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Debridement of Lower Lateral Cartilages in Cleft Lip–Nose Cases along with Management of Skin and Fibrotic Traction

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Additional information is available at the end of the chapter

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Abstract

Rhinoplasties in case of cleft lip–nose and palate are difficult and may include: primary repair of nasal deformities at the time of cleft lip repair; secondary staged repair of cleft lip–nasal deformities; separation of the quadrangular cartilage of the septum from the maxillary crest and securing it to the midline; removal of deviated portions, strut grafts, transplants to project the radix and dorsum, cartilage grafts, multidisciplinary care, etc. Results can vary widely, from excellent in primary corrections to very poor in late surgery cases. In some secondary rhinoplasties, based on skin and fibrotic tractions and deviations, the author offers a more simple method of debridement of the normally formed cartilages. It includes closed approach T-excision with releasing the alar cartilages from their attachments, columella sliding and sutures for stabilization of the columella, nasal tip refinement, dorsal augmentation, and overall symmetry. Such approach could be sufficient in selected cases. In other cases, additional steps may be necessary.

Keywords: Rhinoplasty, cleft lip and nose, debridement, T-excision, transcutaneous Serdev Sutures®, symmetrization, parallel medial crura suture, columella sliding for tip projection

1. Introduction

The goal of surgical treatment of cleft nasal deformity is not only rhinoplasty but includes normal speech, aesthetic facial appearance, normal occlusion, unobstructed nasal passages, and absence of psychological pathology. Surgical correction of nasal deformities removes the abnormal appearance and improves the opportunities for normal social integration.

2. Secondary rhinoplasty

Despite the move toward primary correction of cleft nasal deformities, secondary rhinoplasty procedures are often necessary. It is advisable that the patient has reached bony maturity. Maxillary deficiencies have to be treated appropriately prior to surgery.

Open approach is often used, because it provides exposure. Autologous cartilage grafts are often used to provide structural support and to restore contours and grafts – to project and support.

3. Surgical technique

Having in mind that deformations depend mostly on skin/fibrotic traction, the author uses the closed rhinoplasty approach. Its main goals, by steps, are:

1. Using retrocolumellar incision and eventually T-excision technique to correct hanging columella or elongated (mostly deviated) caudal septum.
2. To release the lower lateral cartilages from the skin/fibrotic lateral attachments and reposition them. Usually, alar cartilages show minimal deformations.
3. To redefine the dome and tip defining points, using transcutaneous Serdev Sutures® (described in the next chapter): a. for tip refinement and symmetrization of the tip and tip defining points of projection; b. transmucosal domal and columellar sutures for refinement of the nasal tip and stabilization of the columella. In cases of equal projection of both sides of the tip, the needle should penetrate horizontally. The trick to get symmetry in unequal projection of both sides is to place the needle and suture parallel to the asymmetric tip (Figure 1).

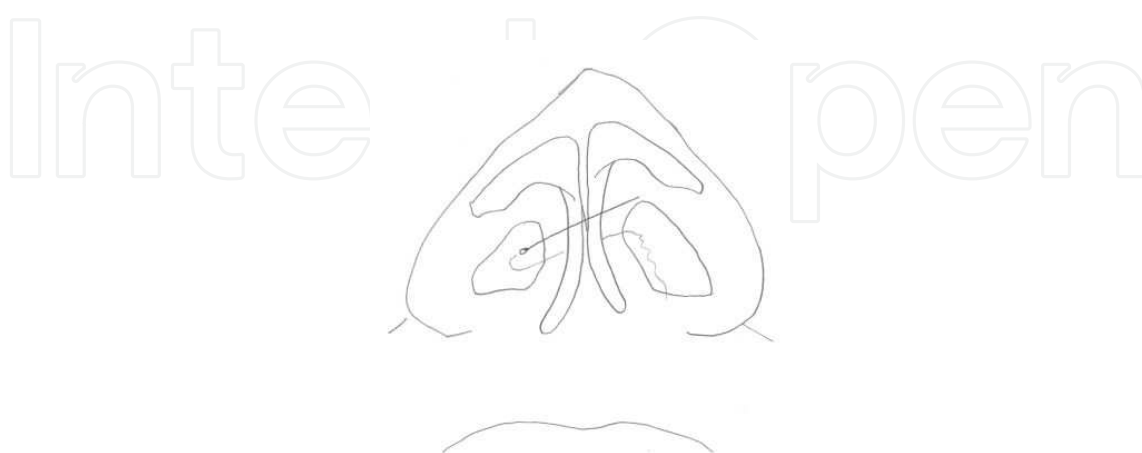


Figure 1. Transmucosal sutures have to be parallel to the symmetry or asymmetry of the tip defining points; 2–3 sutures can equalize the dome projection on both sides.

