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CORRESPONDENCE

Sir,
Four quadrant sclerotomies for uveal effusion syndrome

We read with great interest Andrijević Derk *et al*[1]manuscript on medical therapy for uveal effusion syndrome (UES) and wish to add our suggestions whether surgical intervention is required. A number of surgical procedures have been described for the management of UES.[2] Herein, we describe our surgical management of a case of UES, demonstrating the global nature of the ocular pathology.

Case report

A 29-year-old man presented with a 2-week history of decreased vision in the right eye, on the background of poor ipsilateral vision for the past 2 years. He had no significant ocular or medical history. His visual acuity was right 20/200 and left 20/15. Intraocular pressures were right 13 mm Hg and left 14 mm Hg. Examination of the right ocular fundus showed inferior retinal detachment (Figure 1a). No retinal breaks were found, and this was deemed exudative in aetiology. There was no intraocular inflammation. B-scan ultrasonography demonstrated thickened sclera, with no posterior segment mass. Optical coherence tomography demonstrated fluid under the macula (Figure 1a). The axial length was 20.46 mm in the right eye and 21.88 mm in the left eye. The left eye was unremarkable.

The patient was diagnosed with UES predominantly causing an inferior retinal detachment. He underwent right inferior sclerotomies 6 weeks later. Surgery involved performing 80% partial sclerotomy flaps of 7×5 mm with a central full thickness 1×2 mm sclerotomy in the inferior nasal and inferior temporal quadrants (Figure 2, Supplementary Video). The tissues demonstrated increased mucin along the interfibrillary space of scleral tissue, being consistent with UES (Figure 3).

Over the following 4 months, there was no significant improvement in the subretinal fluid (SRF) (Figure 1b) and the right visual acuity deteriorated to 'Hand Movements'. The patient subsequently underwent sclerotomies, as described above, in the superior nasal and superior temporal quadrants. At 1 month postoperatively, the right visual acuity improved to 20/120. The choroidal effusions decreased, demonstrated by a reduction in the SRF (Figure 1c).

Comment

Our case highlights that even in cases of UES where there appears to be localised SRF, a sclerotomy in all four

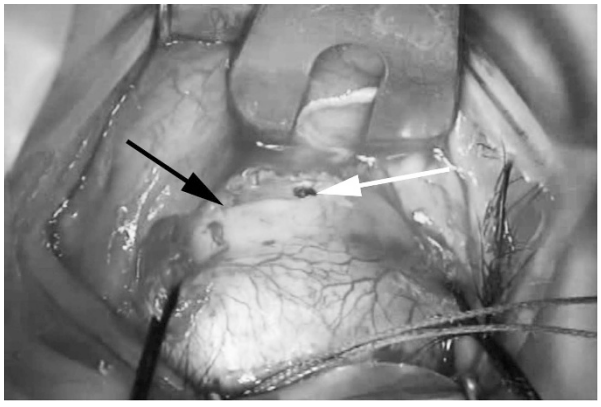

Figure 2 Intraoperative photo demonstrating the partial thickness window (black arrow) and the full thickness sclerotomy (white arrow).

