

Dr Hayreh, who stated that there was 'complete absence' of such filling in one publication⁶ but described similar findings to ours in 'about one-third' (out of 31 rather than 85 eyes) in another report.⁷ In these circumstances we feel that 'a minority' is a reasonable guestimate of Dr Hayreh's experience.

We feel it is unlikely that this discrepancy in our respective findings is due to the smallness of our series and natural variations in the pattern of ocular vasculature between animals. It is possible, for example, that it reflects the better general circulatory condition of our monkeys after the orbitotomy compared with those operated on by Dr Hayreh; experimental vascular occlusions are produced during general anaesthesia and a variable degree of surgical shock which may impair collateral flow.

5. At no point did we refute the existence of segmental ION; indeed we published 1 such case in our paper (Fig. 11). However, we believe that 'segmental PCA occlusion' is not proved as the cause of the common clinical picture consisting of inferior altitudinal hemianopia, constriction of the peripheral superior visual field, and generalised optic disc swelling with the predominant accumulation of axoplasm in the upper half. This might equally well reflect a general diminution in PCA supply with collateral circulation maintaining the viability of part of the inferior retrolaminar neural tissue (analogous to cilioretinal sparing in central retinal artery occlusion).

Regarding the ocular vasculature of monkeys and man, we have not studied the relevant comparative anatomy (but have rather referred to the views of researchers whose work we respect), so no further comment from us is indicated.

Finally, regarding the number of animals in our experiment, we would reiterate our belief that valid conclusions *can* be drawn from a small series provided the experiment is well designed and the findings are definitive and reproducible. Dr Hayreh occluded the PCAs in 85 (or 170) eyes, yet in none was histopathology of the acute lesion in the anterior optic nerve reported. Despite this provisional and incomplete information he came to the following dogmatic conclusion (not speculation): 'Since the entire optic nerve head (except for

the superficial nerve-fibre layer) is supplied by the PCAs, occlusion of the PCAs produces massive infarction in the optic nerve head' (p. 79). Our investigation shows that this is not the case, thus separating fact from fiction in experimental PCA occlusion. It also casts serious doubts on the assertion in Dr Hayreh's letter that segmental ION 'clearly indicates segmental ischaemic damage in the optic nerve-head'. We have disproved or at least de-emphasised the prelaminar region as the site of infarction, and have demonstrated that the primary ischaemic lesion involves the retrolaminar optic nerve (where, it should be noted, a segmental arterial supply is said to be less well defined).

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References

- 1 McLeod D, Marshall J, Kohner EM. Role of axoplasmic transport in the pathophysiology of ischaemic disc swelling. *Br J Ophthalmol* 1980; **64**: 247-61.
- 2 Hayreh SS. *Anterior Ischaemic Optic Neuropathy*. New York: Springer, 1975.
- 3 McLeod D. Ophthalmoscopic signs of obstructed axoplasmic transport after ocular vascular occlusions. *Br J Ophthalmol* 1976; **60**: 551-6.
- 4 Hayreh SS. Pathogenesis of visual field defects—role of the ciliary circulation. *Br J Ophthalmol* 1970; **54**: 289-311.
- 5 Hayreh SS. Posterior ciliary arterial occlusive disorders. *Trans Ophthalmol Soc UK* 1971; **91**: 291-303.
- 6 Hayreh SS. Occlusion of the posterior ciliary arteries. *Trans Am Acad Ophthalmol Otolaryngol* 1973; **77**: OP 300-9.
- 7 Hayreh SS, Baines JAB. Occlusion of the posterior ciliary artery. I. Effects on choroidal circulation. *Br J Ophthalmol* 1972; **56**: 719-35.

***This correspondence is closed.

Obituary

*Edwin Gordon Mackie, MA, FRFPS,
FRCS Glas, DOMS*

Edwin Gordon Mackie, who was an honorary ophthalmic surgeon to the United Sheffield Hospitals, died on 30 August after a brief illness. He was 84.

He graduated at St Andrew's University, where his undergraduate career was interrupted by the first world war, during which he served as a sergeant in a machine gun corps. In the second world war he was pro-

moted colonel and commanded an RAMC unit overseas.

Mackie was appointed honorary consultant at Sheffield in 1927 to the Royal Hospital. He is remembered as an imaginative teacher by his students. Later in life he became president of the North of England Ophthalmological Society and the Faculty of Ophthalmology. He was a keen attendee at meetings of the Ophthalmological Society of the United Kingdom and was honoured by life membership. In 1955 he gave the Middlemore Memorial Lecture.

His retirement was a happy one with his second wife, who survives him together with a son and 2 daughters. Outdoor sport in the way of shooting and an interest in heraldry filled his days and kept his intellect keen to the end.

S.J.H.M.



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