4. To project the nasal tip. Instead of a columellar strut graft, the author uses columella sliding for nasal tip projection. Note that columella sliding cannot be used in most Asian, Afro-American, and some Latino-American patients, where the columella is typically soft and unstable and is the main reason for the low projection in these ethnic groups. Caucasian septum and columella are very stable and in most cases do not need additional support.

Repositioning of the lower lateral cartilage and some of the described mini-invasive techniques can be sufficient to restore the columella, refine the nasal tip, get tip projection, and achieve overall symmetry (Figure 2).



Figure 2. A. Before. The lower lateral cartilages in cleft lip and nose cases are exposed to skin/fibrotic pressure and/or traction. The chin is deviated to the right. B. After author's secondary rhinoplasty: retrocolumellar incision and T-excision technique to deal with hanging columella and elongated deviated caudal septum; debridement, release of lower lateral cartilages from the skin/fibrotic lateral attachments and their repositioning; transmucosal domal and columellar sutures to reposition the lower lateral cartilages and obtain symmetry at the domal tip **defining** points (as shown in Figure 1), for refinement of the tip and stabilization of the columella; redefining the dome and tip defining points using transcutaneous Serdev Sutures® (described in the next chapter) for tip refinement and **symmetrization** of the tip and tip defining points of projection; columella sliding for nasal tip projection. Additional Serdev Suture® technique is performed for transcutaneous chin soft tissue fixation to the left-side menton periosteum. The result is equalization and stabilization of the nose and overall facial symmetry.

More severe cases require additional procedures and local flaps for correction.

4. Conclusion

In selected cases, more atraumatic and mini-invasive techniques such as debridement and release of the lower lateral cartilages, author's suture techniques, and columella sliding can be enough to stabilize, equalize, and get overall symmetry of the nose and the whole face.

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References

- [1] Serdev NP. Mentoplastia sin implantes. IX Jornadas Mediteraneas de Confrontaciones Terapeuticas an Medicina y Cirurgia Cosmetica, Sitges, Spain, May 2001. Available from: <http://ijcs.org/7/23/135/index.php?pageFrom=1&pageTo=21>
- [2] Serdev NP. Principios basicos para el rejuvenecimiento facial. IX Jornadas Mediteraneas de Confrontaciones Terapeuticas an Medicina y Cirurgia Cosmetica, Sitges, Spain, May 2001. Available from: <http://ijcs.org/7/23/128/index.php?pageFrom=1&pageTo=60>
- [3] Serdev NP. Suture Suspensions for Lifting or Volume Augmentation in Face and Body (English version), 2nd Annual Meeting of the National Bulgarian Society for Aesthetic Surgery and Aesthetic Medicine, Sofia, March 18, 1994, *Int J Aesth Cosm* 2001; 1(1):2561-2568
- [4] Serdev NP. Principles of Face Beautification, Third World Congress of the International Society of Aesthetic Surgery, Tokyo April 8-10, 2000, 9W58
- [5] Serdev NP. Serdev sutures for: Nasal tip refinement, nasal tip rotation, Nasal alar base narrowing. *Int J Cosm Surg* 2007; 7(1):328- 386
- [6] Serdev NP. Serdev techniques in beautification rhinoplasty: T-zone excision, columella sliding, Serdev sutures. *Int J Cosm Surg* 2008; 8(1):388-469
- [7] Serdev NP. Nasal tip refinement, rotation, projection, alar base narrowing In: Serdev NP, Ed. *Serdev Sutures® Face and Body Lifts and/or Volumising*. Marllor editions, Italy, 2013: 75-81
- [8] Serdev NP. Serdev Sutures® in middle face 4. Beautification rhinoplasty – tip rotation and refinement, alar base narrowing. In: Serdev NP, Ed. *Miniinvasive Face and Body Lifts – Closed Suture Lifts or Barded Thread Lifts*. Intech, Rijeka, 2013. Available from <http://www.intechopen.com/books/miniinvasive-face-and-body-lifts-closed-suture-lifts-or-barbed-thread-lifts/serdev-sutures-in-middle-face>.
- [9] Serdev NP. Live on TV Rhinoplasty, Brow Suture Lift, Chin Enhancement 10.01.2013 r. <http://www.youtube.com/watch?v=H73PTB2xyKU>