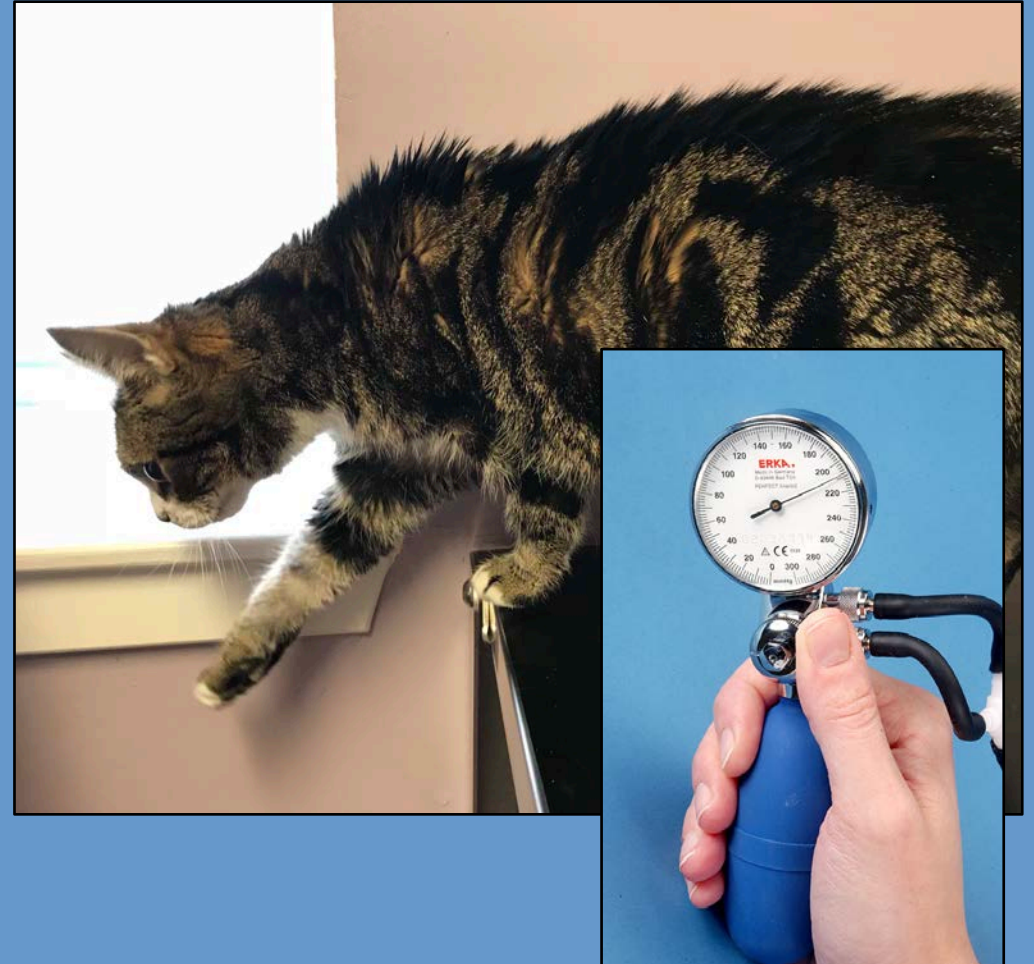


Ocular manifestations of systemic hypertension

A guide for veterinary professionals



Examining cats for ocular manifestations of systemic hypertension



This cat is completely blind due to bilateral retinal detachment which can be seen by shining a light into the cats' eyes. Note the severe mydriasis (no mydriatics have been given)

Examination of the eyes

- Examine the cat in a dark room
 - Black-out blinds in any windows
 - Lights and computer screens switched off
- If it is not possible to darken the room, then mydriatic eye drops (which dilate the pupil for a short period) may be needed. eg tropicamide (trade name Mydriacyl). Some cats find this treatment a little disorientating and may be very light sensitive whilst their pupils are dilated.

