We performed trabeculectomies on 48 patients (53 eyes) attending a UK district general hospital and used 5-FU enhancement in 36% of the patients. Our entire cohort was caucasian and just 13% of it previously had cataract extraction. The mean preoperative intraocular pressure was 26.4 (SD 6.72) while by 12 months and 5 years postoperatively, the pressures had come down to 14.9 (SD 3.90) and 14.0 (SD 3.52), respectively. We defined success as intraocular pressure at the last follow-up appointment of $\leq$16 off all medication, which we achieved in 77.4% of our cohort.

During our mean follow-up period of 5.04 years, one patient developed endophthalmitis (1.9%), seven patients (13%) had postoperative choroidal effusions and five patients (9%) postop hyphaemas. In all, 34% of our cohort had early postop hyptony, all of which settled spontaneously and none led to hypotony maculopathy.

Like the authors, we have reservation about routine MMC enhancement of trabeculectomies in view of the reported increased risk of hyptony and endophthalmitis.[2] We never made use of it in our cohort; 5-FU enhancement proved adequate. In tertiary centres with large numbers of patients at high risk of bleb failure, MMC enhancement is likely to be frequently necessary; but for the unselected patient attending a UK district general hospital, we would advocate caution in its use as the 'default' option in glaucoma surgery.

Deep sclerectomy with MMC enhancement appears safe and effective and produces similar results to trabeculectomy with low potency antimetabolite enhancement. In appropriately selected cases, we feel it should be a considered procedure where trabeculectomy and MMC carry potentially higher risks as concluded by Anand and Wechsler.

Conflict of interest

The authors declare no conflict of interest.

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Sir,

Response to Dulku and de Klerk and Moriarty

We would like to thank Dulku[1] and de Klerk and Moriarty[2] for their comments on our article.[3] Both authors have made pertinent and valuable comments.

We agree with Dulku[1] that lack of interval censoring will introduce a right-sided bias and the success rates may be overestimated. This is applicable to all studies on glaucoma surgery, including the recently published tube versus trabeculectomy (TVT) trial.[4] This right-sided bias in survival outcomes may become more pronounced with later failures as patients are usually longer, about every 6 months. To mitigate this bias, 95% confidence intervals (CIs) for outcomes of survival analyses should be considered. We did not provide CI data in the article. However, figure 2 illustrates the complete success rates with 95% CIs. At 3 years after surgery, complete success rates with 95% CI were 70–85%.[3]

de Klerk and Moriarty[2] have raised an important point on the routine use of MMC with glaucoma filtering surgery in Caucasian patients. A randomized controlled trial in the USA has failed to show a benefit of MMC over 5-FU in primary trabeculectomy in the long term.[5] The evidence for routine use of MMC in primary trabeculectomy is tenuous. It is important to note that in our study most patients were at a higher risk to failure than in their cohort, where 13% had previous cataract surgery. In our study, all patients had previous intraocular surgery and more than half had a previous failed glaucoma surgery. In fact, our patients had a higher number of surgeries per eye than in the aforementioned TVT trial. Our findings suggest that pseudophakia, unlike for trabeculectomy, is not a risk factor for failure of DS. Medication-free success rates at 3 years were 82% for eyes with previous cataract surgery, 71% with previous trabeculectomy and 60% for eyes with both trabeculectomy and cataract surgery. Interestingly, all eyes with delayed hypotony in our study had previous glaucoma surgery. This may be because of aggressive postoperative management in these eyes, such as early laser goniopuncture and needle revision with MMC.

We continuously audit outcomes of surgery performed in our department. Primary DS procedures are now augmented with subconjunctival bevacizumab. After 2 years, we were unable to find any difference in IOP outcomes between bevacizumab and MMC-augmented DS. A long-term audit on combined phacoemulsification and DS showed no significant benefit of MMC supplementation. MMC should be reserved for eyes, which have a high risk for subconjunctival fibrosis. In the endeavor to achieve IOPs in the low teens or even lower, patients are often exposed to sight-threatening complications.

Conflict of interest

The authors declare no conflict of interest.

References

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Sir,

Treatment of orbital haemangiopericytoma with surgery and preoperative embolization

We describe a case of extraconal orbital haemangiopericytoma that was completely resected following particle embolisation of the feeding artery.

Case report

A 22-year-old female patient presented with a 10-month history of progressive ptosis, generalised ophthalmoplegia, hypoglobus, and 6/6 visual acuity (VA). MRI with contrast of the orbits revealed a well-defined extraconal lesion above the superior rectus with homogenous enhancement and multiple flow voids, suggesting a vascular tumour. Cerebral angiography demonstrated dense tumour staining, showing multiple feeders to the tumour distal to origin of central retinal artery (CRA). The ophthalmic artery was catheterised using Marathon Flow Directed Micro Catheter (EV3; Irvine, CA, USA) and a Mirage 0.008 Guidewire (EV3), and safely placed distal to CRA (Figure 1a). Embosphere particles measuring 150–300 μm were injected slowly through distal ophthalmic artery into the tumour, under constant blank roadmap, to prevent particles floating retrogradely into the CRA. Approximately 95% devascularisation of the tumour was achieved with a small remnant feeder close to CRA (Figure 1b). Complete excision via lid crease approach was performed subsequently (Figures 2a and b).

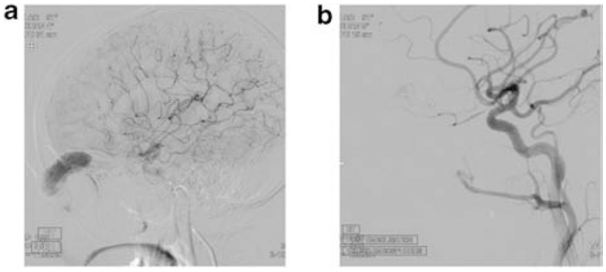

Figure 1 (a, b) Pre- and post-embolisation of the lesion.

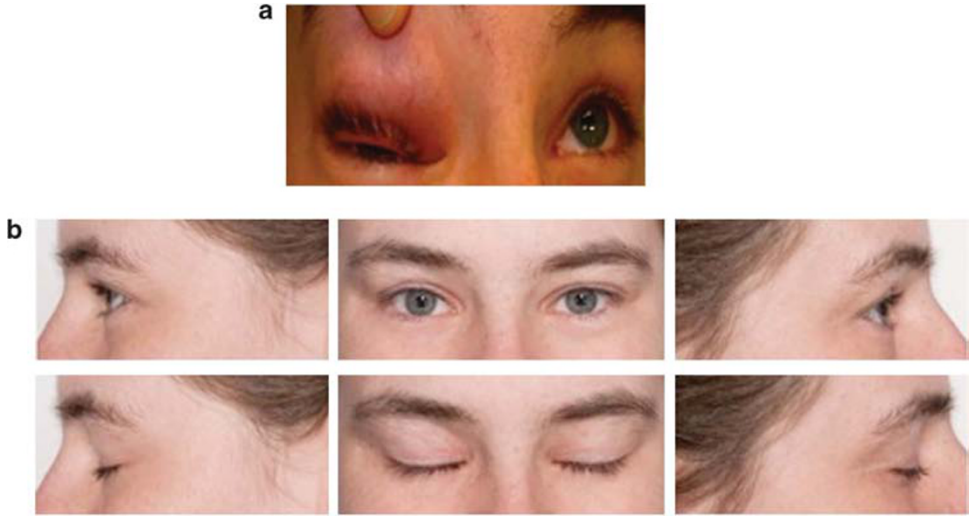

Figure 2 (a, b) Pre and post op picture of the patient.