
Nikolay P. Serdev MD PhD
New Bulgarian University, Sofia, Medical Centre “Aesthetic Surgery and Aesthetic Medicine”, Sofia, Bulgaria

ABSTRACT

“T-excision” for nasal tip rotation is used to reduce long noses as an independent procedure or as a part of primary or secondary rhinoplasties. It consists of “en bloc” excision of the cephalic part of the greater alar cartilages and elongated caudal septum, using: 1. total retrocolumellar incision, prolonged in transcartilaginous incisions, through opposite nostrils, leaving the skin intact, without scars; 2. septal incision, perpendicular to dorsum to form correct dorsum length, prolonged into intercartilaginous incisions, through opposite nostrils, leaving only skin intact. Thus, the cephalic strip resection is done en bloc with the unnecessary excessive and prolonged septum. Two, three mattress transmucosal septo-columellar sutures for 2-3 weeks are enough to support healing. The T-excision technique is mini invasive, and time saving. It is safe, well tolerated by patients, there is no bruising, no pain after surgery, no need of plaster, tampons and bandages. Patients can return next day to social life and work.

KEYWORDS: Rhinoplasty; long nose; T-excision en bloc; mini-invasive technique; no downtime.


INTRODUCTION

Facial analysis is critical in rhinoplasty. This procedure is not an operation of a separated nose, it is artistic surgery to give aesthetic proportions and angles, as well as properly localized volumes as an aesthetic part of the entire face, which is the goal of beautification. Patient’s age, sex, skin quality, ethnicity should be taken into consideration. Nasal tip position has great importance in all rhinoplasty procedures, especially in cases with a long disproportionate nose. Cephalic strip resection of the lower lateral cartilages is performed to achieve upwards tip rotation. The “en bloc” T-excision technique for adjustment of the nasal tip involves a new understanding of well-known incisions based on anatomical awareness. It minimizes trauma, is nearly bloodless, achieves an acceptable beautifying post-operative result with no downtime for the patient, requiring no plaster, no tampons and nearly immediate return to work and social life. This technique prevents cartilages from iatro-

CORRESPONDENCE

Nikolay P. Serdev: New Bulgarian University, Sofia, Medical Centre “Aesthetic Surgery and Aesthetic Medicine”, Sofia, Bulgaria; E-mail: serdev@gmail.com.
genic trauma and devascularization thus permitting faster healing with a stable result. It includes cephalic strip resection of lower lateral cartilages and septal shortening (caudal septum and/or retrocolumellar mucosal elongation) en bloc.

ANATOMY

The greater alar cartilages (lower lateral cartilages) are situated below the lateral nasal cartilages, forming the columella and the wings of the nostrils. The medial crura are loosely connected to the corresponding portion of the opposing cartilage. Together with the septum they stabilize the columella. In Caucasians the columella is stable, unlike Asians, Afro-Americans and Latino-Americans whose cartilages are thin and do not give adequate support to the tip.

The author’s observation is that regardless of race, the proper dorso-columellar angle (tip angle) is very close to 900. Angles different from the right angle change the aesthetic proportions and create an imbalance of the beauty triangle (1-6).

TIP ROTATION

Using the tripod concept (Figure 1) (7), a long nose has a longer superior leg (septum) including the lateral crura of the greater alar cartilages. Thus the “en bloc” shortening of the elongated distal septum and the lateral crura of the lower lateral cartilages (cephalic strip resection) gives upward rotation to the tip. NB. Projection of the nasal tip is described by the author elsewhere.

**FIGURE 1.** Tripod concept (see reference 7) used for shortening of the dorsal length of the nose via “en bloc” T-excision of elongated distal septum and cephalic part of lower alar cartilages (see also Figures 3, 4 and 7).
PATIENT CONSENT

If the tip angle is correct, the nostrils in the en-face aspect are slightly visible. Usually, patients with long noses who have never seen their nostrils, have difficulty in accepting that nostrils should be a bit visible in frontal view. It should be clearly explained that in order for the nostrils to be invisible, the tip angle (dorso-columellar angle) should be sharp (about 700), which is not appropriate and the nose looks long in relation to the face (Figure 2). Patients should be informed, assured and motivated for this change.

DESIGN OF THE T-EXCISION TECHNIQUE

Excision of the cephalic part of the greater alar cartilages, including an unnecessary prominent caudal part of the septum, permits rotation of the tip i.e. shortening the length of the nose (Figure 3 and 4).

