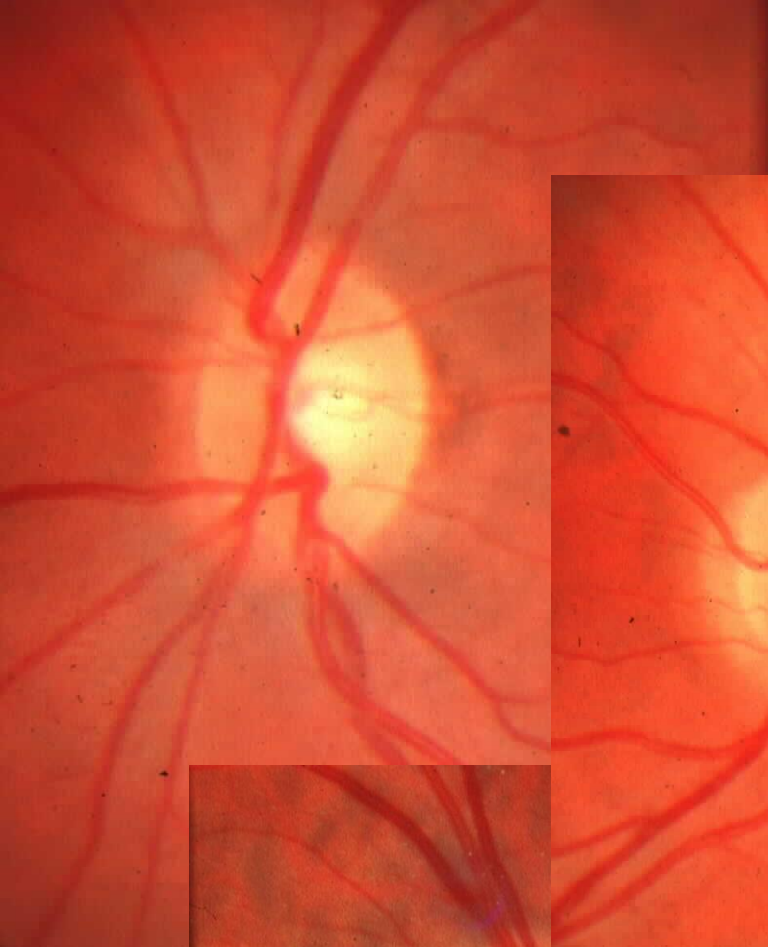


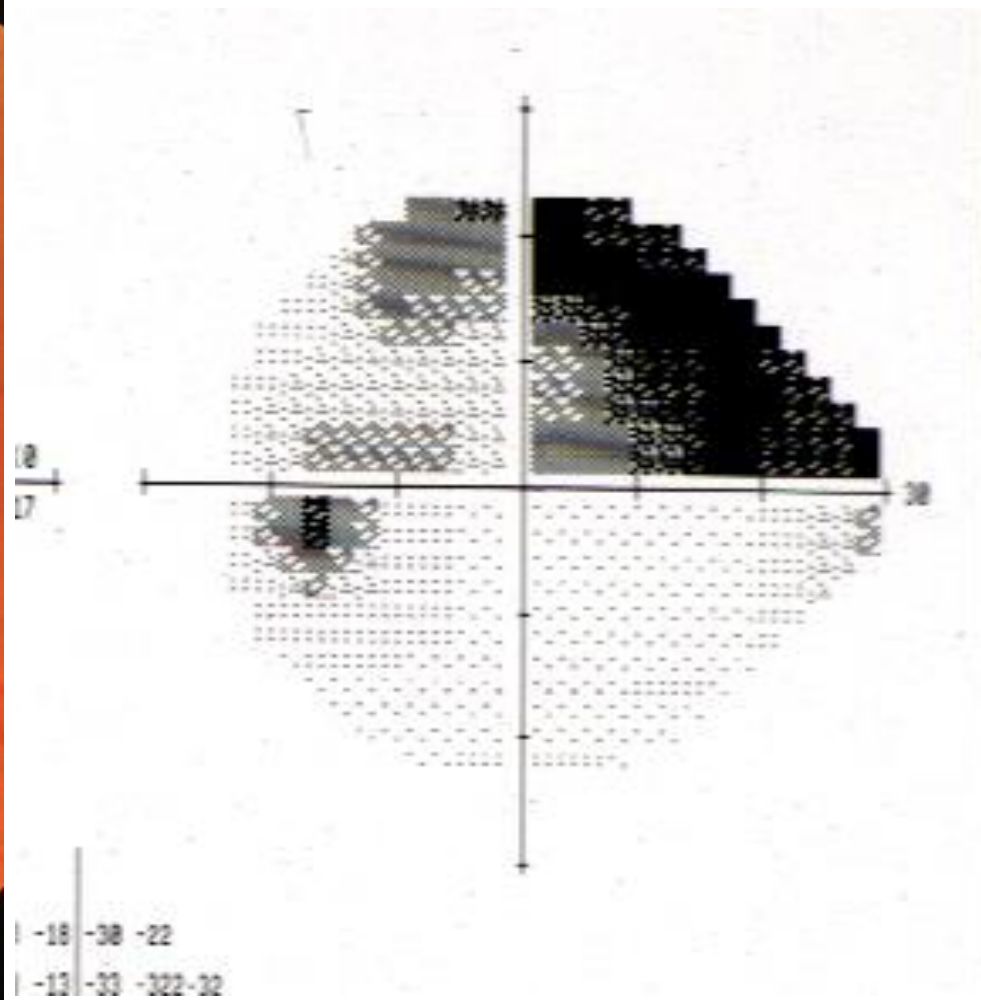
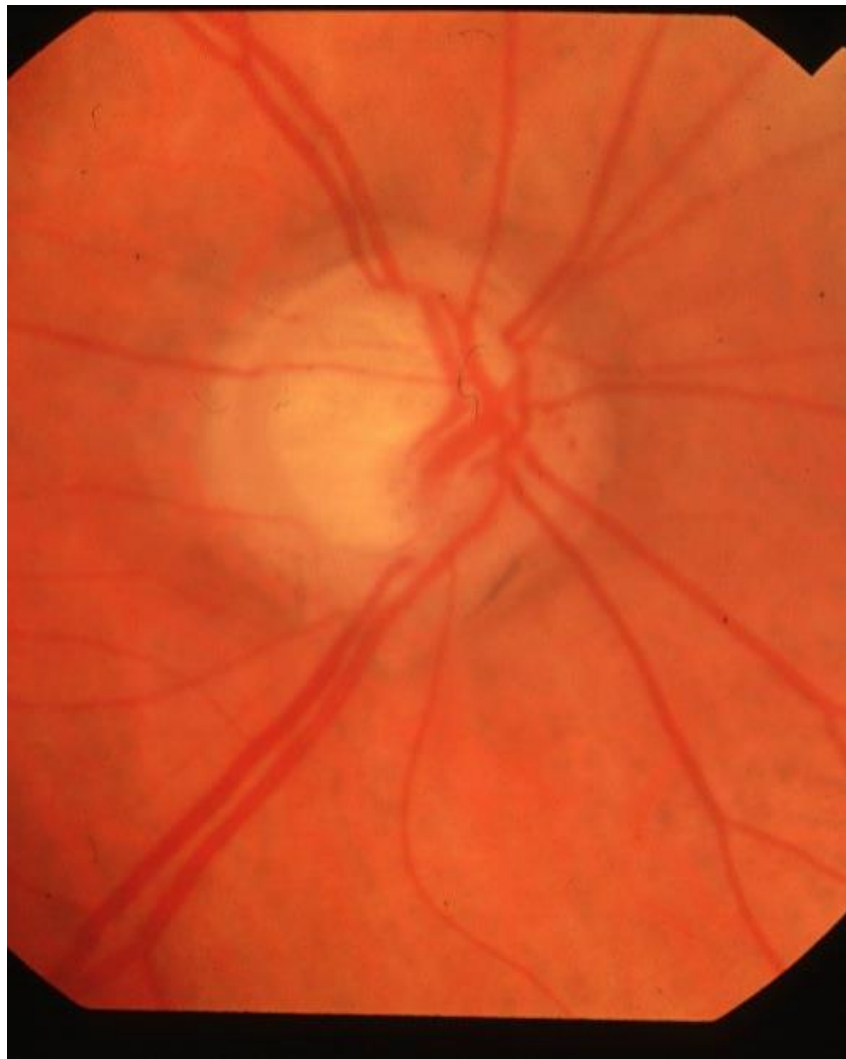
Glaucoma

