

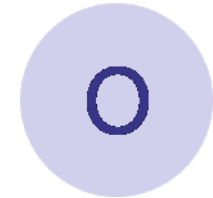
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Diabetic Eye Disease Visual Recognition & Interpretation of Clinical Signs

Quiz created by CLEARVIEW Training
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CET Accreditation C 19106

2 CET Points (General)



Instructions

This VRICS poster quiz consists of a series of images and diagrams. You are encouraged to discuss with peers and/or use available materials to interpret the pictures and come to an accurate conclusion.

Note reference is made to the NSC grading protocols which are attached to this article.

To receive your CET points for this article, complete the Multiple Choice Questions.

A pass mark of 66% (8 out of 12 correct answers) must be achieved.

Only one attempt is allowed.

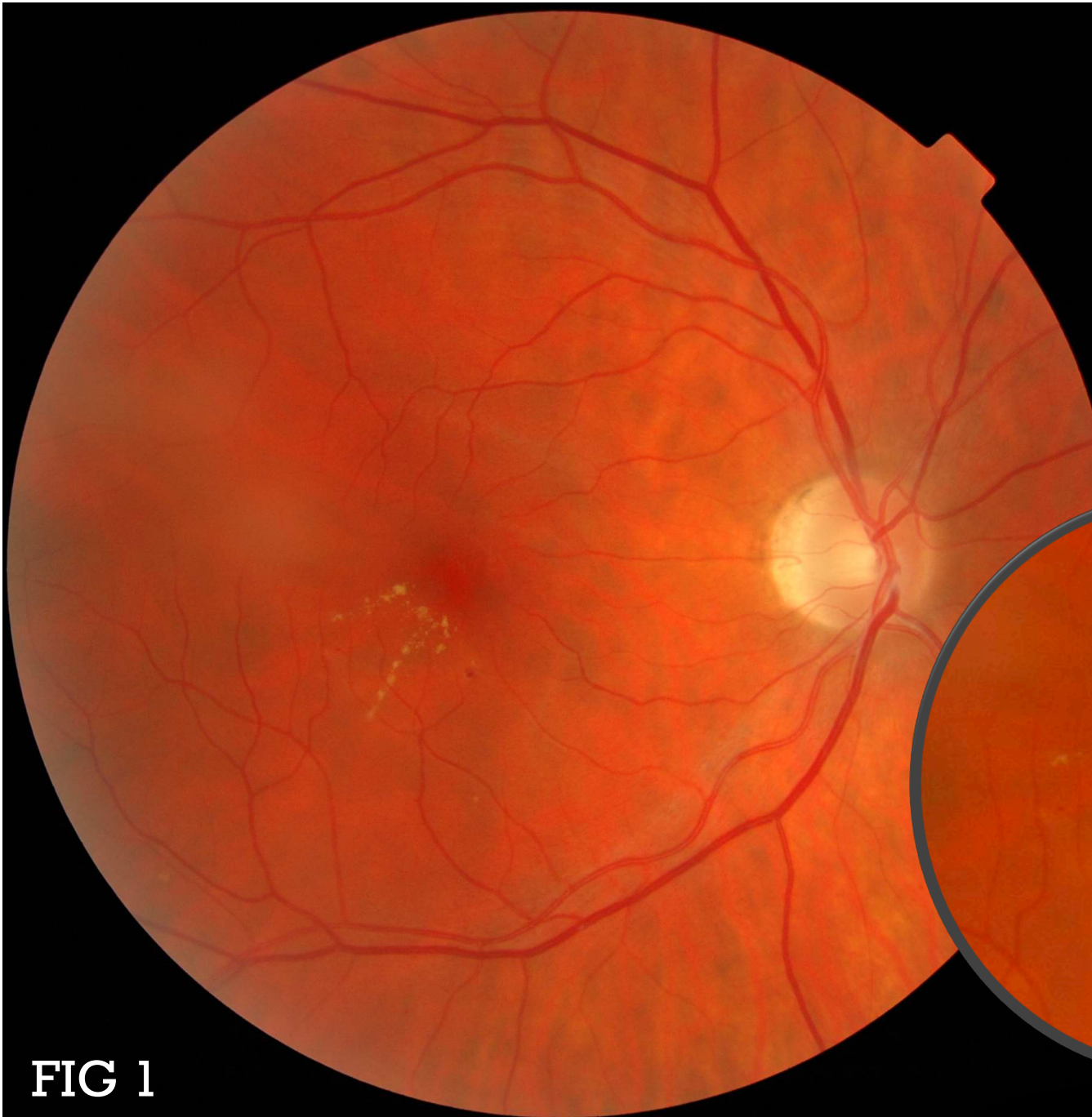
+ Associated reading

1. National Screening Programme for Diabetic Retinopathy :

- <http://diabeticeye.screening.nhs.uk>
- <http://www.scotland.gov.uk/Publications/2003/07/17638/23088>
- Fundus Photograph Reading Centre:
<http://eyephoto.opth.wisc.edu/ResearchAreas/Diabetes/DiabStds.htm>

