meningoencephalitis and bilateral acute retinal necrosis. *Clin Oncol* 2004; **16**(1): 81–82.

- 21 Perry JD, Girkin CA, Miller NR, Kerr DA. Herpes simplex encephalitis and bilateral acute retinal necrosis syndrome after craniotomy. *Am J Ophthalmol* 1998; **126**: 456–460.
- 22 Kychenthal A, Coombes A, Greenwood J, Pavesio C, Aylward GW. Bilateral acute retinal necrosis and herpes simplex type 2 encephalitis in a neonate. *Br J Ophthalmol* 2001; **50**(2): 273–274.
- 23 Han DP, Lewis H, Williams GA, Mieler WF, Abrams GW, Aaberg TM. Laser photocoagulation in the acute retinal necrosis syndrome. *Arch Ophthalmol* 1987; 105: 1051–1054.
- 24 Warrell DA, Cox TM, Firth JD. Oxford Textbook of Medicine. 4th ed., Vol. 1. Oxford University Press: Oxford, 2003 pp. 329–330.
- 25 Soul-Lawton J, Seaber E, On N, Wooton R, Rolan P, Posner J. Absolute bioavailability and metabolic disposition of valaciclovir, the L-valyl ester of aciclovir, following oral administration to humans. *Antimicrob Agents Chemother* 1995; **39**: 2759–2764.

EA Bristow, DG Cottrell and RJ Pandit

Department of Ophthalmology, Royal Victoria Infirmary, Claremont wing, Queen Victoria road, Newcastle-upon-Tyne, Tyne and Wear NE1 4LP, UK

Correspondence: EA Bristow, Tel: +44 191 233 6161; Fax: +44 191 282 5446. E-mail: lizbristow@hotmail.com

Eye (2006) **20**, 1327–1330. doi:10.1038/sj.eye.6702196; published online 13 January 2006

Sir,

Massive haemorrhagic retinal detachment after transpupillary thermotherapy for choroidal neovascularisation

Transpupillary thermotherapy (TTT) has been successfully used for treatment of subfoveal choroidal neovascularisation (CNV).¹ Safety however remains a concern, given its narrow therapeutic window.² We report a haemorrhagic retinal detachment (HRD) complicating TTT for CNV.

Case report

A 75-year-old diabetic, hypertensive, and cardiac man complained of poor vision OD for 2 months. Best-

corrected visual acuity was 6/18 OD, and 6/6 OS. Anterior segment OU was unremarkable except bilateral pseudophakia. Fundus examination OD showed a large CNV with serous macular detachment and subretinal haemorrhage (Figure 1a). There was no evidence of age-related macular degeneration (AMD), or polypoidal choroidal vasculopathy (PCV). The left fundus was normal. Fundus fluorescein angiogram OD showed a predominantly occult CNV (Figure 1b). Indocyanine-green angiography ruled out PCV.

The options of observation, PDT or TTT were offered. With patient's informed consent and approval of the institutional review board, TTT was performed with a slit-lamp mounted 810-nm diode laser. Threshold power was determined with an inferonasal test spot. The lesion was treated with five 500–600 mW spots, each 3 mm, lasting 1 min. Power was reduced by 10% over the haemorrhage; increased similarly over serous detachment. No retinal blanching occurred.

The patient's vision suddenly dropped to hand motions 10 days post-TTT. Fundus examination revealed a massive posterior HRD (Figure 1c). Haematological investigations, cardiac, and carotid status were normal; he was not on anticoagulants. B-scan ultrasonography confirmed clinical findings; there was no suprachoroidal haemorrhage. Afterc 6 weeks, vision remained poor; fundus was not visible. Ultrasound revealed breakthrough vitreous haemorrhage, with reduced height of HRD (Figure 1d). The patient did not follow-up subsequently. When contacted a year later, he reported no change in visual status.

