Use of the “Septal T” as a Spacer and Conformer for a Properly Contoured Nasal Tip in Rhinoplasty

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The complex issue of obtaining an aesthetically pleasing and structurally stable nasal tip brings into play a vast array of maneuvers and techniques, often performed through an open approach. Although these approaches are numerous and different, they all share the attainment of a stable tip cartilaginous structure, and then, if necessary, some sort of refinement or camouflage on top. An obvious situation in which such camouflage is unnecessary is the thick-skinned patient for whom sharp definition intrinsically may be welcome.

As epitomized by Daniel, the ideal tip configuration will usually resemble a gently opened diamond. A similar concept is found, often with different suture terminology, in the work of other well-known surgeons. After appropriate repositioning, tensioning, or stiffening of the lateral crura as necessary, transdomal and interdomal sutures will be used to appropriately shape the domes and allow the gentle anterior domal divergence that will be stabilized by posterior dome equalization sutures. Some final camouflage may be necessary at this point. Various grafts are commonly utilized for this purpose, including segments from the cephalic trim, intercrural soft tissue, crushed cartilage, or even deep temporal fascia if harvested for other reasons.

A specific drawback that will oftentimes detract somewhat from the result of an otherwise well-executed rhinoplasty is a residual V-shaped infralobular cleft, extending from between the domes to the middle and medial crura. This is obviously more evident with thin skin and can be bothersome to the patient preoperatively. In such a patient, the surgeon must note the necessity of gently filling the gap between the new domes, as well as the indentation in continuity that flows below the columellar lobular angle and resides between the medial crural segments along the columna. Beginning in 2014, the senior author (E.R.) noticed that utilizing the “septal T” portion of the septum excised during incremental hump reduction provides excellent material in shape, consistency, and indications.

The term “septal T” refers to the T-shaped dorsal portion of the septum, which includes both a vertical portion of the septum in one single unit and two transverse limbs that are in effect pertinent to the septum, flowing laterally into each upper lateral cartilage (Figure 1). In practice, one of these transverse limbs utilizes the flared dorsal border of the quadrangular cartilage after detachment from the upper lateral cartilages. “Septal T” is a self-defining term; however, one could also picture its cross-sectional contour as more of a wedge-shaped entity, somewhat resembling the prow of an aircraft carrier as seen from the front. This “septal T” defines the shape of the dorsum starting just distal to the end of the nasal bony cap at the keystone area, and contributes to its width, thus serving a relevant purpose to the inner nasal valve. The frequent use of spreader grafts and spreader flaps in contemporary rhinoplasty is based on the principle of restoring that same “septal T” and, subsequently, the valve patency.

The length of the vertical segment depends on the amount of necessary hump reduction. The width of the two transverse limbs varies according to individual anatomy. The senior author first thought of utilizing the “septal T”...
segment for tip refinement after progressively reducing the use of cephalic trim segments, which were once a common part of most of my rhinoplasties. Previously the senior author commonly employed multiple segments in different configurations, usually a horizontal segment plus a vertical one below it, or two vertical segments in parallel configuration. This usually brought me to an “anatomically shaped” graft that served both as a gentle tip onlay/camouflage and as an improvement to the columellar lobular angle. Current thinking is strongly going in the direction of limiting, and possibly avoiding, the cephalic trim for the demonstrated reasons of long-term lateral crura weakness and alar retraction. This new way of thinking has progressively led me to the necessity of finding an alternative source of material. In secondary rhinoplasty, such material is easily found in rib periosteum and temporalis or rectus fascia, whereas the obvious choice in primary rhinoplasty would seem to be the septum. However, septal cartilage, although finely beveled, is not wholly satisfactory as a tip onlay in thin-skinned patients, is limited in quantity, and is often best suited to essential structural applications elsewhere.

The “septal T” portion, obtained after component separation and incremental reduction of the dorsum, has been found to be ideally suited for the following indications: (1) stabilizing the appropriate domal and medial crura architecture; (2) controlling the intercrural width (by contouring the graft); and (3) providing final tip finesse onlay grafting and camouflage.

Such a novel technique obviously requires a hump reduction as a prerequisite. Finally, one has to note that this technique will not serve to strengthen tip support intrinsically, as is commonly done by a strut, septal extension graft, or tongue-in-groove. The “septal T” is not strong enough; one just has to bend it within one’s fingers to appreciate its relative softness. In addition, its function is different, and can be best seen like a filler for a clef or bifidity. The “septal T” will of course help to stabilize the tip, but it will not provide the structural capacity for rotation and support. Thus, the conventional means of tip support remains necessary.

**OPERATIVE DETAILS**

In instances in which a nasal hump has to be reduced through an open approach with appropriate dorsum exposure on the correct plane, a “component separation” of the septum from the upper laterals is first carried out with a semi-sharp suction elevator. In the senior author’s practice, it is commonly observed that there will always be a plane that can easily be perceived in semi-sharp dissection with a suction elevator, where the junction with the beginning of the upper laterals is obvious yet in continuity (see Video 1, available as Supplementary Material at www.aestheticsurgeryjournal.com). The resiliency and consistency of cartilage will then change and soften, based on the structure of the upper laterals. (Note that if one utilizes a number 15 or 11 blade as an alternative for such component separation hugging the septum, he or she will end up with just a vertical septal strip, because the transverse limbs of the dorsal septum will remain attached to the medial edges of the upper laterals.) Then the T segment is detached in one piece by making a precise longitudinal cut of the vertical septal strip with septal scissors in line with the desired hump reduction (Figure 2). As previously mentioned, the anatomic variation in the width of the horizontal limbs will be limited. The consistency and strength of the T-shaped piece will prove to be rather stiff in the vertical segment and somewhat softer in the transverse ones. After harvesting, the “septal T” will be kept in saline antibiotic solution until it will be used.

