111 Maintaining Lateral Wound and Canthal Regularity in External Midface Lifts

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Aging is associated with descent of the lower eyelid skin, malar fat pad, and associated structures, with a deepening of the nasojugal and nasolabial folds. Orbicularis oculi muscle or suborbicularis oculi fat (SOOF) repositioning is effective in rejuvenating the midface and lower eyelid region; however, the tissue tightening and rearrangement may produce contour abnormalities in the lateral canthal region where these tissues are anchored. Additionally, a lateral canthoplasty that is commonly performed with these lifts may cause canthal irregularity. The appropriate management of lateral canthal tissue, lateral fixation, and recreation of a sharp lateral canthal angle optimize aesthetic and functional outcomes.

The extra lateral tissue created with advancement flaps may be resected or imbricated:

- Lateral orbicularis resection. Excising the redundant muscle may reduce lateral canthal rhytids and avoid tissue bunching. However, orbicularis excision can theoretically weaken eyelid closure mechanisms, increasing the risk of exposure. Additionally, excision may create hollowing or skeletonization in the lateral canthal region (Fig. 111.1). If the hollowing is significant, corrective options can be considered such as soft tissue filler, fat grafting, or surgical intervention.
- Lateral orbicularis imbrication. Imbrication allows for the preservation of the orbicularis muscle but may result in undesirable lateral bunching (Fig. 111.2). When present, this lateral fullness often recedes spontaneously within months. However, if the patient is seeking rapid results, correction can be performed with a simple elliptical excision of the skin

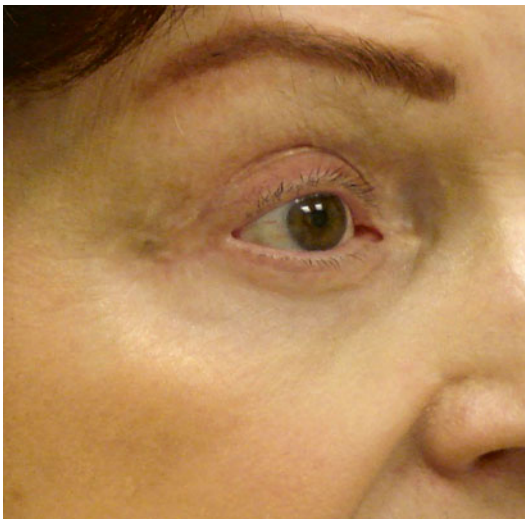

Fig. 111.1 Postoperative appearance of lateral periorbital hollowing after excision technique

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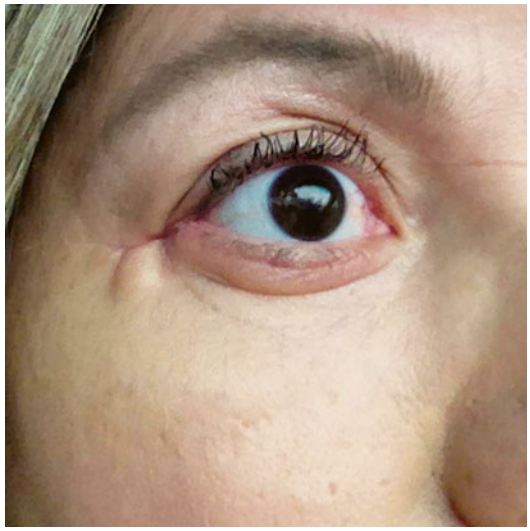

Fig. 111.2 Postoperative appearance of lateral mounding after muscle imbrication technique

and orbicularis with the long axis of the ellipse following the relaxed skin tension line.

Surgical outcomes may be improved by the following intraoperative assessment method to determine whether to excise or imbricate the redundant tissue:

- The lateral orbicularis oculi is dissected from the skin (Fig. 111.3a).
- The muscle is then advanced superotemporally and secured to the outer rim periosteum or temporalis fascia with a mattress suture placed inferomedially through the orbicularis muscle flap (Figs. 111.3b, c).
- With the orbicularis secured in its new position and after the redundant overlying skin (temporal to the lateral canthus and minimally along the lateral lower eyelid) is resected in a vertical direction, the skin is redraped and the underlying orbicularis oculi muscle is assessed for contour abnormalities.
- If the redundant orbicularis causes a mound or appears raised, it is resected above the anchoring suture and along the lateral lower eyelid (Fig. 111.3d).
- If there is minimal tissue redundancy and the overlying skin drapes without the appearance of a mass, the muscle is not further disturbed.