Equipment needed

Indirect ophthalmoscopy: Dimmable light source and hand lens

Direct ophthalmoscopy: ophthalmoscope

The direct ophthalmoscope can be used as a light source for indirect ophthalmoscopy, set to a small circle



20-30 dioptre
condensing lens
Inexpensive acrylic
options available

Finhoff transilluminator
attachment (focused light
source, optional)



Technique: distant indirect ophthalmoscopy

- Dark room: no windows or black-out blinds, turn screens off
- Gentle restraint, hand under chin to gently lift this
- Light source held by your eye, stand arms length from the cat, shine the light towards the cat's eye. Adjust the angle of the light beam until the tapetal reflection (bright cat's eye reflection) is visible

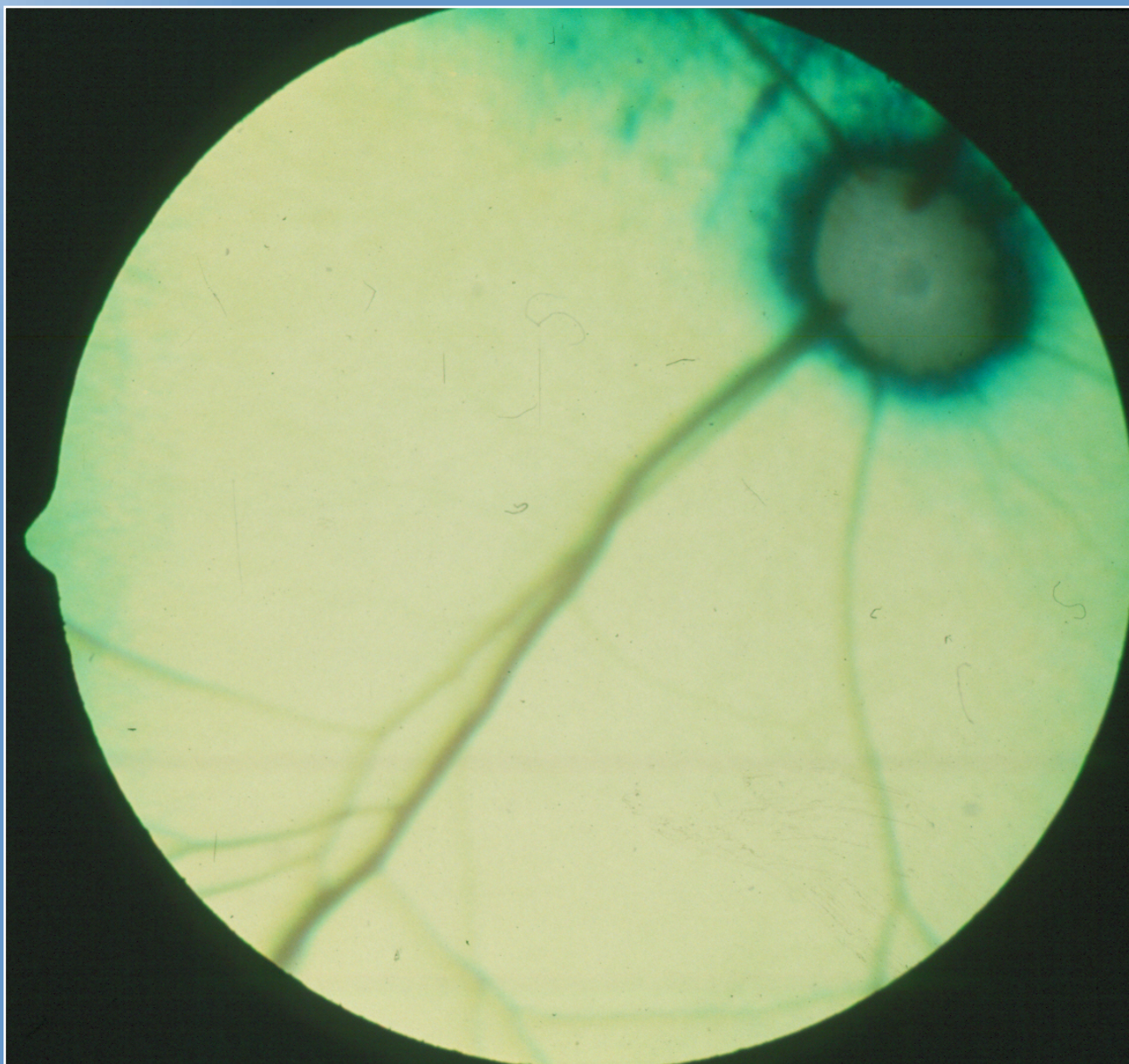


Technique: distant indirect ophthalmoscopy

- Insert lens 2-4 cm in front of the eye: upside down view of most of the fundus will be seen