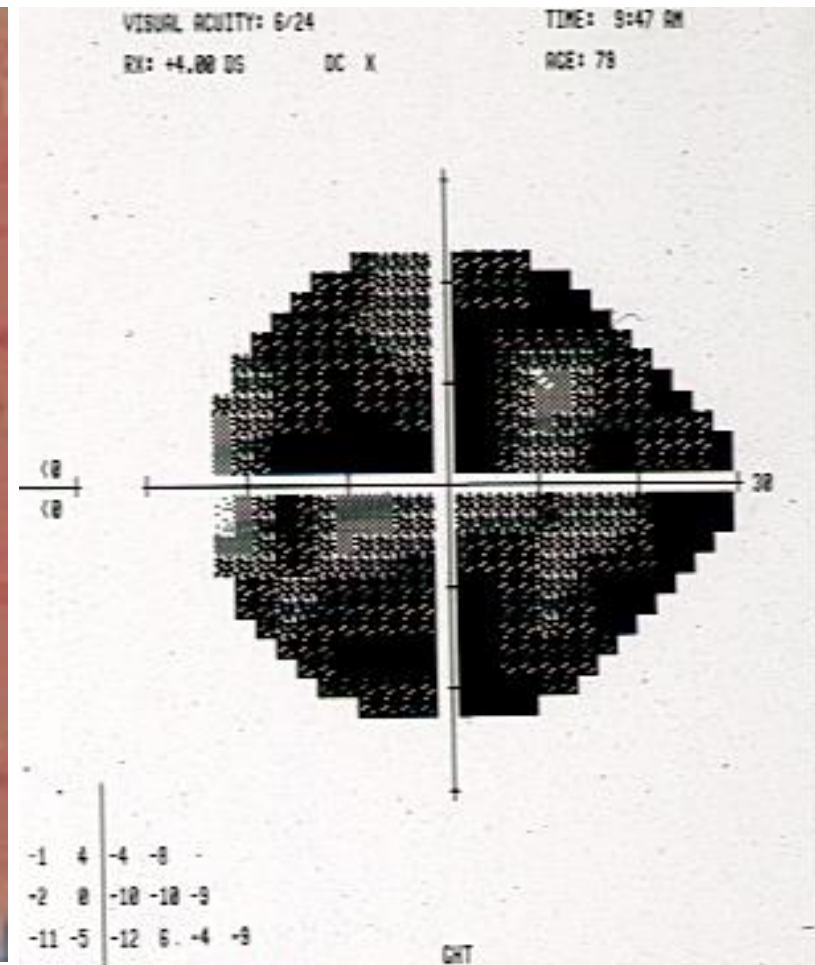
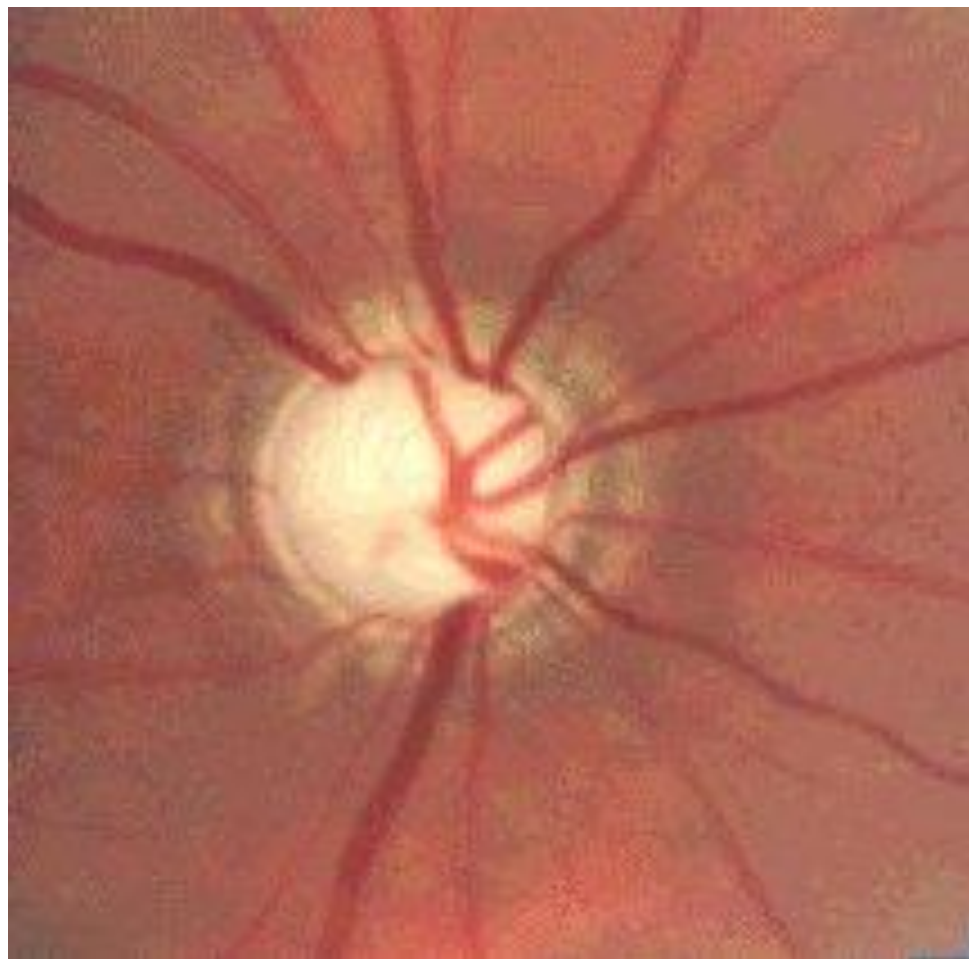


Glaucoma

- Damage to the optic nerve due to high pressure of fluid within the eye
- Diagnosis:
 - Appearance of optic nerve
 - But wide range of normal appearances
 - Measurement of eye pressure
 - Some people have high pressure but never get glaucoma, others have the condition despite normal pressure
 - Assessment of visual field
 - Not an easy test to do and misses early damage







Treatment of glaucoma

- Identify the condition before it causes symptoms (damage cannot be reversed)
 - Visit optometrist every 1-2 years after age 50
 - Earlier if history of early onset in close family
- Lower the eye pressure to prevent further damage
 - Eye-drops
 - Surgery

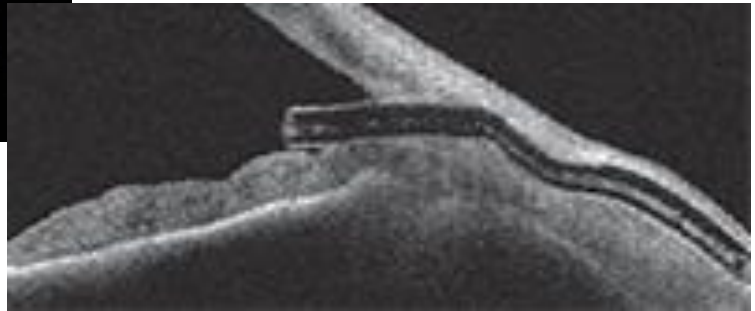
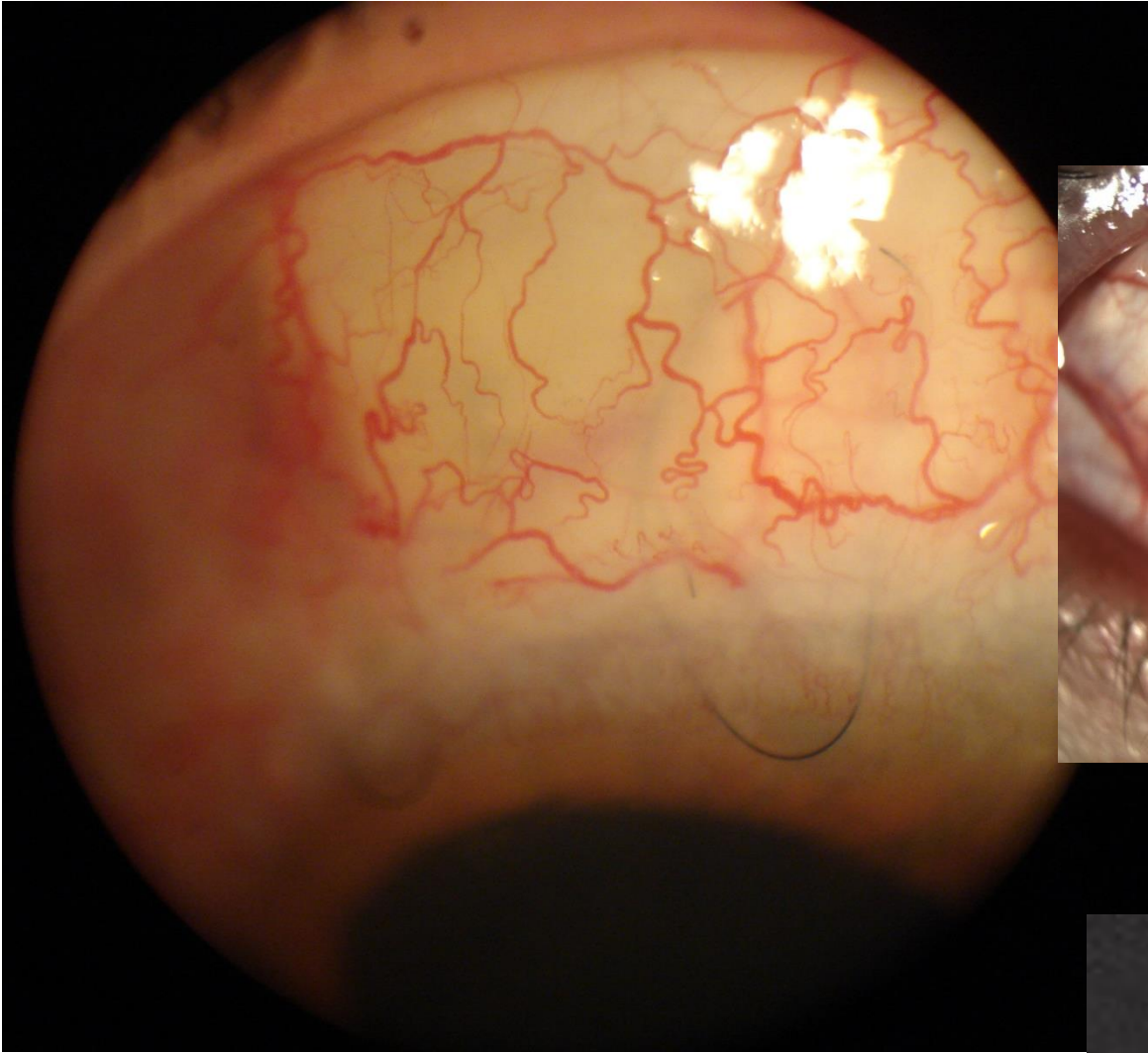
Glaucoma eye-drops

- Increase fluid outflow
 - Latanoprost 'Xalatan', Bimatoprost 'Lumigan'
- Reduce fluid production
 - β -blockers: timolol
 - CA inhibitors: dorzolamide
 - α -agonists: brimonidine
- Combination drops
 - Timolol plus latanoprost or dorzolamide



Putting eye drops in

- Main problem with efficacy of eyedrops is poor compliance (not putting the drops in)
- One drop is enough!
- Pull down lid and drop into conj sac
- Occlude nasolacrimal duct if taste unpleasant
- Bottle-holders available in pharmacy
- Preservative free if more than 4 a day or allergic/toxic



Diabetic Retinopathy



Diabetic Retinopathy

- Damage to micro-blood vessels within the retina caused by high blood sugar
- Early detection allows better treatment
- High blood sugar causes
 - Blood vessel leakage (DMO)
 - Blood vessel closure (ischaemia)
 - Reactive production of new blood vessels which bleed, leak and scar

Diabetic eye screening

- Berkshire Diabetic Eye Screening Programme
- In GP practices
- Oxfordshire Diabetic Eye Screening Programme
- In optometry practices

