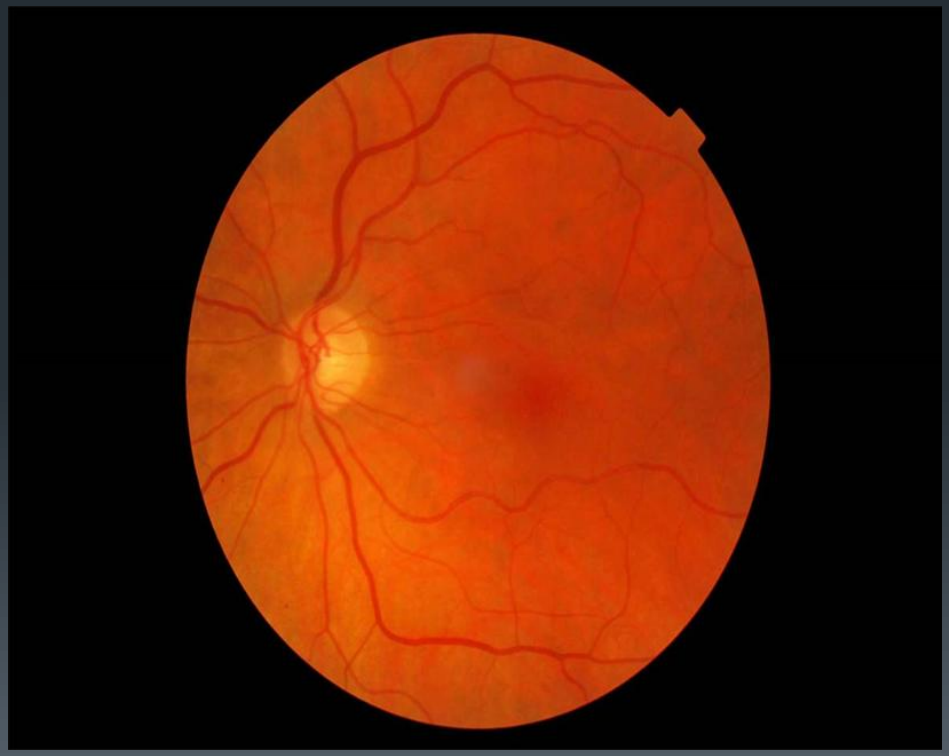
Diabetic Eye Screening Programme (DESP) Barnsley and Rotherham



Today’s aims

- Explain the diabetic eye screening pathway and why it matters
- Discuss how patients move through screening, grading, surveillance and referral to Ophthalmology services
- Explain monthly GP2DRS validation and common coding issues
- Discuss practical ways GP practices and DESP can work together to improve patient safety and uptake

What is Diabetic Eye Screening?

Diabetic eye screening screens patients to look for a condition called Diabetic Retinopathy (DR) which damages the retina.

Due to diabetes the increased level of glucose in the blood can cause the blood vessels on the retina to become damaged.

This can lead to sight loss and blindness.

DR is often asymptomatic in the early stages, when it is most treatable, which is why its so important for people with diabetes to attend screening.

The aim of the Diabetic Eye Screening Service is: ‘to reduce the risk of sight loss amongst people with diabetes in Barnsley and Rotherham by the early detection and treatment of retinopathy’

It is a key part of diabetes care.

The Beginning of Diabetic Eye Screening

- In 2003 it was announced in the delivery strategy of the National Service Framework for Diabetes that Diabetic Eye Screening had to be established for all Diabetic Patients.
- The UK was the first nation in the world to introduce a systematic national screening programme for Diabetic Retinopathy.
- By 2008 Retinal Screening Programmes covered the country.

Barnsley Programme

- Diabetic eye screening was first introduced in Barnsley in the mid 1990's
- The Barnsley service was one of only a handful of programmes in the UK which had been set up with the aim of preventing sight loss amongst people with Diabetes.
- Dr Bryant, who was an Ophthalmologist, established the service for Barnsley. Within her team she had 1 trained nurse and 2 health care assistants.
- At this time we used fundus photography but the images had to be sent away and slides produced.

Barnsley and Rotherham Programme

- When national Diabetic Eye Screening Services were set up Barnsley was already well established and in 2007 they also took on the Rotherham area to create the Barnsley and Rotherham Diabetic Eye Screening service we have today.
- At the end of 2007 the service had 19,843 patients.
- The service invested in more staff and more equipment. Taking it up to 8 screening staff, Dr Bryant, and 6 cameras.

Barnsley & Rotherham DESP at a glance today

- Over 42,000 patients on the programme register
- Up to 6 clinics running daily across 3 sites
- Over 600 screening appointments per week
- Around 350 new referrals received each month
- Team of 16 screening and administration staff

Who is invited?

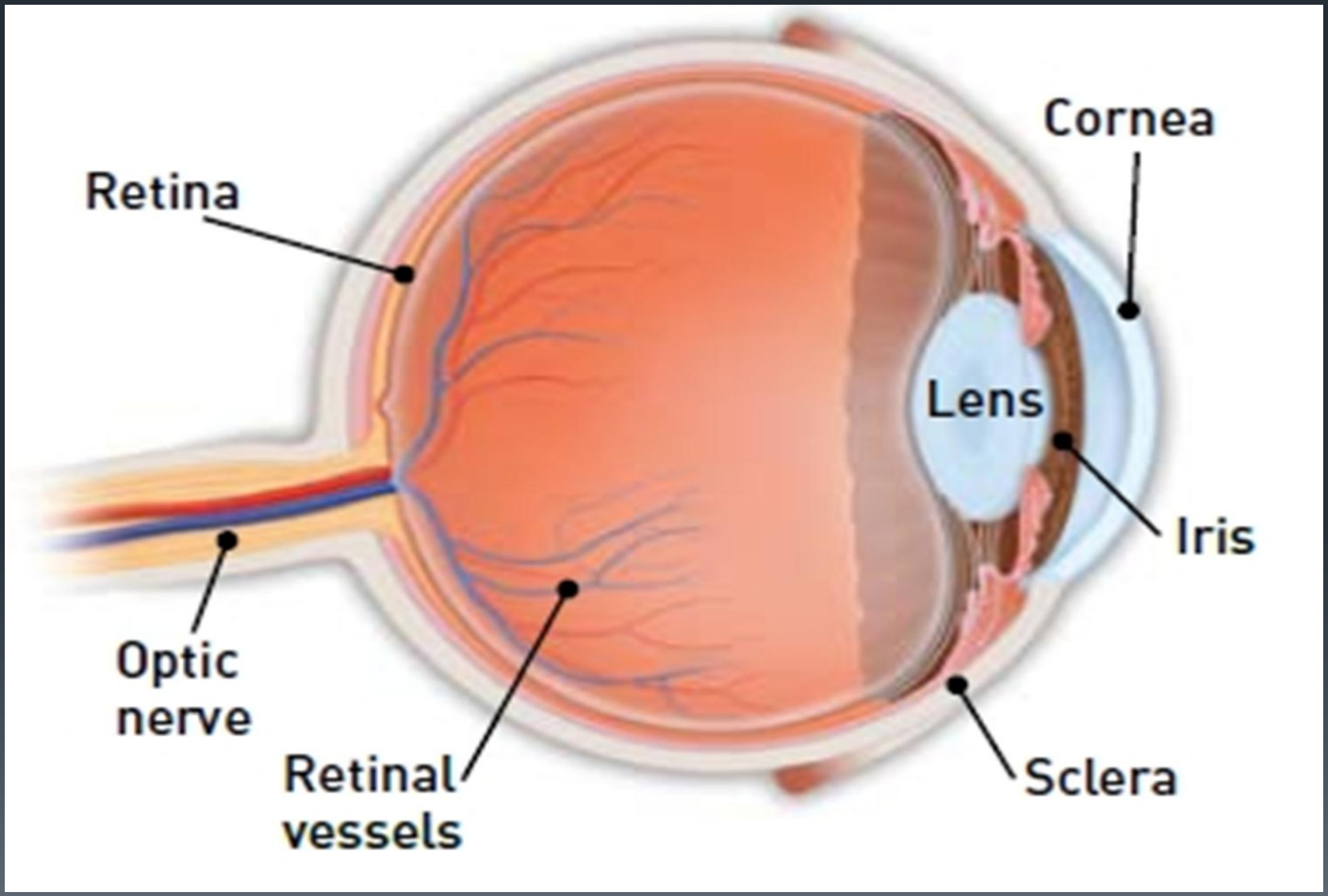
- People with type 1 or type 2 diabetes aged 12 and up
- Routine recall is every 1 or 2 years depending on previous screening results
- More frequent screening can be offered to patients on surveillance pathways
- Pregnant patients with pre-existing diabetes are offered additional screening during pregnancy
- Patients under ophthalmology for diabetic retinopathy are suspended and tracked separately through failsafe pathways