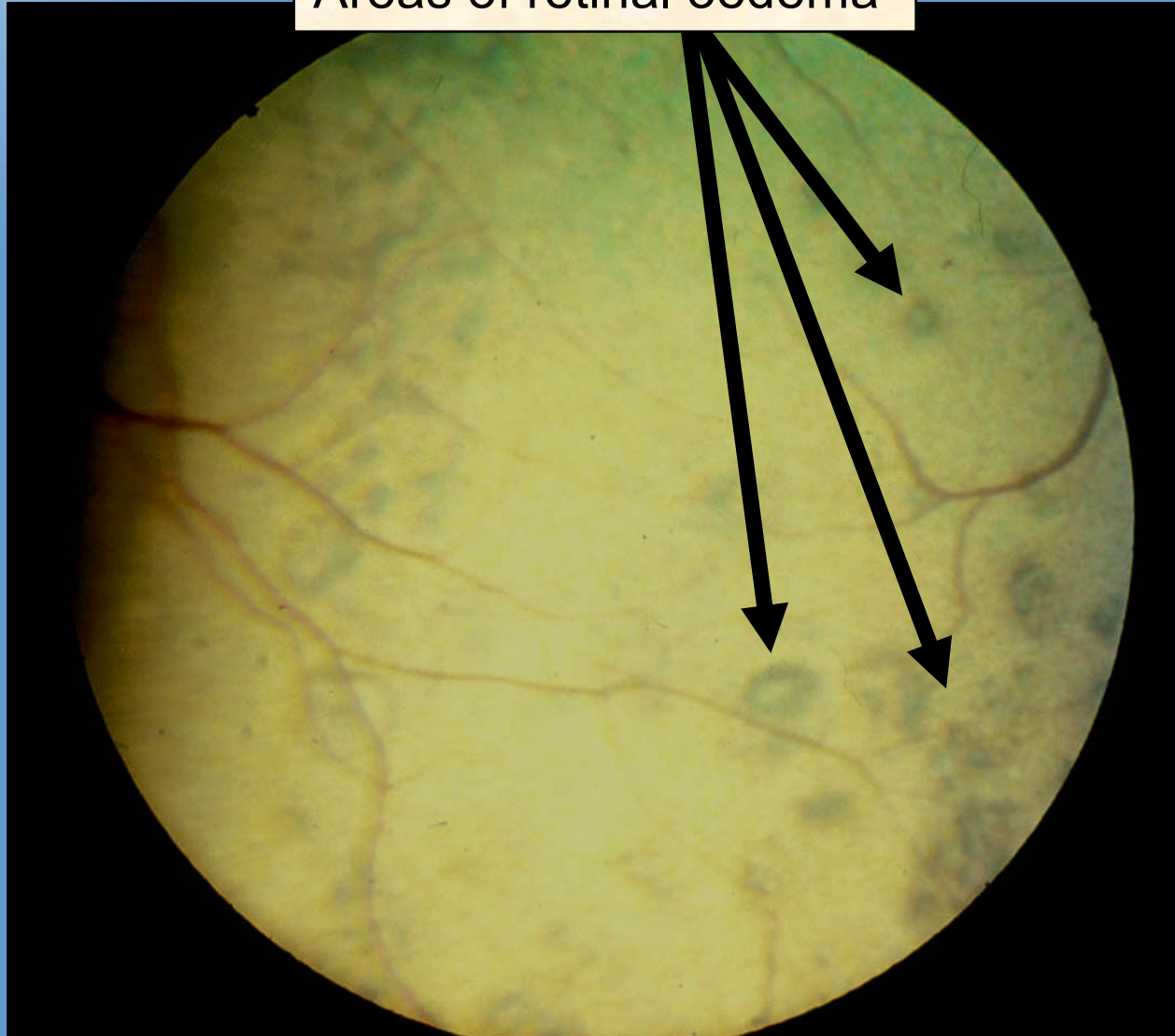
The normal feline retina



Picture included with kind permission of Professor Sheila Crispin

Subtle and early lesions

