57 The "GRED (Globe Retropulsion and Eyelid Depression)" Maneuver to Access Postseptal Fat in Transconjunctival Lower Blepharoplasty

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Transconjunctival lower eyelid surgery was first described in the French literature in the 1920s (Bourguet 1924). It fell into disfavor and was generally ignored until 1975 when Tomlinson and Hovey (1975) reported on its use utility for cosmetic blepharoplasty. This group utilized a preseptal dissection plane to access eyelid/orbital fat. By definition, this requires septal division to enter the eyelid fat compartments. Almost 15 years later, Baylis et al. (1989) described the retroseptal (postseptal) transconjunctival approach to lower blepharoplasty which, as opposed to preseptal surgery, enters the eyelid fat pads directly through the lower eyelid retractors, leaving the orbital septum undisturbed. Their drive to performing retroseptal surgery was to spare the orbital septum whose violation has been thought to potentially lead to middle lamellar cicatrix and eyelid retraction (Massry 2010; Marshak and Dresner 2007).

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As the dissection in preseptal surgery is between the orbicularis muscle and orbital septum, the transconjunctival is made just below the tarsus to access this plane (Massry 2011). In retroseptal surgery, a more posterior incision is required, behind the fusion point of the lower eyelid retractors and orbital septum (Massry 2011). To simplify this direct access to eyelid fat, Baylis et al. suggested simultaneous globe retropulsion and lower eyelid inferior displacement to increase surgical exposure (Baylis et al. 1989). As the orbital walls are rigid and the intraorbital contents pliable, these combined maneuvers force fat anteriorly, ballooning the conjunctiva forward and converting the concave internal lower eyelid topography to one which is convex, which more clearly delineates anatomic detail. The initial description of this manipulation (Baylis et al. 1989) was two person dependent (surgeon/assistant) and required a lower eyelid retractor and globe coverage (Jaeger lid plate or similar device). In the current author's experience, this technique can be cumbersome, clutter the surgical field, remove a level of control form the surgeon, and limit visibility.

Over the last 5 years, the authors have utilized a variation of Baylis et al.'s (1989) exposure technique, which is a unimanual and assistant-independent manipulation. This has been called the "globe retropulsion eyelid depression (GRED)" maneuver (Peng et al. 2014). The lower lid is infiltrated transconjunctivally with 2 ml of 1 % Xylocaine with 1:100,000 epinephrine.

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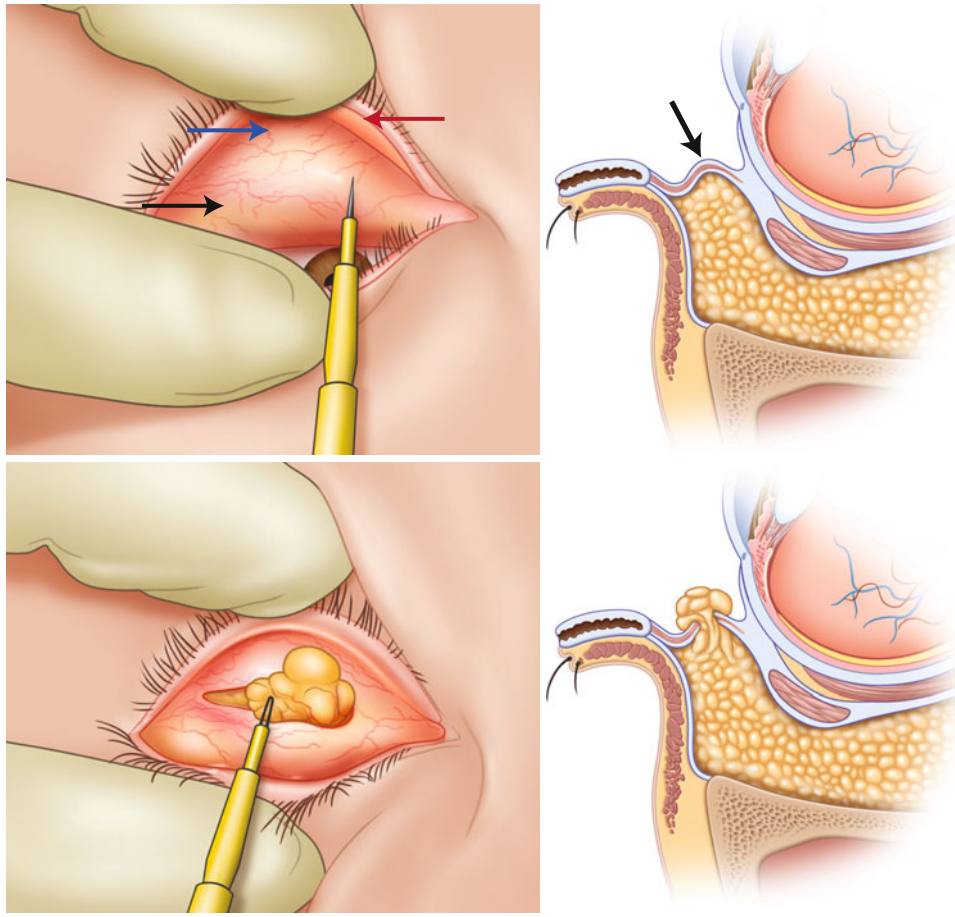

Fig. 57.1 The "GRED" maneuver: (*top left*) unimanual and simultaneous inferior lower lid displacement and globe retropulsion. Note clear delineation of the various segments of the posterior lamella. *Red arrow* is conjunctiva with overlying tarsus. *Blue arrow* is conjunctiva with fused septum/retractor layer (entry point for preseptal dissection). *Black arrow* is conjunctiva overlying yellow fat. This is appropriate incision point for retroseptal entry to fat. (*Top right*) Artists drawing of sagittal section of globe and lower lid showing fat bulging forward with *arrow* directed at retroseptal entry to fat pad. (*Below left*) fat freely expressed by correct incision placement. (*Below right*) sagittal section artists drawing of the same

Appropriate time is given for anesthesia and hemostasis to take effect. With the surgeon's nondominant hand, the lower lid is inferiorly displaced with the second (index) finger while simultaneously retro-placing the globe with direct gentle pressure with the same hand's first (ring) finger ("GRED" maneuver) pushing towards the orbital apex. The transconjunctival surface of the lower lid protrudes forward as eyelid/orbital fat is displaced anteriorly. The conjunctiva with underlying tarsus, fused septum/retractor layer, and more inferior retractor layer with yellow fat visible beneath become clearly identifiable (Fig. 57.1, top). A perpendicular incision through the conjunctiva/retractors over the fat allows direct entry to the post-septal space and fat prolapses into the field (Fig. 57.1, bottom). Fat can then be excised or repositioned as preoperatively planed in the standard way.

This GRED maneuver is reliable and quick (seconds), obviates the need for added instruments which obscure the surgical field, and allows complete surgeon control over exposure (by titrating pressure of each finger). There is less utility for the GRED maneuver when a preseptal dissection is planned, as anteriorizing orbital/

eyelid fat is not a necessary step. The authors feel with some experience the GRED technique is both safe and effective. They have employed the GRED maneuver as an adjunct to TCB with retroseptal dissection in over 500 surgical procedures without an injury or to the globe or lower eyelid.

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