

Faced with the alternatives of a painful blind eye or enucleation, patients are unlikely to be willing to accept the control arm of a trial, nor would we be willing to offer it.

On this basis we have been given approval by our Regional Ethics Committee to use bevacizumab for the treatment of neovascular glaucoma unresponsive to PRP. Where randomised placebo-controlled clinical trials are not appropriate, one should not underestimate the power of a well-conducted, prospective, observational case series.

References

- 1 Canning C, Lotery A. Bevacizumab: a new way of doing business? Eye 2006; 20: 985–987.
- 2 The Central Vein Occlusion Study. Natural history and clinical management of central retinal vein occlusion. *Arch Ophthalmol* 1997; 115: 486–491.
- 3 Grisanti S, Peters S, Tatar O, Ziemssen F, Bartz-Schmidt K. Intracameral bevacizumab for iris rubeosis. *Am J Ophthalmol* 2006; 142: 158–159.

A Spratt, L Ogunbowale and W Franks

Glaucoma Research Unit, Moorfields Eye Hospital, 162 City Road, London EC1V 2PD, UK

Correspondence: W Franks, Tel: +44 20 7566 2059; Fax: +44 20 7566 2826.

E-mail: wendy.franks@moorfields.nhs.uk

None of the authors has a financial interest in any of the products mentioned.

Eye (2007) **21**, 890–891; doi:10.1038/sj.eye.6702776; published online 16 March 2007

Sir

Bevacizumab: a new way of doing business?

We wish to thank Franks for her insightful contribution to the debate on the indications and evidence for the use of bevacizumab in the eye.

One of the prerequisites for an ethical randomised controlled trial is the state of clinical equipoise—the researchers should not be biased strongly in favour of one treatment option or the other.¹ This implies a degree of uncertainty regarding the outcome for both treatment options.

Unfortunately there is little doubt about the natural history of rubeotic glaucoma unresponsive to laser. It is a dire condition with devastating consequences for the quality of the patient's life and their family. It is only natural to wish to do everything one can under such conditions. There is a good theoretical basis for the use of bevacizumab in this condition and so far the safety profile seems good.

We agree with Franks therefore that ranibizumab or bevacizumab in rubeotic glaucoma would be justified in the context of a carefully documented observational study. The wholesale use of this drug in a raft of conditions where other options exist remains a cause for comment. Bevacizumab might well be a very effective and cost-effective drug for much vascular eye pathology—let's just prove it!

Reference

1 Hansson SO. Uncertainty and the ethics of clinical trials. *Theor Med Bioethics* 2006; **27**(2): 149–167.

C Canning and A Lotery

Southampton General Hospital, Human Genetics Divison, Tremona Road, Southampton-S016 6YD, UK

Correspondence: A Lotery Tel: +41 02 38 079 4590; Fax: +44 38 079 4120. E-mail: a.j.lotery@soton.ac.uk

Eye (2007) **21**, 891; doi:10.1038/sj.eye.6702777; published online 16 March 2007

Sir,

Spontaneous resolution of retinal pigment epithelial tears and pigment epithelial detachment following blunt trauma

Retinal pigment epithelium (RPE) tear mostly occurs as a complication of age-related macular degeneration but may also develop as a rare complication after trauma. 1–5 Patients with traumatic RPE tear involving the fovea usually have poor visual prognosis. 1–2 We report the spontaneous resolution of traumatic RPE tears and pigment epithelial detachment (PED) in a patient after blunt trauma who subsequently had good visual recovery.

Case report

A 63-year-old woman presented with left blurred vision after being hit by a badminton racquet. Her left eye





Figure 1 Mid-phase fluorescein angiography of the left eye showing PED with linear areas of hyperfluorescence at the macula owing to traumatic RPE tears.

visual acuity was 20/30 and fundus examination revealed a 1.5 disc-diameter PED involving the fovea and a crescent-shaped lesion at the RPE level temporal to the fovea. Fluorescein angiography showed two areas of window defects due to RPE loss (Figure 1) and optical coherence tomography (OCT) revealed two areas of RPE discontinuation within the PED (Figure 2a). No rolling or retraction of the RPE was detected. She was managed conservatively and serial OCT showed progressive apposition of the torn RPE layer with reduction in PED (Figure 2b and c). Six months later, her visual acuity recovered to 20/20 and OCT showed complete resolution of the PED and restoration of the normal retinal layers (Figure 2d).

Comment

RPE tear occurs rarely after blunt trauma as the force causing the RPE tear falls in a very small window.⁴ The force must be large enough to cause RPE tear but not too large in causing both RPE and Bruch's membrane tears as in choroidal rupture. As the elastic RPE tends to retract over the intact RPE, RPE tear is usually prevented from healing and visual recovery is generally poor. In our patient, OCT demonstrated no RPE retraction or rolling and spontaneous healing of the RPE tears could occur. This might be due to the development of two traumatic RPE tears, which have reduced the forces causing RPE retraction. Despite the PED and one of the traumatic RPE tears involving the fovea, her visual acuity recovered to 20/20. Our case illustrated that in the absence of RPE retraction, traumatic RPE tears may heal spontaneously and patients may have good final visual outcome.