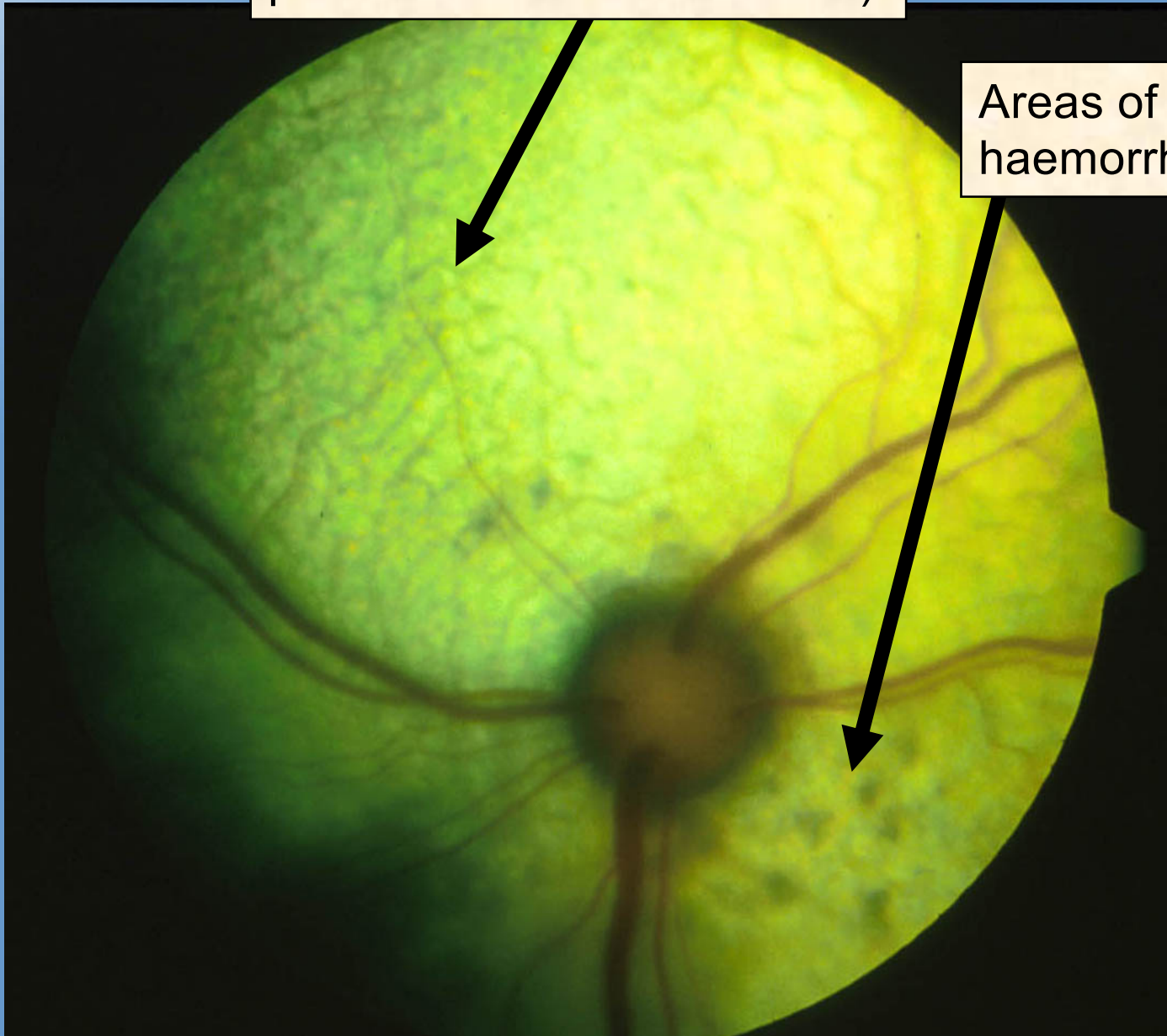
Areas of retinal oedema



Picture included with kind permission of Professor Sheila Crispin

Retinal folds (indication of previous retinal detachment)