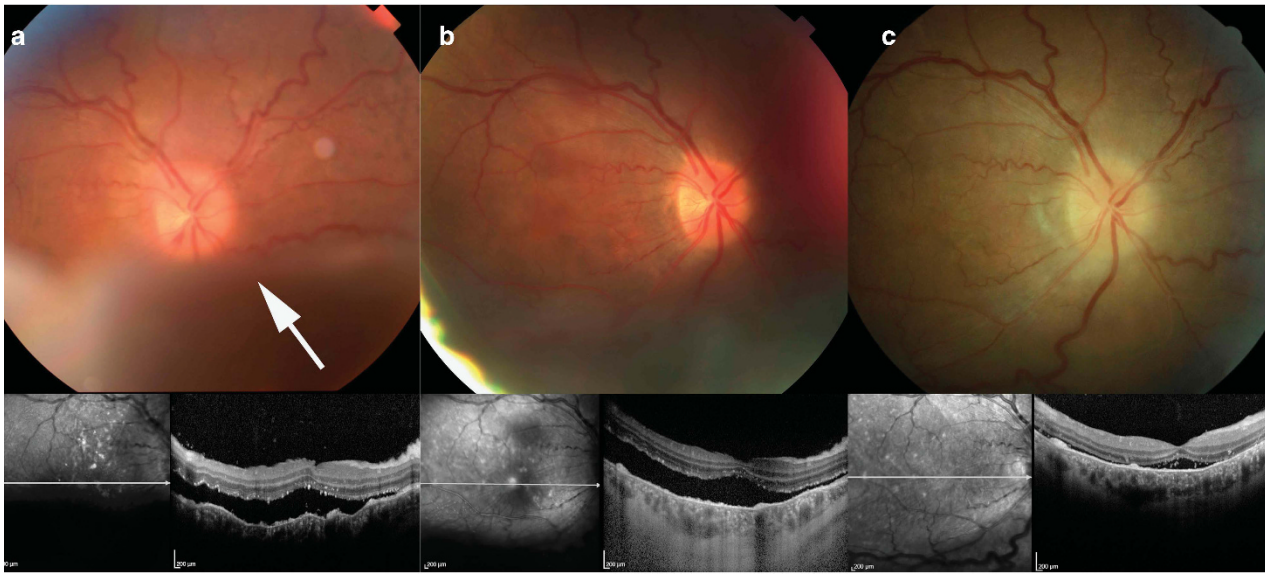

Figure 1 Right colour fundus photograph and macula optical coherence tomography image demonstrating inferior SRF with retinal detachment (white arrow) preoperatively (a); postoperatively following inferior sclerotomies (b); and postoperatively following superior sclerotomies (c). Following the superior sclerotomies, there is significant reduction in the SRF.

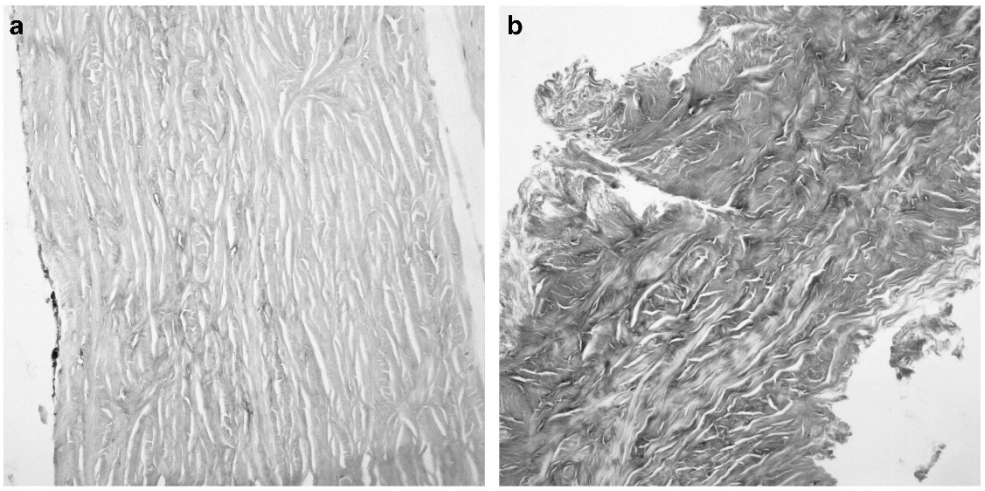

Figure 3 Normal sclera (a) and sclera of the right eye in our patient (b) using Alcian Blue stain at pH 2.5 showing increase of irregular amorphous glycosaminoglycan-like material filling the interfibrillary spaces with disruption of collagen fibres. These features are consistent with UES. A full colour version of this figure is available at the *Eye* journal online.

quadrants may be necessary. This reinforces the global nature of UES, as the localised SRF is likely to be inferior due to dependency. We suggest that sclerotomies may be required in four quadrants to decrease the overall resistance to choroidal fluid outflow thus facilitating drainage of fluid from the suprachoroidal and subretinal space.

Conflict of interest

The authors declare no conflict of interest.

References

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2 Elagouz M, Stanescu-Segall D, Jackson TL. Uveal effusion syndrome. *Surv Ophthalmol* 2010; **55**: 134–145.

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Sir,
Reply to: 'Four quadrant sclerotomies for uveal effusion syndrome'

We read with great interest the recent correspondence by Wang *et al*[1] referring to our case series entitled 'Medical therapy for uveal effusion syndrome'.[2]

Wang *et al* suggested in their case report that even in cases of UES with localised subretinal fluid, a surgical intervention with sclerotomies performed in all four quadrants may be necessary to successfully manage the patient.

With UES being so rare in occurrence, evidence for treatment comes from case reports or case series. Until our case series, recommended therapy for the treatment of UES has been surgery.

As reported in our paper, we managed to completely resolve the UES with medical therapy alone in two patients, whereas the third patient had to undergo surgery in the left eye. We decided to perform the surgery in a stepwise manner; with two inferior sclerotomies initially, leaving the option of further two sclerotomies for subsequent procedure, should the first one fail to resolve the effusion. After the surgical procedure, UES resolved completely, his VA increased from 20/50 to 20/20 and no recurrence was observed until the present day.

The differences between our case and the one reported by Wang *et al* should also take into account the different findings in the histology of the sclera. In our case, even though the sclera was thickened, the histology did not show any abnormalities in connective tissue and there was no excessive accumulation of mucin. According to a study by Uyama *et al*,[3] final results of the surgery depend on the subtypes of UES (nanophthalmic eye *vs* eye with normal axial length; abnormal sclera *vs* normal sclera on histology).

From the reported case of Wang *et al*, it is not obvious whether medical therapy was introduced before the