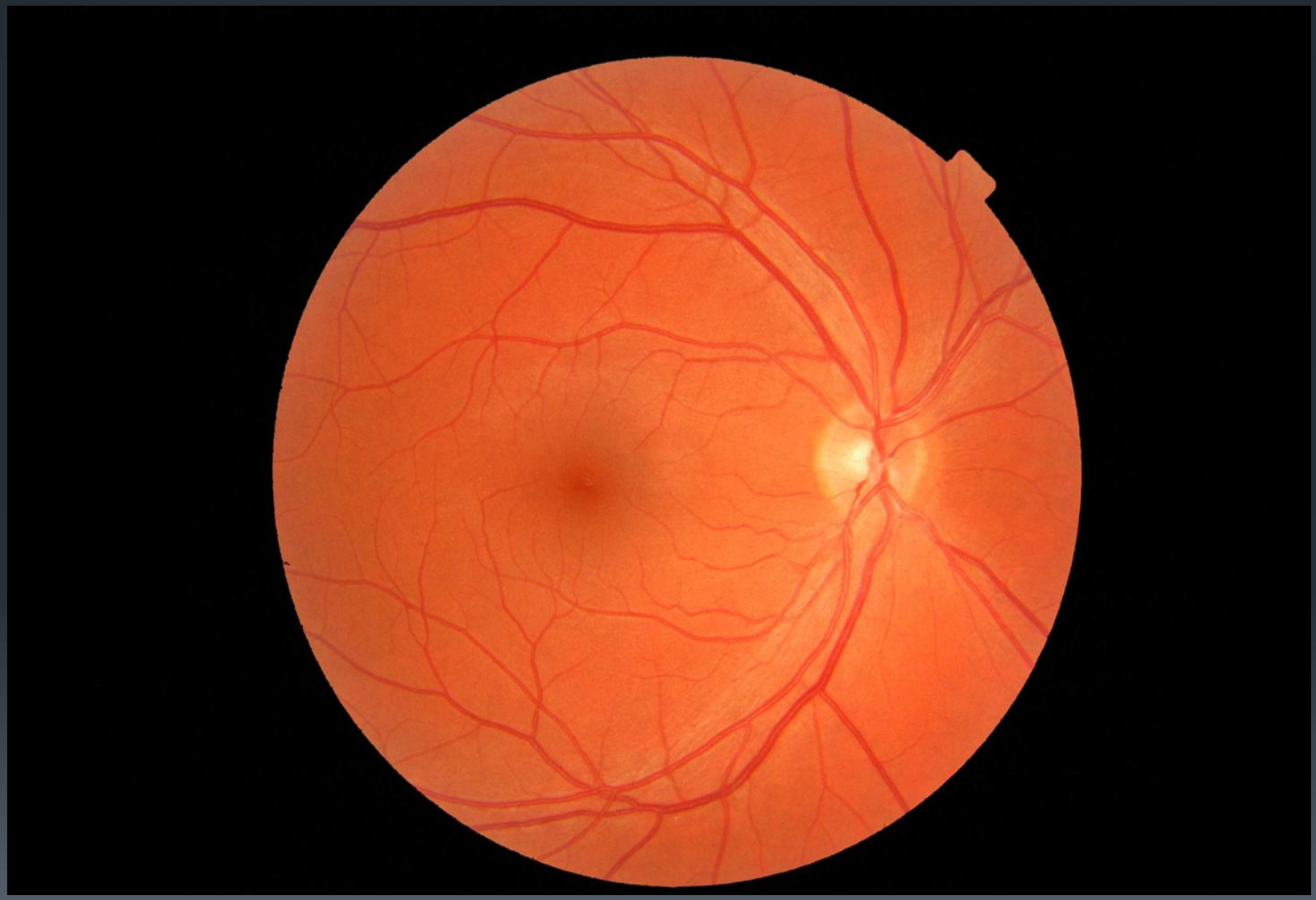
The Screening process

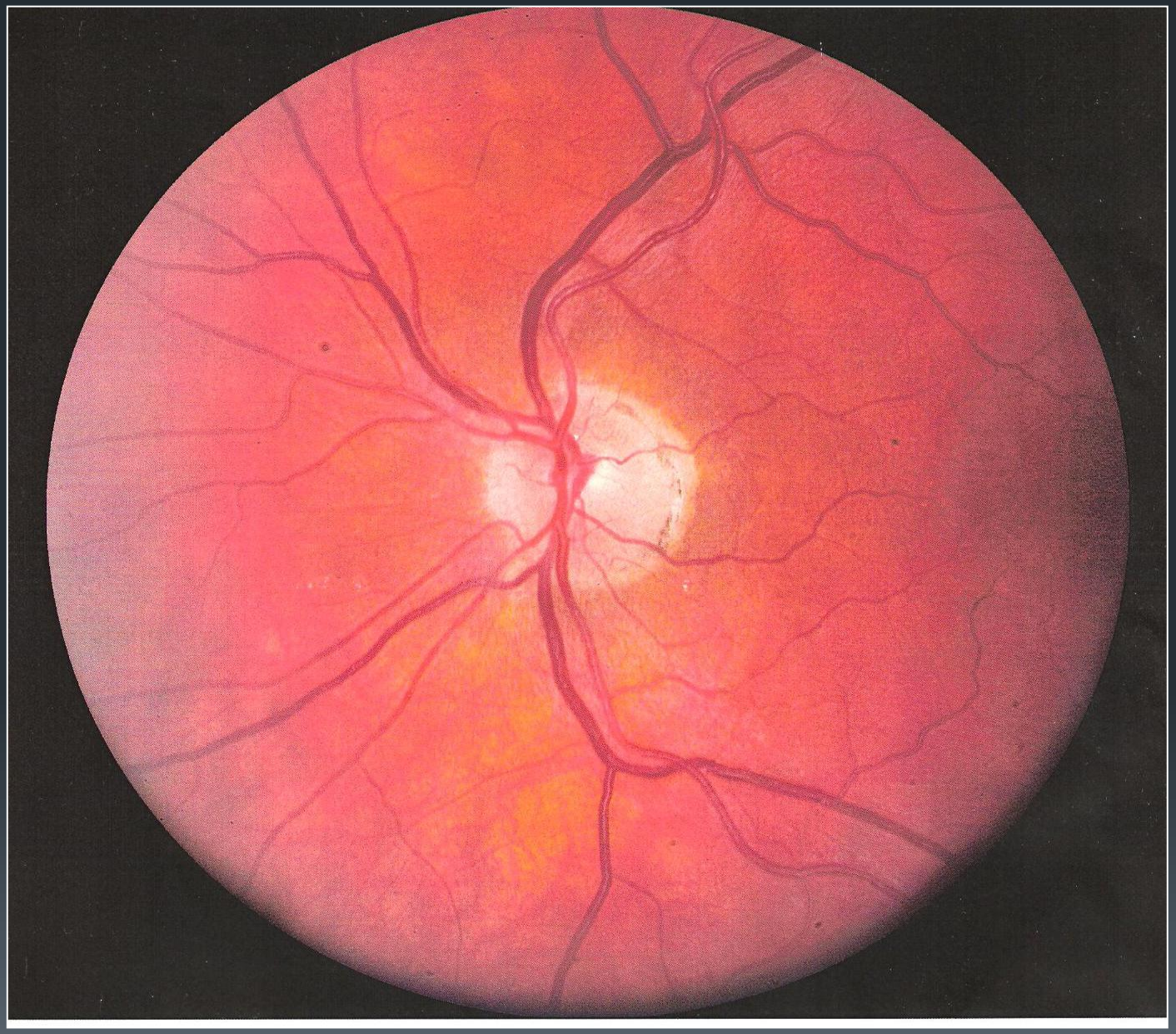
Routine Screening appointment

- When a patient attends for their screening appointment we take their visual acuity and eye drops are instilled to dilate the pupils. We dilate the pupils to ensure we have clear images so we can see all of the retina. These drops can last for up to 6 hours so we advise the patient not to drive.
- The eye drops take 15-20 minutes to work and then we take 2 digital fundus photographs of each eye. (Macular view and nasal view)
- When this is complete and the images are saved onto the system and the patient's appointment is complete.
- The appointment will take roughly 30 minutes.


TOPCON
TRC-NW6S
NHS


Retina
Cornea
Lens
Iris
Optic nerve
Retinal vessels
Sclera

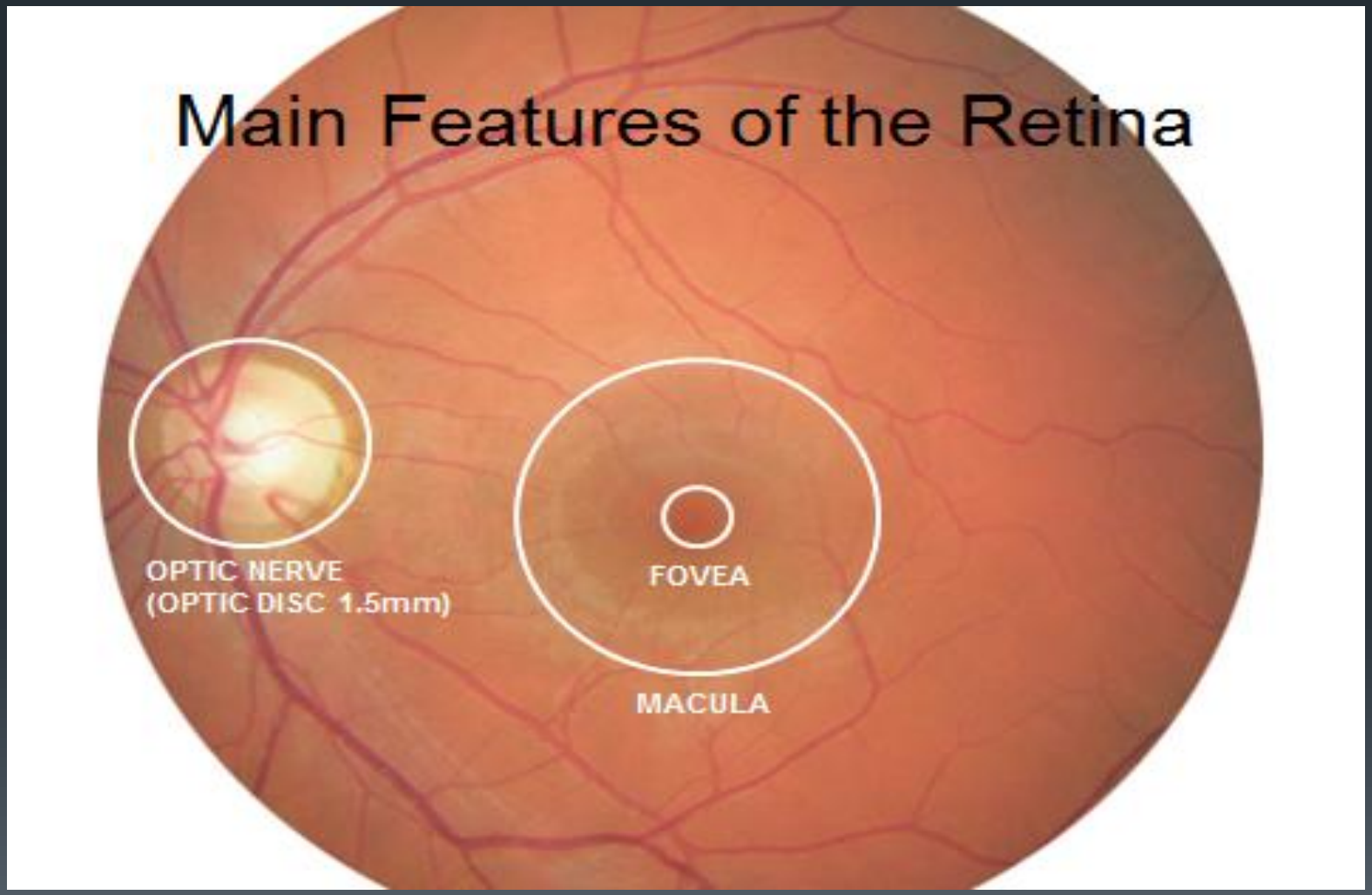




- When the images are taken these are then sent to the grading queue for a qualified screener grader to review them. They look for any diabetic retinopathy and give the images a retinopathy and maculopathy grade.
- The patient will receive a letter with their results on via post and their GP is also sent a results letter. This will be within 4 weeks of the appointment.

Grading Images

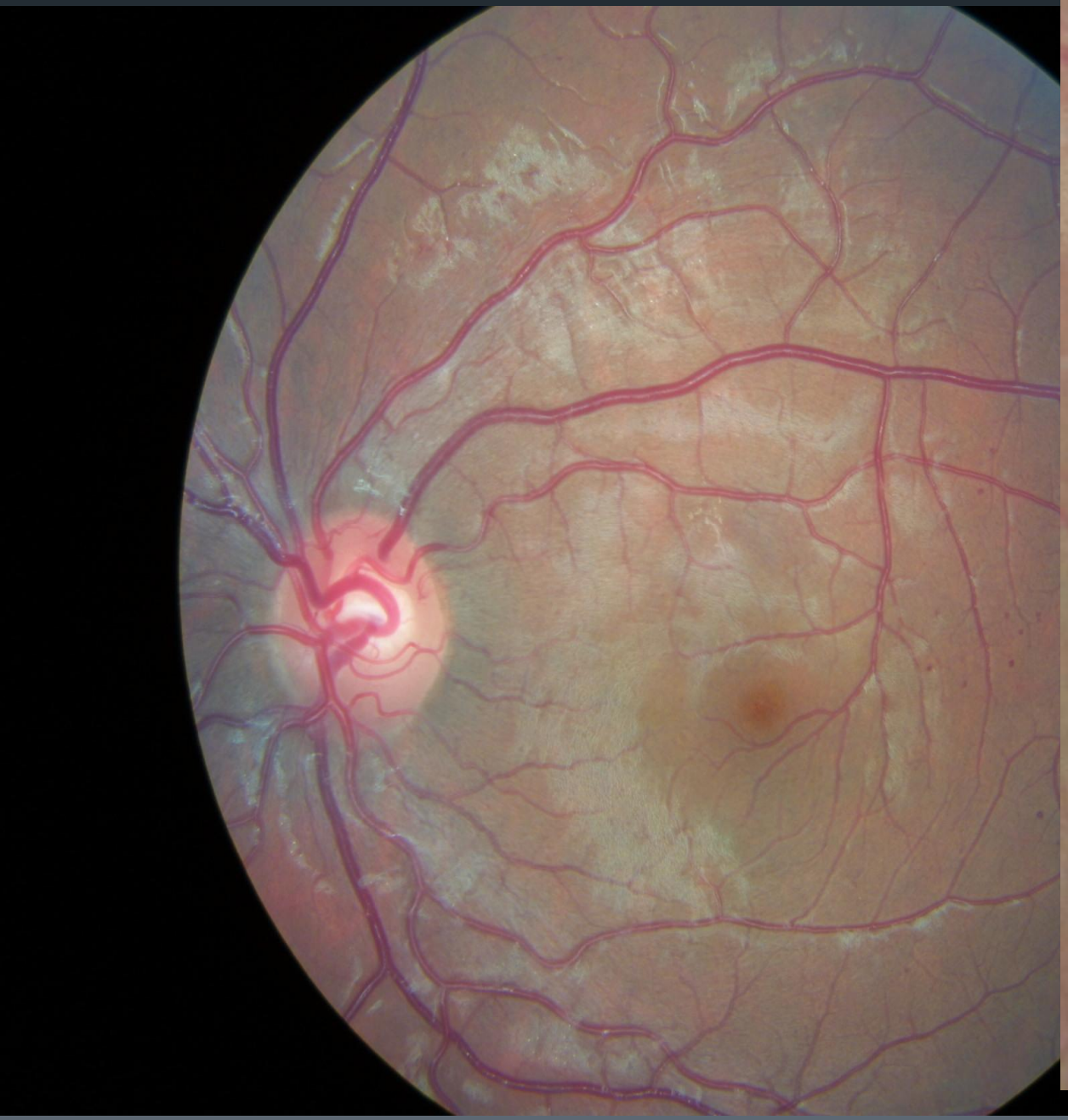
- When we are grading images we are looking for any signs of damage to the retina.
- A delicate network of blood vessels supplies the retina with blood. When those blood vessels become blocked, leaky or grow haphazardly, the retina becomes damaged and is unable to work properly.
- There are 3 levels of retinopathy – background (R1), pre-proliferative Low and High (R2L and R2H) and proliferative retinopathy (R3)
- If any significant retinopathy is at the macular, this is maculopathy (M1).
- Each image has a retinopathy and maculopathy grade. RxMx

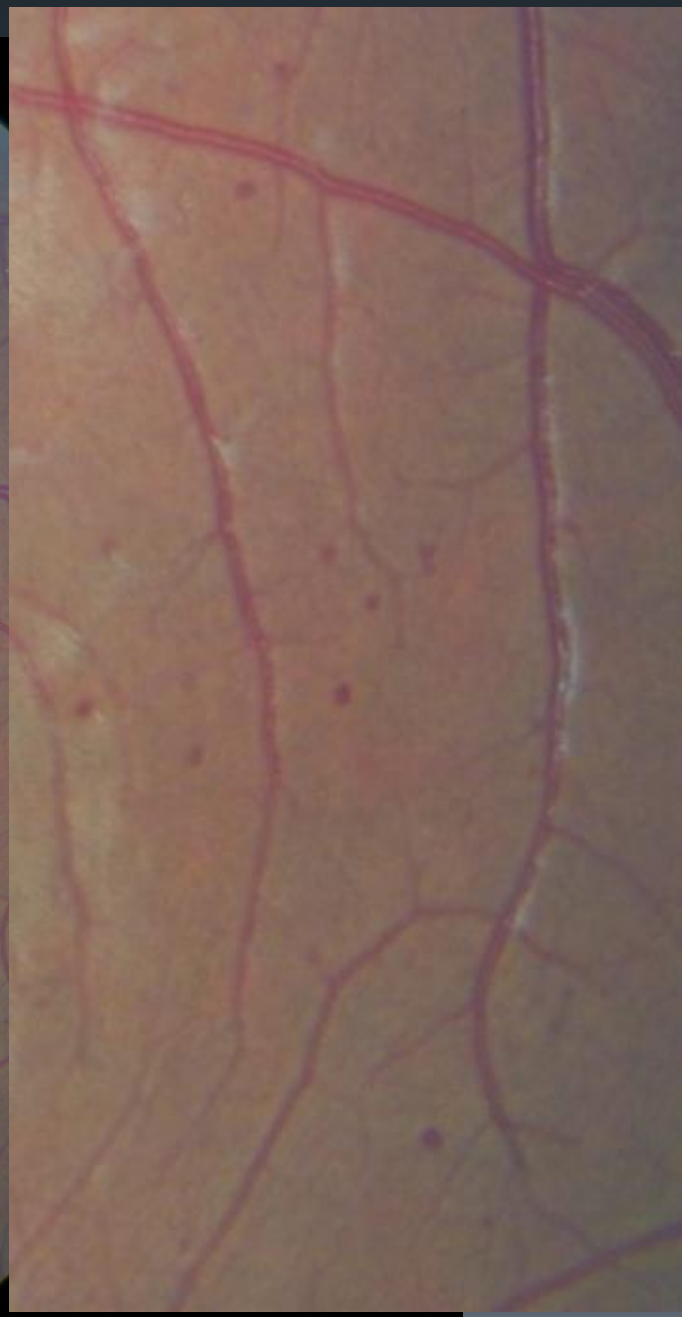

Main Features of the Retina
OPTIC NERVE
(OPTIC DISC 1.5mm)
FOVEA
MACULA

- When grading we have national pathways to follow.
- We carry out feature based grading. Different features are identified with different levels of retinopathy.
- Each grader has a diploma in Diabetic Eye Screening and has to undertake a monthly grading test and achieve a set level to continue grading.

