

One, Two Punch to the Eyes

Peri-orbital rejuvenation

By James E. White, MD, FACS

Peri-orbital rejuvenation in the older more mature patient can be very challenging. The peri-orbital region is complex with multiple structures deep, intermediate, and superficial. Change or pull in any direction by millimeters can result in eyelid deformity, exaggerated eyebrow elevation and less than desirable cosmetic effects. A layer by layer approach is important for natural looking rejuvenation, not pulled or plastic, bringing the peri-orbital region into cosmetic

harmony with the face [Image 1, Image 2]. Many patients present for review with expectations for natural looking improvement; but are frightened by overdone celebrity cosmetic results presented by the media as “botched cases”. We have found that systematic approach to peri-orbital rejuvenation must be completed on multiple levels for best combination effects. The result is peri-orbital rejuvenation with over all contour improvements leading to facial harmony.

Facial evaluation must include assessment of deep supportive structures includ-

ing adjacent tissues, intermediate level soft tissues and tightening of the skin envelope in that order. Deep structures are the foundation that the superficial delicate peri-orbital tissues will drape for best cosmetic effect [Image 3]. Lack of attention to the deep structures will limit the cosmetic effect as the more superficial tissues can only go so far to change the overall effect. Pulling tight cannot compensate for the lack of volume [Image 4].

Peri-orbital deep support can be effected by exaggerated drooping of the forehead and

brow. Descent of the cheek tissues due to gravity effects are a major cause for downward pull on the lower eyelids. The cheeks can be elevated with peri-osteal fillers or silicone cheek implants improving the contours between the cheek and the lower eyelids. The forehead tissues can be elevated with multiple types of brow lifts. We have had good results in men with direct Endotine brow lifts [via an upper eyelid blepharoplasty incisions, Image 5, 6] and in women with endoscopic brow lifts or subdermal tricophytic brow lifts. Excess skin can be removed by subcutaneous fore-



Image 1: Before [left] and after [right] AP photographs of a 55 Y/O male patient who underwent peri-orbital rejuvenation with: Endotine brow lift, skin only upper eyelid blepharoplasty, transconjunctival lower blepharoplasty, fat transfer and peri-orbital fractionated CO₂ laser resurfacing.



Image 3: Noted improved peri-orbital contours with volume restoration; Left solid silicone malar cheek implant [arrow].



Image 4: Before [left] and after [right] AP. Endotine [white] brow lift was completed via the skin only upper eyelid blepharoplasty, transconjunctival lower blepharoplasty, fat transfer [yellow] and peri-orbital fractionated CO₂ laser resurfacing [white shaded circle].

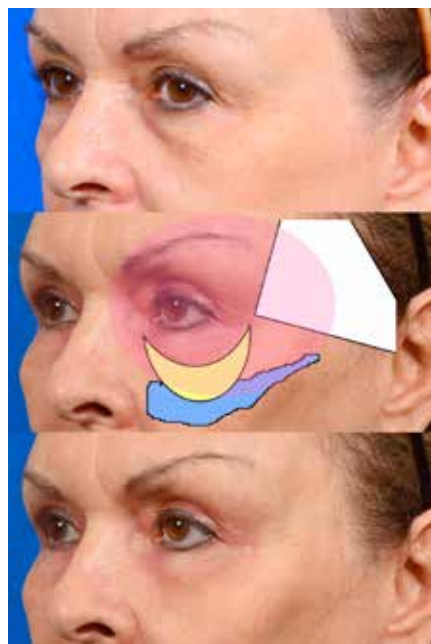


Image 2: Before [top] and after [bottom] LAO photographs of a 59 Y/O female patient who underwent peri-orbital rejuvenation with: solid silicone malar cheek implants [blue], transconjunctival lower blepharoplasty, fat transfer [yellow infra-orbital, white temporal] and peri-orbital fractionated CO₂ laser resurfacing [pink].



Image 5: Before [left] and after [right] AP photographs of a 66 Y/O male patient who underwent peri-orbital rejuvenation with: Endotine brow lift, skin only upper eyelid blepharoplasty, transconjunctival lower blepharoplasty, fat transfer and peri-orbital fractionated CO₂ laser resurfacing. Note peri-orbital superficial eschar [right] four days post surgery due to fractionated CO₂ laser skin resurfacing.



Image 6: Before [left] and after [right] LAO photographs of a 66 Y/O male patient 6 months post Endotine brow lift, skin only upper eyelid blepharoplasty, transconjunctival lower blepharoplasty, fat transfer and peri-orbital fractionated CO₂ laser resurfacing.



Image 7: 66 Y/O female, AP view of excess skin to be removed via subcutaneous tricophytic forehead lift.



Image 8: Before [left] and after [right] AP photographs of same 66 Y/O female patient 3 months post Subcutaneous tricophytic forehead lift, malar fillers and peri-orbital fractionated CO₂ laser resurfacing. Eyebrow arch is somewhat exaggerated, expected early post operative. The arch is expected to drift downward as time passes. Dramatic improvement is evident in the peri-orbital regions.

head flaps in a tricophytic approach. [Image 7]. The tricophytic approach allows transected hair follicles to grow up through the thin scar line providing camouflage of the incision line at the hair line [Image 8]. Once the deep structures have been addressed; we can then turn our attention to the superficial draping structures or the detail work.

Blepharoplasty begins with attention to the upper eyelid. We attempt skin only with orbital septal preservation if at all possible. Gone are the days of complete fat stripping leading to hollow, sunken upper eyes. If necessary limited fat excision mainly of the medial fat pad can be added along with pexy of the lacrimal gland. The lower

eyelids are usually approached with transconjunctival fat excisions; medial, central and lateral compartments. Orbicularis hitch, skin pinch and canthal tightening are reserved for severe lower eyelid problems to limit external skin incisions. Once the skin re-drape has been completed, skin resurfacing can be completed.

Peri-orbital skin is very thin, the thinnest in the body. Upper eyelid incisions are easily hidden when the eyes are open. External incisions in the lower eyelid can be visible, thus the reason for the transconjunctival approach. Fractionated CO₂ laser skin resurfacing is completed to address rhytids with induction of skin retraction and neo-collagen formation. Fractionated CO₂ laser acts to perforate the skin with millions of HTZ (heat induced thermal zones). Areas of skin ablation in the laser drill sites will quickly epithelialize with collagen induction and skin retraction. Only a small amount of skin retraction is necessary for effect once the peri-orbital volume has been addressed [Image 6].

Once deep facial structures have been addressed and the superficial skin envelope has been addressed; attention needs to be turned to the subdermal space. This space can be addressed by fat transfer or with HLA fillers. Placement of fillers in the subdermal space improves contours of the thin skin in the orbital regions, decreases the Tindal effect of discoloration of peri-orbital skin and allows a better transition between the peri-orbital tissues and the cheek. Fractionated CO₂ laser skin resurfacing is completed in regard to rhytids to achieve eyelid skin retraction [Image 7]. Fat transfer or manmade HLA fillers are then placed subdermal superficial to the orbicularis muscle. This softens the transition and allows for smoother contours.

By addressing support first, orbital fat excess excision second, followed by subdermal superficial fill with transferred fat or man-made fillers along with skin resurfacing results in multi approach with what we feel is a natural, not pulled, result. This “one, two punch to the eyes” can bring the peri-orbital tissues into harmony removing years with peri-orbital facial rejuvenation. **VTN**



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