Areas of retinal haemorrhage

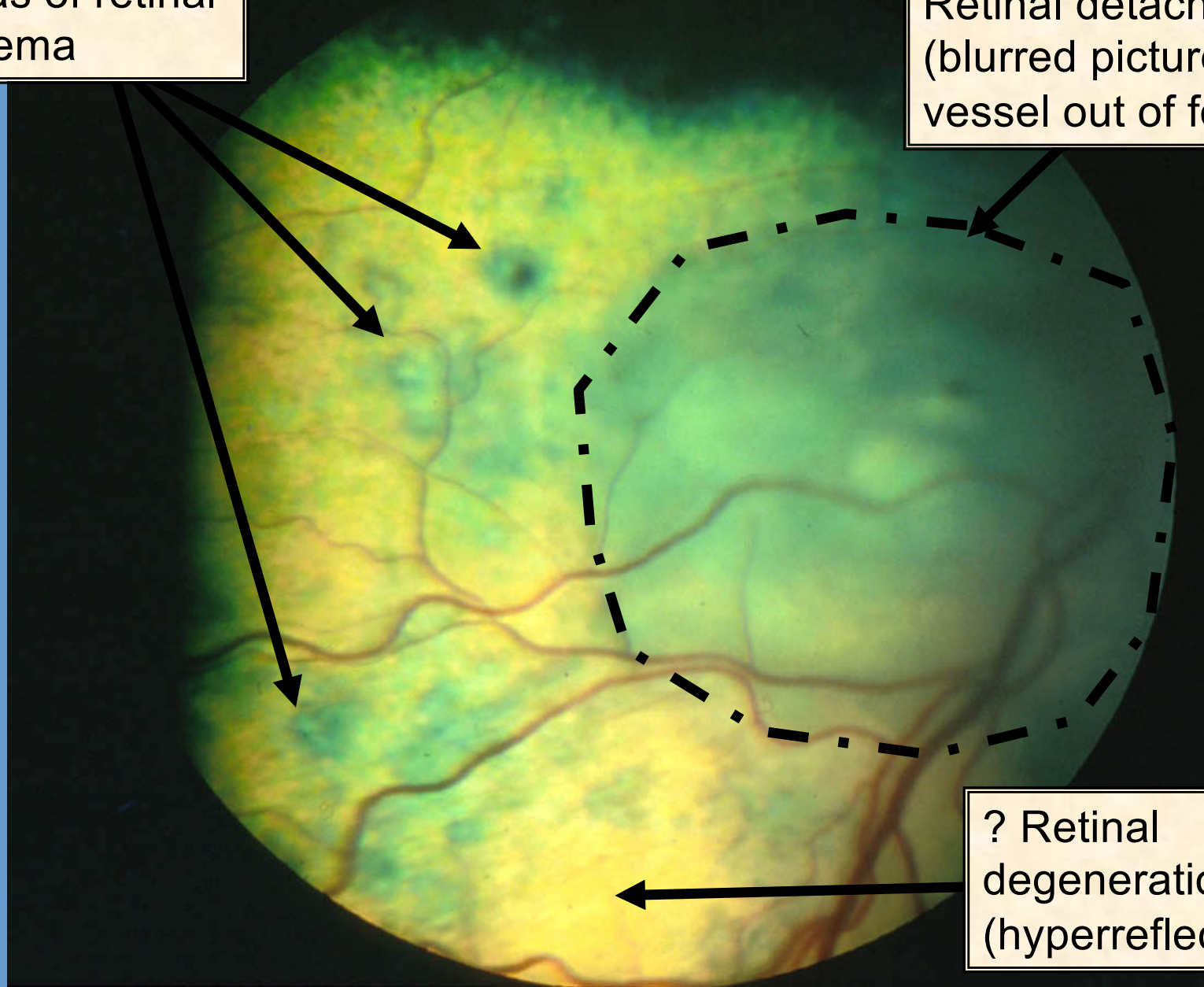


Picture included with kind permission of Professor Sheila Crispin

More severe lesions