Background Retinopathy (R1)

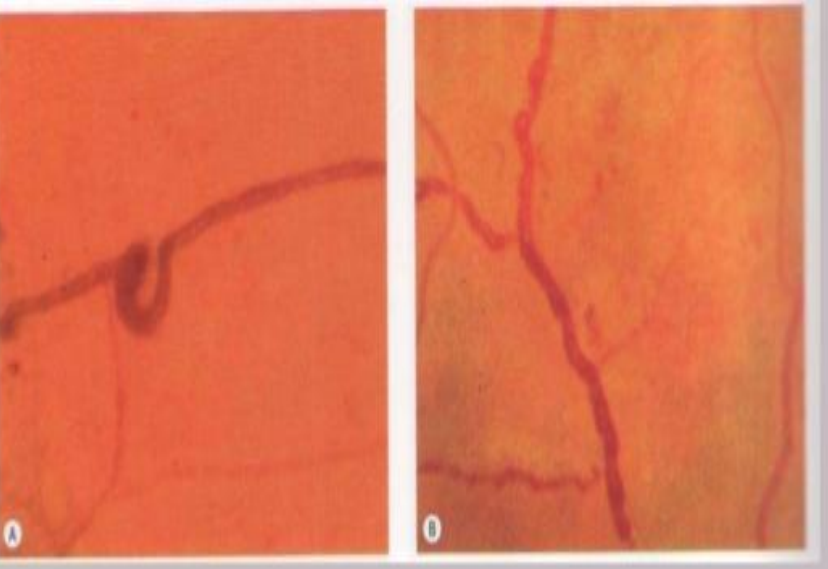
- The earliest visible change to the retina is known as background retinopathy. This will not affect the eyesight but it needs to be carefully monitored. The small blood vessels in the retina become blocked, they may bulge slightly and may leak blood (haemorrhages) or fluid. This does not require treatment.





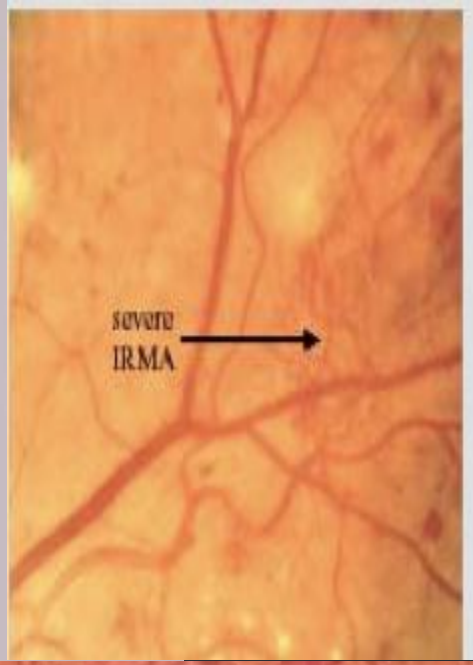
Pre-proliferative Retinopathy (R2L/R2H)

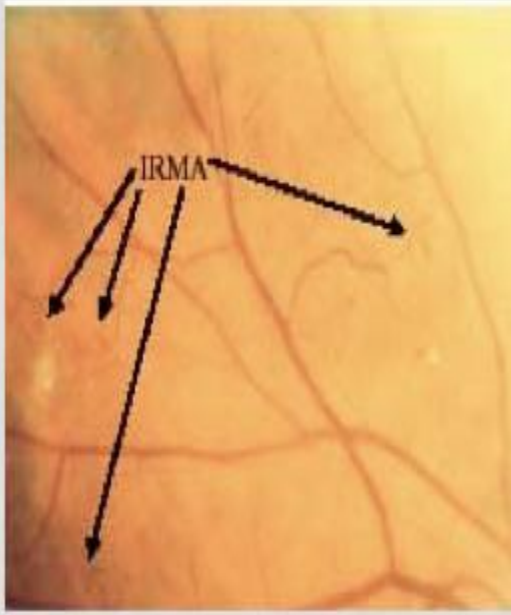
- Pre-proliferative retinopathy is the term given for further changes in the retina as it becomes starved of oxygen and nutrition due to the blood vessels constricting.
- The features of pre-proliferative retinopathy are: multiple blot haemorrahages, venous loops, venous beading and Intraretinal Microvascular Abnormality (IRMA)
- These patients may be referred into the Eye Department or kept within Diabetic Eye Screening within the surveillance or OCT pathway and will be seen at more regular intervals. This is the decision of the high level graders within the service, including the Ophthalmic Clinical lead or Lead Nurse.

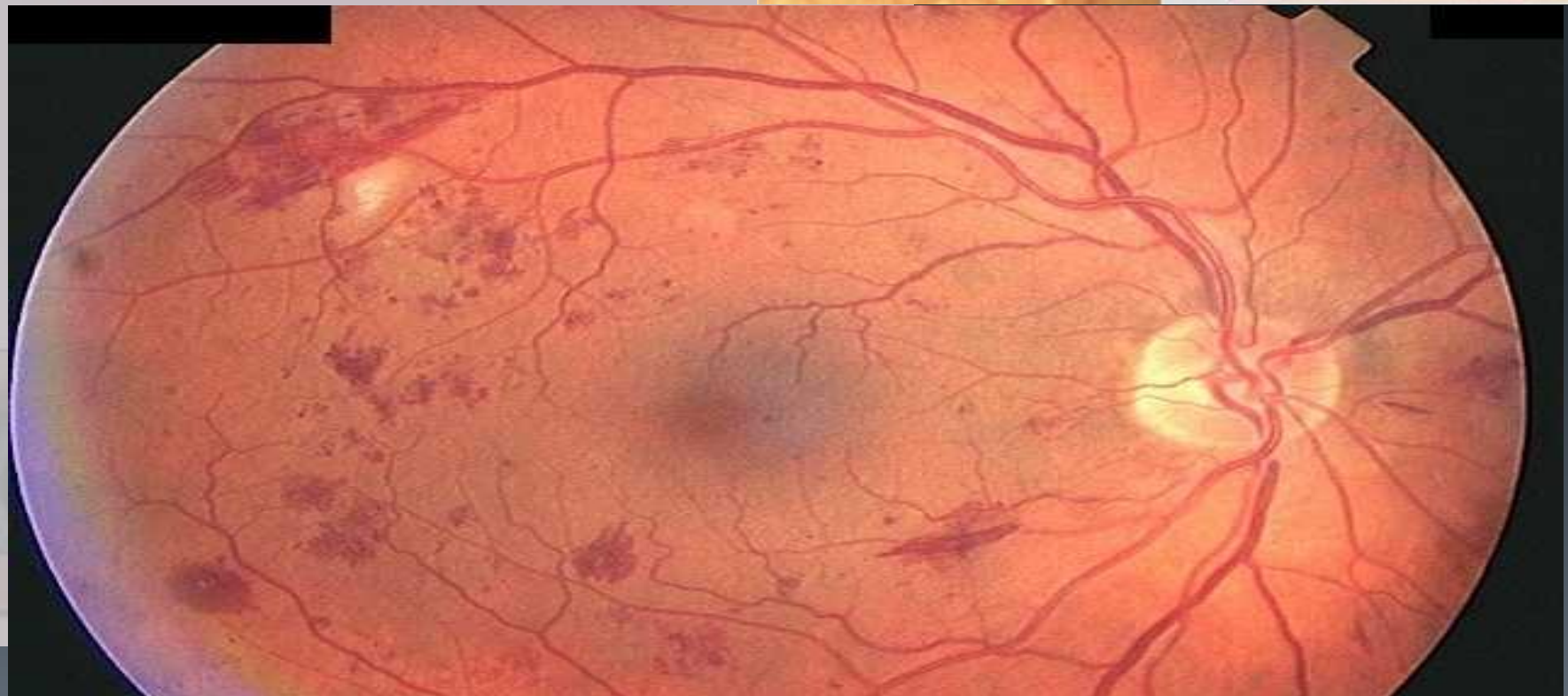


Venous Loop

Venous Beading

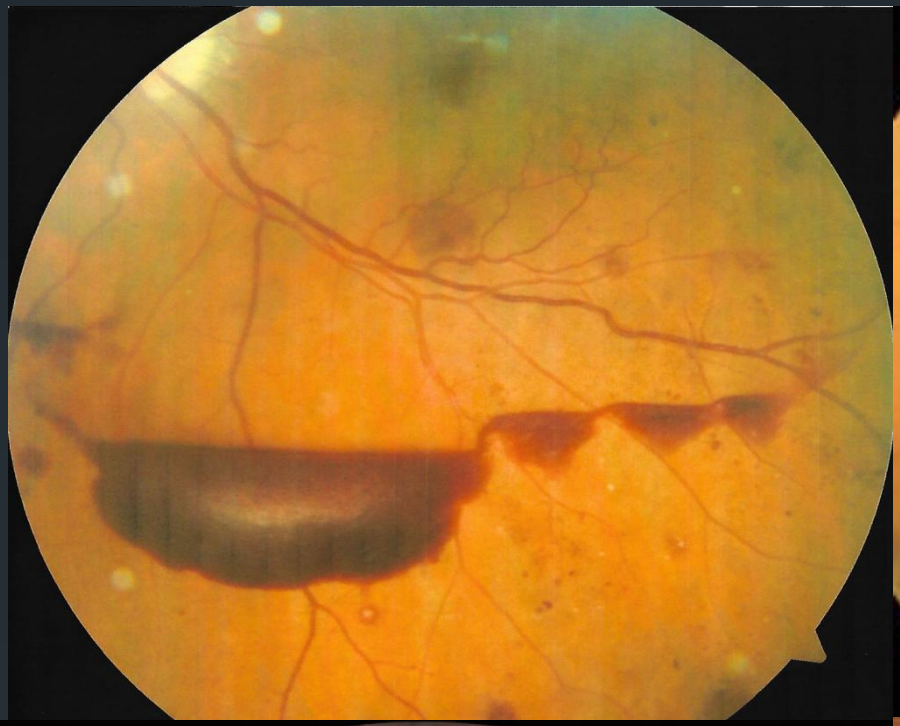
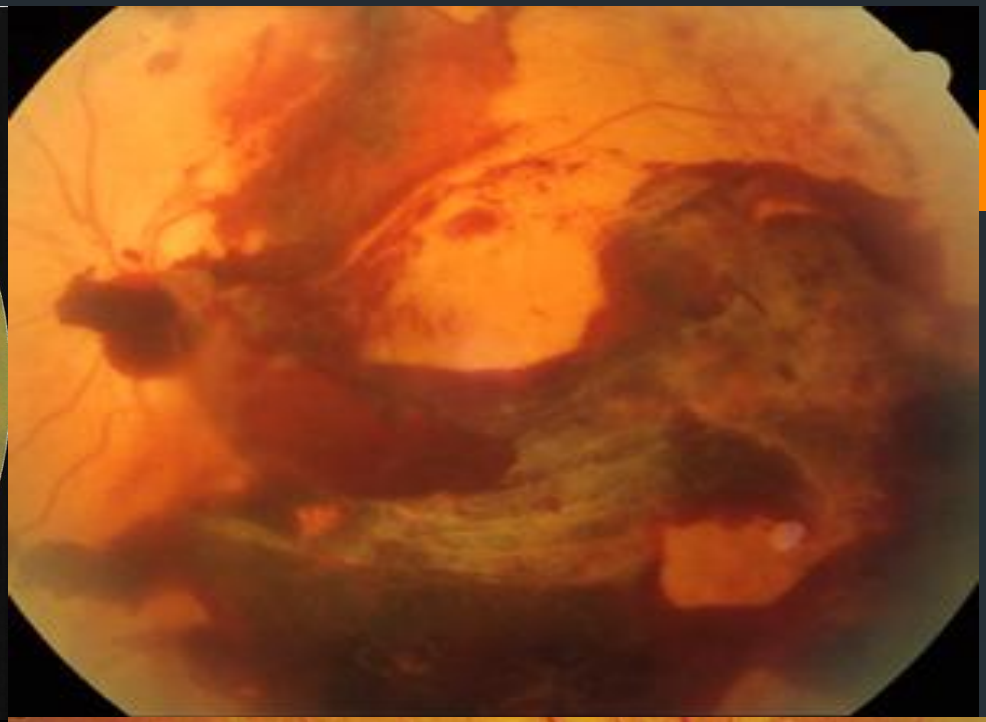
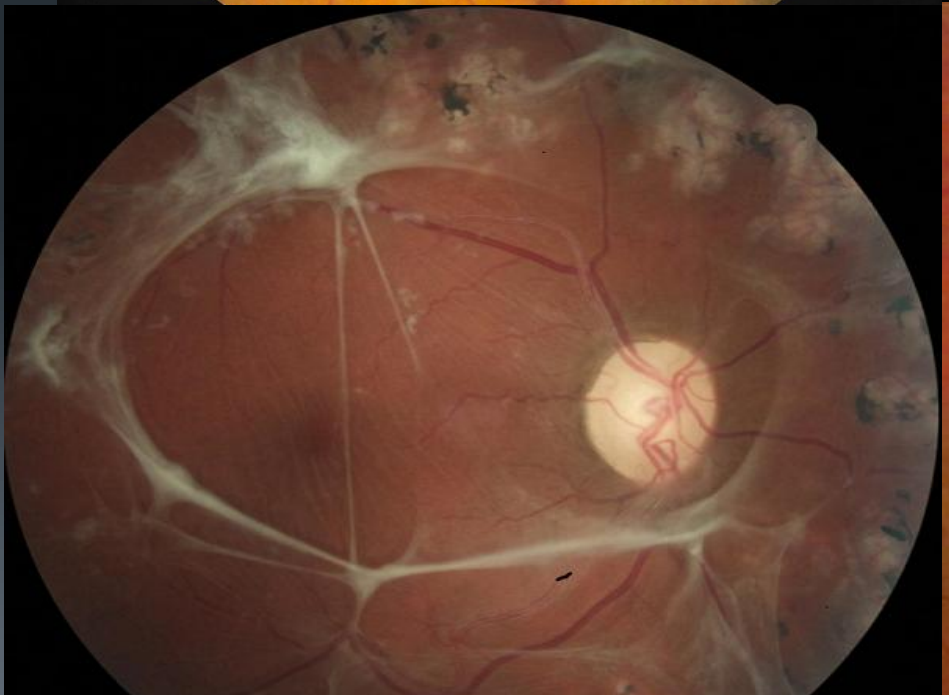
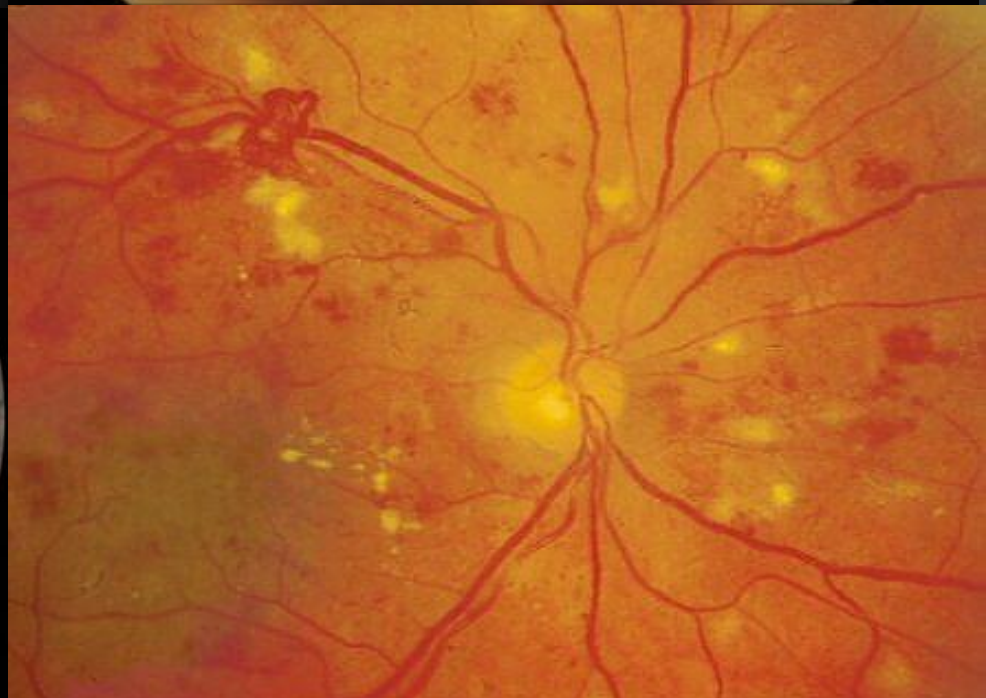