Diabetics \geq 12 years old, screening service notified by GP

Drops to dilate pupils

Digital photography

Images assessed by computer software and by non-medical graders

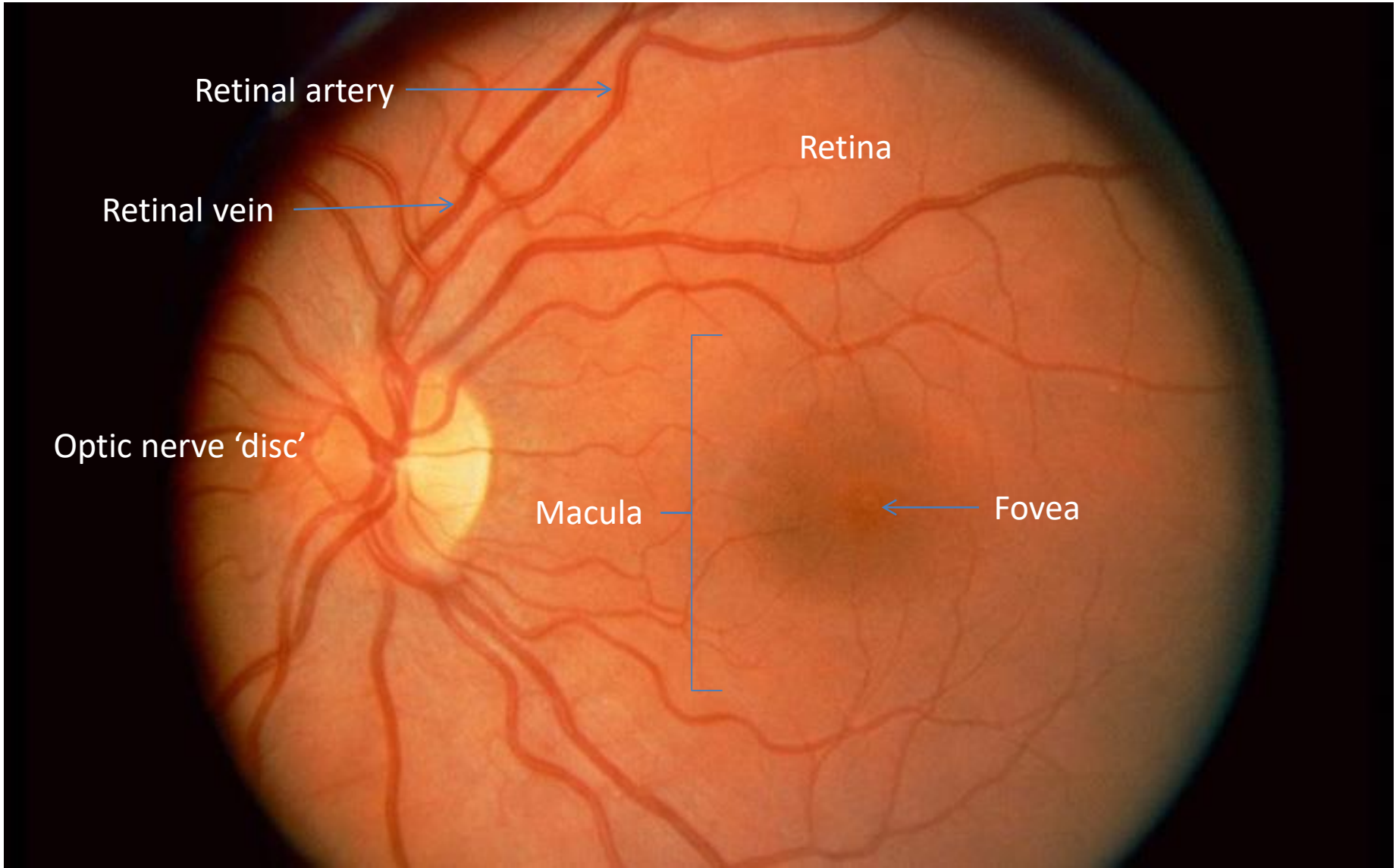
Quality control/training by RBH and OEH

Standards set by NHS Diabetic Eye Screening Programme

Looking for *sight threatening retinopathy*

- 31% of all images graded have 'retinopathy', 1:10 require referral to hospital.
- Mild case with one micro aneurysm - no referral
- Severe case with new retinal vessels and haemorrhage - urgent referral and seen within 1 week





Retinal artery →

Retinal vein →

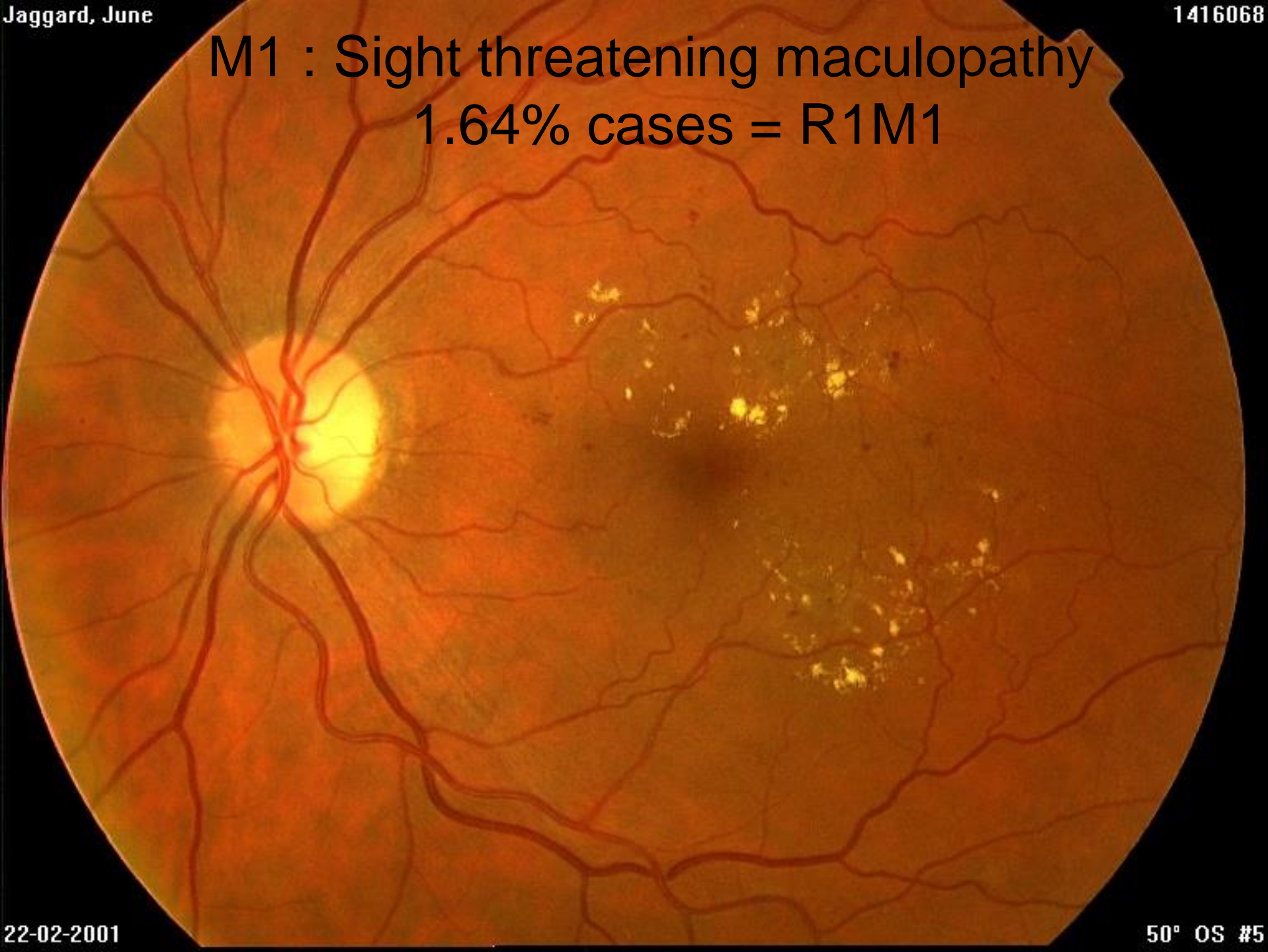
Retina

Optic nerve 'disc'

Macula

← Fovea

M1 : Sight threatening maculopathy
1.64% cases = R1M1

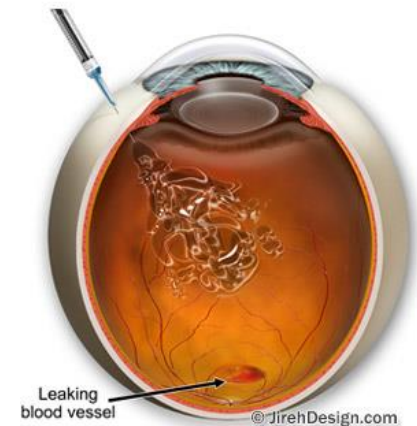
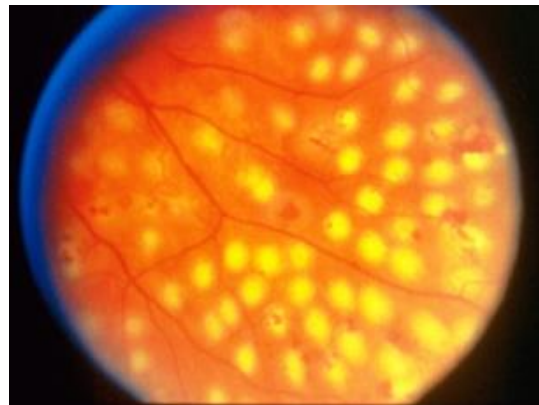
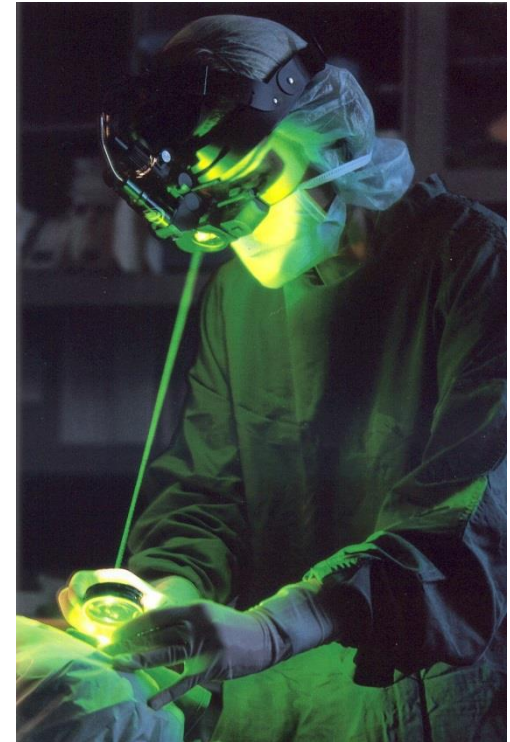


R3: new vessels on optic disc
0.43% of cases = R3



Treatment of retinopathy

- Secondary prevention by weight loss, blood sugar and blood pressure control
- Argon laser pan-retinal photocoagulation for proliferative disease
- Focal argon laser or intravitreal injections for DMO (macular oedema)

