Use of Tisseel in Lower Eyelid Blepharoplasty with Fat Repositioning

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Many techniques are employed in lower eyelid blepharoplasty. Eyelid surgeons are becoming more aware of the importance of blending the lid–cheek junction into a more uniform contour. Several options exist for filling the tear trough and lid–cheek junction. Numerous hard and soft implants are commercially available, and these modalities are best suited to patients having poor projection of the inferior orbital rim and midface.

The use of orbital fat pedicles as a filler is gaining in popularity. The use of fat transposition can be incorporated with both transcutaneous and transconjunctival approaches to the lower eyelid. In either case, a preseptal approach is utilized to expose the arcus marginalis along the entire inferior orbital rim. Periosteum is incised across the orbital rim, and a subperiosteal pocket is created approximately 1 cm deep across the external surface of the rim and onto the malar face (Fig. 70.1). The arcus marginalis is opened to expose the medial, central, and lateral fat pads. The fat pad septae are lysed to allow the fat to flow over the orbital rim in a uniform fashion.

Tisseel (fibrin sealant) (Baxter Corporation, Ontario, Canada) is then prepared per manufacturer's instructions. Hemostasis is confirmed within the subperiosteal pocket. Cotton-tipped applicators may be left within the pocket to keep the area ready for application of Tisseel, which will begin to set rapidly following application (Fig. 70.2). The 1-ml Tisseel package is adequate for both lower eyelids. When both lower eyelids

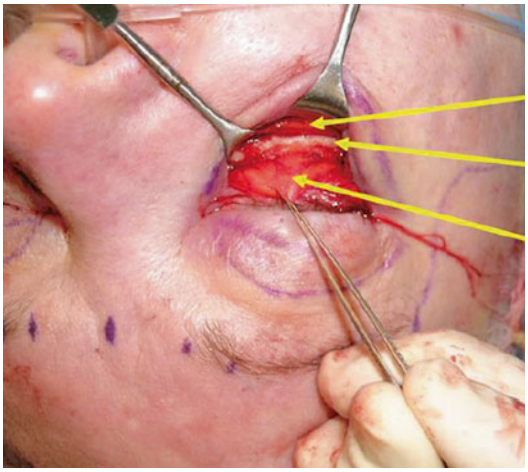

Fig. 70.1 Creation of a subperiosteal pocket. From top to bottom, the yellow arrows have labels: Elevated periosteum, Orbital rim, Orbital fat

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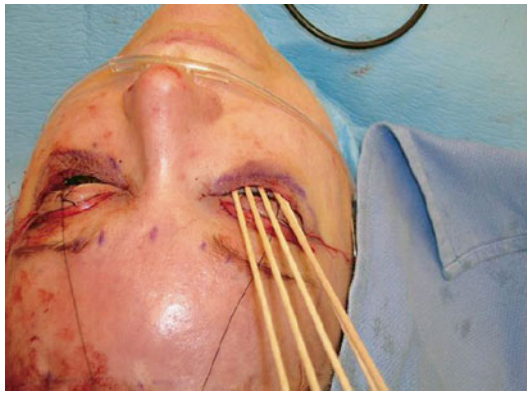

Fig. 70.2 Orbital rim kept dry in preparation for Tisseel application using cotton-tipped applicators

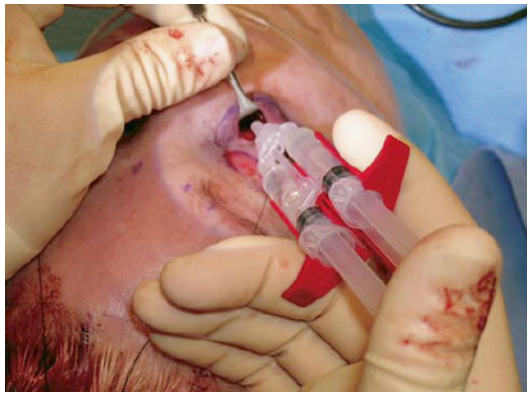

Fig. 70.3 Tisseel (fibrin sealant) placed into subperiosteal pocket

are prepared, the Tisseel is applied deep into the subperiosteal pocket (Fig. 70.3). The cotton-tipped applicators are used to push the prepared fat pedicles into the pocket. Care is taken to uniformly distribute the fat over the orbital rim and into area of greatest need of filling (Fig. 70.4). The Tisseel will begin to gel within 30–45 s of application. Excess Tisseel is removed. The surgeon may proceed with orbicularis tightening and skin redraping as necessary. Conservative removal or sculpting of some fat may be necessary.

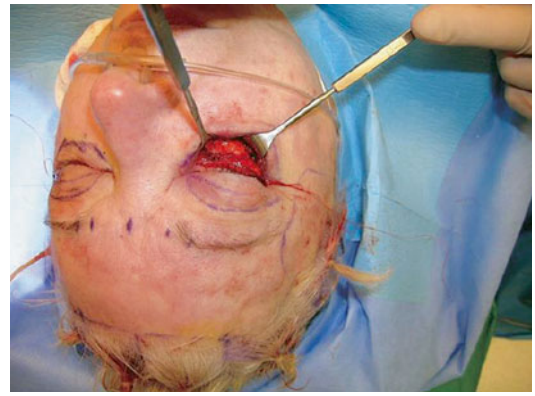

Fig. 70.4 Fat pedicles are draped into subperiosteal pocket and held until fibrin sealant sets

Other fat-capture techniques have been described to include the use of a percutaneous circular suture pass that pulls the leading edge of the fat into the subperiosteal pocket. Several of these sutures must be passed to allow for even distribution of the fat within the pocket. Certainly, the cost of the Tisseel must be considered when compared to other techniques. This disadvantage may be negated by the decreased operative time associated with the use of Tisseel. Other possible benefits may include decreased postoperative edema and ecchymosis.