2. Clinical Ophthalmology: A Systematic Approach: Expert Consult, 7th edition (Kanski, J, and Bowling, B)

3. Moorfields Manual of Ophthalmology (Timothy L. Jackson MBChB FRCOphth PhD)

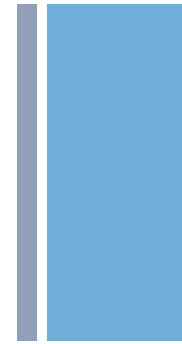


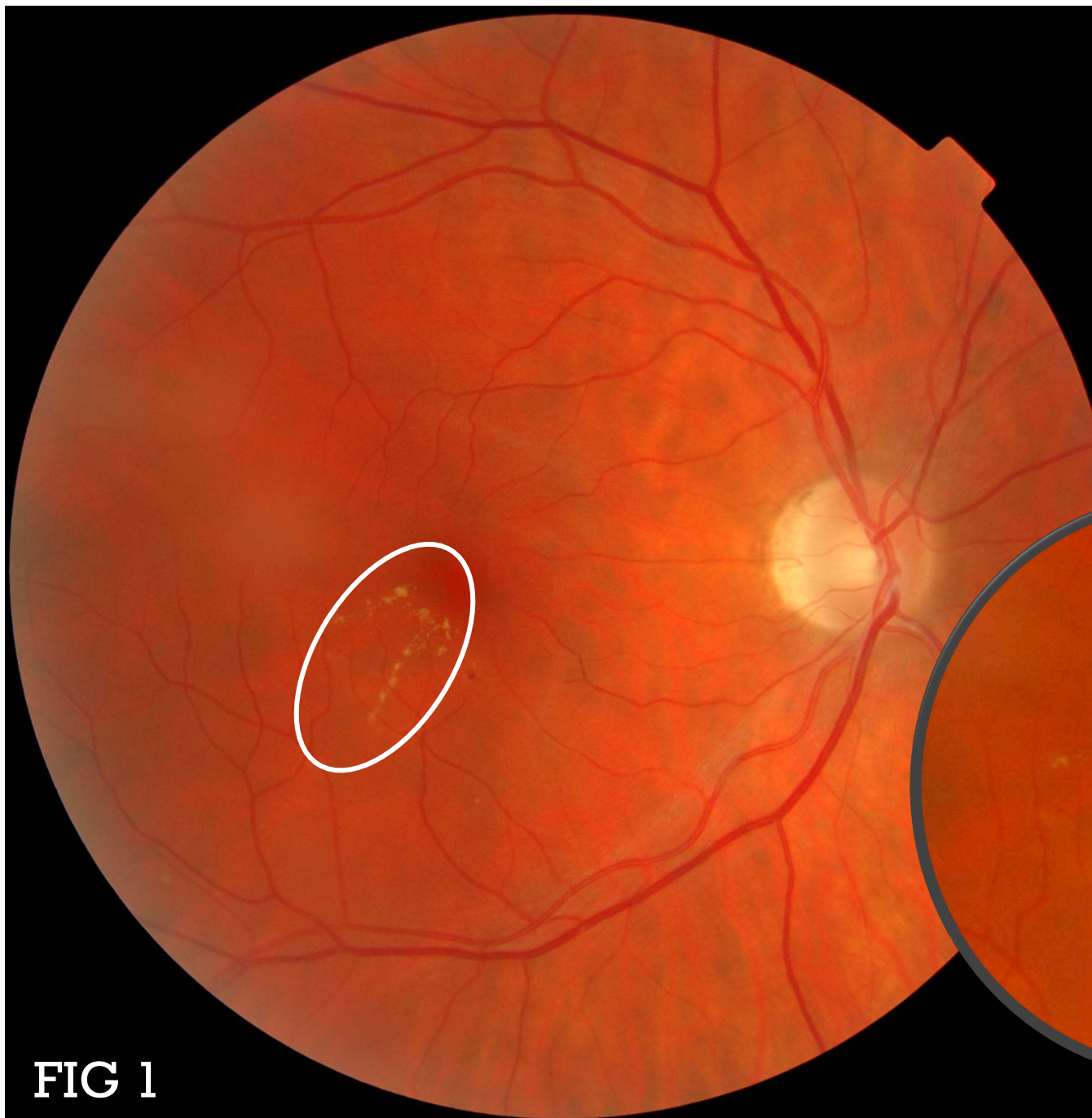
- Age 56
- NIDDM
- Diet Control
6 years
- VA 6/18

FIG 1

+ 1. Using NSC guidelines, how would you grade the diabetic fundus viewed in Fig1?

