Partial Domal Division: A Technique for Tip Refinement

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The design of the nasal tip represents an important step of rhinoplasty surgery. It requires full knowledge of the anatomy, mechanisms involved in the support of the tip, and consequences of modification of the cartilages.1,2

To reduce nasal tip fullness or decrease the distance between the tip-defining points, procedures such as partial resections, weakening of the lateral crura, or reshaping the lateral crura with sutures can be performed.3 However, these techniques can alter the nasal valve area and/or increase resistance to airflow, especially suture techniques, by narrowing the nasal tip structures.

The nasal valve, both external and internal components, is of fundamental importance once it represents the narrower cross-sectional area of the nasal cavity, with the greatest overall resistance to airflow.4 Therefore, it is crucial to recognize the possible outcomes of techniques applied during nasal tip surgery and the delayed effects of sutures and resections, regarding the breathing function of the nose.

We describe a method of tip refinement that avoids nasal valve impairment that can occur during rhinoplasty.

**TECHNIQUE**

The procedure begins with an open rhinoplasty approach that allows full visualization of the nasal tip and cartilages.

The incision should be made in the dome area, transition between the medial and lateral crura of the lower lateral cartilages with number 11 scalpel blade. The angle and the portion of cartilage preserved are not predefined and can vary depending on how much the surgeon wants to rotate the cartilage. Once this step is accomplished, suture with PDS 6-0 is performed, connecting the remaining edges (see video, Supplemental Digital Content 1, which displays the suture step of the technique, http://links.lww.com/PRSGO/B44). Figures 1 and 2 demonstrate pre and 3 months postoperative photographs of a patient who underwent this approach.

**DISCUSSION**

Historically, resection techniques were used to reshape the tip in primary rhinoplasty. Over the years, surgeons have developed less destructive techniques, using grafts or modifying the cartilages through different maneuvers, including suture techniques.1

The main sutures described until present days, particularly dome sutures, can help flatten the lateral crura of lower lateral cartilage, but are prone to invert the lateral crura resulting in notching aspect, altering the nasal contour, and possibly compromising the nasal valve. Such pinched nasal tip can be noted as a notch of the alar sidewall on base view and may not be resolved with additional performance of alar rim or lateral crural strut grafts.2

According to most authors, the caudal margin of the lateral crura should be at least at the same level as the cephalic margin of the lateral crura.2 One method described to avoid pinching cartilage is the hemitransdomal suture, which is a variation of the transdomal suture, that allows to evert and straighten the lateral crura.5 Nevertheless, the deformity can remain and correction of the problem through secondary rhinoplasty, resuturing or use of grafts may be necessary.

In this context, the partial domal division can be a solution to this challenging problem. The main advantage is the possibility to rotate anteriorly the tip, in such a way that the position of the caudal portion of lateral crura becomes higher than the cephalic portion, allowing adequate tip definition, straightening of the crura, opening of the nasal valve, and better contouring of the alar sidewall.

The approach presented provides good exposure of the tip. The surgeon is able to measure the size of cartilage to be cut, leading to an accurate performance and satisfactory result. Additionally, it is a reproducible and...
simple technique that preserves factors to maintain a per-
vious airway.
Thus, this technique is useful during tip surgery, once
it enables tip refinement and prevention of functional
complications.

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