Comment

AMD-related CNV may rarely bleed spontaneously at the stage of disciform scar, predisposed by systemic anticoagulants, hypertension, and cardiovascular disease.³ Idiopathic CNV has a better prognosis; but older patients and larger lesions fare worse, irrespective of the baseline acuity.⁴ In our patient, HRD was probably caused by TTT-induced vasodilatation, and subsequent closure,² resulting in dehiscence of choroidal vessels, weakened by age, hypertension, atherosclerosis, and diabetes. The use of multiple burns might also have contributed to HRD, by excessive thermal damage at the overlapping edges. However, we did not observe any visible retinal whitening, popping sound, or patient discomfort during or after TTT. Most patients with occult CNV have lesions larger than two disc areas,⁵ and therefore require either multiple spots;⁶ or large-spot TTT.^{7,8} There is no evidence in the literature of the superiority of one technique over the other. Similar to



Figure 1 (a) Fundus photograph OD showing a large area of choroidal neovascularisation (CNV) with serous macular detachment, and subretinal haemorrhage temporally. (b) Late-phase fluorescein angiogram reveals hyperfluorescence from the occult submacular CNV with a small temporal classic component; and blocked fluorescence temporally due to subretinal haemorrhage. (c) At 10 days after transpupillary thermotherapy (TTT), an extensive haemorrhagic retinal detachment was noticed, involving the posterior pole and temporal midperiphery, with organised subretinal blood temporal to fovea, and preretinal haemorrhage. (d) B-scan ultrasonography, 6 weeks after the complication, showing breakthrough vitreous haemorrhage with reduced height of the haemorrhagic detachment.

multiple spots, a large spot is also likely to deliver excess power by increased uptake in areas with subretinal blood/pigment, which we could avoid by titrating the power of individual burns.

We report a hitherto-undescribed complication of TTT. The older patients undergoing TTT for idiopathic CNV should be cautioned about the small risk of severe visual loss, especially when pretreatment acuity is good, and CNV is extensive.

References

- 1 Maberley DA, Chew H, Ma P, Chang A, Hollands H, Maberley A. Comparison of photodynamic therapy and transpupillary thermotherapy for subfoveal choroidal neovascularization due to age-related macular degeneration. *Can J Ophthalmol* 2005; **40**: 378–383.
- 2 Lanzetta P, Michieletto P, Pirracchio A, Bandello F. Early vascular changes induced by transpupillary thermotherapy of choroidal neovascularization. *Ophthalmology* 2002; **109**: 1098–1104.

- 3 el Baba F, Jarrett II WH, Harbin Jr TS, Fine SL, Michels RG, Schachat AP *et al.* Massive haemorrhage complicating age-related macular degeneration. Clinicopathologic correlation and role of anticoagulants. *Ophthalmology* 1986; 93: 1581–1592.
- 4 Ho AC, Yannuzzi LA, Pisicano K, DeRosa J. The natural history of idiopathic subfoveal choroidal neovascularization. *Ophthalmology* 1995; 102: 782–789.
- 5 Stevens TS, Bressler NM, Maguire MG, Bressler SB, Fine SL, Alexander J *et al*. Occult choroidal neovascularization in age-related macular degeneration. A natural history study. *Arch Ophthalmol* 1997; **115**: 345–350.
- 6 Newsom RS, McAlister JC, Saeed M, McHugh JD. Transpupillary thermotherapy (TTT) for the treatment of choroidal neovascularisation. *Br J Ophthalmol* 2001; 85: 173–178.
- 7 Thach AB, Sipperley JO, Dugel PU, Sneed SR, Park DW, Cornelius J. Large-spot size transpupillary thermotherapy for the treatment of occult choroidal neovascularization associated with age-related macular degeneration. *Arch Ophthalmol* 2003; **121**: 817–820.
- 8 Spaide RF, Slakter J, Yannuzzi LA, Sorenson J, Freund KB. Large spot transpupillary thermotherapy for occult choroidal neovascularization. *Arch Ophthalmol* 2005; **123**: 1272–1273.