- Pre-proliferative retinopathy R2, M1
- Background retinopathy R1, M0
- Background retinopathy R1, M1
- No diabetic retinopathy R0, M1





- Age 56
- NIDDM
- Diet Control
6 years
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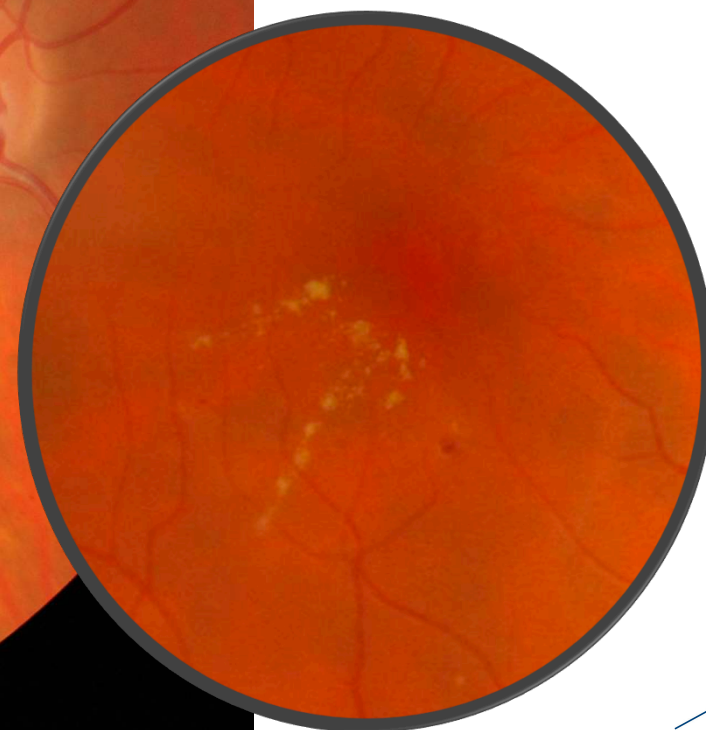


FIG 1

+ 2. What is the likely pathogenesis of the lesion circled in Fig 1?

This lesion results from,

- a gradual loss of endothelial pericytes, which in turn leads to increased vascular permeability of the retinal capillaries
- a breakdown of the inner blood-retinal barrier leading to retinal oedema
- distension of the retinal capillary walls, which in turn leads to leakage of plasma constituents into the retinal layers.
- All of the above are true

+

3. What would be the most appropriate course of action for the patient seen in Fig1?

- Emergency referral to Ophthalmologist within 24 hours
- Referral within 2-4 weeks to ophthalmologist
- Routine referral to GP only to review diet and need for systemic medication
- No further action required – review 1 year

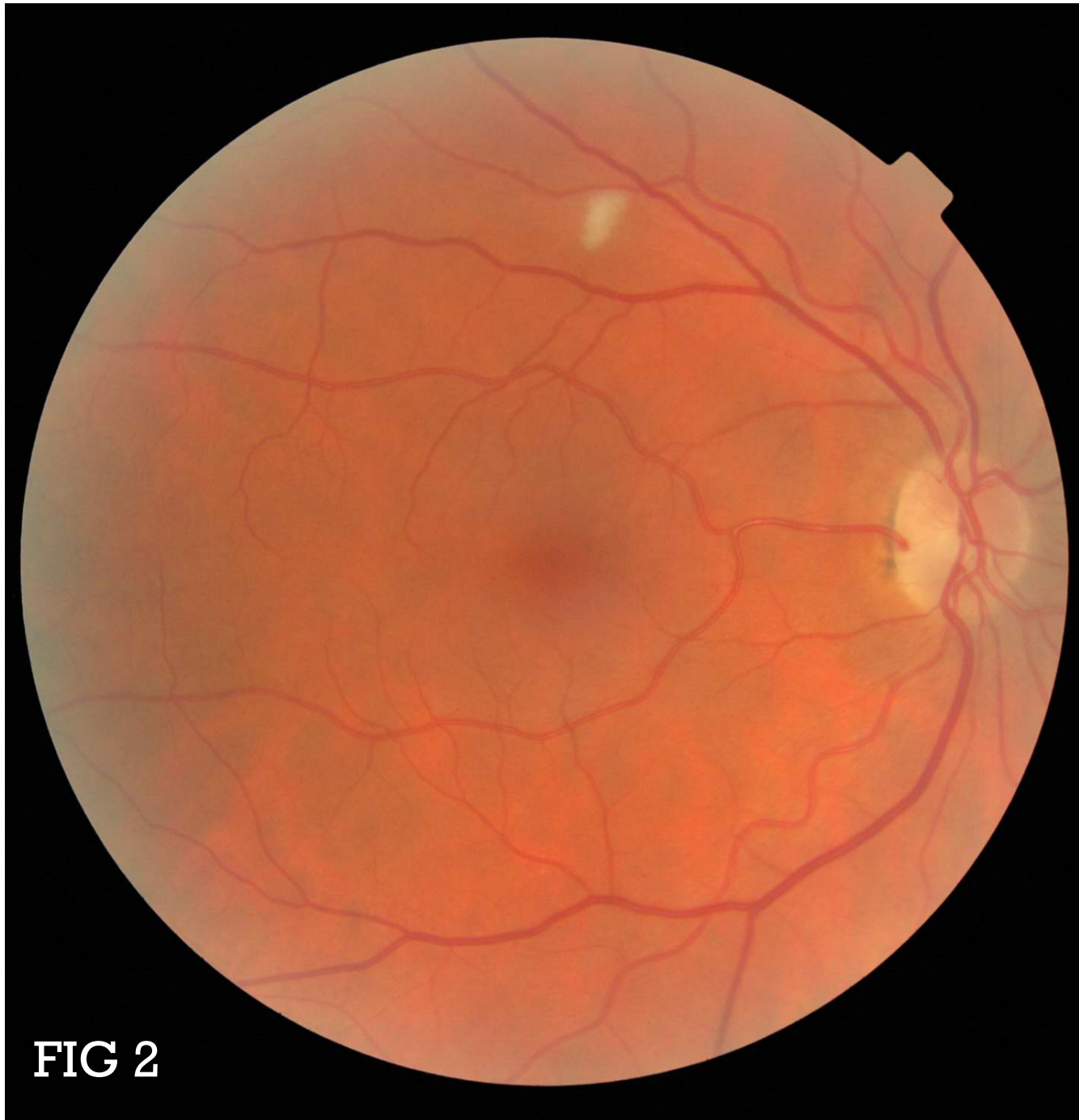
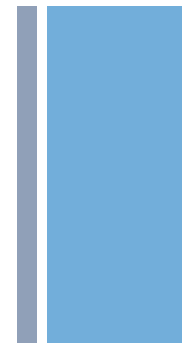