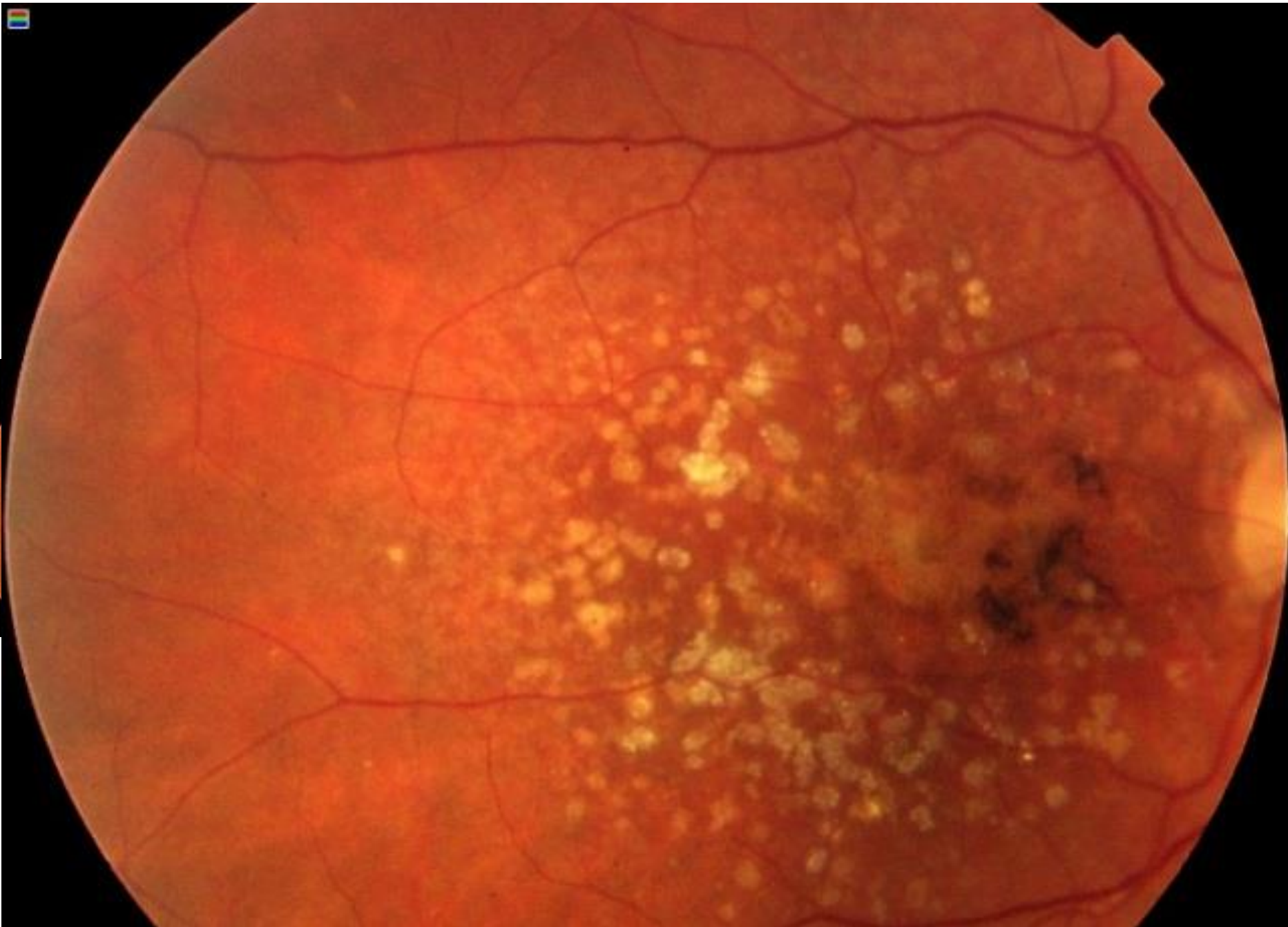


Age-related Macular Degeneration



Age related Macular Degeneration (AMD)

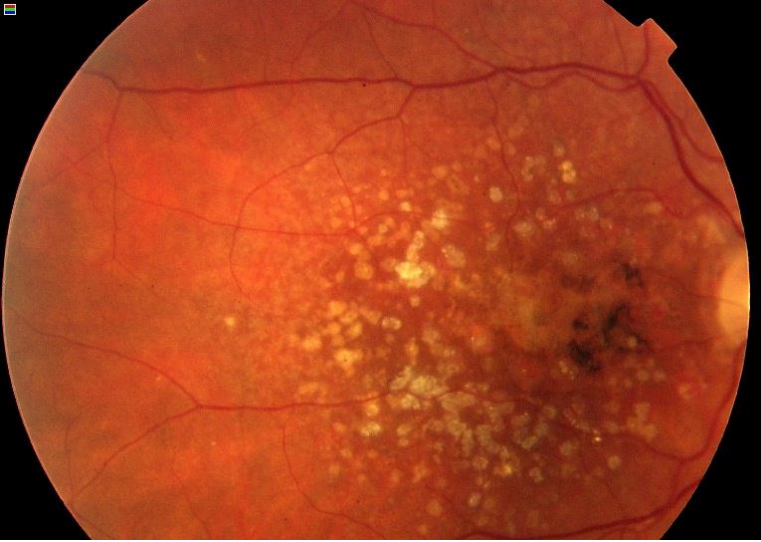
- An eye disease that progressively destroys the macula, the central portion of the retina, impairing central vision
- Age is the main risk factor
 - Presents after the age of 50, more common after 60
 - 1 in 500 between age of 55-65 have some form of AMD
 - 1 in 8 people above the age of 85
- The commonest cause of central visual loss in the developed world
- AMD accounts for almost 50% of blind registration in England and Wales



Symptoms of dry AMD

- Blurred vision: especially reading, close-work
- Minor distortion
- Dark patch in central vision
- Gradually progressive over years
- Never lose peripheral vision

Dry atrophic AMD



Progression slow
and variable

No treatment
available

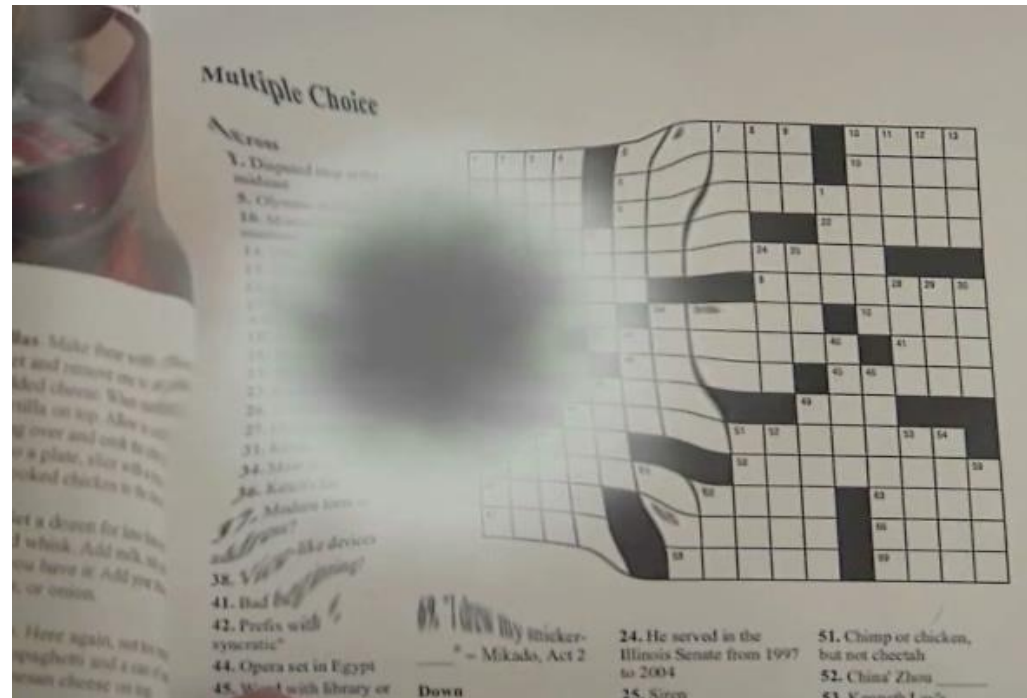


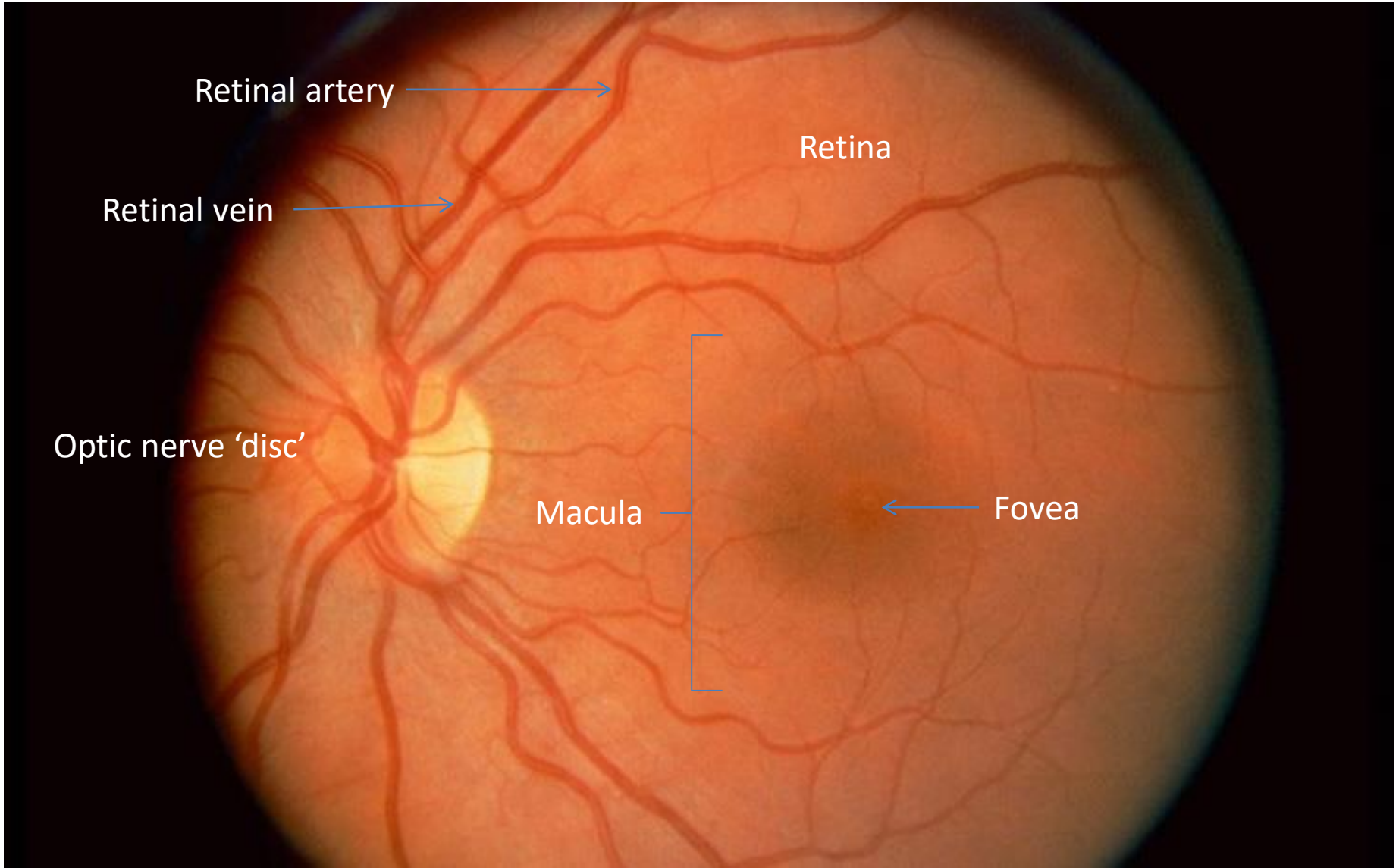
Secondary prevention of AMD

- Age Related Eye Disease Study (AREDS)
- Vitamins A,C,E and zinc (anti-oxidants) in high doses
 - ~20% reduction in progression in cases with at high risk of it (moderate disease in both eyes or severe disease in one eye)
- Ocuville, Preservision, Macushield etc.
- Buy over the counter (not prescription)
- Smoking (oxidants ++) doubles risk of AMD sight-loss