D Shukla, NV Rao and R Kim Retina—Vitreous Service, Aravind Eye Hospital and Postgraduate Institute of Ophthalmology, 1 Anna Nagar, Madurai 625 020, Tamil Nadu, India

Correspondence: D Shukla, Tel: +91 452 5356100; Fax: +91 452 2530984. E-mail: daksh@aravind.org, daksh66@rediffmail.com

Eye (2006) **20**, 1330–1332. doi:10.1038/sj.eye.6702198; published online 25 November 2005

Sir,

Expanding role of local anaesthetia in vitreoretinal surgery

We read with interest the paper by Costen *et al*,¹ regarding the expanding role of local anaesthesia (LA) in vitreoretinal (VR) surgery. The study involved 1003 patients undergoing VR surgery, of whom 920 (91.7%) had LA. They concluded that 'careful patient selection, together with the use of sedation when necessary, should ensure that the routine use of LA for VR surgery continues to become more acceptable to patients and medical staff alike'. Two of us have visited the Southampton Eye Unit and were very impressed with their VR service, but nevertheless we have some reservations about the conclusions of this study.

Every patient was under the care of a single consultant anaesthetist who works full time in ophthalmology. No doubt his considerable experience is responsible for the excellence of the blocks. However, this arrangement is impractical in many other hospitals. Anaesthetist staff may need to maintain skills in all areas of anaesthesia, if for no other reason than to carry out their on-call duties competently. Also, with less-experienced anaesthetist staff there will inevitably be a greater recourse to GA. Presumably all the LA surgery took place during routine surgical sessions. In other units when this is not possible, it would again increase the likelihood that a GA will be preferred.

The authors comment that 'in-patient beds are increasingly under pressure and hence general anaesthetic services are often stretched'. There is an implication here that the move to LA is in part driven by necessity rather than choice, and this may well be a factor in other units moving toward an increase in LA rates.

We note that top-up anaesthesia by sub-tenon's injection was required in 5% of cases overall, and

sedation was used in 20.2%. In this unit we have tended to avoid sedation because of concerns that the patient may not always be alert enough to cooperate fully during surgery.

We are puzzled by the inclusion of patients undergoing retinopexy without vitrectomy (group 2 'retinopexies with or without vitrectomy') GA would not normally be considered for such patients. Their inclusion perhaps lessens the impact of the headline LA rate.

There is no doubt that many patients are better served with LA vitrectomies than GA, especially insulindependent diabetics and those in poor general health. However, we do not necessarily see it as desirable to strive for the high LA rate that is advocated in this study. After all, a GA offers a painless alternative to the LA block, and recovery these days is quick enough to make it perfectly feasible for day case surgery.² The greater degree of relaxation in teaching juniors, the avoidance of needles in close proximity to the eye, and the ability to treat the fellow eye, are obvious additional advantages of a GA.

References

- Costen MTJ, Newsom RS, Wainwright AC, Luff AJ, Canning CR. Expanding role of local anaesthesia in vitreoretinal surgery. *Eye* 2005; **19**: 755–761.
- 2 Lagasse RS. Anaesthesia safety: model or myth? A review of the published literature and analysis of current original data. *Anesthesiology* 2002; **97**(6): 1609–1617.

R Gray¹, J Lucas¹ and R Sidebottom²

¹Taunton and Somerset Hospital, Musgrove Park, Taunton, Somerset TA1 5DA, UK

²SHO Ophthalmology, Taunton and Somerset Hospital, Musgrove Park, Taunton, UK

Correspondence: R Gray, Tel: +44 1823 333 444; Fax: +44 1823 342 943. E-mail: roger.gray@tst.nhs.uk

Eye (2006) **20**, 1322. doi:10.1038/sj.eye.6702199; published online 2 December 2005

Sir, **Reply to Gray** *et al*

We note with interest the comments made in the letter from Gray *et al*, and thank the authors for their interest in our paper.