Areas of retinal oedema

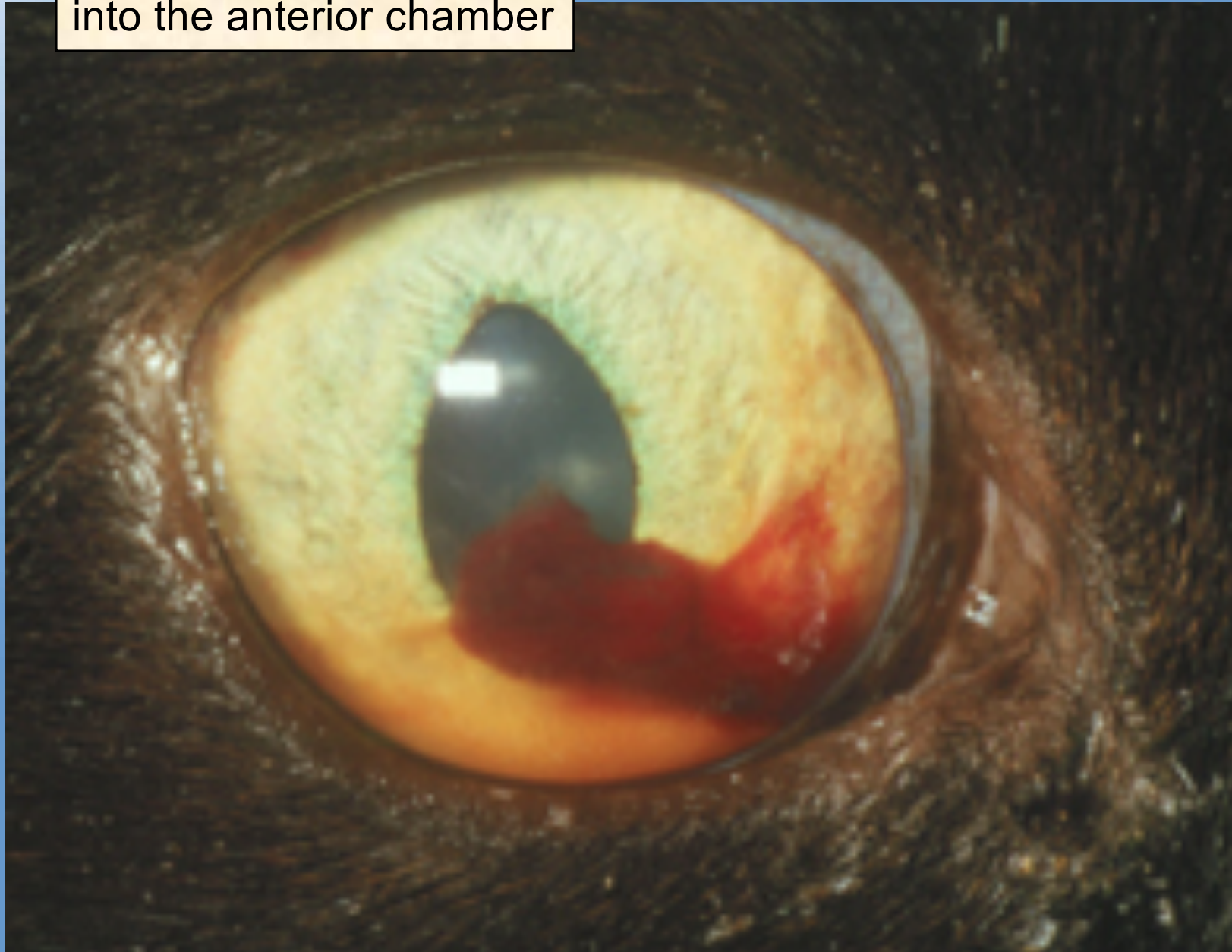
Retinal detachment
(blurred picture,
vessel out of focus)



? Retinal
degeneration ?
(hyperreflective)