FIG 2

- NIDDM 7 years
- Age 48
- Medically controlled for past 3 years
- Current control good.
- VA 6/5

+ 4. Using NSC guidelines, how would you grade the diabetic fundus viewed in Fig2?

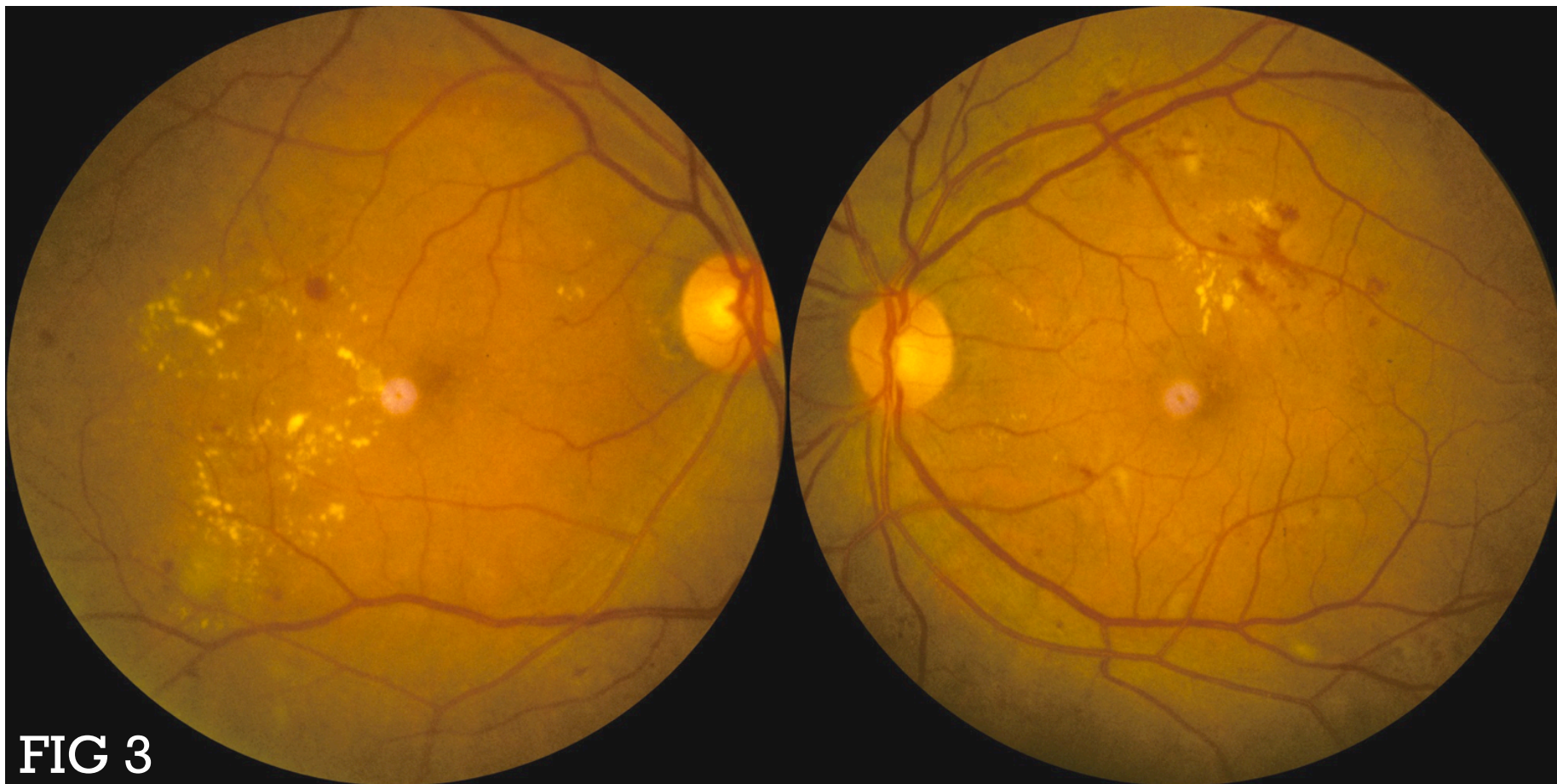
- NSC Grade R0, M0
- NSC Grade R0, M0, OL
- NSC Grade R1, M1
- NSC Grade R1, P1



