Sir,

Isolated Muller's muscle resection for the correction of blepharoptosis

Having read with interest the article on conjunctiva-sparing Muller's muscle resection for correction of blepharoptosis,[1] we would like to share our experience and state some variations to the technique that have given us good results.

Case report

In our technique, the conjunctiva is incised at the upper border of the tarsus and dissected upward, freeing it from the Muller's muscle, which is then divided at the upper tarsal border (Figure 1a) and separated from the levator aponeurosis. A measured length of Muller's muscle is resected based on our nomogram (Figure 1b). The free edge of the muscle is sutured to the upper border of the tarsus; the conjunctiva is sutured separately to the anterior aspect of the upper border of the tarsus. We felt that going onto the skin through the levator aponeurosis[1] introduces mechanisms that would influence the amount of correction by involving the aponeurosis. A nomogram to resect a measured amount of Muller's muscle was developed based on our experience gained since 1984. We have realised that less than 8 mm of resection has no effect, but an additional 2 mm resection for every millimetre of ptosis has given consistently good results.

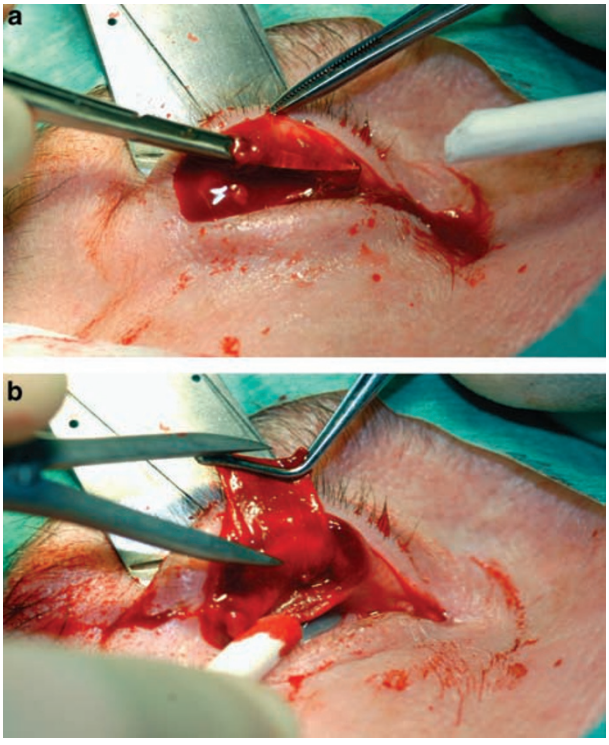

Figure 1 (a) Dissection of Muller's muscle. (b) Nomogram-based resection of Muller's muscle.

Comment

We found that resecting only the central two-thirds width of the Muller's muscle using the same nomogram also gives comparable results. Preserving the medial and lateral extensions of the Muller's to the levator horns is considered important as lacrimal ducts are closely associated with the lateral extension.[2] We have not encountered any uncorrected medial or lateral droop in this group of patients.

A review of our results in the two series—19 eyes of 15 patients, where the entire width of the muscle was resected (1998–2001), and 28 eyes of 21 patients, where only the central two-third width was resected (2002–2007)—has confirmed good comparable outcomes.

We like to commend our approach, which, in addition to tissue conservation, ensures measured amount of resections with minimal interference with the anatomy of the eyelid and provides an excellent opportunity for trainees to understand surgical anatomy of the lids and basic principles of eyelid surgery.

References

1 Khooshabeh R, Baldwin HC. Isolated Muller's muscle resection for the correction of blepharoptosis. *Eye* 2008; **22**: 267–272.
2 Morton AD, Elner VM, Lemke BN, White VA. Lateral extensions of the Muller muscle. *Arch Ophthalmol* 1996; **114**(12): 1486–1488.

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Sir,

Reply to Madhusudhan *et al*

We thank Madhusudhan *et al* for their interest in our paper entitled 'Isolated Muller resection' and would like to take the opportunity to respond to the comments raised.

Although the Muller muscle is the tissue of interest in both techniques, there is a fundamental difference to account for advantages, described in our paper.

Like Putterman's, Chandra's technique, a minor modification of Dortzbach's paper published in 1979,[1] does not allow perioperative adjustment and depends on the use of a nomograms. In our experience with more than 300 Muller muscle resection performed over the last 5 years, in different degree of eyelid ptosis severity, one does not always find correlation between the degree of eyelid ptosis and the amount of Muller muscle resected to achieve the desired effect. Moreover, the result of phenylephrine test does not always correlates with the outcome of Muller resection.[2] Intraoperative adjustment therefore opens the opportunity to be