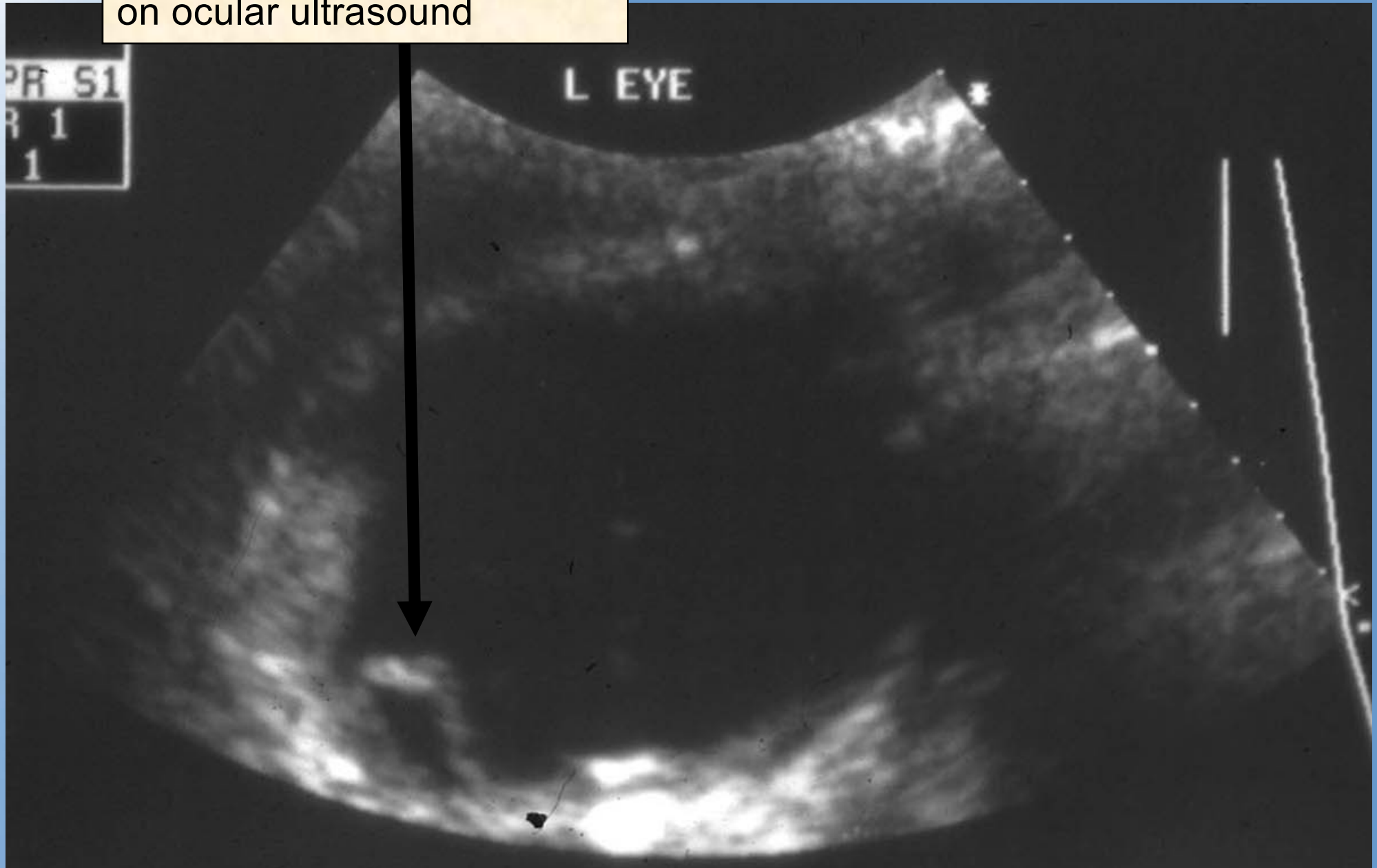
Picture included with kind permission of Professor Sheila Crispin