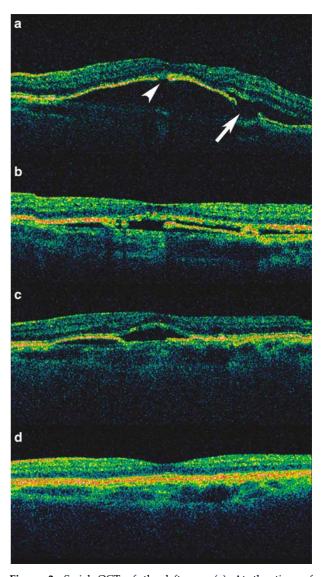


Figure 2 Serial OCT of the left eye. (a) At the time of presentation, two RPE tears were detected with one under the fovea (arrowhead) and one at the edge of the PED (arrow). (b) OCT at 2 weeks postinjury, (c) at 6 weeks postinjury, and (d) at 6 months postinjury showing gradual resolution of the traumatic RPE tears and PED.

References

- 1 Hoskin A, Bird AC, Sehmi K. Tears of detached pigment epithelium. *Br J Ophthalmol* 1981; **65**: 417–422.
- Levin LA, Seddon JM, Topping T. Retinal pigment epithelial tears associated with trauma. *Am J Ophthalmol* 1991; 112: 396–400.
- 3 Doi M, Osawa S, Sasoh M, Uji Y. Retinal pigment epithelial tear and extensive exudative retinal detachment following blunt trauma. *Graefes Arch Clin Exp Ophthalmol* 2000; **238**: 621–624
- 4 Chan A, Duker JS, Ko TH, Schuman JS, Fujimoto JG. Ultra-high resolution optical coherence tomography of



- retinal pigment epithelial tear following blunt trauma. *Arch Ophthalmol* 2006; **124**: 281–283.
- 5 Amiel H, Greenberg PB, Kachadoorian H, O'Brien M. Optical coherence tomography of a giant, traumatic tear in the retinal pigment epithelium. *Acta Ophthalmol Scand* 2006; 84: 147–148.

ACT Fok, TYY Lai, VWY Wong, AL Wong and DSC Lam

Department of Ophthalmology and Visual Science, Hong kong Eye Hospital, The Chinese University of Hong Kong, 147K Argyle Street, Hong Kong, Hong Kong

Correspondence: TYY Lai Tel: +852 2762 3151; Fax: +852 2715 9490. E-mail: tyylai@cuhk.edu.hk

Eye (2007) **21**, 891–893; doi:10.1038/sj.eye.6702781; published online 9 March 2007

Sir, Treatment of a vasoproliferative tumour with intravitreal bevacizumab (Avastin)

Vasoproliferative retinal tumours (VPRT) may cause retinal exudates, haemorrhages or detachment, macular oedema and epiretinal membranes.^{1,2} Treatment modalities include perforating diathermy, photocoagulation, cryotherapy, brachytherapy,¹ photodynamic therapy,² and vitrectomy for tractional detachment or macular pucker.¹

Since Bevacizumab (Avastin) was approved by the American Food and Drug Administration (FDA) in February 2004 for treatment of metastatic colorectal cancer,³ it has been used to treat various neovascular ocular pathologies, macular oedema, and bleb needling following trabeculectomy.

We report a patient with VPRT, who showed visual and clinical improvement after intravitreal Avastin.

Case report

A 59-year-old lady was referred in April 2006 with a right VPRT. She had been treated elsewhere with laser photocoagulation. Her general health was good apart from systemic hypertension. Examination showed right visual acuity of 6/6–1, and infero-temporal, pre-equatorial VPRT surrounded by hard exudates and old vitreous haemorrhage inferiorly (Figure 1). On ultrasonography, this tumour measured 5.0 mm in diameter and 1.7-mm thick (Figure 2). The patient was

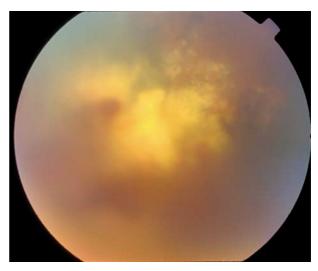


Figure 1 Colour fundus photograph of right infratemporal region showing vasoproliferative retinal tumor with hard exudates and vitreous haemorrhage.

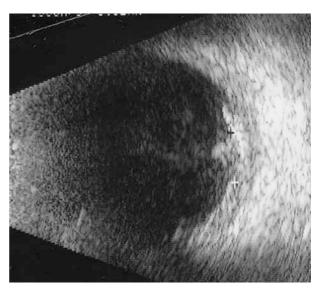


Figure 2 RE VPRT on B scan ultrasonography showing tumour diameter of 5.0 and 1.7 mm thickness.

treated with triple freeze-thaw cryotherapy. In June 2006, the visual acuity worsened to 6/19 due to cystoid macular oedema (Figure 3a), and the tumour thickness increased to 2.6 mm. A decision was made to treat the patient with intraocular Avastin, 2.5 mg in 0.1 ml was administered in September 2006. Immediately after, the patient reported loss of sensation and weakness of her left arm and leg and was investigated for cerebrovascular accident, which was excluded. Five days later, the vision in the right eye had improved to 6/9+3 and the macular oedema was no longer visible. Twenty-four days after treatment, the visual acuity was 6/6-1, tumour thickness