

Sir,

A case of a 360 degree exuberant trabeculectomy bleb

An exuberant bleb is a challenging complication of trabeculectomy, which might increase in incidence with the use of antimetabolites. It causes discomfort with blurring of vision and, by hindering lid closure, may lead to exposure and, potentially, microbial keratitis. We describe successful treatment of such a case.

Case report

A 70-year-old man presented via his optometrist with advanced bilateral primary open angle glaucoma with significant optic disc cupping and visual field loss. There was no previous ophthalmic history of note; he was taking warfarin for atrial fibrillation and a diuretic for essential hypertension, but was otherwise well.

Dual therapy consisting of guttae dorzolamide 2% b.d. and guttae timolol 0.5% b.d. failed to lower the intraocular pressure (IOP) satisfactorily and an uncomplicated right trabeculectomy without antimetabolite was performed 9 months later. There were no initial post-operative complications, with the trabeculectomy bleb documented as being 'thin' and the IOP 10 mmHg. Post-operative treatment consisted of guttae maxitrol q.d.s. and guttae cyclopentolate 1% b.d. At 6 weeks post-operatively the patient complained of discomfort and swelling of the eye and on examination was found to have a 360 degree exuberant trabeculectomy bleb, which was cystic and tense (Fig. 1). The anterior chamber was deep, IOP 12 mmHg and no choroidal effusions noted.

Five months following the original surgery, the bleb was unchanged and causing marked discomfort and signs of exposure. Surgical intervention was therefore advised. Warfarin therapy was stopped 3 days pre-operatively, with the INR 2.0 on the day of surgery. 9/0

nylon conjunctival to episcleral Palmberg compression sutures¹ were placed either side of the scleral flap and 3 ml of autologous blood² injected into the surrounding bleb. Despite the compression sutures the blood leaked into the anterior chamber through the sclerostomy site resulting in an 8 mm hyphaema. This failed to clear and was washed out using tissue plasminogen activator 7 days later. Unfortunately the bleb remained unchanged and a second opinion was sought from Professor P. T. Khaw.

As a result a further procedure was undertaken. This time warfarin therapy was stopped 5 days pre-operatively, with the INR 1.5 on the day of surgery. The 9/0 nylon compression sutures were replaced and extended more posteriorly. An inferior limbal conjunctival peritomy was created from the 3 to 9 o'clock positions. The exposed Tenon's capsule revealed multiple thick-walled cysts which were excised. No evidence of an auxiliary drainage site from the anterior chamber was found. Approximately 20 interrupted 8/0 vicryl 'quilting' sutures were passed between the conjunctiva and episclera in order to 'tack' the temporal and inferior quadrants of conjunctiva flat, leaving the nasal quadrant free should a further trabeculectomy be required. Subconjunctival injection of autologous blood was repeated.

The inferior bleb flattened completely leaving a functioning, microcystic superior bleb (Fig. 2). The IOP was 13 mmHg. Histological examination of the excised tissue revealed chronic fibrosis with no unusual features.

Comment

Exuberant blebs are an unusual but well-recognised complication of trabeculectomy. This case is notable because the bleb was very large and tense whilst other features of hypotony were absent.



Fig. 1. Appearance of the exuberant drainage bleb prior to initial surgical revision.

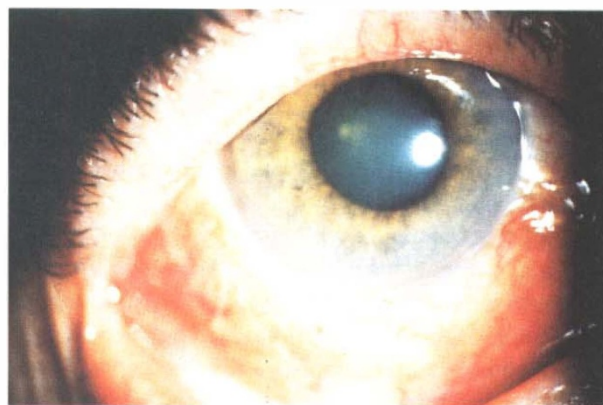


Fig. 2. A dramatic improvement is apparent 3 months following the final revision.

Recently there have been several reports of surgical treatments for exuberant blebs related to excessive filtration, including compression sutures,¹ intra-bleb autologous blood injection,² scleral patch grafts³ and fascia lata patch grafts.⁴ These can be used in conjunction with more recognised treatments such as electrocautery and cryoablation.

The first operation was thought to have failed in part as a consequence of the patient's warfarin therapy, which had not been adequately reversed. Warfarin disrupts normal coagulation and therefore may have prevented the formation of a satisfactory clot, normally required as the 'scaffold' for the fibrotic process. However, we note that recent literature has questioned the efficacy of autologous blood for this purpose.⁵

We conclude, therefore, that in cases with such exuberant blebs as ours, a more aggressive approach with conjunctival suturing may be required.

The authors are grateful to Professor P.T. Khaw for his valuable advice in managing this case.

References

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Sir,

Late onset glaucoma in association with facial angioma

The association of facial angioma and glaucoma has been well established.¹ However, little is known regarding the true age of onset of glaucoma. Most of the information available is from patients with Sturge-Weber syndrome (SWS). We describe two patients who presented to the ophthalmology department with unilateral glaucoma in their sixth and seventh decade, respectively. Each had an associated ipsilateral facial angioma. Late onset glaucoma in association with facial angioma has not previously been reported in this age group.



Fig. 1. Case 1. A left facial angioma is distributed over the area of innervation of the ophthalmic branch of the trigeminal nerve (V1).

Case 1

A 65-year-old woman was referred to the ophthalmology clinic from her optician, who noted raised intraocular pressure in her left eye on routine testing. She denied any visual complaints. She was otherwise fit and well and had no history of seizures.

On examination, she was noted to have a left facial angioma distributed over the area of innervation of the ophthalmic branch of the trigeminal nerve (V1) (Fig. 1). Intraocular pressures were 25 mmHg in the left eye and 18 mmHg in the right. There was glaucomatous cupping of the left optic disc but the right optic disc was normal. Vision in both eyes was 6/5 and a visual field analysis was full.

A diagnosis of unilateral glaucoma was made and she was commenced on timoptol 0.25% b.d. Subsequently, her intraocular pressures stabilised and her visual field has remained unchanged.

Case 2

A 74-year-old man was referred to the glaucoma clinic by his optician, who had noticed a cupped left optic disc on routine ophthalmic testing. Apart from mild Parkinson syndrome he was fit and well. He denied any visual symptoms and he did not have a history of seizures.