Symptoms of wet AMD

- Painless visual loss
- Distortion
- Missing patch/blur in central vision
- May progress over days or weeks





Retinal artery →

Retinal vein →

Retina

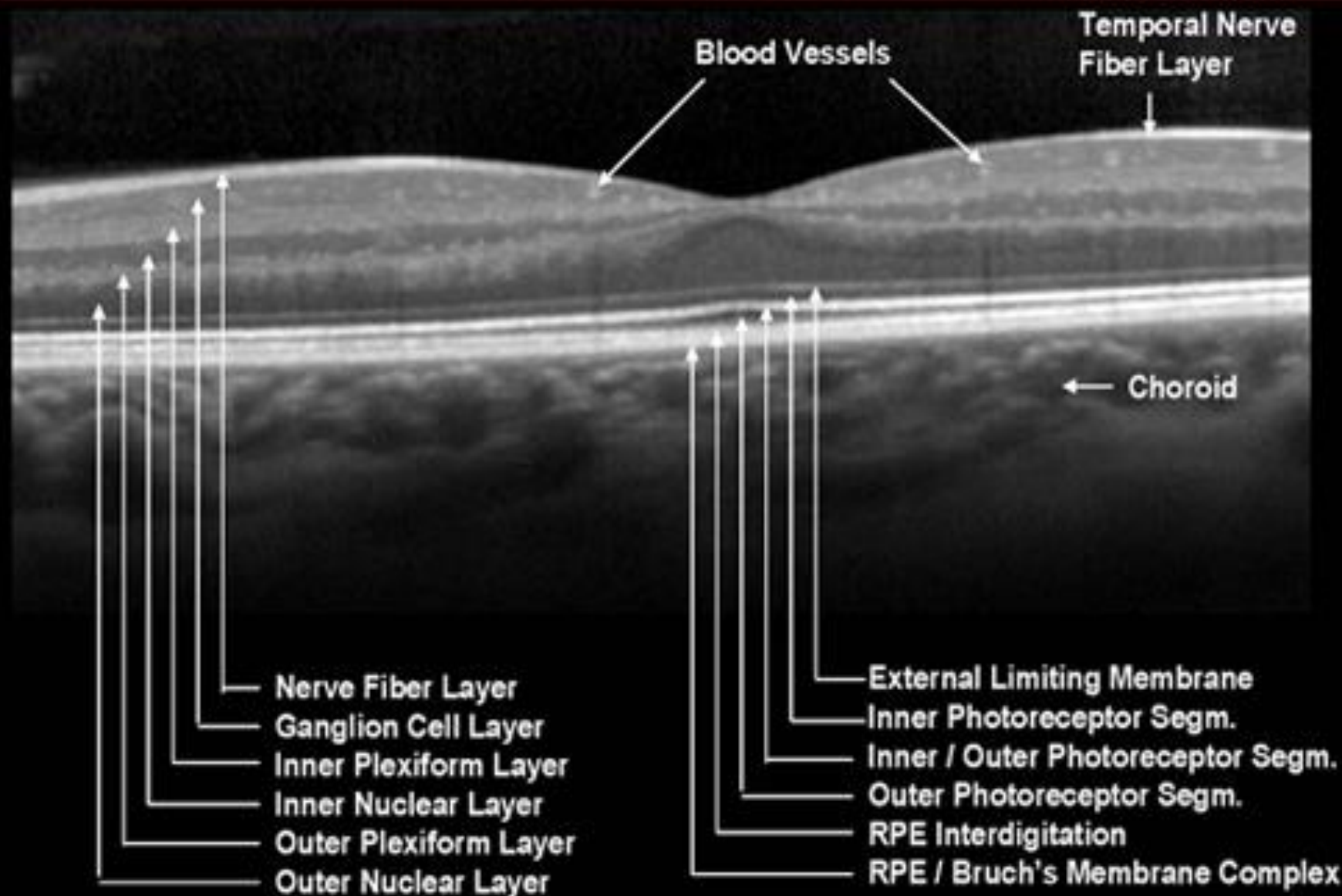
Optic nerve 'disc'

Macula

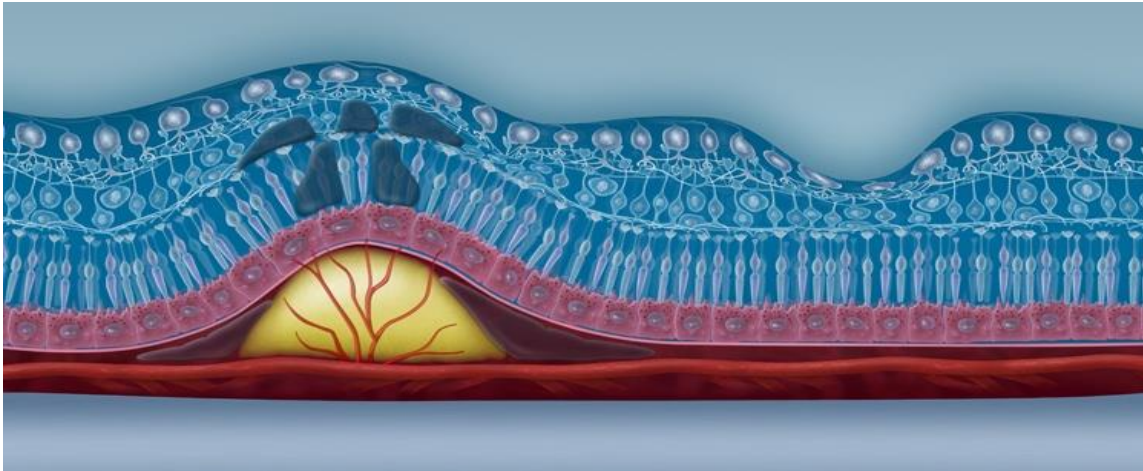
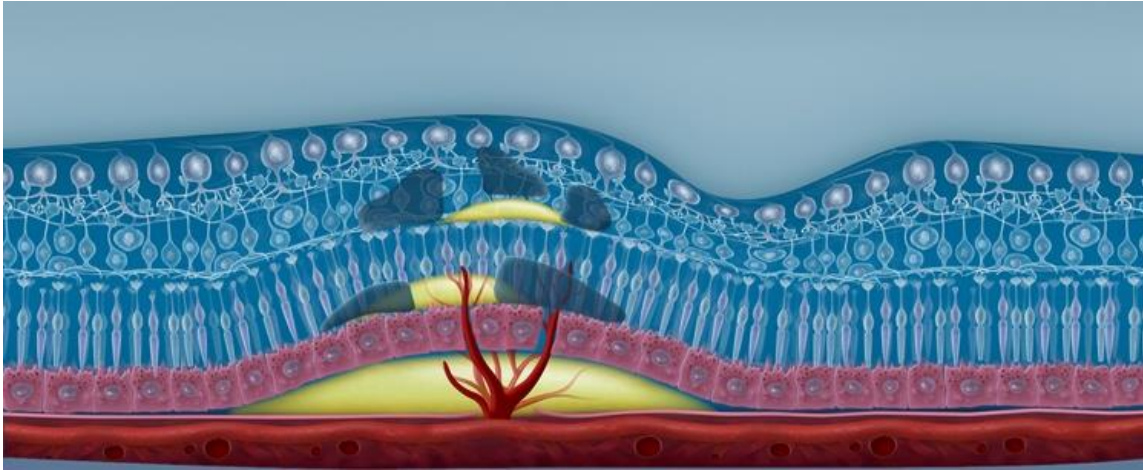
← Fovea