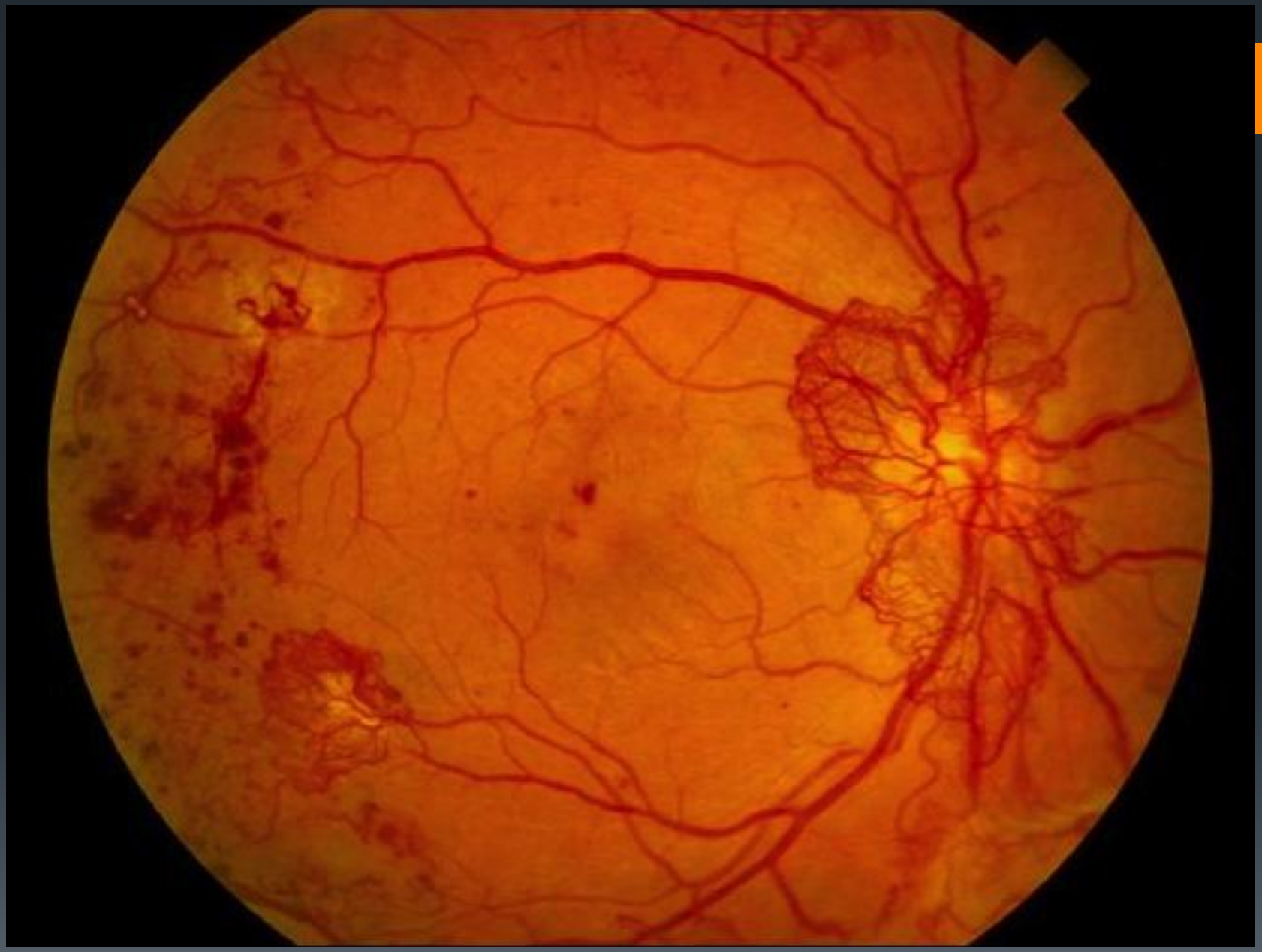




Proliferative Retinopathy (R3)

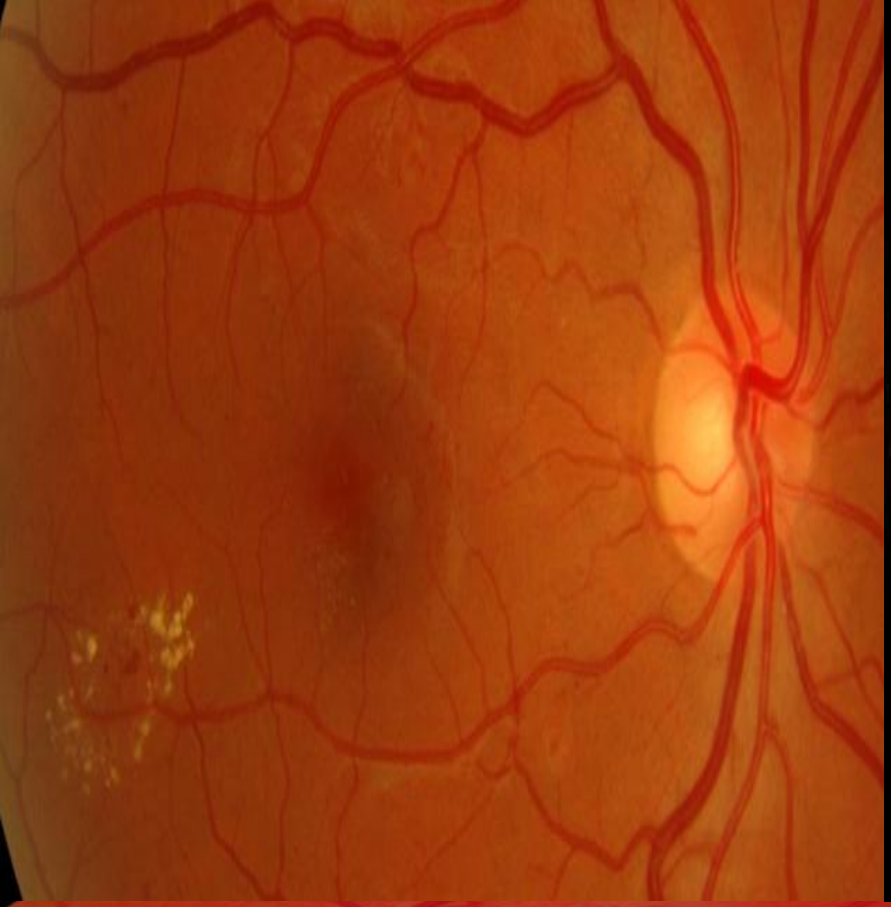
- Proliferative retinopathy develops when large areas of the retina are deprived of it's usual blood supply because of blocked and damaged blood vessels. This stimulates the growth of new blood vessels to replace the blocked ones. These growing blood vessels are very delicate and bleed easily. The bleeding can cause scar tissue that starts to shrink and pull on the retina, leading to it becoming detached and possibly causing vision loss or blindness.
- The features of proliferative retinopathy are: new vessels, fibrosis, pre retinal haemorrhage and vitreous haemorrhage.