Once the desired tip architecture has been achieved, it often becomes apparent that the graft serves three purposes well: (1) stabilizing the interdomal distance, (2) filling the interdomal space, and (3) filling the cleft between the medial crura. Precise suturing will be performed under loupe magnification with dyed PDS 5/0 or 6/0 round sutures (Ethicon, Somerville, NJ, USA) (Figure 3 and Video 2, available as Supplementary Material at www.aestheticsurgeryjournal.com). Finally, the “tail” of the graft, which extends to the nasolabial angle at the base of the columella, sometimes needs to be softened by light crushing.

**MY EXPERIENCE**

Since September 2014, this technique has been employed in 27 primary rhinoplasty patients (18 women and 9 men),
with a mean age of 29 years (range, 17–59 years). Skin thickness was described as thin to moderate. All patients needed hump reduction. All patients presented preoperatively with a variably visible cleft in the infralobular region. Such visibility was worse with thin-skinned patients. Some individuals, though unsolicited, spontaneously described this “cleft” or “bifidity” as a relevant cosmetic concern.

**OUTCOMES**

The outcomes achieved were those that we logically expect when an onlay graft of any kind is carefully fashioned and sutured in place with multiple thin-caliber sutures. No displacement or distortion of the graft was noted in any of the patients, and the cleft that was visible preoperatively
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Figure 2. Identification and harvesting of the “septal T” shown in (A) a 19-year-old woman and (B) illustrative form, and in a (C) 23-year-old woman and (D) illustrative form. Both of these women had osteocartilaginous humps.

Figure 3. These close-up intraoperative photographs of two patients show the proper fixation of the “septal T” with multiple 6/0 PDS sutures. (A) This 27-year-old man presented with very thin skin. His tip shape has been finalized by alar transposition, lateral crura struts, and multiple sutures. (B) This 35-year-old woman with thin skin had an osteocartilaginous hump. Her tip shape had been finalized by limited cephalic trim, lateral crura struts, and multiple sutures.

Figure 4. (A, C, E, G) Preoperative and (B, D, F, H) 18-month postoperative photographs of this 31-year-old woman in whom the “septal T” harvested after component separation of the nasal hump provided softening of the tip and filling of the preoperative cleft between the domes and medial crura. Lateral crura transposition and lateral crura struts, as well as tongue-in-groove repositioning of the tip and alar contour grafts, were also performed.
was no longer noticeable postoperatively. In addition, the infralobular portion of the tip gained a soft and uniform contour in all patients (Figure 4). It should be noted that the tip shape obviously depended primarily on the appropriate suturing maneuvers, and secondarily on the infralobular contour, which can then could be finalized, through the use of the “septal T” onlay graft by starting from the domes and going downward. A potential pitfall of the technique is connected to the main reason for its use: a cleft between the domes and middle/medial crura in thin-skinned patients. Because any irregularity can be seen, time and care is necessary to finely adjust the graft edges in a seamless line with the anterior edges of the medial crura and with the new domes defined by the transdomal sutures. Beveling of the graft edges, careful suturing, and due attention are required. When necessary, some soft tissue will have to be added for a final camouflage.

**COST**

This procedure carries no additional cost. The septal portion to be used is the same portion that is harvested when reducing the septal height in a “component separation” hump reduction. In our practice, we routinely utilize some final camouflage material on the tip; therefore, no significant increment in duration needs to be added to the rhinoplasty.

**CONCLUSION**

We described a simple, convenient, and readily available option for finalizing the appropriate shape and contour of the portion of the nasal tip and below the domes, once the underlying structure has been appropriately established through suture techniques. In the case of the surgeon has been careful to excise the segment in one unit and not in piecemeal, as previously described, utilizing the “septal T” can be the ideal solution because it has the following advantages:

1. The intrinsic shape of the septal “T” simulates an “anatomic” graft as a combination between a shield and infralobular graft. Precise suturing will stabilize the mild divergence between the domes, which is desirable in the ideal diamond-shaped tip, and may obviate the need for a subdomal spanning graft to fixate the distance between the domes. Mild crushing can help soften the very distal segment at the nasolabial angle.

2. The “septal T” graft will extend caudally along the whole length of the columella if needed. It can be accurately sutured between both medial crura, fitting nicely in the V-shaped infralobular midline “cleft” (a preoperative finding that patients will frequently notice) (Supplemental Figure 1). Mild crushing can help soften the very distal segment at the nasolabial angle.

3. The consistency of the “septal T” is ideal: it is stiffer in the proper vertical septum portion and more akin to the softness of the upper latissimus dorsi muscles in its horizontal segments. Thus, such segment will be soft and moldable and will hold sutures well.

4. It does not matter very much whether a strut or tongue-in-groove septal extension graft is utilized to position and stabilize the tip, because the “septal T”
will serve as a spacer and a shaper, not as an element of support.

It remains obvious that the “septal T” technique is not suitable in all circumstances. In some patients, the interdomal distance is too great; therefore, the span of the transverse limbs of the T is too short, and either some graft supplement or a different graft will be indicated. In other patients, the space to fill will be limited, so some soft tissue will be sufficient.) yet there is an equal number of patients in whom utilizing the “septal T” segment will serve remarkably well (Supplemental Figure 2).

Supplementary Material
This article contains supplementary material located online at www.aestheticsurgeryjournal.com.

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REFERENCES