Both methods can produce excellent surgical results; however, aesthetic and functional outcomes may be maximized by intraoperative assessment. The muscle may be resected prior to lifting and anchoring; however, by securing the orbicularis first, there may be a decreased risk of over-resection of the muscle and its resultant hollowing effect, lid malpositioning, or both.

An additional lateral fixation suture (usually 4-0 polypropylene or 4-0 polyglactin) that engages the skin and muscle flap is anchored to the lateral outer rim periosteum at the lateral canthus (Fig. 111.4). This suture forestalls webbing and provides additional support to the elevated midfacial soft tissues until it is removed 1–2 weeks postoperatively.

A sharp lateral canthal angle can be maintained with a suture approximating the upper and lower eyelid gray lines. 6-0 plain gut suture works well for this. The suture is passed through the cut edge of the lower eyelid and exits through the gray line (Fig. 111.5a). The suture is then passed through the adjacent upper eyelid gray line and exits through the cut edge (Fig. 111.5b) and the lateral canthal angle is recreated (Fig. 111.5c). This may be performed in conjunction with mild upper eyelid shortening to avoid lateral upper eyelid renting or ectropion due to eyelid length disparity after lower eyelid tightening (Fig. 111.6).

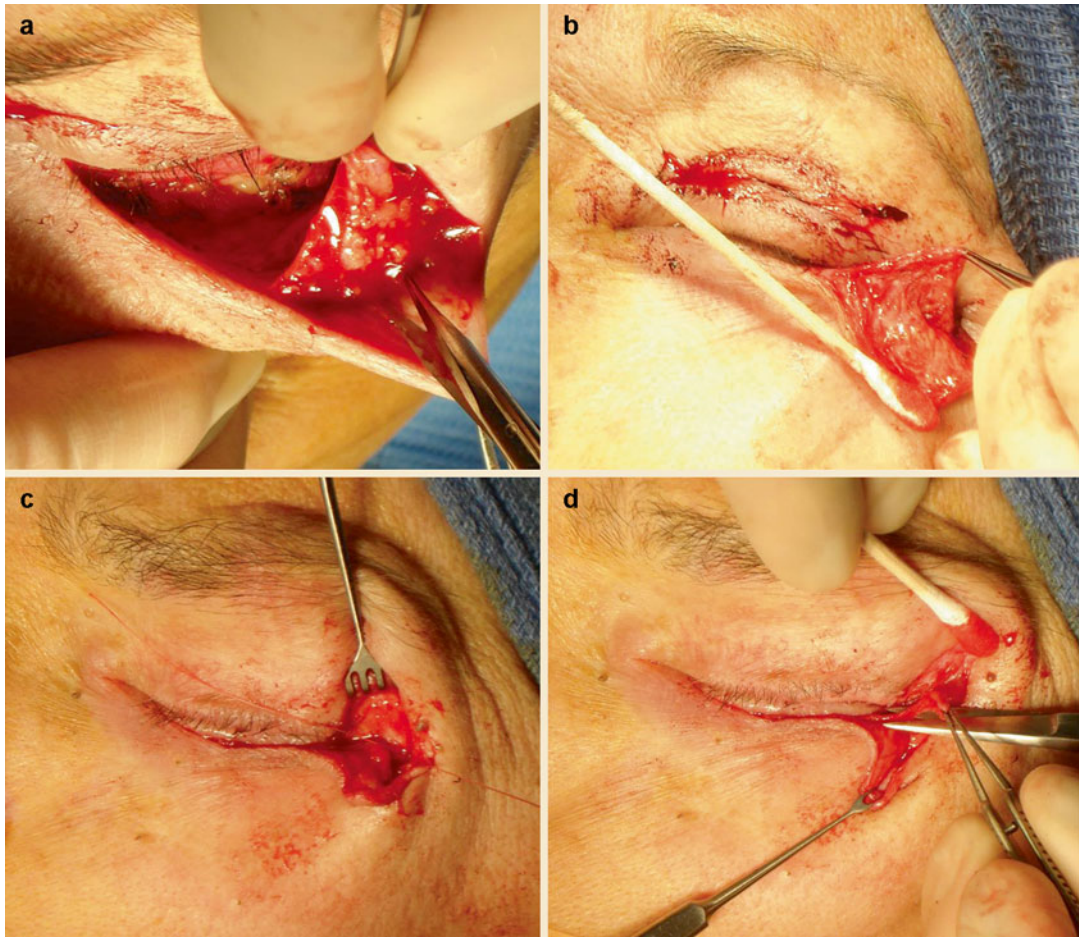

Fig. 111.3 (**a**) Orbicularis oculi muscle separated from overlying skin. (**b**) Orbicularis flap advanced superotemporally. (**c**) Mattress suture secures orbicularis flap, leaving some redundant muscle above the suture. (**d**) Excision technique in which excess muscle above anchoring suture is resected (in the imbrication method, the excess muscle is not disturbed)

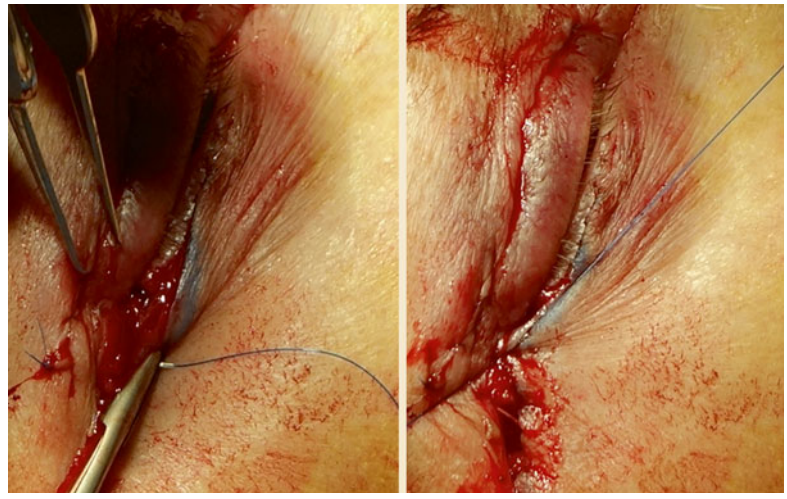

Fig. 111.4 A lateral fixation suture that engages the skin and muscle flap and anchors to the lateral outer rim periosteum at the lateral canthus forestalls webbing and provides support to the elevated midfacial soft tissues

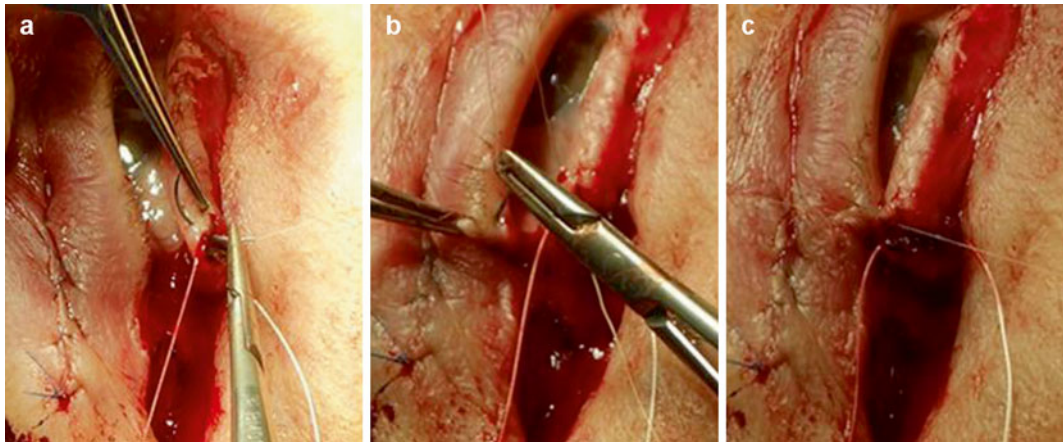

Fig. 111.5 (**a**) The suture is passed through the cut edge of the lower eyelid and exits through the gray line. (**b**) The suture is then passed through the adjacent upper eyelid gray line and exits through the cut edge. (**c**) The lateral canthal angle is recreated

Fig. 111.6 Upper eyelid renting due to eyelid length disparity after lower eyelid tightening