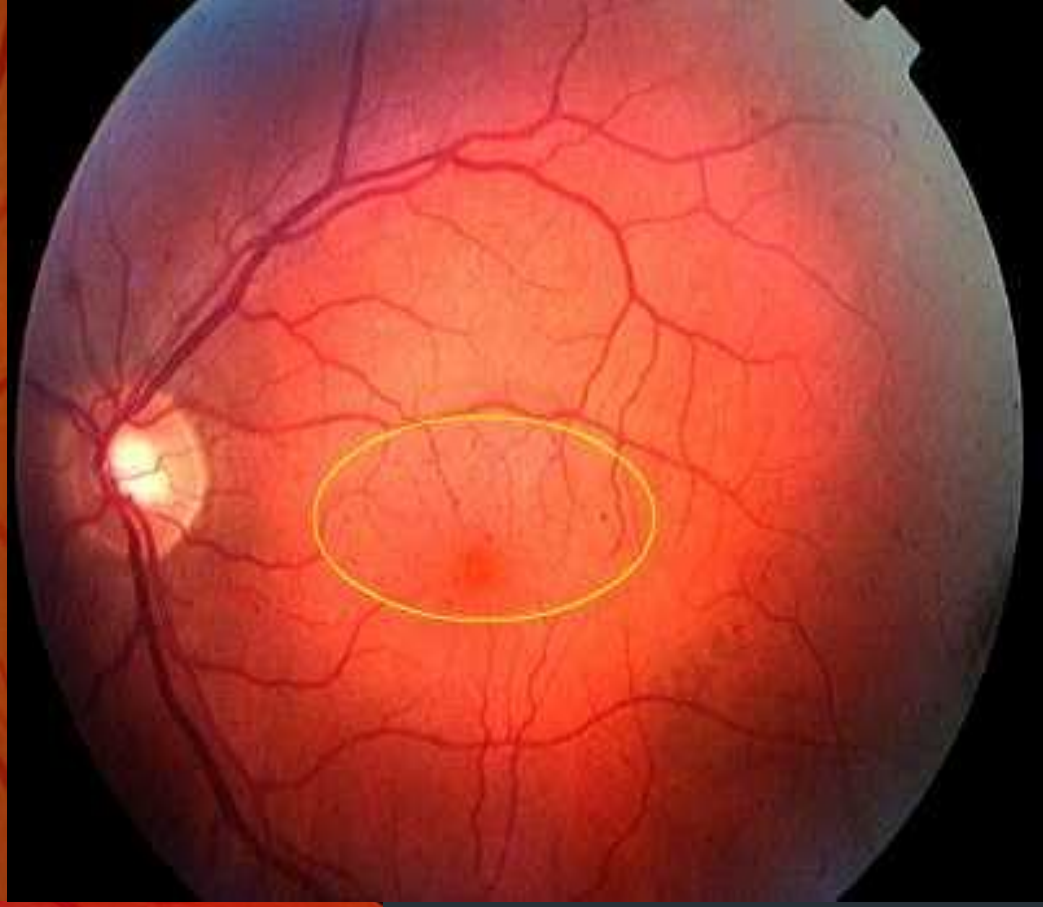





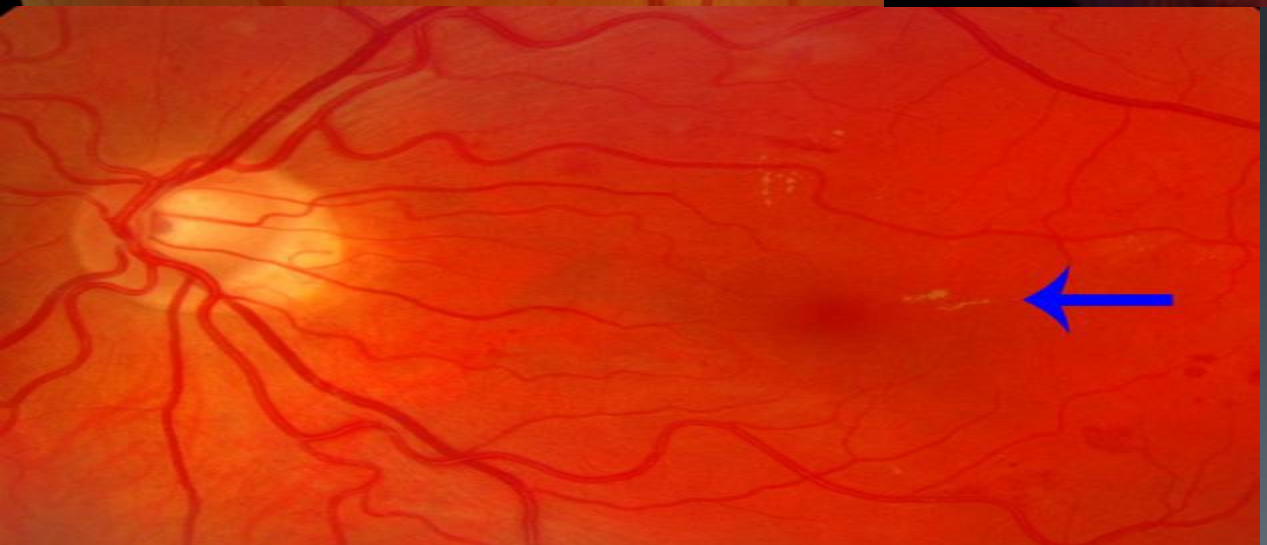


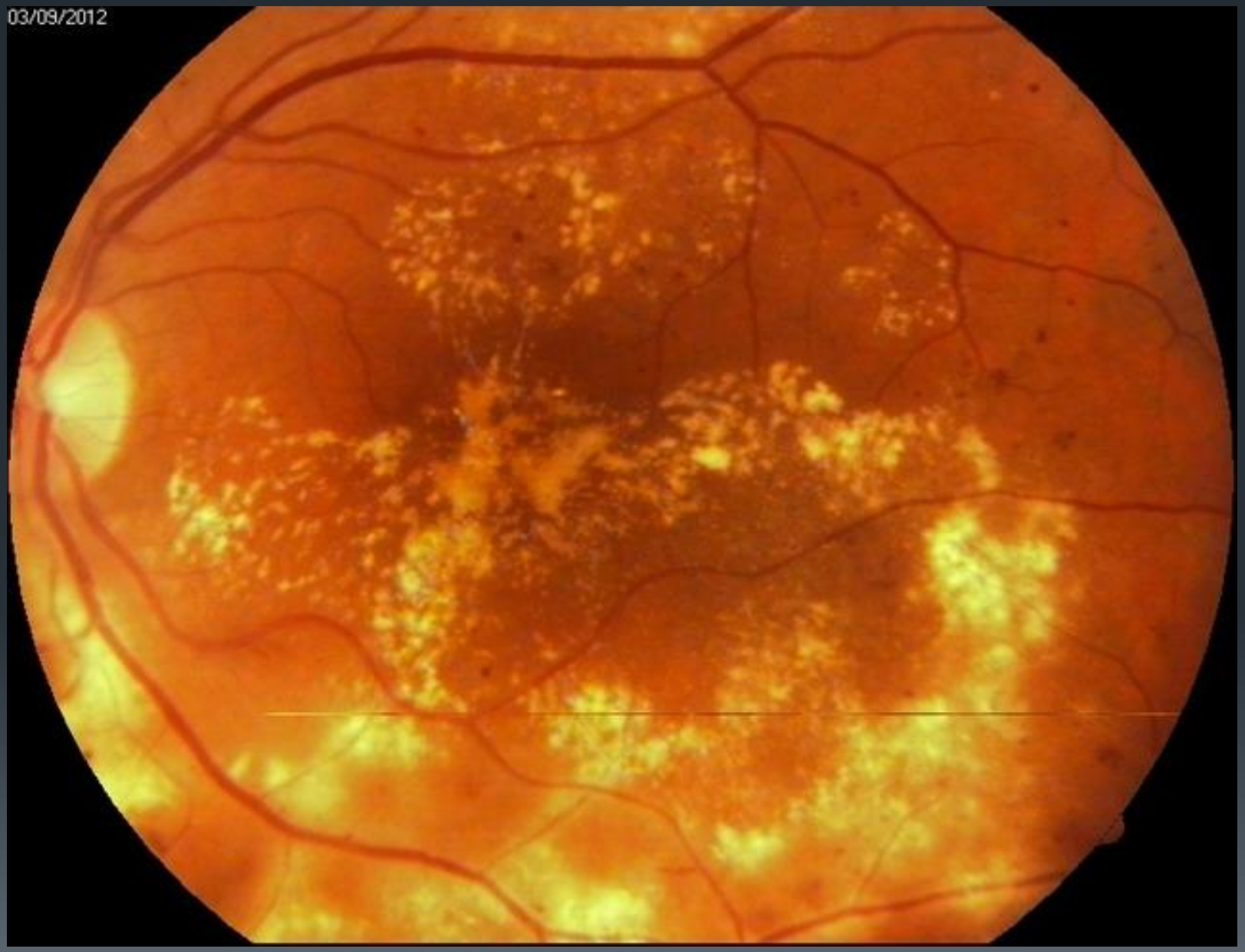
Maculopathy (M0/M1)

- Maculopathy is when background retinopathy is at or around the macula. The macula is the most used area of the retina. It provides our central vision and is essential for clear, detailed vision. If fluid leaks from the enlarged blood vessels it can build up and cause swelling. This can lead to some loss of vision, particularly for reading and seeing fine details.
- Features of Maculopathy are: exudate within 1 disc diameter of the centre of the fovea, a group of exudates bigger than half a disc diameter and a micro aneurysm 1 disc diameter of the centre of the fovea with a vision of 6/12 or worse.
- In the future we will also be using OCT to determine if patients with these grades need referral to Ophthalmology





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Treatment

- When a patient is referred to the Eye department for a further review and opinion if treatment is required, there are 2 different types of treatments available:-

  Laser and Intravitreal injections.
- Laser treatment - There are 2 types of laser treatment:-
  - Pan-Retinal Photocoagulation - This is used to treat proliferative retinopathy.
  - Focal laser treatment, often in combination with grid laser treatment, this is for treatment of maculopathy.
- Intravitreal injections – This is used in the treatment of maculopathy.

Failsafe in DESP

A series of back-up mechanisms, SOPs & audits to identify if something has gone wrong at any point in the screening pathway - across all pathways

Ensures patients are identified, invited, screened, graded, informed and referred appropriately

Includes tracking onward referrals to ophthalmology services and monitoring outcomes and follow ups

Supports shared patient safety across DESP, ophthalmology and primary care

Cohort Validation - GP2DRS

- GP2DRS is the primary method of data sharing between Primary Care and DESP, used nationally by all DESPs
- All our GP surgeries are signed up and this automatically shares a list of their diabetic patients every month
- Occurs on the 4th of every month, but the data is not shared with DESP until the 20th at the earliest.
- DESP import the GP list into DES software and then match and validate it vs the list maintained on the DESP software – This forms what is known as the single collated list (SCL)

Cohort Validation - GP2DRS

- The validation process is automated as much as possible, but any changes have to be reviewed and verified by a member of the team manually.
- DESP software does not directly link into any other systems for data sharing – such as NCRS – like many other EPR systems do.
- Therefore GP2DRS is the main data source for DES obtaining up to date patient demographic information

GP2DRS – New patients

- Patients on the GP list but not on the DES list
- Most likely a new diagnosis or new to practice
- Incorrect or miscoding can be common – Therefore these patients are usually queried with primary care before inviting for screening to rule this out

GP2DRS – New patients

- GP2DRS is intended to be the primary source for DES identifying and inviting diabetic patients from the coding alone
- Locally – we do things slightly different. Whilst GP2DRS is sometimes used in this way, we try to use it as a failsafe for any patients not referred manually at the point of diagnosis and request that referral forms are still completed and sent via email promptly.
- Two reasons why:
  - Avoids unnecessary delay
  - Increased data sharing with DESP – GP2DRS provides just enough details to invite the patient.

GP2DRS – Missing patients

- Patients on the DESP list but not on the electronic GP list
- Most likely – missing coding or coding errors
- But also informs DESP when:
  - Patients transferred out of area
  - Deceased patients
  - Not diabetic - previously referred to screening incorrectly
- These will be flagged and discussed with primary care on an individual basis when required

How can GP practices help?

- Ensure patients are coded appropriately at diagnosis
- Local DES referral form completed and sent promptly to screening - Including any relevant patient information that could be useful to the success of their screening
- Work with DES to review and amend potential coding issues when it is appropriate to do so -
  - We are not clinicians, so it is not appropriate, or our intention, to say how a patient record should be coded. But in failsafe it is our role to highlight likely discrepancies for the appropriate clinicians to decide.
  - Ultimately it is the responsibility of primary care to ensure the correct coding is present on a patients record – even if the error was not on their part.
- Reach out with any questions – We are always happy to assist

Failsafe Exclusions – Medically Unfit

- Some patients are unsuitable for screening due to being deemed ‘medically unfit’.
- This includes patients who are mentally or physically unable to withstand the screening process outlined earlier. E.g Able to maintain body position, or mental concentration to stay still and look into our retinal equipment
- When DESP Identify a medically unfit patient, we write to their GP for confirmation/sign off, which is then added to the screening software. This is requirement from NHSE.
- Newly diagnosed or new to practice patients who might be medically unfit should still be referred to DES

Guidance: 6.2 – Medically Unfit

Diabetic eye screening: cohort management - GOV.UK

Failsafe – Opt Out

- Opt Out – Patients should be referred to DESP and opt out directly with the service so this can be documented correctly
  - Can opt out for up to 3 years at a time
  - Can opt back in at any time
  - Must be an informed decision
  - Opt Out guidance: Diabetic eye screening: cohort management - GOV.UK

Failsafe - Ophthalmology Patients

- All DESP patients who are referred onto Ophthalmology for DR are tracked by DESP throughout the pathway
- This is to ensure continuity of care by Ophthalmology services - to ensure appointments and any treatments needed are given in a timely manner depending on the severity of the condition.
- When required, DES failsafe escalate patients who are not offered an initial appointment in HES within agreed timescales, as well as DES patients in HES if not followed up at least every 12 months.
- At present, Barnsley and Rotherham DESP have approximately 3500 patients managed under ophthalmology services.

Recent DESP Changes & Initiatives

- 2 year recalls – Consecutive R0M0
- Optical Coherence Tomography (OCT) Pathway
- R2L/R2H Split
- Health on the High Street (Alhambra Outpatients)
- Digital Letters/Patient Portal
- SMS Reminders
- HCL & GLP-1 Agonists

OCT

- Introduction of new imaging in DESP
- Phased in from October 25
- OCT images allow us to more accurately identify features of DR, and particularly maculopathy
- Previously these patients would need to be referred to HES to have OCT images, now this can be done safely remaining in DESP
- Only patients at the threshold of requiring treatment are referred to the eye department. Providing a better patient experience and freeing up capacity in HES

Digital Letters

GP Letters

- Plan to use ICE to deliver directly into primary care EPR systems inbox
- Reduces delays and unreliability of post

Patient Letters

- Using existing trust patient portal – NOT NHS App
- Text sent to patient with instructions to log on to portal and view letters.
- If not viewed in 24 hours hard copy sent in post

Alhambra Outpatients

- Our New Home from November 2025
- First to move in Phase 1 alongside BHNFT Ophthalmology, & Orthoptics services
- Phase 2 – March 26 - Dermatology, Rheumatology, Orthotics Services joined
- Modern, comfortable, purpose built clinical space

HCL & GLP-1 Agonists

- We receive frequent requests for screening results or to screen patients wishing to commence on either treatment
- Results – We are happy to share results as soon as possible. Contact the service if required, although screening results are always shared so may already be on patients record.
  - If a patient is awaiting grading - we will try to expedite this on request, but we cannot guarantee this will always be possible
- Screening – If a patient is due or overdue screening (no matter how overdue) we are happy to book them an appointment at the earliest possible chance. But please bear in mind this can regularly be around 6+ weeks
  - Please provide us as much notice as possible to get the patient in if they require an up to date screening result
- We cannot bring a patients screening forward if they are not due. Even If requested by a clinician due to starting on the above treatments.
  - There is one exception, for HCL patients. If they are already on a 2 year recall this can be downgraded to 1 year recall.
- Further guidance on Early Worsening Phenomenon and diabetic eye screening is available here: Diabetic eye screening: cohort management - GOV.UK

Uptake

- Overall DES in Barnsley and Rotherham is poorly attended. Uptake is well below national average and targets set by NHSE
- We are keen to trial new initiatives to improve this, including:
  - Out of hours clinics – Evenings/Weekends
  - Targeted invitations to persistent DNA patients
  - Text Reminders
  - Social Media/Local Media Articles etc

Uptake – What else?

- Keen to involve primary care more to help engage patients to attend screening. Ideas including
  - Sharing practice level date for uptake and persistent DNA's (3+ years)
  - Making every contact count – Encouraging conversation about screening and its importance when attending appointments in primary care
  - Targeted comms from primary care as well as DESP
    - Letter/Text templates encouraging non attenders or high risk groups such as 20-40 year olds
  - Outreach Clinics at primary care locations
  - Any further ideas? We would love to hear them!

Communications Materials

- Various comms materials have been developed by National Team – Happy to share for anyone willing to display in your public areas
- Including: Posters, Web Banners, Digital Screens (waiting areas), Screening in pregnancy posters
- Communications Toolkit - Vaccinations and Screening - Futures

Contact Details

- Appointments line Tel: 01226 434576
- Lead Nurse office Tel: 01226 434578
- DESP email: barnsandrothdess@nhs.net
- Failsafe GP2DRS queries email james.bottomley@nhs.net

IMAGE QUIZ

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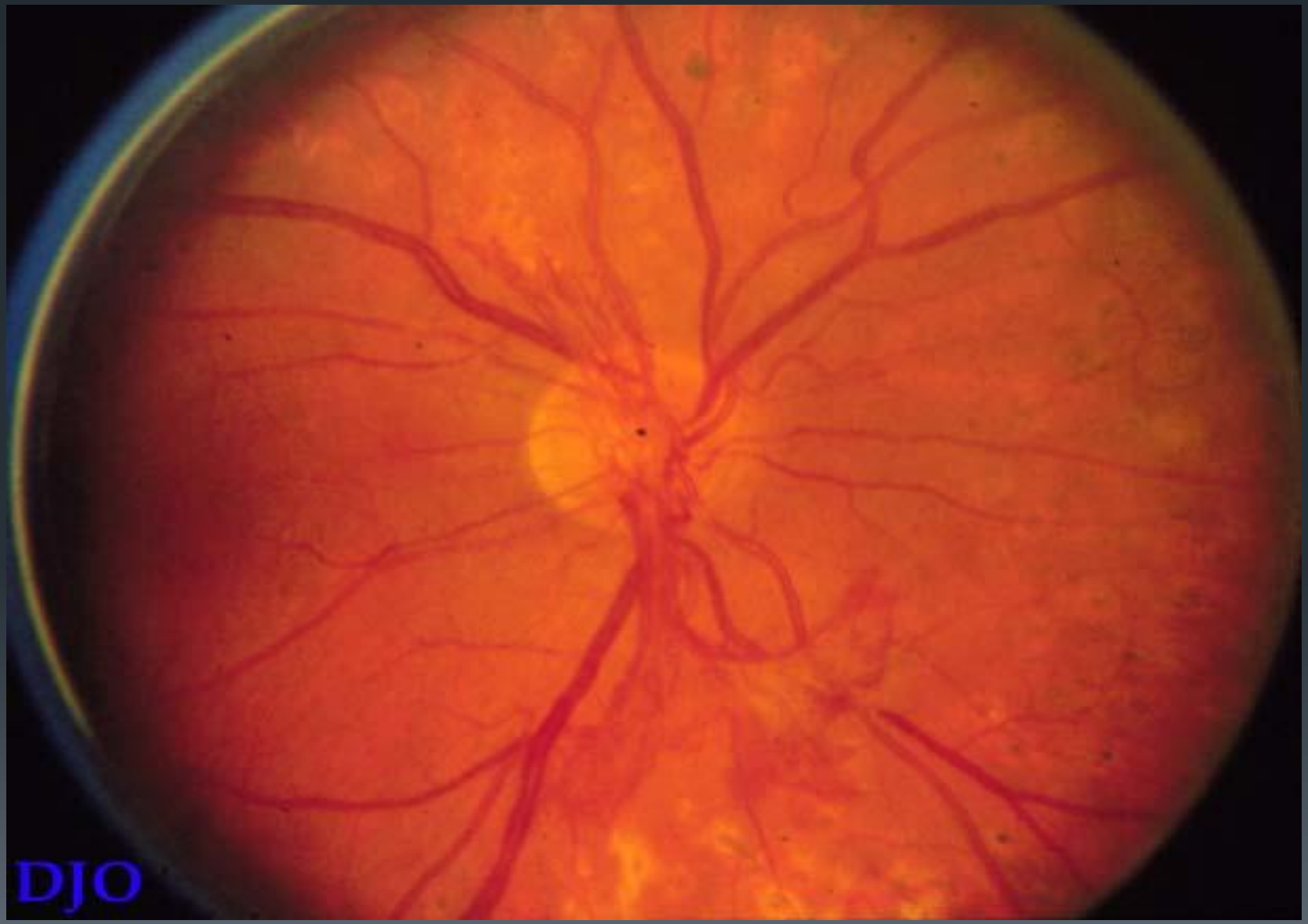

