

### Aesthetic Refinements of the Island V-Y Advancement Cheek Flap

*Sir:*

I read with great interest the article on V-Y advancement flaps for defects involving the cheek–lower lid junction by Sugg et al.<sup>1</sup> The authors have presented a rational approach to moderate-sized superficial defects of the lid-cheek junction and provided some useful technical tips. I agree with the authors' suggestion that island cheek flaps advanced, in a V-Y fashion, from an inferior to superior location are more suitable than Mustardé's cervicofacial rotation-advancement flaps in such cases. I would like to emphasize the advantages of the V-Y island cheek advancement flap and add a few points regarding the indications, flap vascularity, design, and movement of the flap and closure of the secondary defect.

First, from an aesthetic point of view, the V-Y island cheek advancement flap is most suitable for defects of the suborbital zone of the cheek. The defect should be extended to the inferior orbital rim cranially and the nasolabial crease medially (Fig. 1). This ensures a scar over the orbital rim and the nasolabial crease (Fig. 2, *above*), which may extend along the marionette line during closure of the secondary defect. This places the scar in an aesthetically pleasing area.

Second, the cheek donor-site V-Y closure enables recruitment of tissue from the lower lateral cheek. This is the reason for a low incidence of ectropion formation, since the tension is distributed laterally and not vertically. Moreover, the advantage over the rotation-advancement flap is that an extensive dissection is not required and a flat and stretched-out contour deformity of the cheek is avoided (Fig. 2, *below*).

Third, the flap has a robust vascularity from the angular artery perforators. These perforators need to be preserved during elevation of the V-Y island cheek advancement flap. This flap may indeed be termed an angular artery perforator flap if these perforators are dissected and preserved during flap elevation.



**Fig. 1.** (*Above*) A defect in the lid-cheek junction. (*Below*) The island V-Y advancement cheek flap elevated.

This is unlike the “random” subdermal blood supply of the Mustardé rotation-advancement flap, which is elevated in the subcutaneous plane. Moreover, if required, a larger V-shaped island flap, including skin in the jowl area, may be elevated, to include the facial artery perforators in addition to the angular artery perforators.

Finally, the only disadvantage of the V-Y island cheek advancement flap is the vertical scar, which violates the relaxed skin tension lines of the cheek. However, if a meticulous surgical technique is followed, the final result may not be a conspicuous scar (Fig. 2).

In conclusion, I would like to encourage surgeons to perform the V-Y island cheek advancement flap for small and moderate-sized defects involving the suborbital aesthetic zone of the cheek and the eyelid junction.

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**Adhish Basu, M.R.C.S.Ed.**

Department of Plastic and Reconstructive Surgery  
Tata Medical Center  
14 MAR (E-W), New Town, Rajarhat  
Kolkata 700156, India  
adhishbasu@gmail.com



**Fig. 2.** Postoperative views.

**PATIENT CONSENT**

*The patient provided written consent for use of the images.*

**DISCLOSURE**

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**REFERENCE**

1. Sugg KB, Cederna PS, Brown DL. The V-Y advancement flap is equivalent to the Mustardé flap for ectropion prevention in the reconstruction of moderate-size lid-cheek junction defects. *Plast Reconstr Surg.* 2013;131:28e–36e.

**Reply: Aesthetic Refinements of the Island V-Y Advancement Cheek Flap**

*Sir:*

We thank the author for his critical appraisal of our article, “The V-Y Advancement Flap Is Equivalent to the Mustardé Flap for Ectropion Prevention in the Reconstruction of Moderate-Size Lid-Cheek Junction

Defects.”<sup>1</sup> Indeed, we believe that the V-Y flap is underutilized for moderate-size superficial defects of the lid-cheek junction. Previous reports have shunned the idea of moving tissue vertically in the malar region due to concerns that the downward pull of a vertically oriented flap would invariably lead to lower lid malposition. This has become a pervasive theme throughout the scientific literature, even though very few studies have investigated these claims. Although we would not argue against tissue descent over time, or the potential for lower lid ectropion following an inappropriately designed flap, we strongly believe the greatest risk for ectropion formation is in the immediate postoperative period, and this risk can be mitigated through proper patient selection and flap design.

We agree with the author that recruitment of lateral cheek tissue during inset of the V-Y flap redistributes the tension laterally. However, we must emphasize that it is important to advance the flap into the defect by first closing the donor site rather than suspending the flap from the infraorbital rim. This provides the flap with a solid foundation to support its weight and further removes the tension from the delicate lower lid structures.

The lateral limb of the V-Y flap does present an aesthetic challenge by producing a prominent scar on the frontal view. This is the primary reason why we avoid use of this flap in the pediatric and young adult populations. In elderly patients, however, we have achieved aesthetically pleasing results with an almost imperceptible scar, despite designing the flap for optimal defect closure rather than basing it on the relaxed skin tension lines. The key factor in this latter group is to perform a careful preoperative assessment of lower lid mechanics. If any degree of lid laxity is suspected, then a lateral canthopexy or canthoplasty should be performed at the same time as the soft-tissue reconstruction.

In summary, for moderate-size lid-cheek junction defects in patients who are at low risk for ectropion, the inferior-to-superior V-Y advancement flap is a viable option that is technically easy to perform, produces predictable outcomes, and is associated with minimal complications.

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**Kristoffer B. Sugg, M.D.**

**Paul S. Cederna, M.D.**

**David L. Brown, M.D.**

Section of Plastic Surgery  
University of Michigan  
Ann Arbor, Mich.

Correspondence to Dr. Brown  
Section of Plastic Surgery  
Department of Surgery  
University of Michigan Health System  
2130 Taubman Center  
1500 East Medical Center Drive  
Ann Arbor, Mich. 48109-0340  
davbrown@med.umich.edu

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