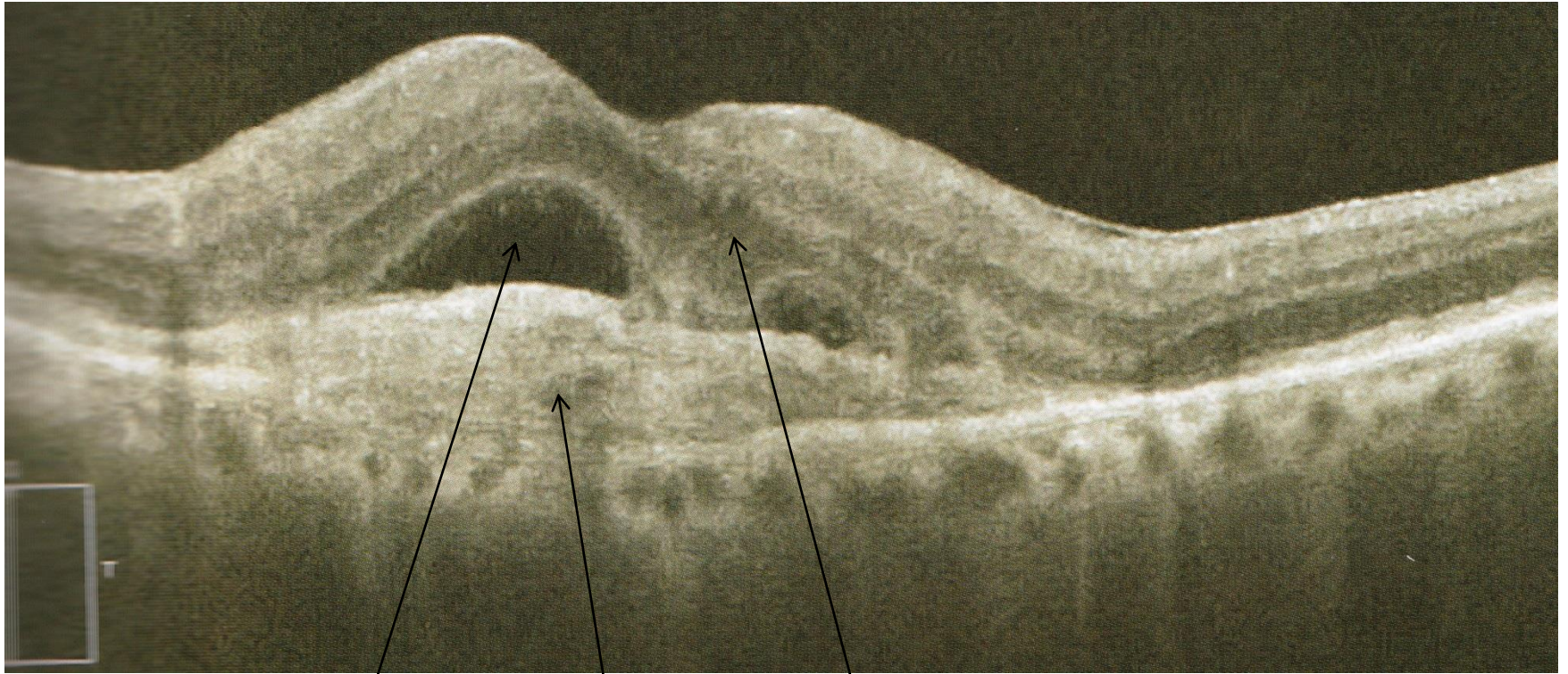
Retinal Labeled Layers

(Image zoomed to ~15°)



Wet AMD





Fluid/blood
under
retina

Mass of
new
blood
vessels

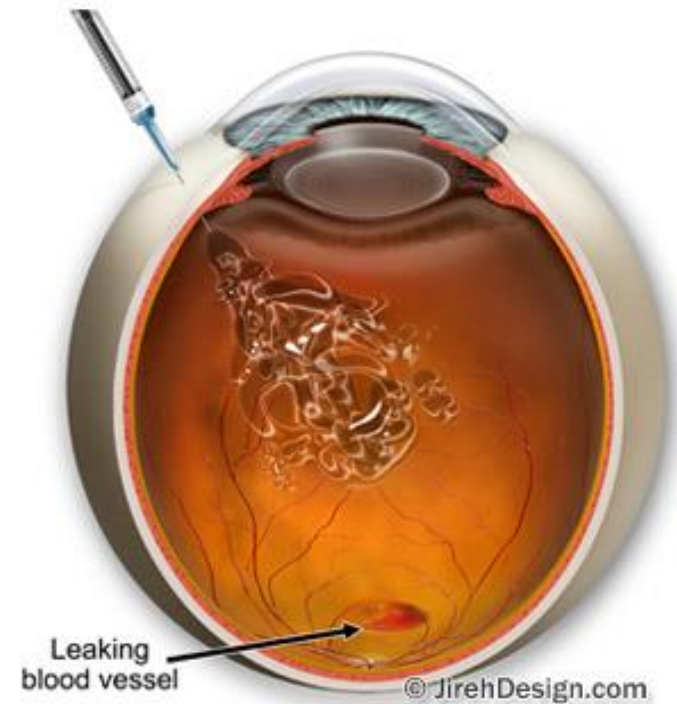
Distorted
retina

Wet AMD

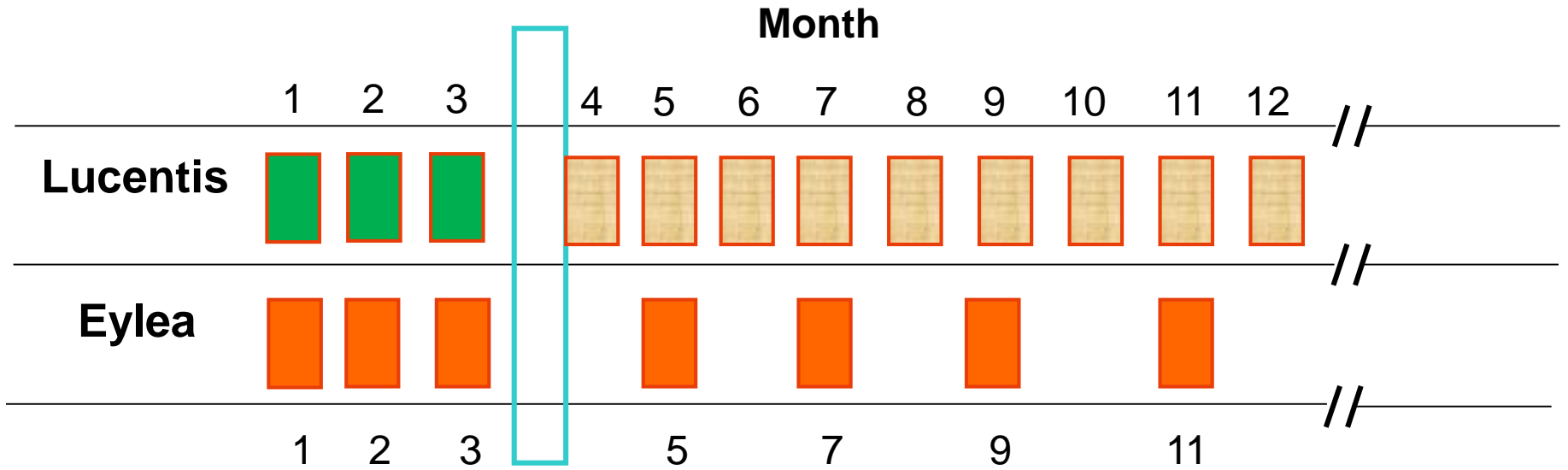


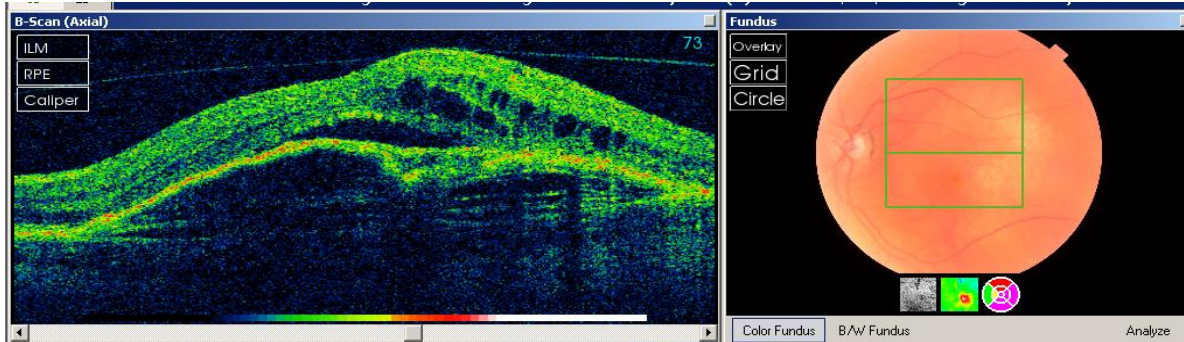
Treatment of wet AMD

- Antibodies (synthetic biological molecules that bind specifically to one protein) block vascular endothelial growth factor (VEGF)
- Large molecule that cannot get into the eye except by direct injection
- Ranibizumab (Lucentis), Bevacizumab (Avastin), Aflibercept (Eyelea)

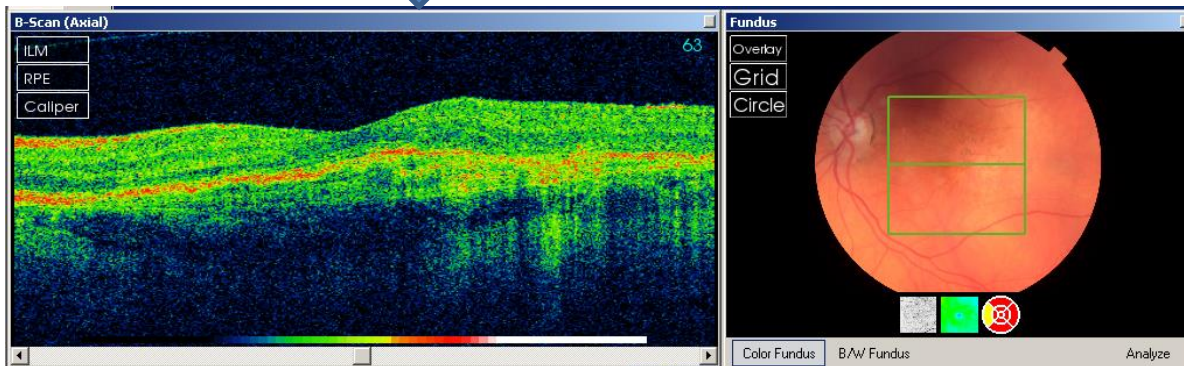


Treatment Schedule






**X Number of Injections
needed**




Efficacy

- Poor efficacy if acuity $<6/60$ (off top of chart)
- Improvement in acuity, distortion e.g. $6/60$ to $6/12$
- ‘Lucentis junkies’
- Loss of efficacy, scarring



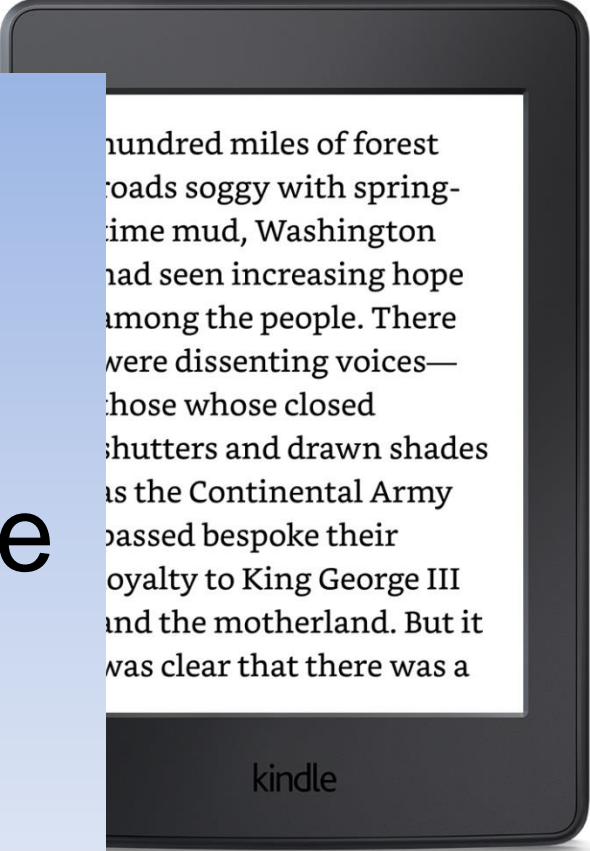
Treatments of end-stage AMD
still largely ineffective and
experimental



