

Sir,  
**Myopathic ptosis following posterior sub-Tenon's triamcinolone acetamide injection**

Ptosis is a recognized complication of posterior sub-Tenon's (PST) triamcinolone injection. It is usually mild and thought to arise from trauma to the levator aponeurosis.<sup>1</sup> However, we present a case of complete myopathic ptosis associated with florid granulomatous inflammation and thickening of the levator muscle following such an injection.

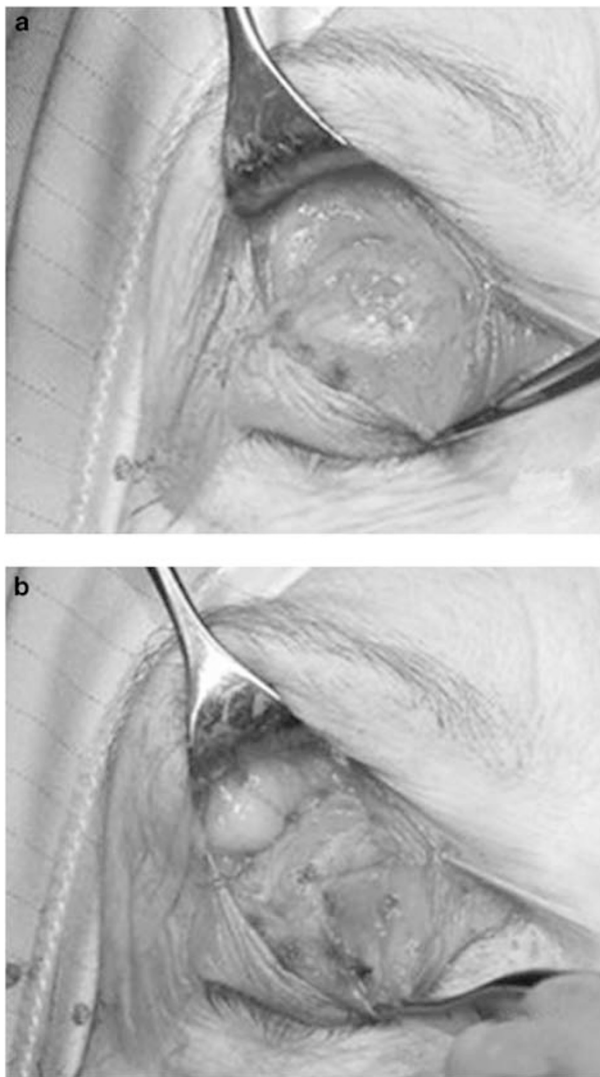
**Case report**

A fit 74-year-old Caucasian lady with previously controlled bilateral idiopathic panuveitis received her first routine PST triamcinolone injection for right cystoid macular oedema. Her only systemic medications were bendrofluzide and quinine. The procedure involved the

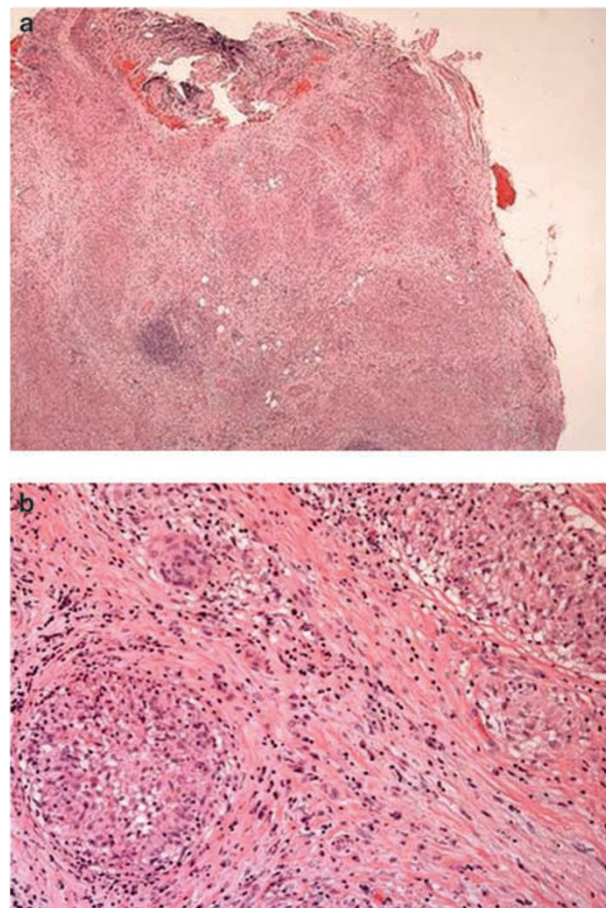
application of topical tetracaine to the superior fornix, followed by the injection of 1 ml (40 mg) of triamcinolone (Kenalog) into the superotemporal sub-Tenon's space using a 16 mm 25-gauge needle. A lid speculum was not used. Two days later, she developed a complete right ptosis with an absent skin crease and a levator function of 8 mm. Extraocular movements and pupils were normal. Following 6 months of unchanging ptosis, she underwent repair. At surgery, the inferior 15 mm of levator muscle was grossly thickened with a whitish appearance and woody texture (Figure 1). The aponeurosis was normal. A 12 mm levator resection with hang-back sutures was successfully performed. Histological examination of the excised muscle showed marked granulomatous inflammation with some fibrosis (Figure 2). This was consistent with a foreign-body-type reaction, although no micro-organisms or residual exogenous material were identified.

