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F Beby^{1,2,3}, K Dieterich⁴ and P Calvas⁵

¹Department of Paediatric Ophthalmology, Femme Mère-Enfant Hospital, Bron, France

²Hospices Civils de Lyon, University of Lyon1, Lyon, France

³IGFL, UMR CNRS 5242, IFR 128 Lyon-Gerland, Lyon, France

⁴Department of Genetics and INSERM U-836, Couple Enfant Hospital, Grenoble, France

⁵Department of Genetics, Purpan Hospital, Pavillon Lefebvre, Toulouse, France
E-mail: beby.francis@neuf.fr

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Sir,

Training in trabeculectomy

I read with interest the clinical study of Welch *et al.*¹

The study highlights the fact that with a decrease in glaucoma surgery trainees have less opportunity for gaining experience in trabeculectomy.

I have worked in West Africa for over 20 years and am the medical director of a 62-bed eye hospital in the north of Benin. In 2010 over 3500 eye surgeries were performed, of which 395 were trabeculectomies.

Open-angle glaucoma is common and is a major cause of blindness. The potent anti-glaucoma medications used in the United Kingdom are too expensive for our poor patients or are unavailable. In any case, many of the glaucoma patients we see have intraocular pressures of 50 or 60 mm Hg and would not respond sufficiently to eye drops however potent. Hence, surgery is the only practical solution.

One possibility for glaucoma surgery training would be for a partnership between hospitals in the United Kingdom and eye hospitals in West Africa, 'the glaucoma capital of the world'. We have the patients. UK consultants and their trainees would be welcome here for short periods.

Conflict of interest

The author declares no conflict of interest.

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AR Potter

Hôpital St André de Tinré, BP 924, Parakou,
Republic of Benin

E-mail: ARPotter@doctors.org.uk

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Sir,

One-year results of intravitreal bevacizumab as an adjunct to trabeculectomy for neovascular glaucoma in eyes with previous vitrectomy

Neovascular glaucoma (NVG) is refractory to conventional surgeries including trabeculectomy with mitomycin C (TMMC).¹ Previous vitrectomy, in particular, can adversely affect the outcomes of subsequent TMMC.^{1,2} Several studies have reported that bevacizumab (Avastin, Genentech, South San Francisco, CA, USA) can control neovascular activity in eyes with NVG.^{3–5} We conducted a pilot study to evaluate the efficacy of intravitreal bevacizumab (IVB) as a preoperative adjunct for primary TMMC to treat NVG in previously vitrectomised eyes.

A total of 15 eyes of 15 consecutive patients (10 men, 5 women) who had undergone a previous vitrectomy received IVB (1 mg) followed by planned TMMC. All patients were followed for more than 1 year postoperatively. The mean patient age was 58.3 ± 11.3 years (31–71 years). NVG was secondary to proliferative diabetic retinopathy in 11 eyes (73%), ocular ischaemic syndrome in 3 eyes (20%), and central retinal vein occlusion in 1 eye (7%). A total of 11 eyes had one, 2 eyes had two, and 2 eyes had three previous vitrectomies. The interval between IVB and TMMC was 10.0 ± 6.4 days (1–22 days). All patient data are shown in Table 1.

The mean intraocular pressure (IOP) reduced significantly from 41.3 ± 11.9 mm Hg (25–62 mm Hg) at baseline to 13.6 ± 7.0 mm Hg (4–32 mm Hg, $P < 0.001$, one-way ANOVA followed by Tukey's test) at 1 month, 13.9 ± 4.5 mm Hg (6–18 mm Hg, $P < 0.001$) at 3 months, 15.3 ± 5.1 mm Hg (8–23 mm Hg, $P < 0.001$) at 6 months, and 15.4 ± 5.2 mm Hg (4–25 mm Hg, $P < 0.001$) at 1 year postoperatively. The success rates defined as IOP below 21 mm Hg without loss of light perception and additional anti-glaucoma surgeries were 87% after 1 and 3 months of follow-up, 80% after 6 months, and 73% after 1 year (Figure 1). Failure (four eyes, 27%) was attributed to the additional glaucoma surgery in three eyes and an IOP over 21 mm Hg in one eye.

Table 1 Demographics and outcomes of 15 cases

Case no.	Sex	Age (years)	Eye	Retinal disease	Baseline IOP (mm Hg)	Days from IVB to surgery	IOP at 1 year (mm Hg)	Comments	Surgical success
1	M	43	R	PDR	26	22	19		Yes
2	M	71	R	PDR	49	21	15		Yes
3	F	58	R	OIS	54	2	15		Yes
4	M	70	R	CRVO	40	4	21		Yes
5	M	56	L	PDR	47	3	4	TSCPC at 4 months after primary surgery	No
6	M	69	L	PDR	53	12	13	TSCPC at 2 months after primary surgery	No
7	F	70	L	PDR	30	14	13		Yes
8	F	56	L	PDR	63	1	16		Yes
9	M	55	L	PDR	39	15	13		Yes
10	F	63	R	PDR	47	10	7		Yes
11	M	31	R	PDR	46	10	20	TSCPC at 1 month after primary surgery	No
12	F	45	R	PDR	40	11	16		Yes
13	M	70	R	OIS	34	12	17		Yes
14	M	66	R	PDR	19	6	17		Yes
15	M	52	R	OIS	30	7	25		No

Abbreviations: BCVA, best-corrected visual acuity; CF, counting fingers; CRVO, central retinal vein occlusion; F, female; HM, hand motions; IOP, intraocular pressure; IVB, intravitreal bevacizumab; L, left; LP, light perception; M, male; OIS, ocular ischaemic syndrome; PDR, proliferative diabetic retinopathy; R, right; TSCPC, transscleral cyclophotocoagulation.

Figure 1 Kaplan-Meier survival curve analysis of surgical outcomes in 15 eyes treated with adjunctive intravitreal bevacizumab followed by trabeculectomy with mitomycin C. Cumulative survival (success) is defined as an intraocular pressure of 21 mmHg or lower without additional anti-glaucoma surgery and loss of light perception vision. The overall success was 73% at 1 year.

Previous studies have reported that the 1-year success rate of TMMC without bevacizumab for NVG in previously vitrectomised eyes was about 50%, which is lower than that of the current study.^{1,2} Preoperative adjunctive use of bevacizumab before trabeculectomy might improve the surgical success rate of NVG in previously vitrectomised eyes.

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A Miki¹, Y Oshima¹, Y Otori², K Matsushita¹ and K Nishida¹

¹Department of Ophthalmology, Osaka University Graduate School of Medicine, Osaka, Japan

²Department of Ophthalmology, National Hospital Organization Osaka National Hospital, Osaka, Japan

E-mail: amiki@ophthal.med.osaka-u.ac.jp

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