Adjustable Suture Technique for Levator Surgery

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Externalized adjustable sutures allow for early postoperative adjustment of lid height and contour.

The predictability of levator surgery both for ptosis repair and for recession for eyelid retraction may be influenced by several factors, including variable orbicularis muscle and Müller muscle response to local anesthetic injection; intraoperative hemorrhage involving orbicularis, Müller, or levator muscle; and variable patient cooperation when surgery performed under intravenous sedation. These factors may confound efforts to achieve the desired postoperative result, even when eyelid position and contour are satisfactory at the time of intraoperative adjustment. In certain cases, adjustable sutures may be a useful adjunct in eyelid surgery (Woog et al. 1996).

Surgical Technique

Ptosis repair is carried out in standard fashion. A double-armed 5-0 Prolene suture is passed partial thickness through the anterior surface of tarsus, and both arms are brought up through the edge of levator aponeurosis. A second set of 5-0 Prolene sutures is passed around the first set and the ends left untied (Fig. 183.1). The lid crease incision is then closed in standard fashion with interrupted and running 6-0 plain gut. The Prolene sutures are then taped to the forehead (Fig. 183.2). If there is persistent ptosis at 5–7 days post-op, the levator-tarsal sutures are tied with a single throw and carefully tightened until the eyelid position is satisfactory. An additional throw is placed to create a square knot, after which the ends of the

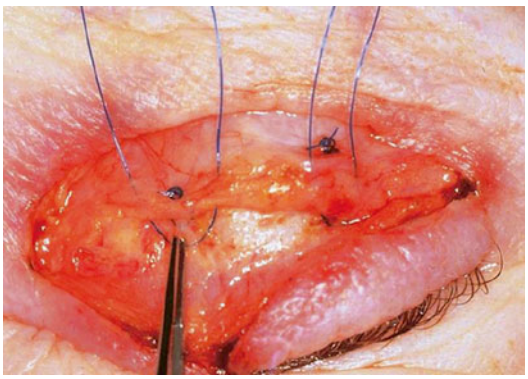

Fig. 183.1 Permanently tied Polyproplene sutures for levator advancement, with adjustable sutures passed in similar fashion around them in a hang-back fashion

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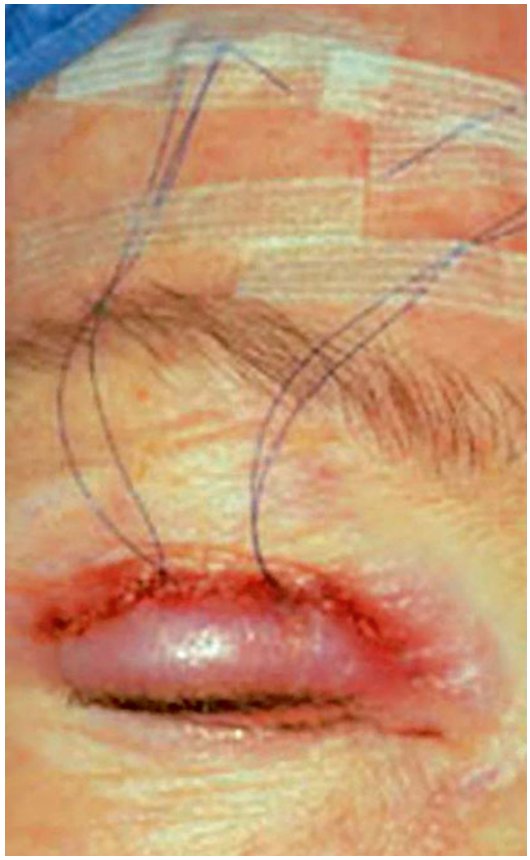

Fig. 183.2 Following incision closure, the adjustable sutures are loosely taped to the forehead for 5–7 days

suture are cut short and tucked beneath the edges of the incision. However, if eyelid position is satisfactory at 5–7 days postoperatively, then the supplemental levator-tarsal suture is pulled out and removed.

Reference

Woog JJ, Hartstein ME, Hoenig J. Adjustable suture technique for levator recession. Arch Ophthalmol. 1996; 114:620–4.