Intraocular lens-based
approaches are very expensive
and do not work

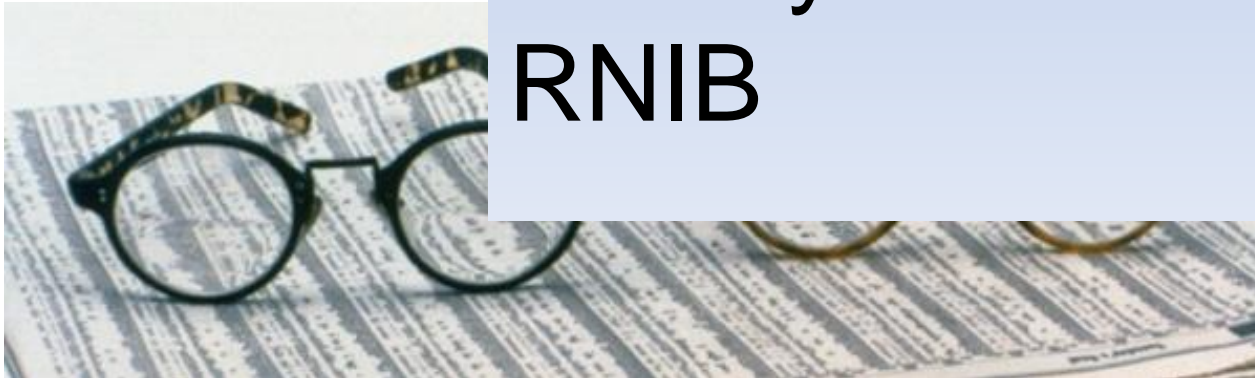
LVAs, Blind registration, information and self-help

Eye Clinic
Liaison Officer
(ECLO)
Macular disease
society
RNIB



hundred miles of forest
roads soggy with spring-
time mud, Washington
had seen increasing hope
among the people. There
were dissenting voices—
those whose closed
shutters and drawn shades
as the Continental Army
passed bespoke their
loyalty to King George III
and the motherland. But it
was clear that there was a