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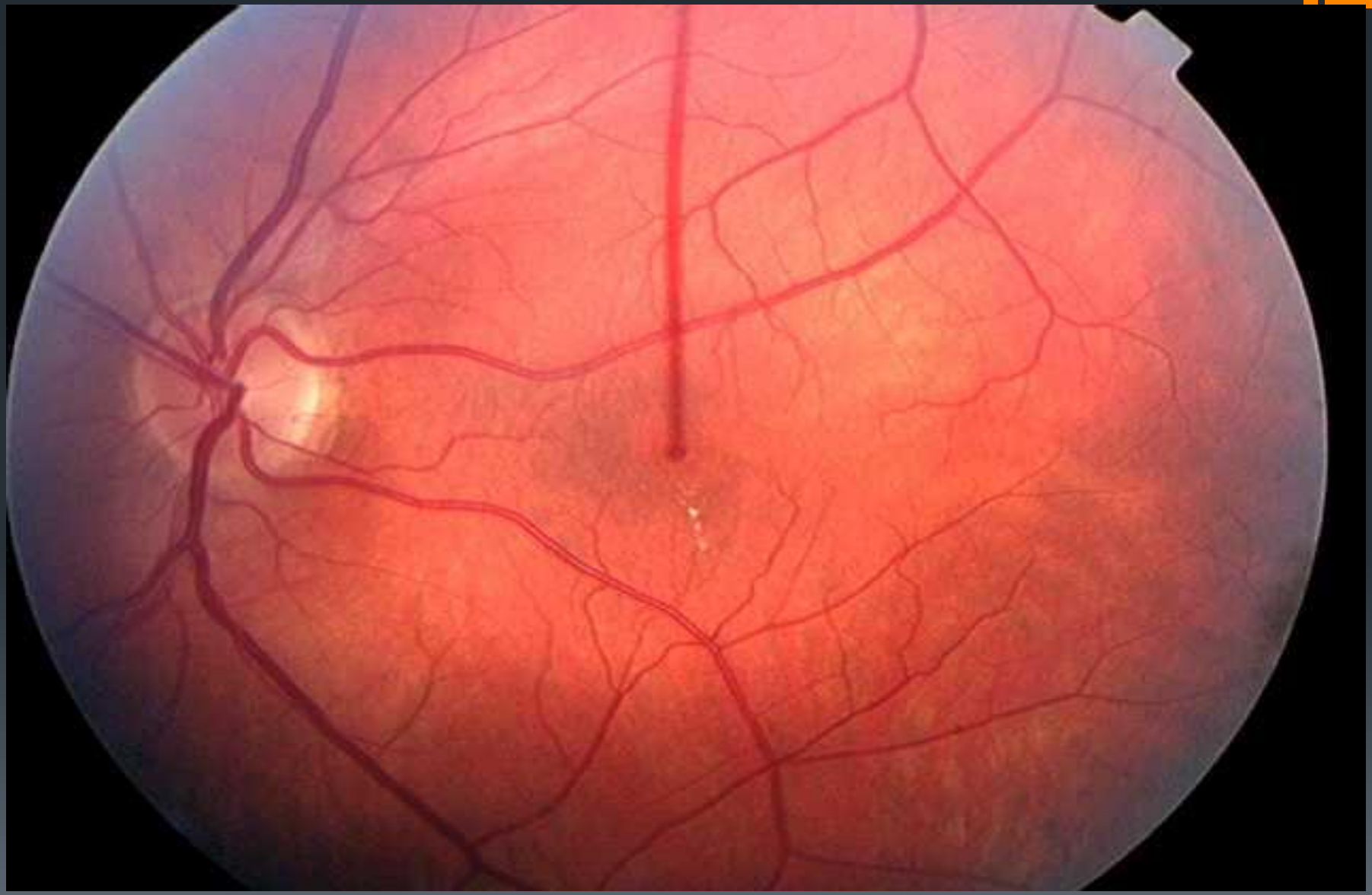

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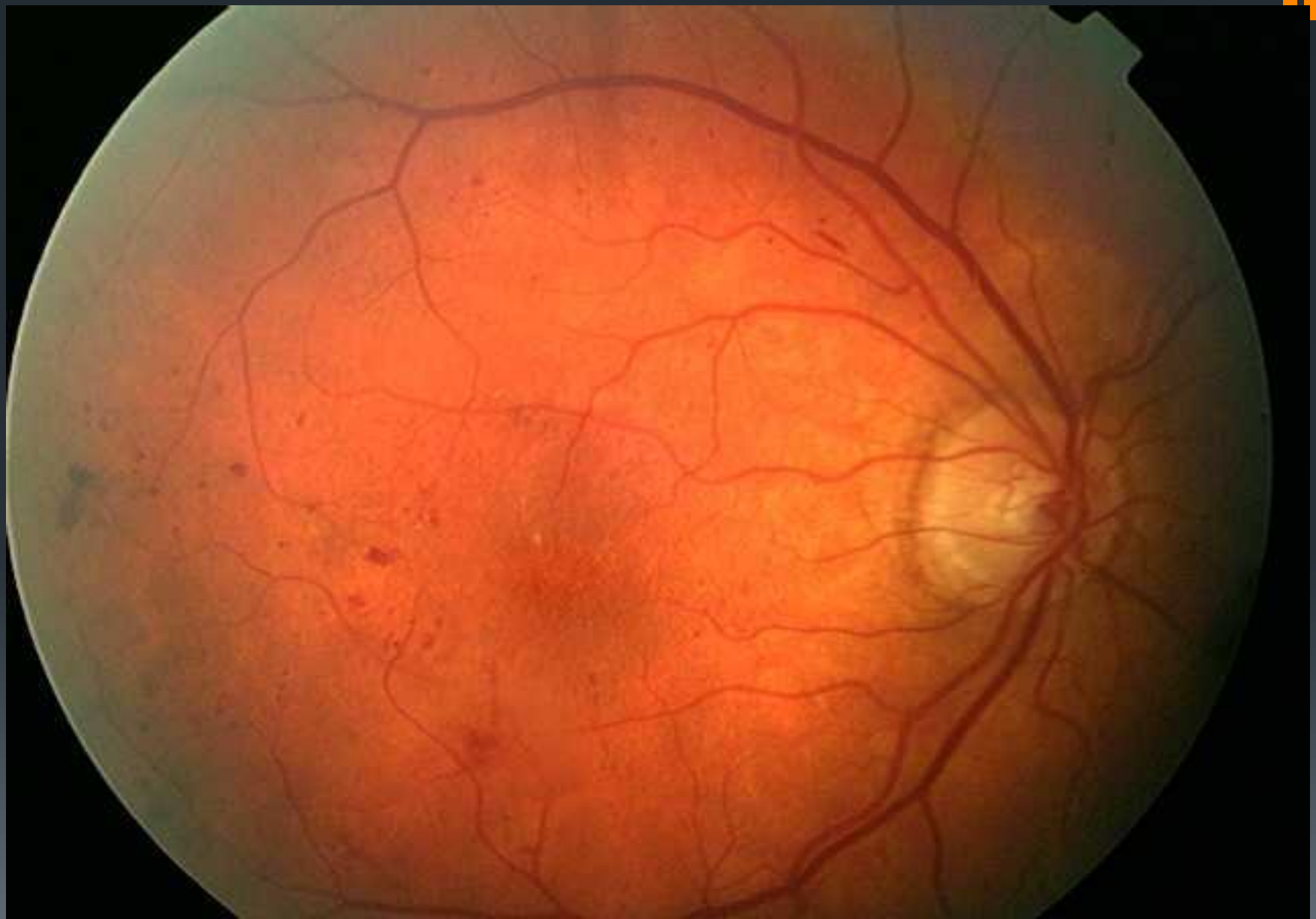

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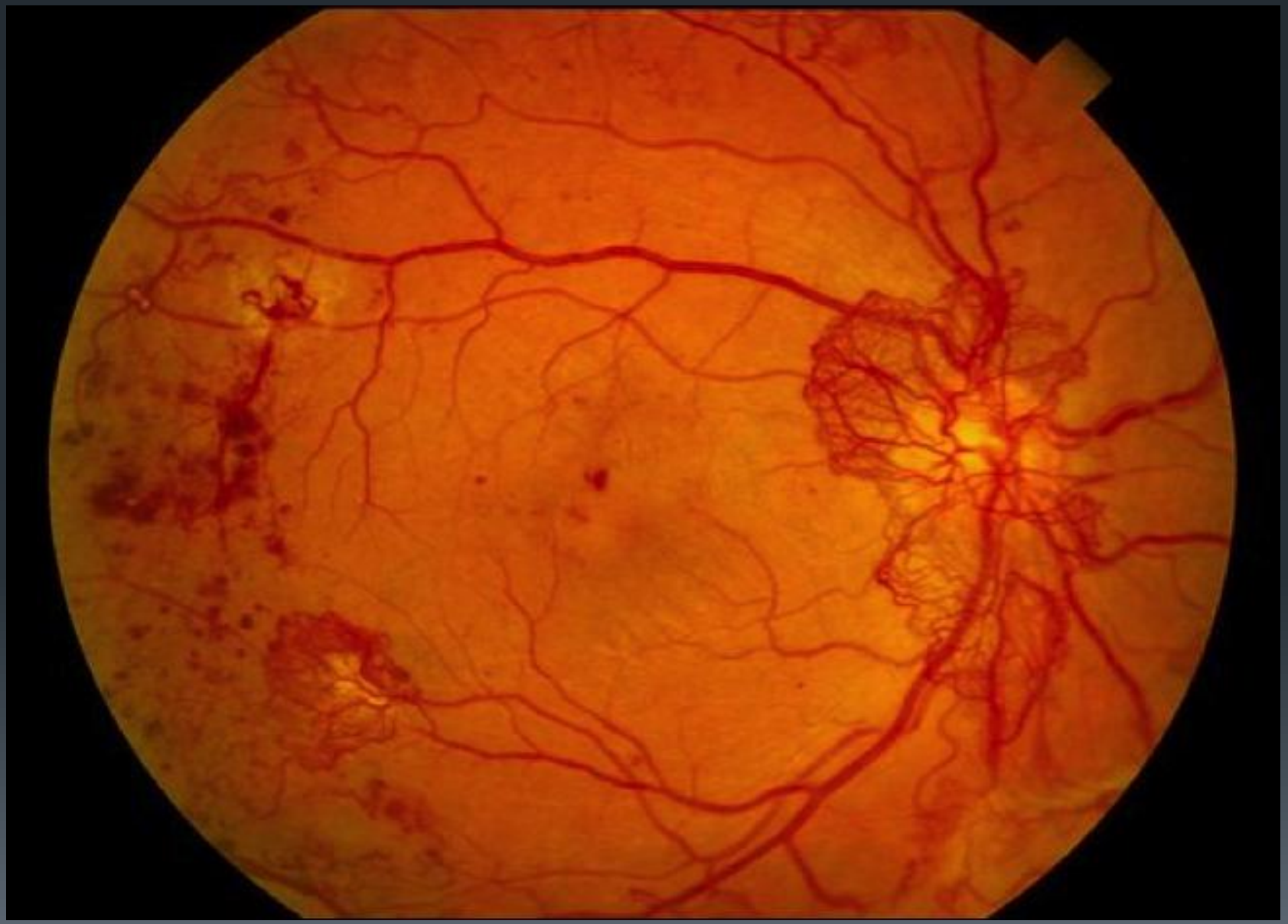