+

5. What would be the most appropriate course of action for the patient seen in Fig2?

- Urgent referral to ophthalmologist – within the week
- Routine referral to ophthalmologist 4-6 weeks
- Routine referral to GP for immediate review of current medication
- No referral required. Note to GP. Early review <1 year.



- Age 45, IDDM 24 years
- RVA 6/28, LVA 6/9
- Under local diabetic consultant – no previous treatment. Next hospital review due on 4 months time

+ 6. Which of the following clinical signs are *not* present in Fig3?

- IRMA
- Evidence of microvascular leakage
- Cotton wool spots
- Elschnig spots or pearls

+

7. What would be the most appropriate course of action for the patient seen in Fig3?

- Prompt referral to Ophthalmologist within the week
- Routine referral within 1-2 months to ophthalmologist
- Routine referral to GP only to review diet and need for systemic medication
- No further action required – review annual eye examination in 1 year

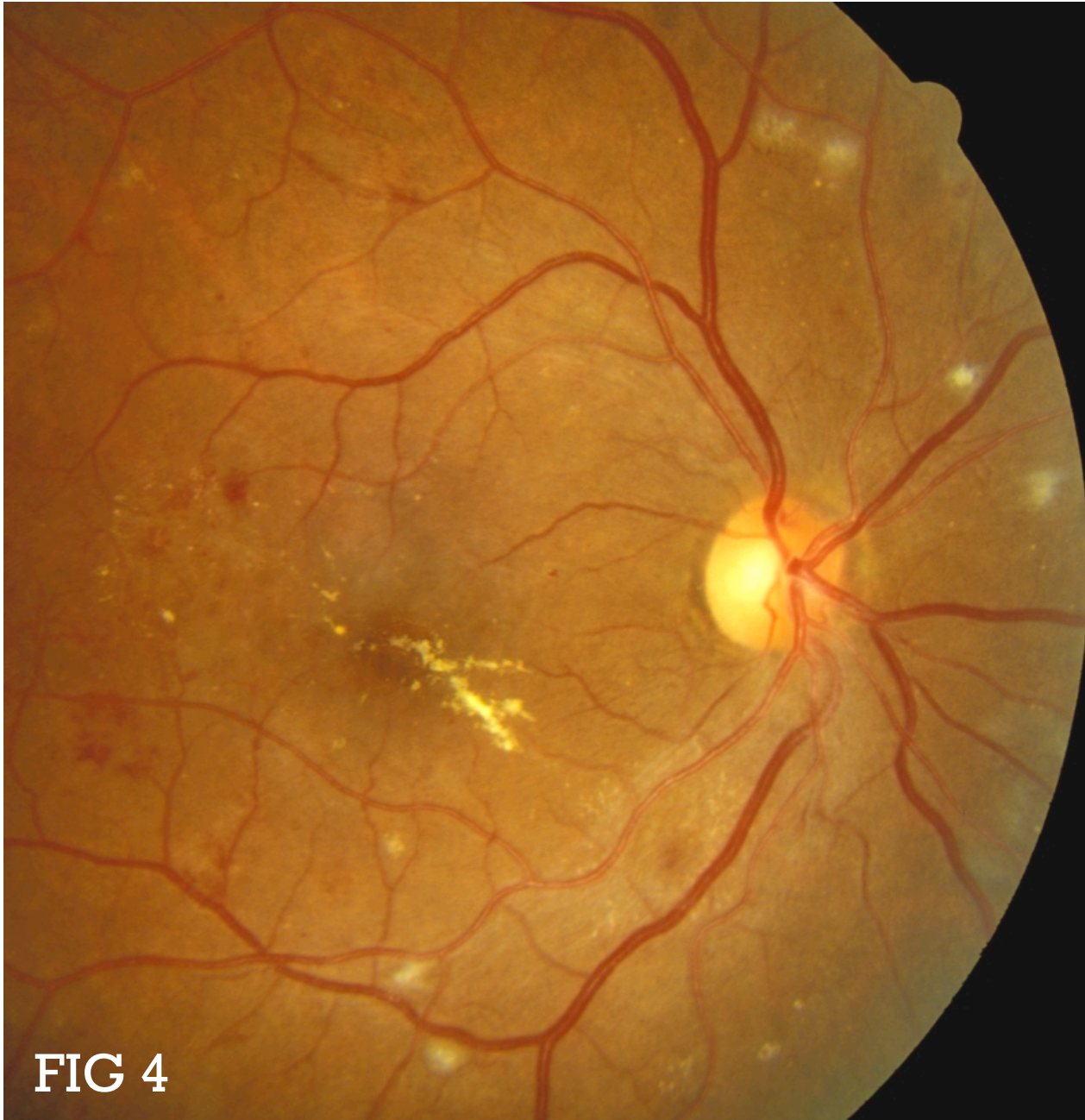


FIG 4

- NIDDM 6 years
- Tablet controlled diabetes for past 4 years
- Age 57
- VA 6/24

+ 8. Which of the following statements regarding the macula seen in Fig4 is *true*?

- NSC grade M0: There is no clinically significant diabetic maculopathy
- NSC grade M1: The appearance of this macula may occur in diabetic patients *without* significant background retinopathy
- NSC grade M0: The V/VA should improve with improved control of blood glucose levels
- NSC grade M1: refer for laser photocoagulation to the macula to reduce the risk of *further* visual loss

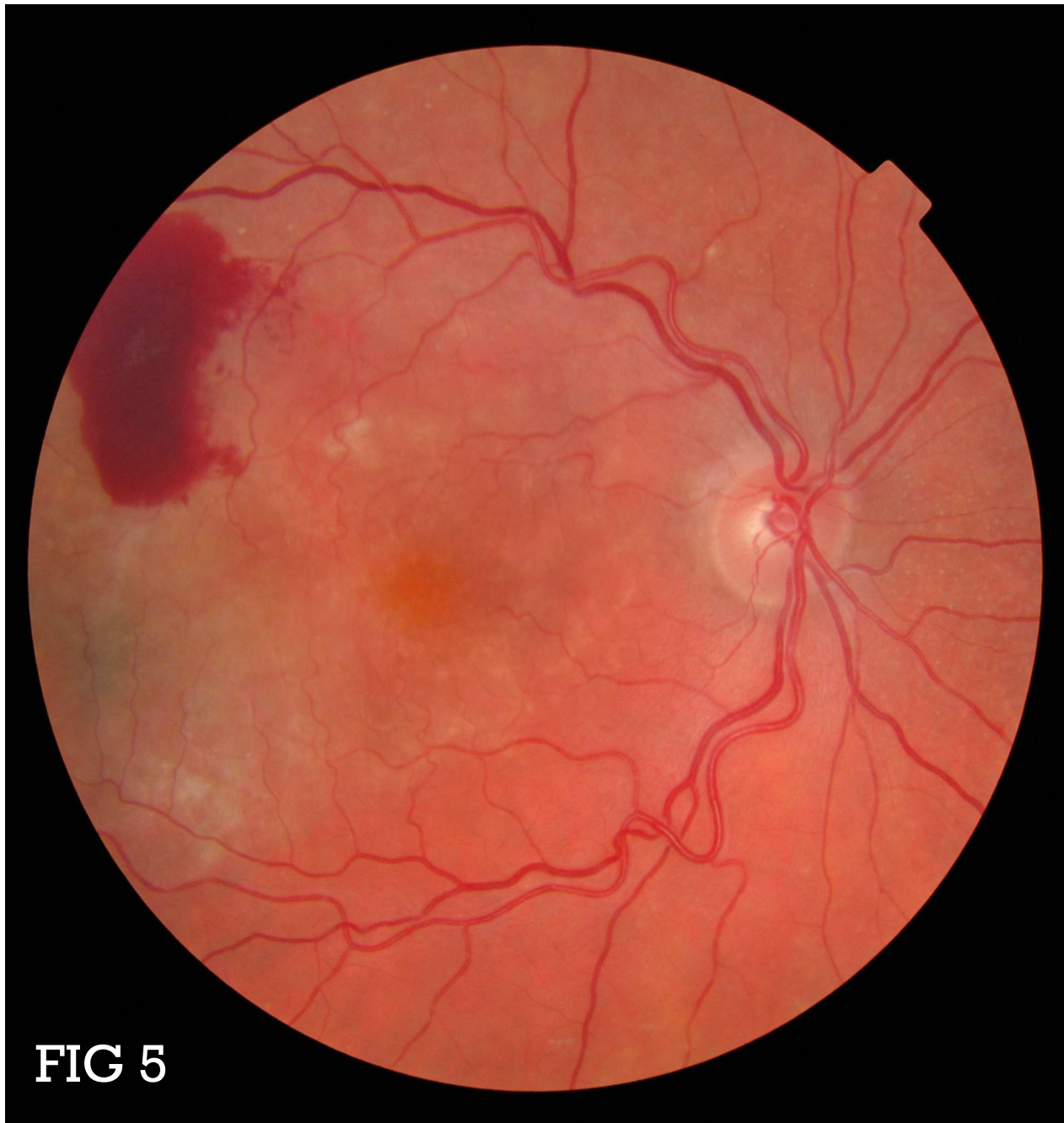
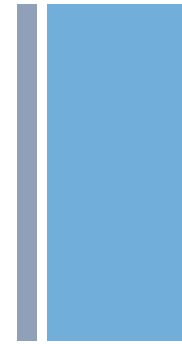


FIG 5

- **IDDM 17 years**
- **Variable control**
- **Age 40**
- **VA 6/7.5**

+ 9. Using NSC guidelines, how would you grade the diabetic fundus viewed in Fig5?