Hyphaema – bleeding
into the anterior chamber



Picture included with kind permission of Professor Sheila Crispin

Retinal detachment evident
on ocular ultrasound



Picture included with kind permission of Professor Sheila Crispin

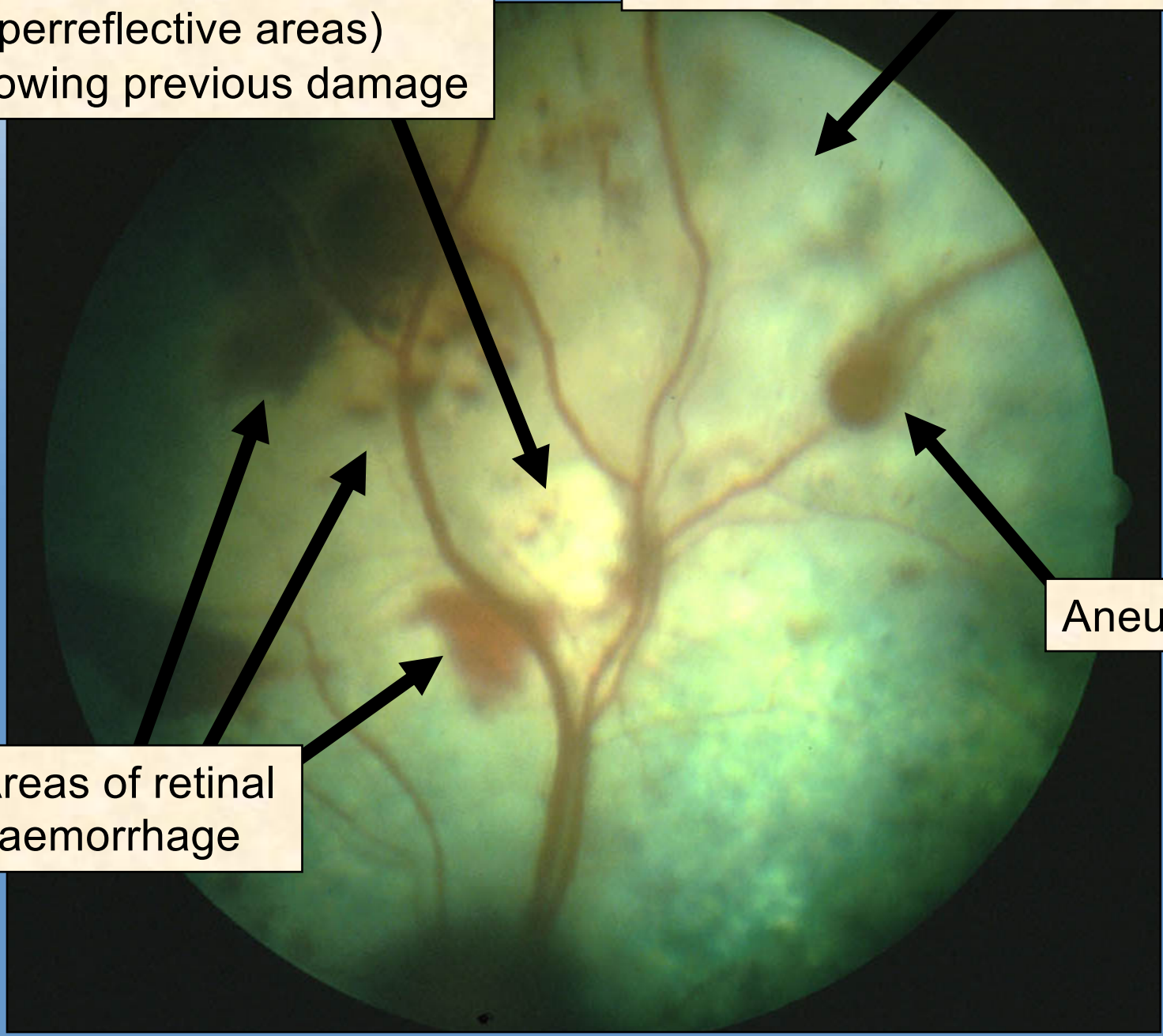
Complete serous retinal detachment evident when a light source is directed into the eye



Picture included with kind permission of Professor Sheila Crispin

Retinal degeneration
(hyperreflective areas)
following previous damage

Retinal detachment (blurred picture)



Aneurysm

Areas of retinal
haemorrhage

Picture included with kind permission of Professor Sheila Crispin

Useful additional information

- Other Free Downloads on vetprofessionals.com
 - Doppler blood pressure measurement
 - Examination of the feline eye and adnexa
 - Eye examination: equipment and techniques
- Video tutorials on vetprofessionals.com
 - How to measure blood pressure
 - How to perform an eye examination
- Try googling and downloading these useful resources:
 - Taylor et al: ISFM consensus guidelines on the diagnosis and management of hypertension in cats (JFMS 2017)
 - Acierno et al: ACVIM Consensus statement on systemic hypertension (JVIM 2018)

Disclaimer

Vet Professionals has developed this document with reasonable skill and care to provide general information on ocular examination and ophthalmic findings in hypertensive cats. This document however does not, and cannot, provide advice on any individual situation. It is not a substitute for advice from a veterinary surgeon on each individual situation. Vet Professionals therefore strongly recommends that users seek, and follow, advice from their veterinary surgeon on any health or other care concerns that they may have concerning their cats. Users should not take, or omit to take, action concerning the health or care of their cats in reliance on the information contained in this document and so far as permissible by law, Vet Professionals excludes all liability and responsibility for the consequences of any such action or omission in reliance on that information.