T-EXCISION: SURGICAL TECHNIQUE

The below described T-excision technique is made en bloc (Figure 5), using a closed rhinoplasty approach. The local anesthesia of the tip, greater alar cartilages and columella, should not deform the nasal tip.

First incision

A total retrocolumellar incision is performed to separate the columella from the septum. In cases of dropping columella this

FIGURE 2. A. Correct aesthetic proportions and angles. The nose is proportional – 1/3 of the face. Correct 300 dorso-profile angle and nasal tip angles. Nostrils should be a bit visible from a frontal view. B. Visibly incorrect length, angles and lack of aesthetic section of nose and face. The nostrils are not visible from a frontal view (long nose).
FIGURE 3. T-excision drawing. A. Schematic excision of 3 triangles - 2 lateral triangle excisions and one medial triangle excision perpendicular to the nasal dorsum. B. Result after tip rotation gives correct tip position and angles.

FIGURE 4. A. Schematic pyramid in a long nose. B. T-excision en bloc, including cephalic part of the greater alar cartilages and elongated caudal septum. C. Tip of the nose rotates easily. D. Two to 3 transmucosal mattress sutures of columella to caudal septum are enough to hold the tip in position and guarantee good fixation for healing. Stitches are removed after 2-3 weeks.
incision should follow a desired design. To remove dropping columella, the incision should leave equal thicknesses along the length of the columella. Any other form should be previously designed according to the patient’s desire and informed consent. The retro-columellar incision is then extended to the transcartilaginous incision (8), which separates the lateral wing of the greater alar cartilage in cephalic and distal part. In the past, the author used methylene blue dye on the skin to mark the transcartilaginous incision, but it is not always easy to precisely reflect the line that has been drawn on the external skin. This is not entirely necessary, because the transcartilaginous incision is a extension of the retrocolumellar incision in each nostril, parallel to the nostril border. The transcartilaginous incision is made in each nostril through the opposite nostril, using the opening of the retrocolumellar incision – this gives better visibility to the surgeon and permits for better orientation. This incision cuts mucosa and cartilages, leaving the skin intact. To be precise, both alae nasi are held with the thumb and index of the opposite hand, feeling the scalpel below the skin with the fingertips (Figures 6 A and B). Transcartilaginous incisions should be located 4-5 mm cephalic to the caudal margin of the lateral crus of the lower cartilages. Finishing both transcartilaginous incisions and leaving only the skin intact, one has separated the lateral wings of the greater alar cartilage into cephalic and distal parts, whereupon the cephalic parts will be removed with the T-excision en bloc.
**FIGURE 6.** A. Total retrocolumellar incision. B. The retrocolumellar incision is extended to the intercartilaginous incisions on both sides through the opposite nostril, using the opening of the retrocolumellar incision. C. Second septal perpendicular to dorsum incision. It will be prolonged into 2 intercartilaginous incisions. D. The T-Excision en bloc is fixed with a mosquito clamp and separated from the dorsal skin with a blunt-tip scissor. E. The T-excision is separated and removed. F. The transmucosal mattress suture is performed horizontally if the dome is symmetric (or parallel to the asymmetry). G. The transmucosal septo-columellar suture is ready to be knotted. H. Transmucosal domal suture of medial crura for tip refinement. I. Result after atraumatic, nearly bloodless T-excision procedure for nasal tip rotation.

**Second incision**

The reduction of the length of the nose in the caudal septum region is selective. The second incision line is a “90°-to-dorsum” septal incision, starting from a selected dorsum point in a downward direction, perpendicular to the nasal dorsum to meet the retrocolumellar incision (forming the medial excision triangle), which usually occurs above the nasal spine. This incision is complete, including caudal septum and is then extended into the intercartilaginous incisions in both nostrils, each one through the opposite nostril using the opening of the “90°-to-dorsum” septal incision. The intercartilaginous incision should be placed a minimum of 2 mm caudal to the valve on the lateral crura side in order to prevent nasal valve stenosis. The intercartilaginous incision in this technique leaves only the skin under the fingertips of the guiding hand intact, as described above (Figures 6 A and B). Intercartilaginous incisions meet the transcartilaginous incisions laterally, forming the 2 lateral triangles of the T-excision. Thus, cephalic parts of the greater alar cartilages are separated together with the unnecessary elongated septum (or in some cases only the mucosa), forming 3 triangles of the “T-excision en bloc”: two lateral triangles in the nostrils and one medial triangle in the septal.
FIGURE 7. A. The superfluous length of septum will be resected. B. The nasal tip is rotated and a correct tip angle is obtained, adapting the nose into 1/3 of the length of the face.