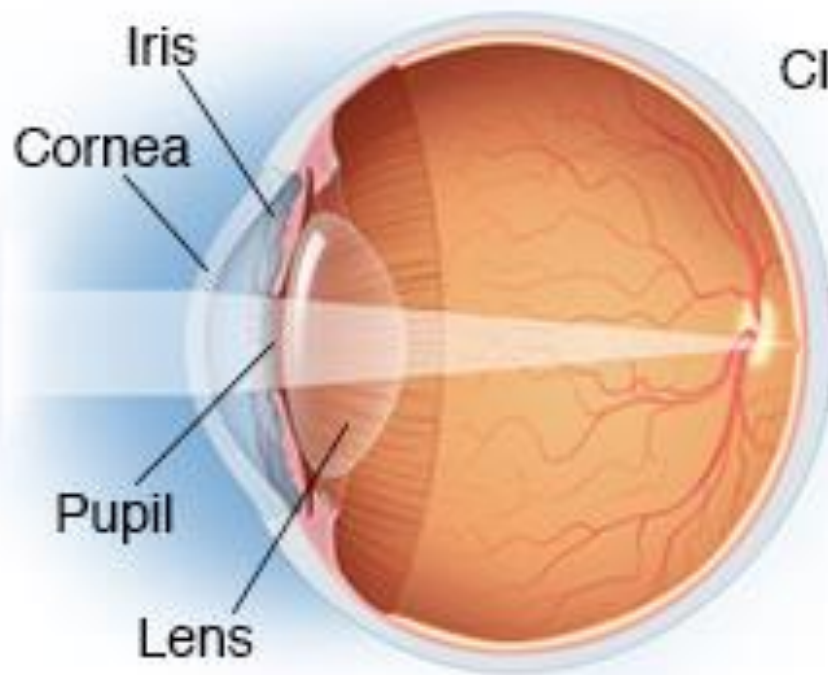
kindle



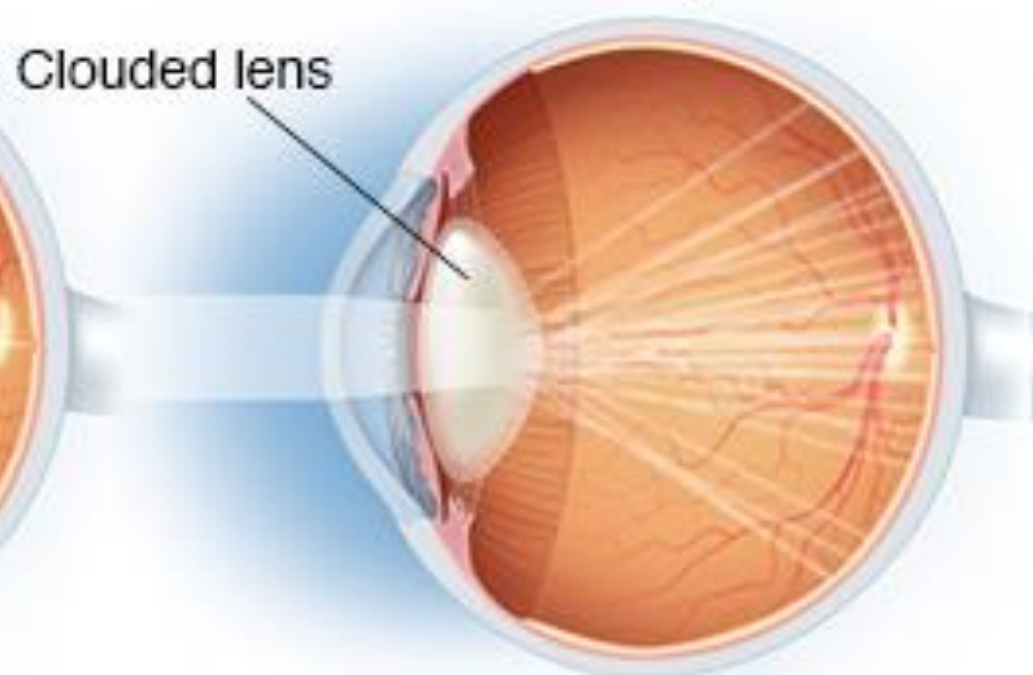
Cataract

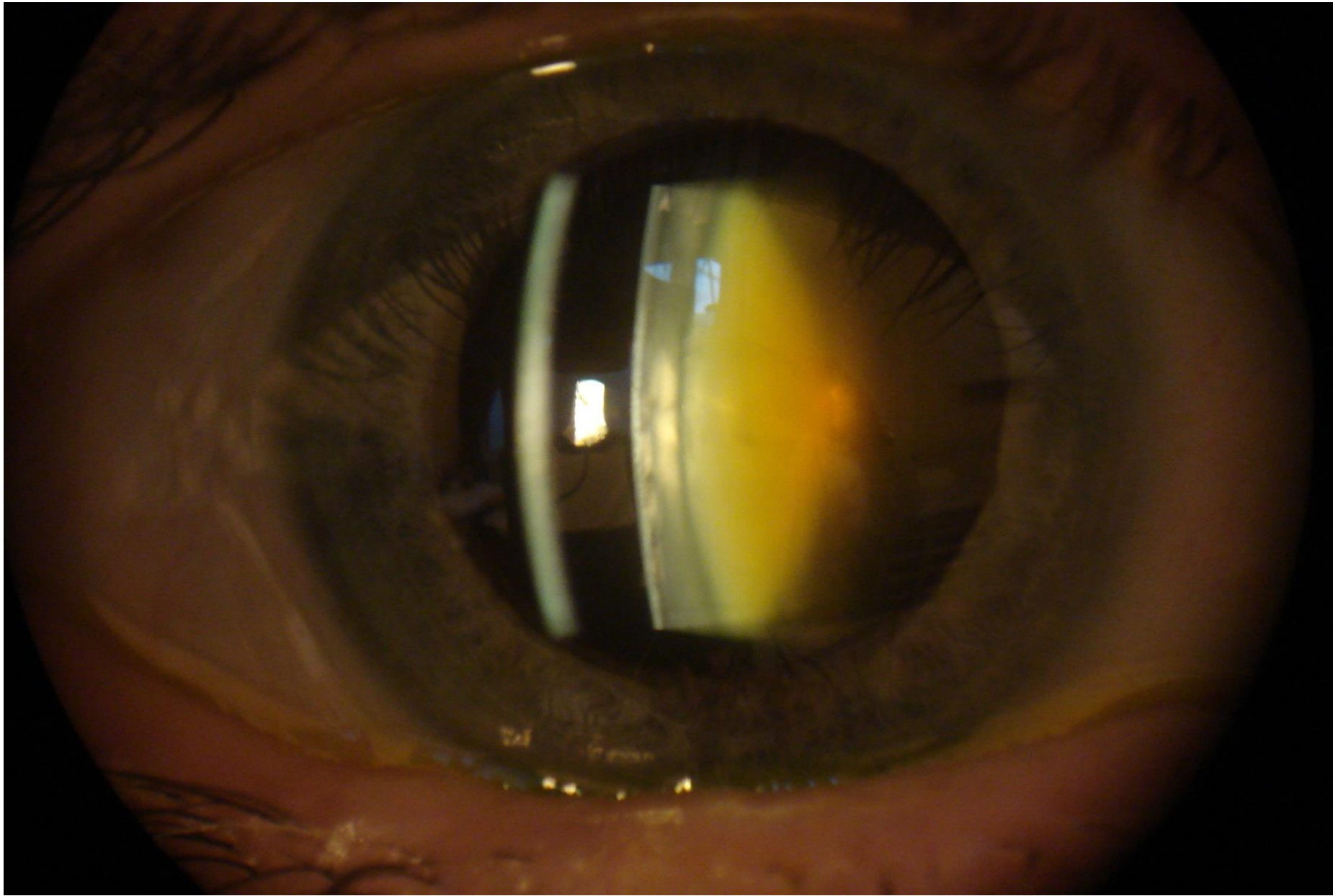


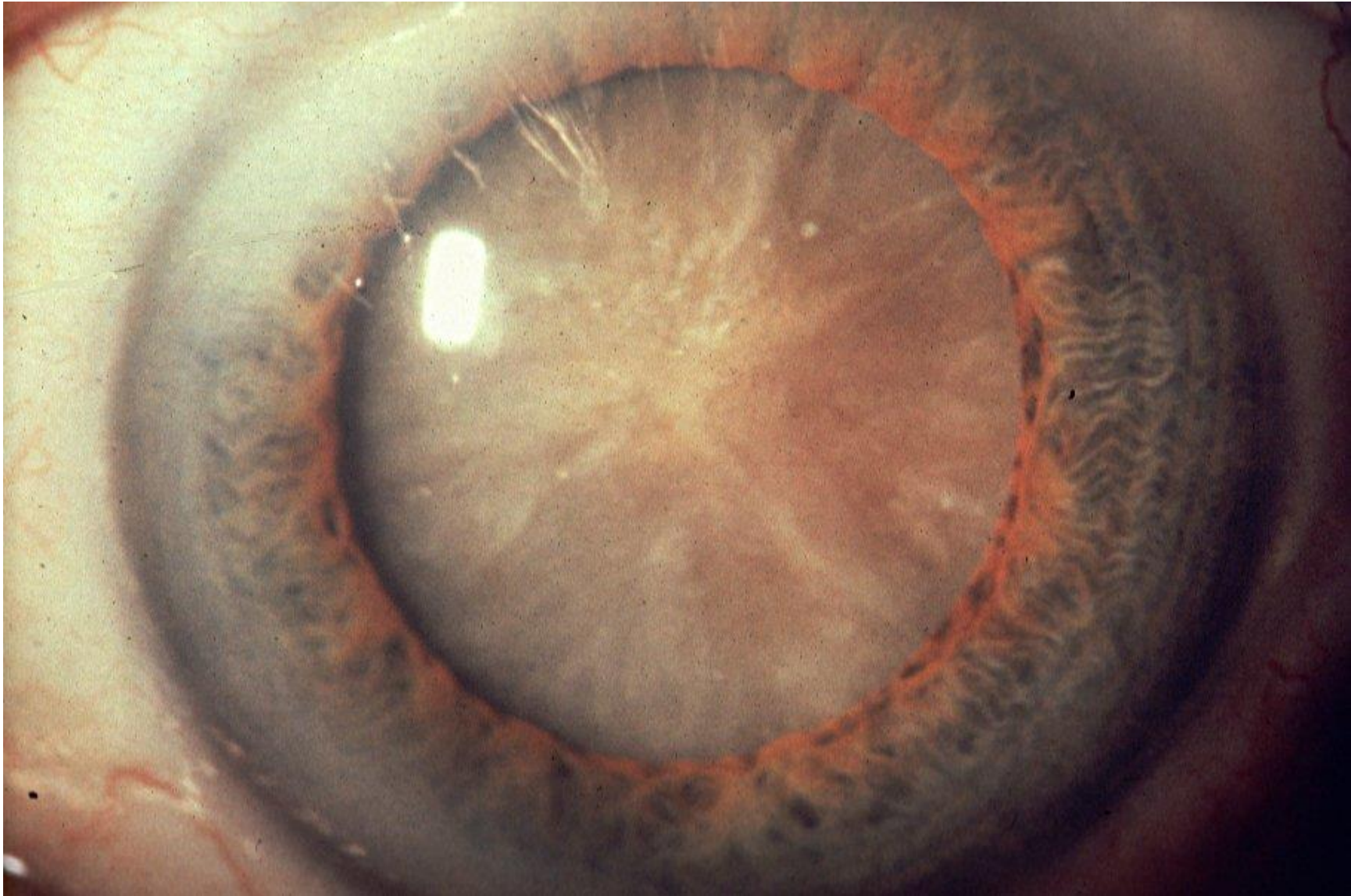
Normal lens



Lens affected by cataracts







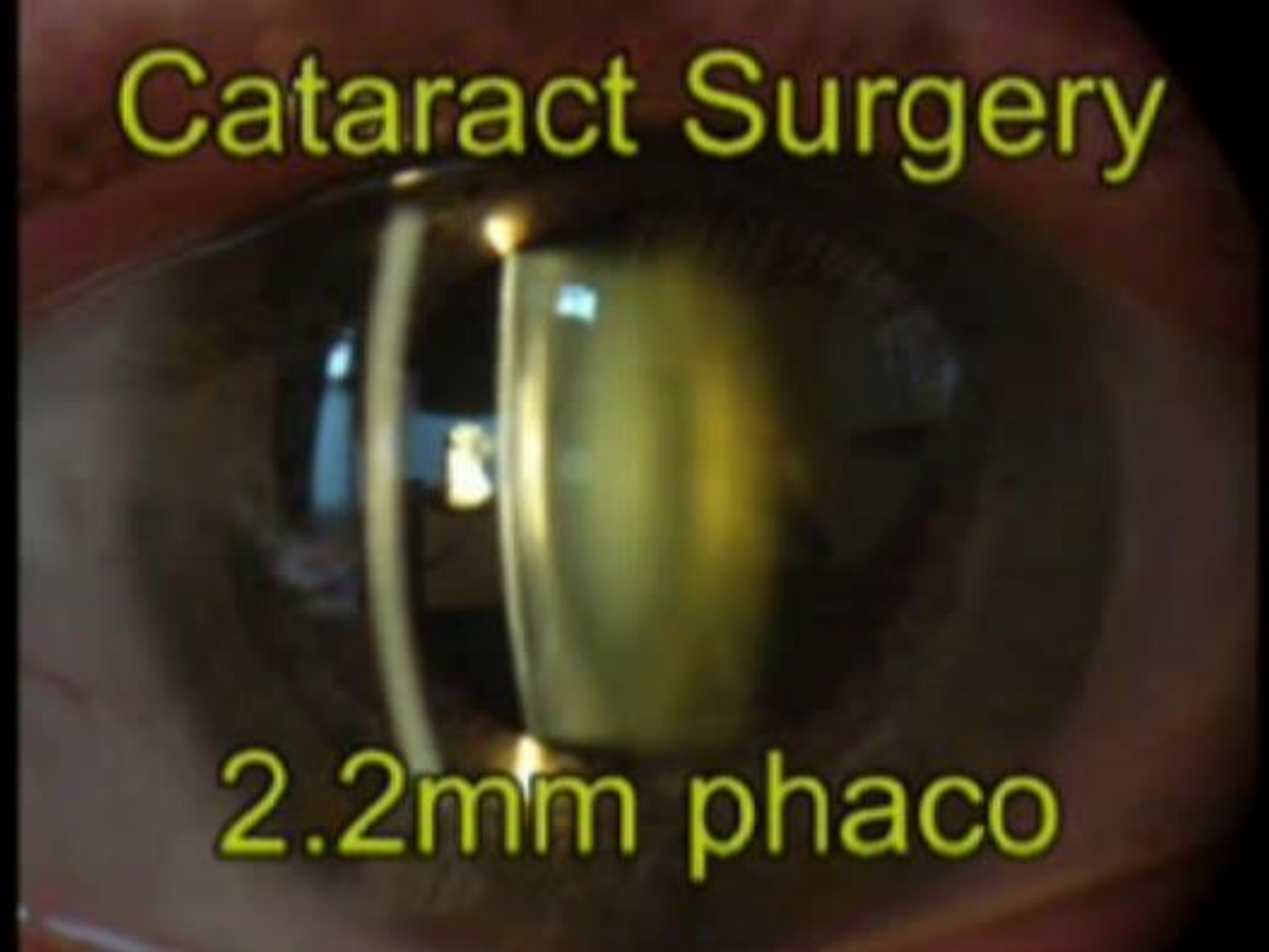
Symptoms

- Gradual onset over months/years
- Frequent changes of glasses prescription
- Blur
- Glare
- Loss of contrast sensitivity
- Loss of colour
- Ghosting/double vision

- Worldwide most common cause of blindness
- 350,000 cataract operations/year in NHS
- Most common surgical procedure in UK
- In Oxfordshire & Berkshire “Cataract surgery is only routinely commissioned for patients who, after correction (e.g. with glasses), have a visual acuity of 6/12 or worse in their cataract-affected eye”
- Recent NICE guideline [nice.org.uk/guidance/ng77](https://www.nice.org.uk/guidance/ng77) states (1.2.2) “Do not restrict access to cataract surgery on the basis of visual acuity”

Cataract Surgery

2.2mm phaco

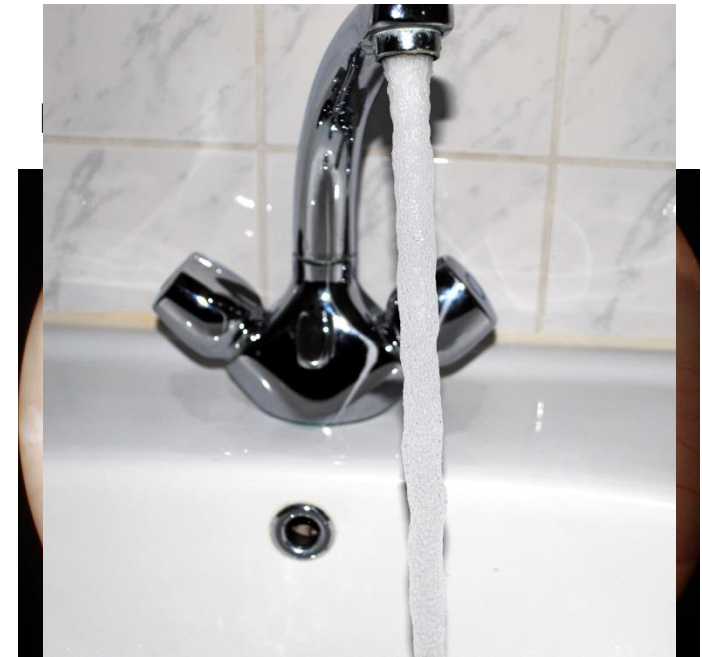
The image shows an intraoperative view of a cataract surgery. A 2.2mm phacoemulsification probe is visible, positioned within the eye. The probe is a long, thin, cylindrical instrument with a light-colored handle and a darker, tapered tip. The tip is inserted into the eye, and the surrounding tissue is visible. The background is dark, and the overall scene is illuminated by surgical lights, creating a focused and clinical atmosphere.

Looking after your eyes

- Diabetes
 - Diet/weight control to prevent onset
 - Close control of blood sugar once diabetic
 - Annual diabetic eye screening
- Glaucoma
 - Annual or biannual checks at optometrists from age 50, earlier (and free) if 1st degree relative
 - Take glaucoma treatment regularly
- AMD
 - Stop smoking
 - Good diet with anti-oxidants (vitamin supplements only proven in people with existing high-risk AMD)

Trauma

- Goggles with DIY, gardening, squash, badminton
- Caution +++ with alkali
- Irrigate +++ if any splashes





That's all, thank you
for listening!