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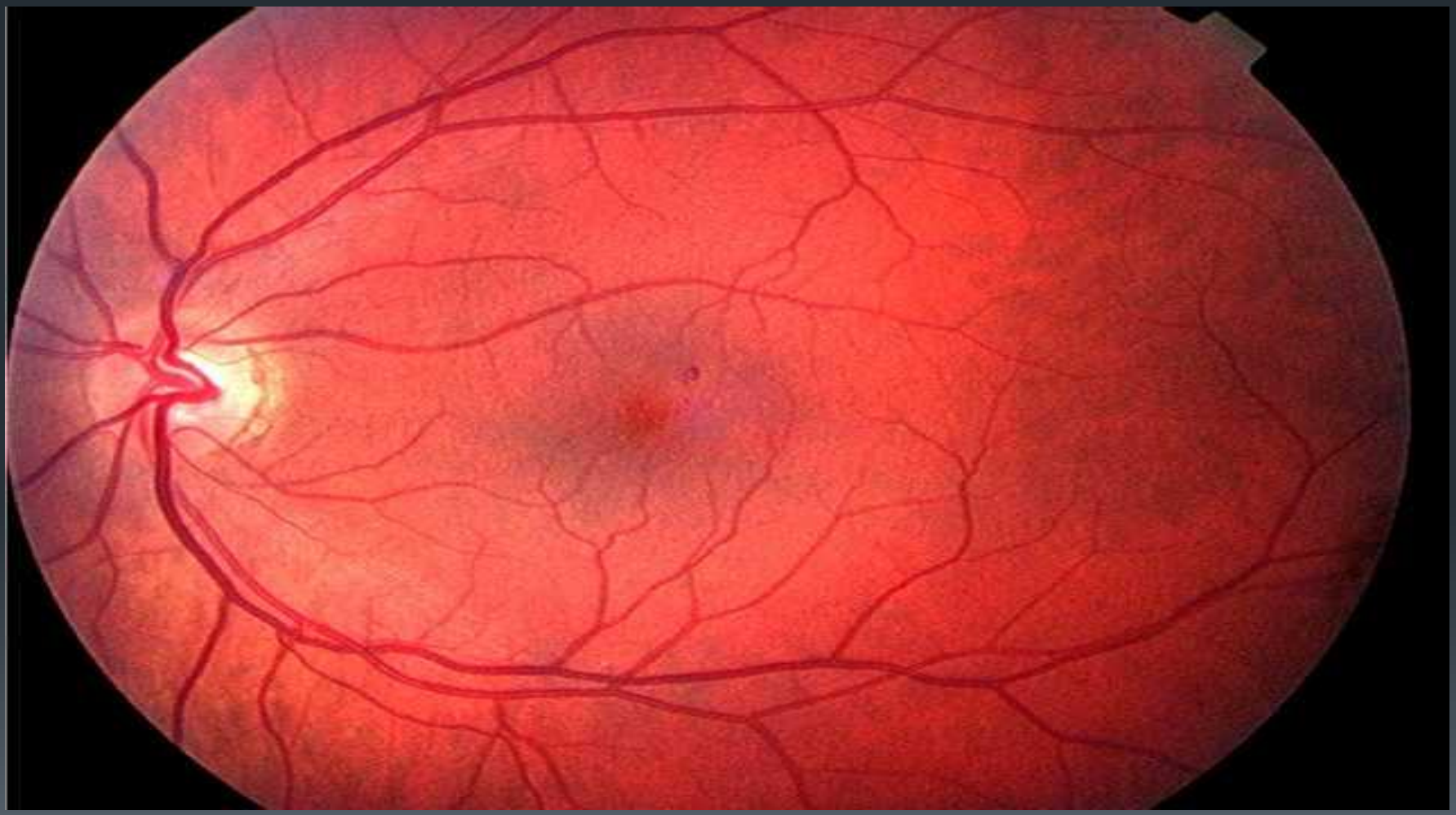

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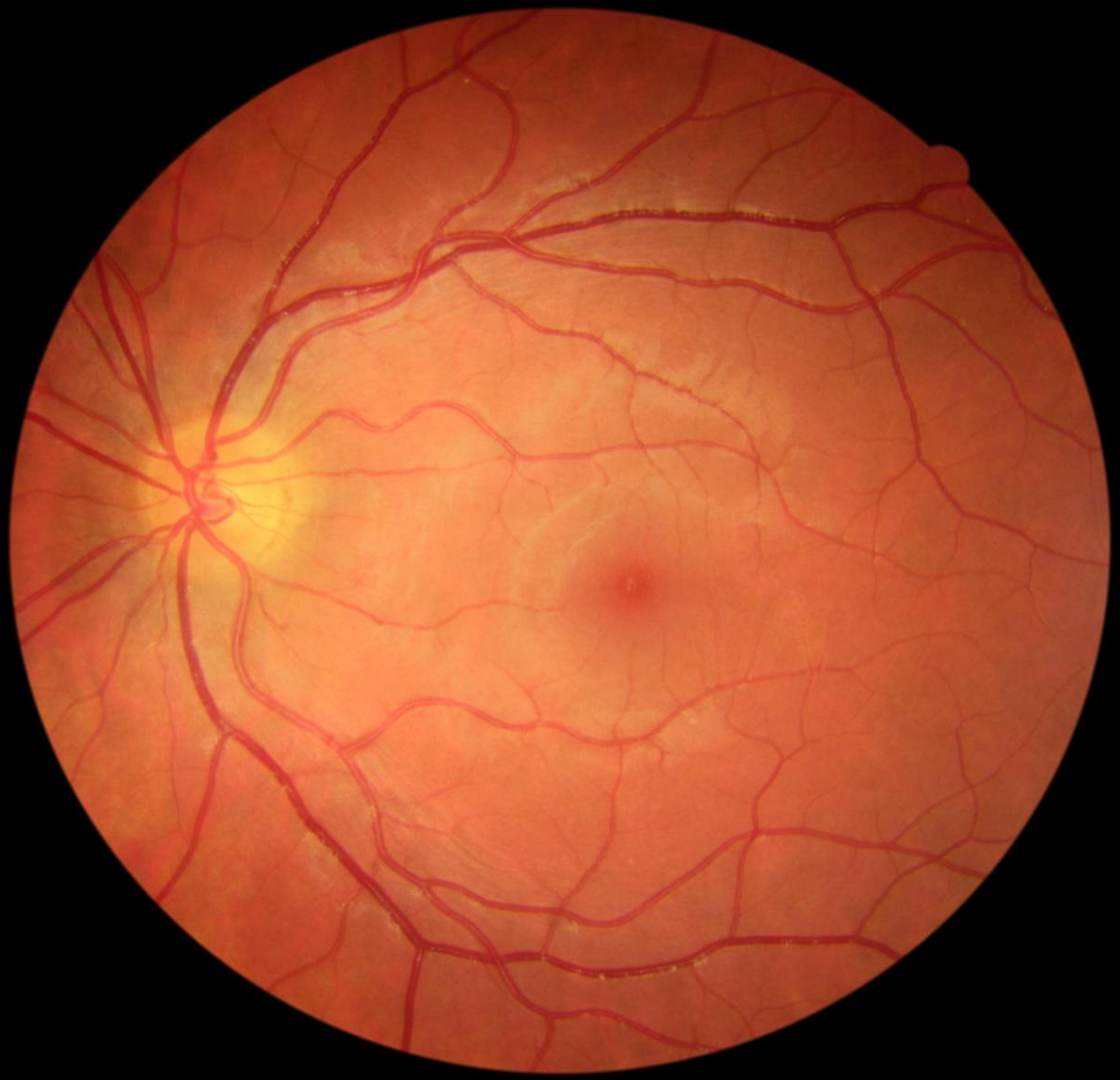

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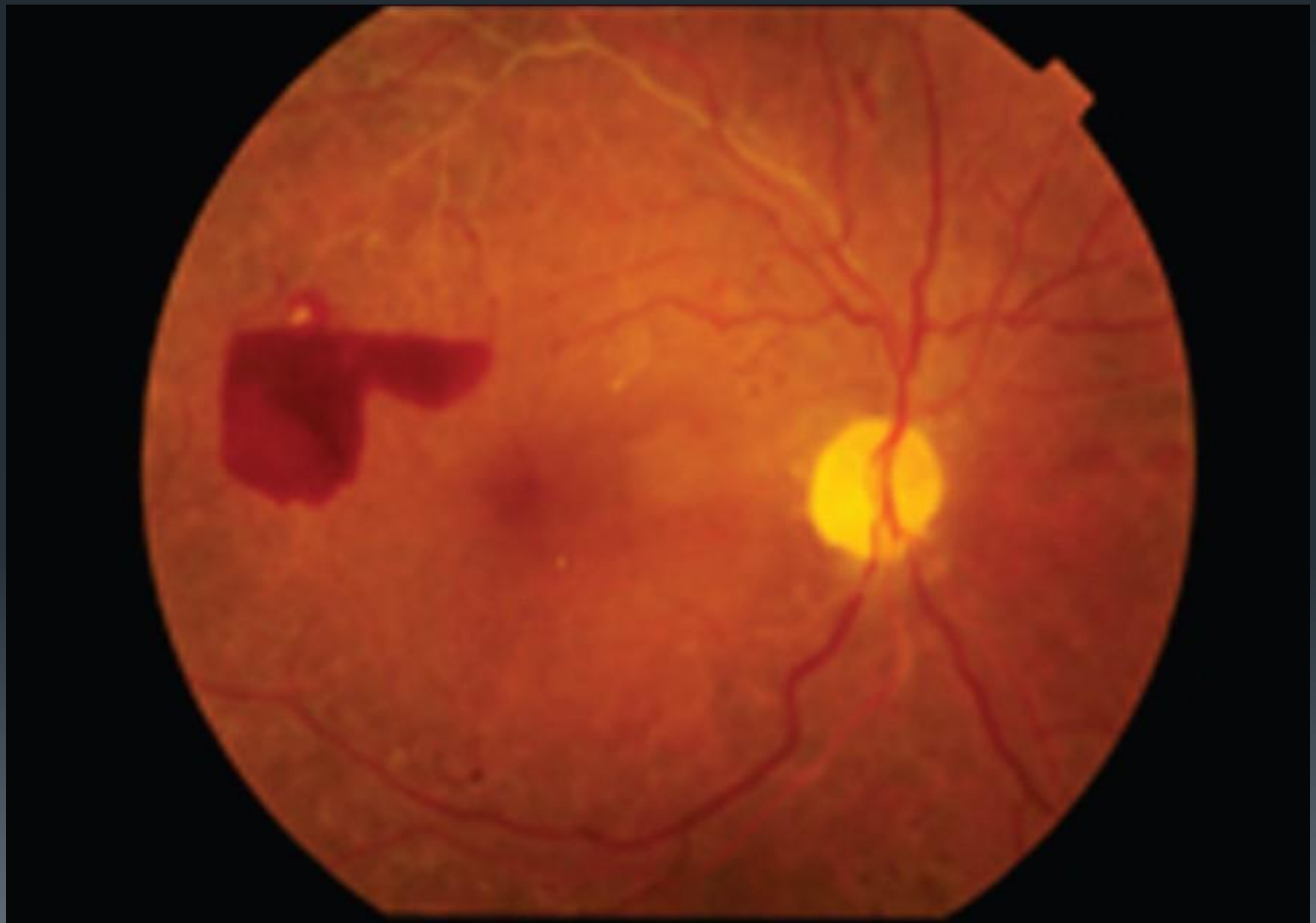

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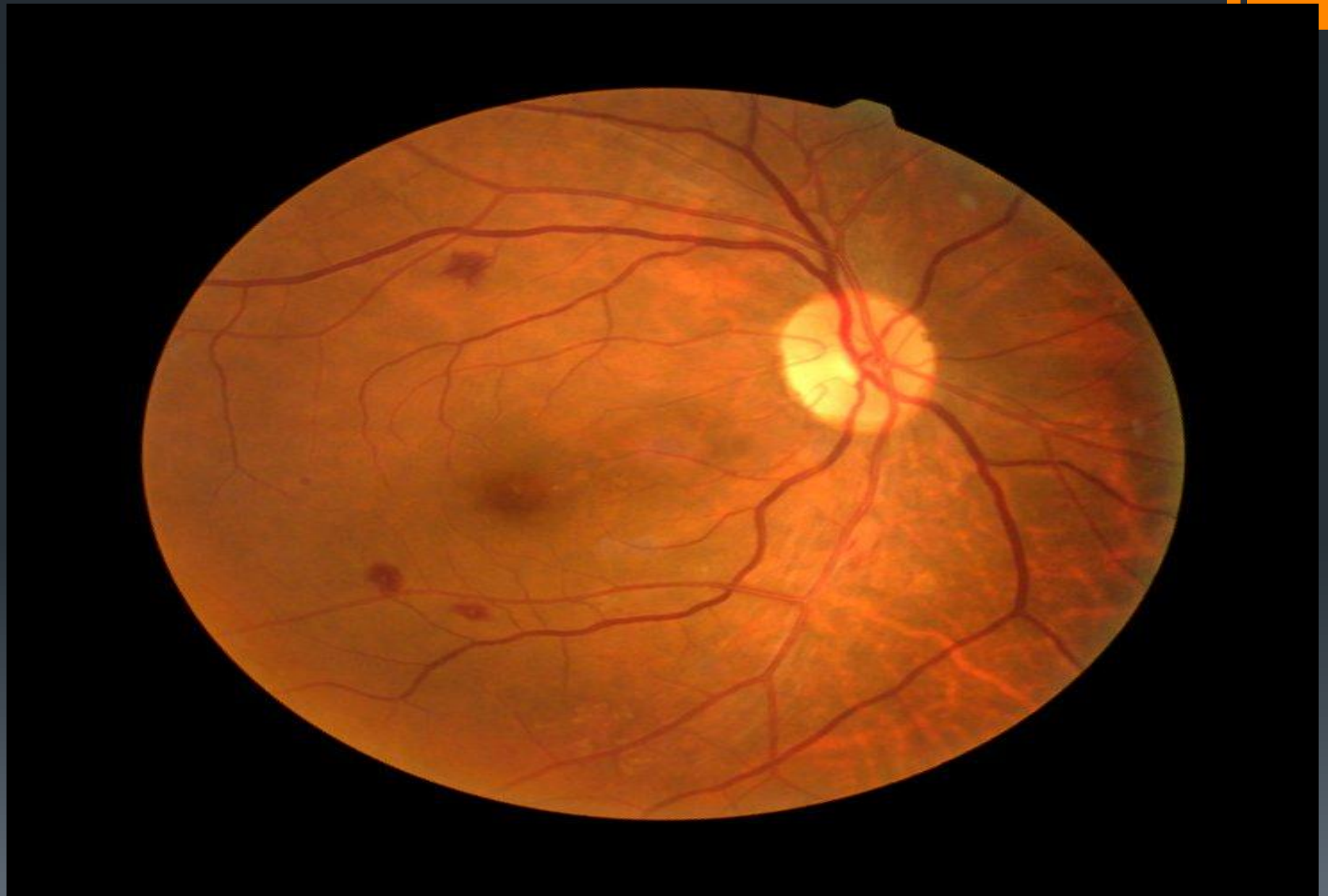