- NSC Grade R2, M0
- NSC Grade R2, M1
- NSC Grade R3, M0
- NSC Grade R3, M1



+ 10. What is the most likely location of the lesion in Fig5?

- Intragel vitreous haemorrhage
- Intra-retinal haemorrhage
- Pre-retinal haemorrhage
- Haemorrhage into retrohyaloid space

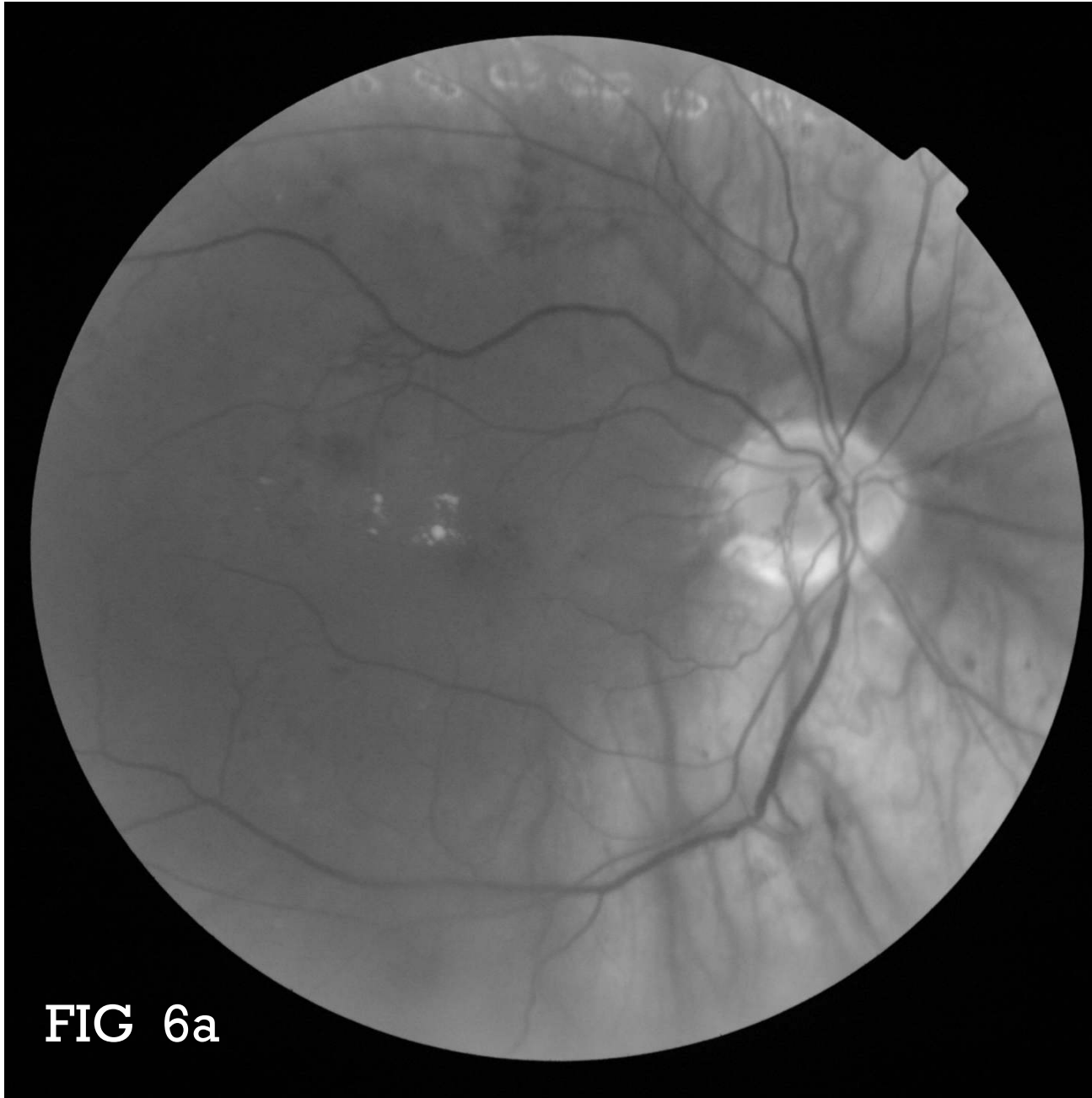


FIG 6a

- Aged 61
- IDDM 27 years
- Poor control
- VA 6/12⁺

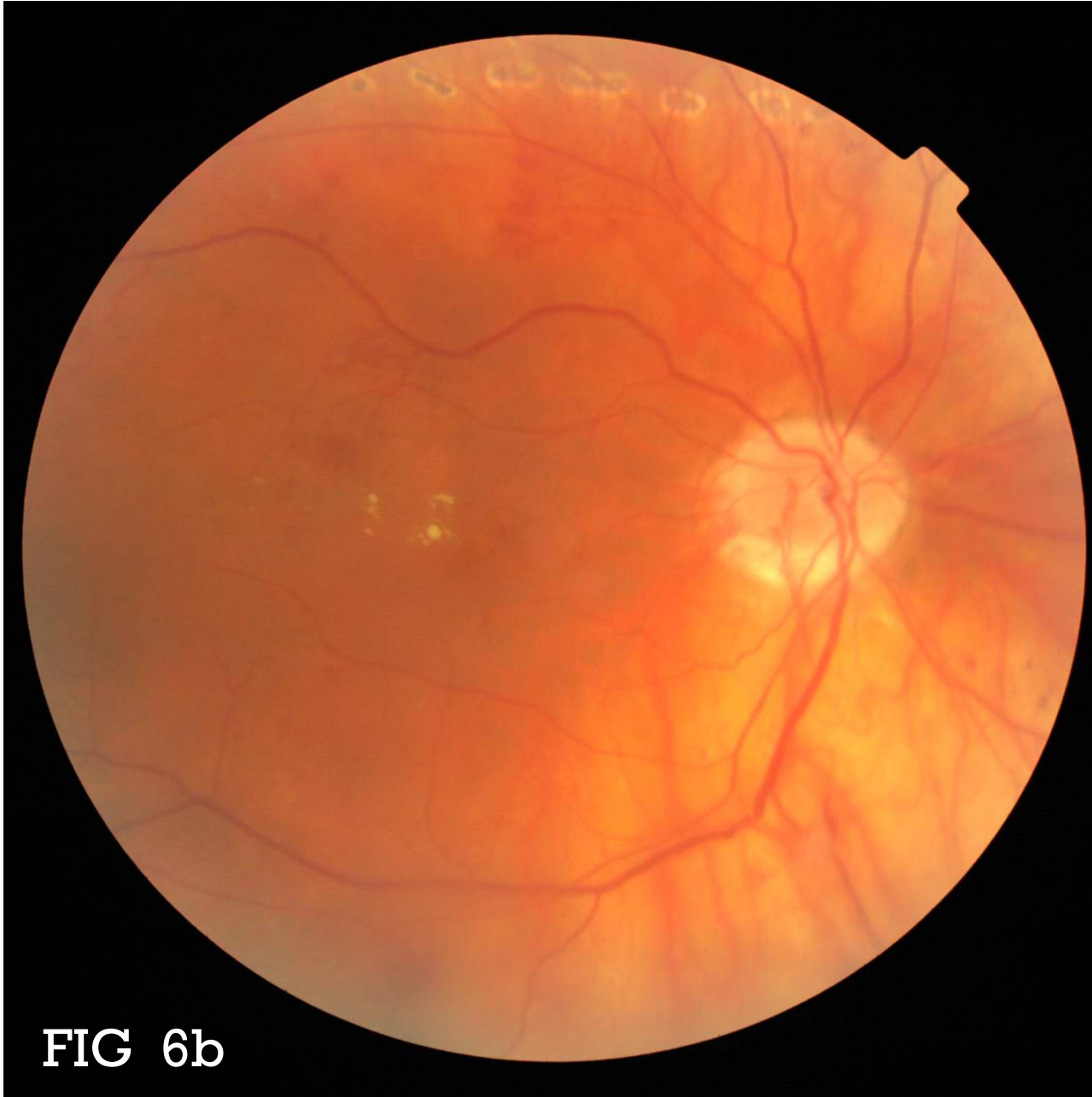
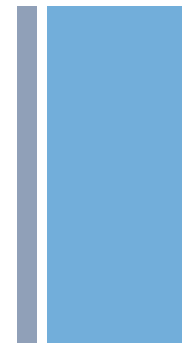


FIG 6b

- Aged 61
- IDDM 27 years
- Poor control
- VA 6/12⁺

+ 11. Using NSC guidelines, how would you grade the diabetic fundus viewed in Figs 6a & 6b?

- NSC Grade R2, M1, P1
- NSC Grade R3, M1, P1
- NSC Grade R2, M1, P0
- NSC Grade R3, M1, P1, OL





- Aged 72
- Diabetic 24 years
- IDDM last 14 years
- Control fair
- VA 6/12⁺

+ 12. Which of the following statements regarding Fig7 are *false*?

- This patient has significant proliferative retinopathy on the fundus
- Cataract surgery may increase the risk of this condition developing in diabetic patients
- Neovascularisation of the angle occurs before new vessels are visible on the surface of the iris
- Pan-retinal laser photocoagulation is usually successful in inducing regression of this condition