**Comment**

The above case differs from recent studies on ptosis following PST triamcinolone injection. These describe a delayed, milder ptosis, with normal levator tissues on



**Figure 1** Intraoperative photographs taken (a) after exposing the levator muscle and (b) following levator resection, showing it to be grossly thickened.



**Figure 2** Composite photograph of the histological specimen showing granulomatous inflammation of the levator muscle with Langhan's type giant cells and granulomas. (a)  $\times 20$  (b)  $\times 100$ .

histology.<sup>1</sup> Steroid-induced myopathy has been documented elsewhere but is typically chronic and degenerative. However, two studies involving intracameral triamcinolone and dexamethasone (Decadron) injection have implicated the vehicle used in steroid preparations in causing mild myopathic ptosis.<sup>2,3</sup> Furthermore, specimens taken of orbital fat, prolapsed after PST triamcinolone injection, have demonstrated histiocytes containing phagocytosed particulate material.<sup>4</sup> We, therefore, hypothesize that in our patient, inadvertent delivery of triamcinolone directly into the levator muscle induced a fibrotic foreign body response, possibly to the vehicle. This is an unusual complication of a common procedure and cautions us regarding the contentious 'off-label' use of triamcinolone acetate.<sup>5</sup>

### References

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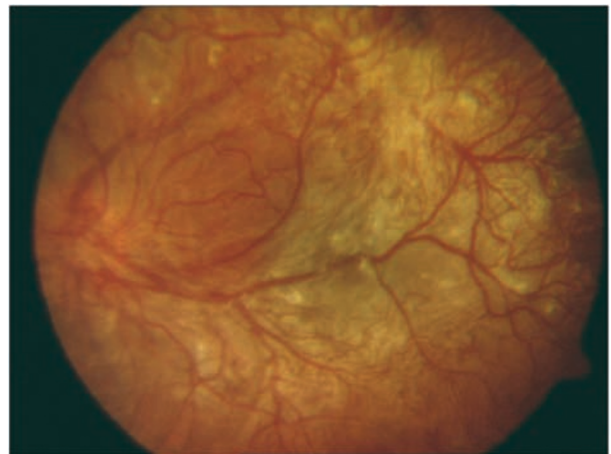
Sir,  
**Bevacizumab (Avastin) as a surgical adjunct in diabetic vitrectomy for fibrovascular disease**

Bevacizumab (Avastin) is a recombinant humanised monoclonal IgG1 antibody that inhibits human vascular endothelial growth factor (VEGF). It has been administered intravitreally in VEGF-mediated disease processes such as choroidal neovascularisation,<sup>1</sup> central

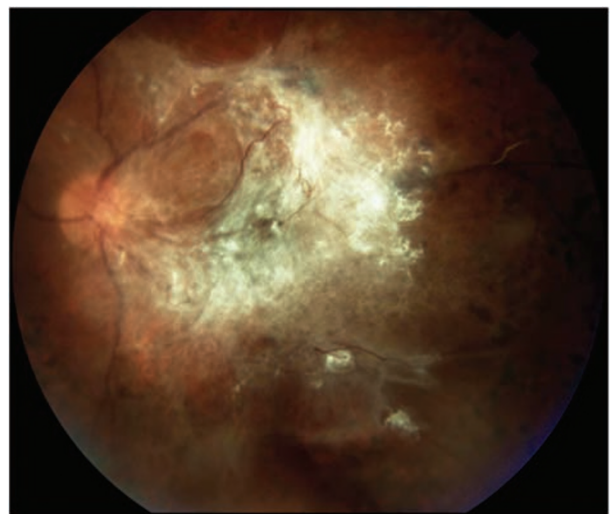
retinal vein occlusion,<sup>2</sup> proliferative diabetic retinopathy<sup>3</sup> and pseudophakic cystoid macula oedema. We report the use of intravitreal bevacizumab as a preoperative adjunct for severe proliferative diabetic retinopathy and highlight a complication that has not been previously documented in the literature.

### Case

A 36-year-old type I diabetic was referred for deterioration of left visual acuity to 3/36 within 6 months. Examination revealed a dense fibrovascular membrane on the left posterior pole (Figure 1) and comprehensive bilateral panretinal photocoagulation. Optical coherence tomography documented gross cystoid macular oedema. Two weeks following intravitreal bevacizumab (Avastin) 1.25 mg in 0.05 ml there was a marked reduction in the vascularity of the premacular membrane (Figure 2). Pars plana vitrectomy



**Figure 1** Fundus photograph at presentation showing a significantly vascularised premacular membrane.



**Figure 2** Fundus photograph at 2 weeks post-injection showing a mainly fibrous premacular membrane.