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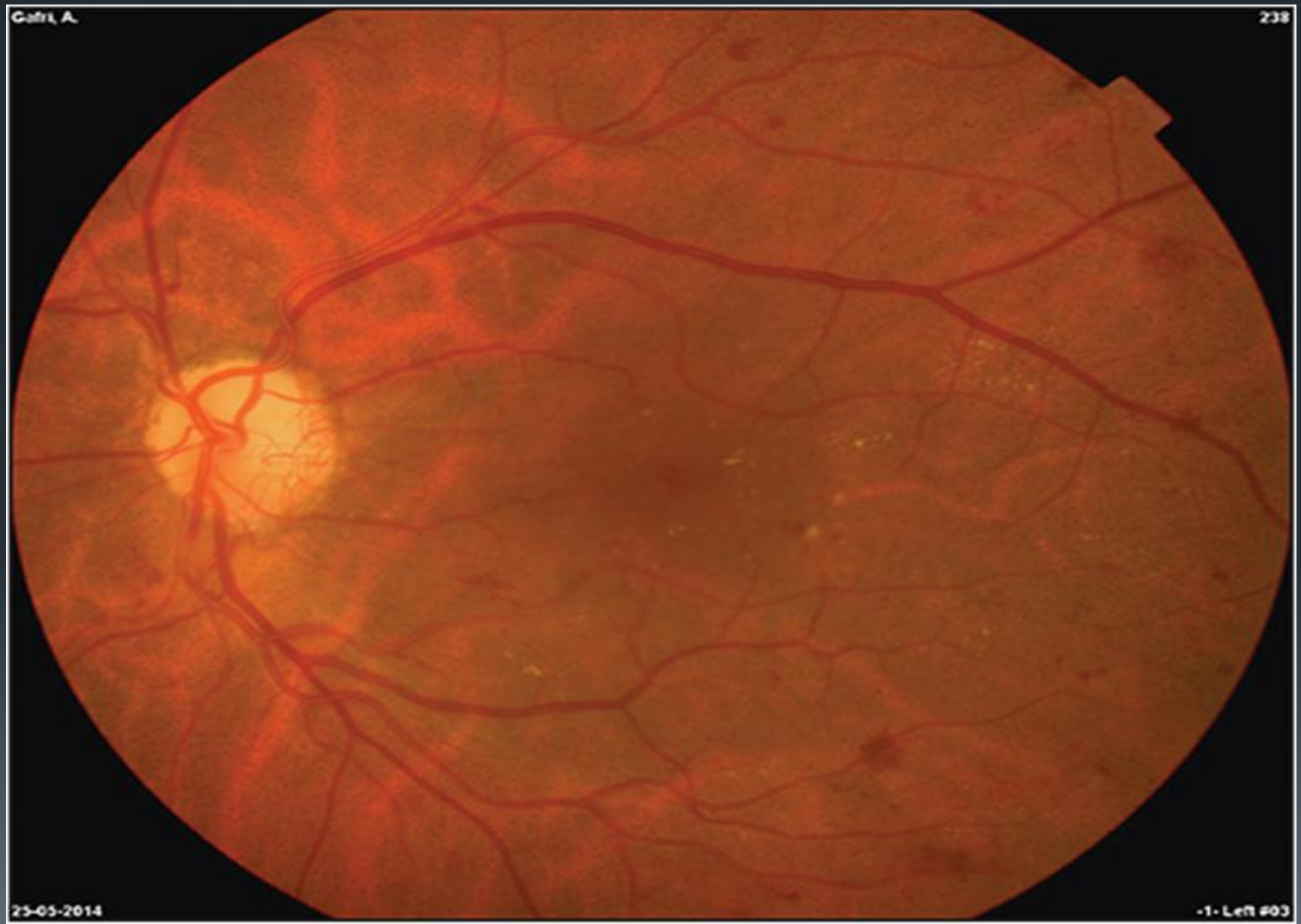

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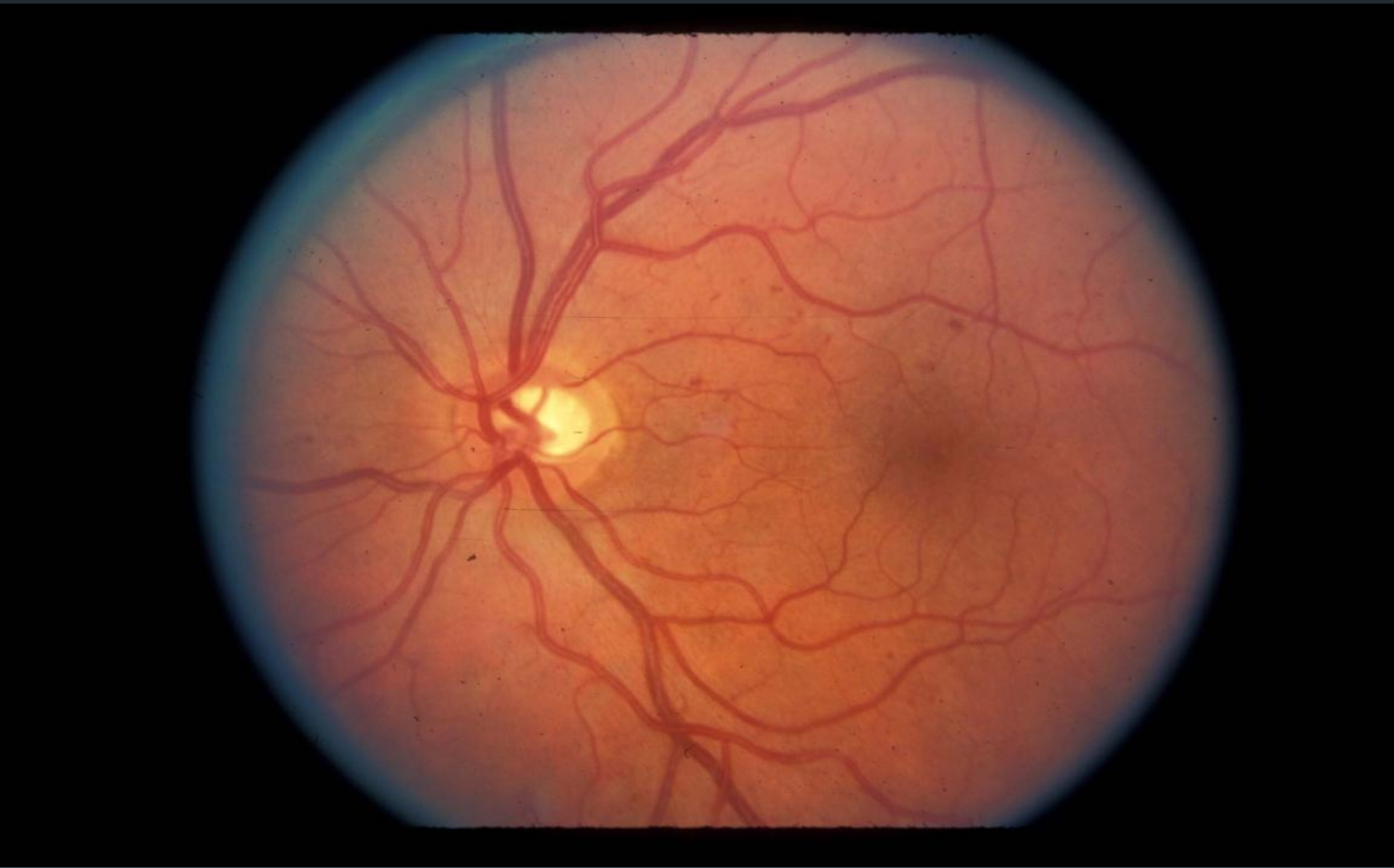

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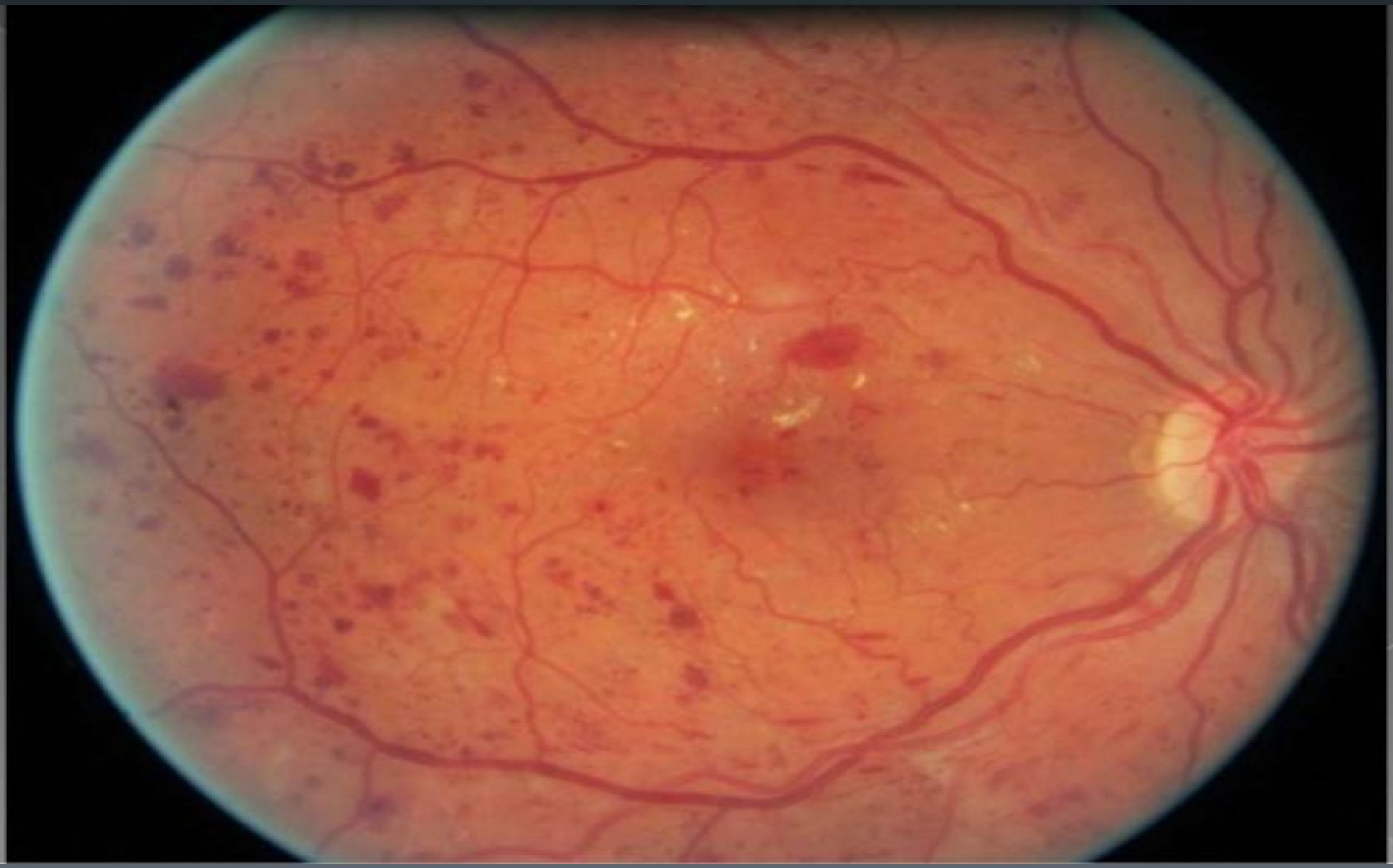

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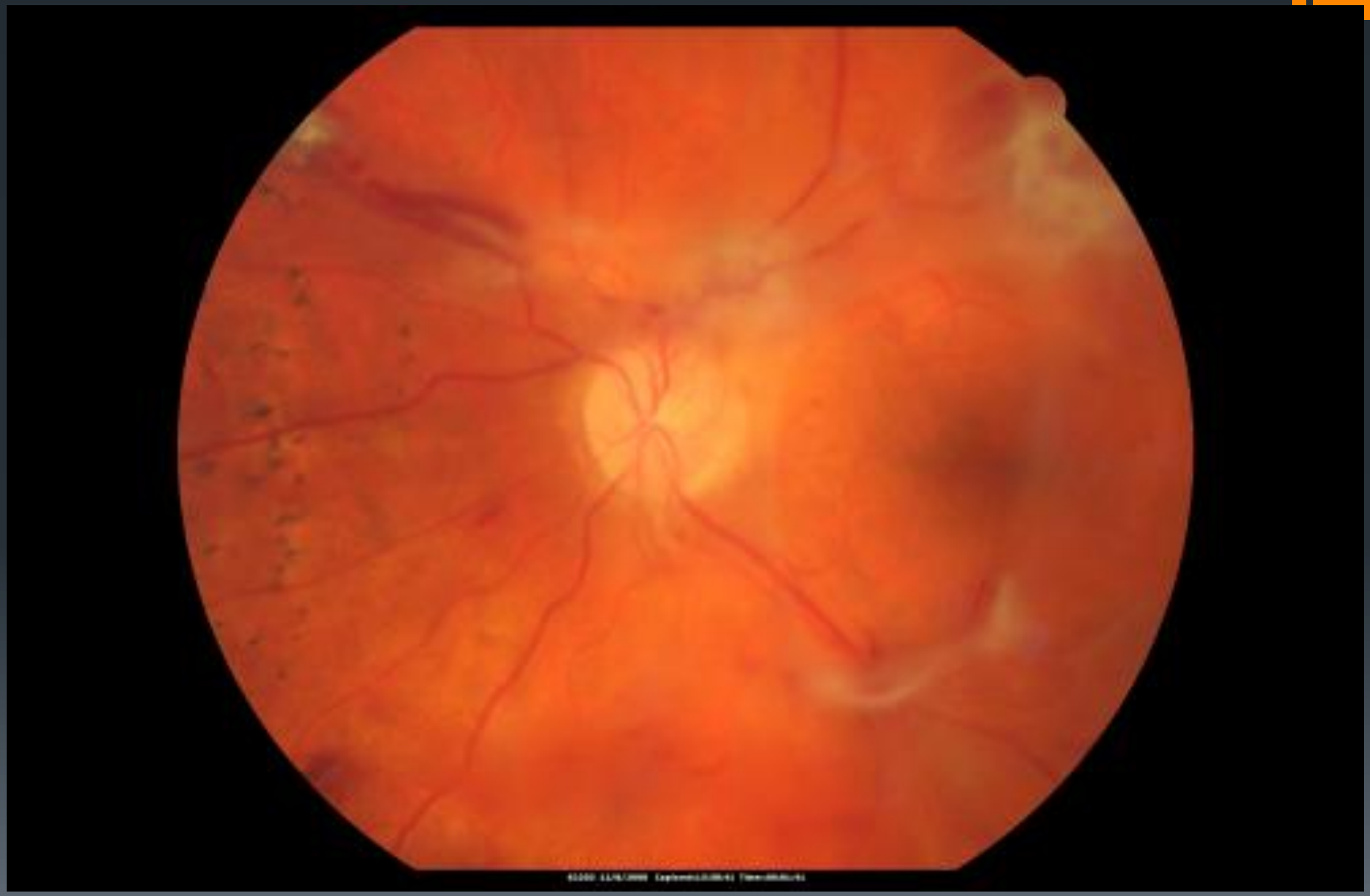

Thank You

Any Questions?