In cases of over-rotation or short upper lip

If the upper lip is shortened by a septum, which is too long, it is necessary to shorten the entire pyramid of the nose, the prominent posterior septal angle can be excised, together with the prominence of the anterior nasal spine. This maneuver deepens the nasolabial angle. It elongates the upper lip and can also correct an over-rotated nasal tip.

Post-surgery

Immediately after the operation, local anesthesia and postoperative edema at the tip and nasolabial angle raise the dorsum and make the nasolabial angle obtuse, which gives an impression of over-rotation of the nasal tip, it is a false impression. As the edema subsides during the first 5 to 7 days, the correct angle takes shape and the tip falls into place. There is no bruising post-op.

INDICATIONS

The technique is indicated for long noses.

CONTRAINDICATIONS

The contraindications are secondary rhinoplasties in cases of malformed greater alar cartilages.
FIGURE 8. A. A case of a long nose. Before. The long nose causes incorrect facial proportions. The beauty triangle is disrupted, forming 2 incorrect triangles. The facial features of the patient's face are nice but nearly invisible because of the long and disproportional nose. B. After T-excision for nasal tip rotation and columella sliding for tip projection. The nose is shortened to fit into one third of the face. Correct aesthetic proportions (three equal parts of the face), correct 300 dorso-profile angle and nasal tip volume on the line of the cheekbone prominence. Tape is not necessary – it was requested by the patient (a ballerina) to make the operation visible and thus protect her from trauma at work. The result is beautification of the face by establishing correct proportions, angles, volumes and visible beauty triangle.

T-excision could be used as a stand-alone procedure in long noses, or as a part of a rhinoplasty with hump removal and other additional techniques. The operation is ambulatory, under local anesthesia. The author uses additional IV sedation. The procedure is virtually bloodless and atraumatic. Two to three transmucosal mattress sutures are used to fix the columella to the septum. Stitches, if not absorbed, are removed after 2-3 weeks. There is no need for any bandages or tampons. Patients return to their social life almost immediately.

In aesthetics, there is another important aspect of the T excision – the “beauty triangle”, forming the mid and lower face beauty. It includes the two cheekbones and the chin.

The tip of the nose should not disrupt the upper line of the triangle connecting the projection of the two cheekbones, i.e. its prominence has to be on the line between the two cheekbones. Thus, the nasal tip presents an important aesthetic facial volume, forming a straight line together with the volume of the cheekbones (Figure 8).

CLINICAL CASES

A series of clinical cases of long nose, long and disproportional nose, small chin (retrognatia), improper ratio in the lower part of the face, aquiline long nose and disproportionally long nose, respectively, is reported and commented in figures 9 to 12.
FIGURE 9. T-excision for nasal tip rotation. Immediate result in a case of a long and disproportional nose. A. Before. Long nose with hanging columella, resulting in a disproportional face, containing some nice features, nearly invisible to observers; B. After. Immediate result, a few minutes after T-excision, nasal tip and lower third refinement by transcutaneous Serdev Sutures®. Swelling could be visible to specialists but not to the general public. Aesthetic proportions (three equal parts of the face) are present. The result is beautification of the face – previously invisible beauty is now demonstrated.

FIGURE 10. Immediate result (Braunol disinfection is still not totally cleaned) after nasal tip rotation by T-excision and chin enhancement by Serdev Sutures® in a case of a long nose, small chin (retrognatia), and improper ratio in the lower part of the face (between upper lip and chin); A. Before. The upper face is nice, but the nose is long, the chin is small and disproportional. Straight line of the noble profile is missing. Due to short mandible and reduced skeleton support, surrounding and submandibular tissue is hanging; B. After. Immediate result after T-excision for nasal tip rotation, columella sliding for tip projection and chin augmentation collecting her own tissue using Serdev Sutures® volumising method. Correct volumes are visible – nasal tip on the line of the cheekbone prominence. The result includes: proper aesthetic proportions of the face (three equal parts of the face; chin to upper lip length in correct proportion 2:1); tip is correctly rotated and the nose is proportional. The tip is projected to conform to the proper 300 dorso-profile angle; the chin is augmented using her own collected tissue, without and extraneous materials; jaw line and submandibular line are stretched; straight noble profile is present. The immediate result exalts the beauty of the face.
FIGURE 11. A. Aquiline long nose, short upper lip and prognatic jaw. Before. B. One year after T-excision for nasal tip rotation, humpectomy, digital fracture instead of lateral osteotomy, prominent posterior septal angle and nasal spine resection for upper lip elongation, upper lip volumising by Serdev Suture® to bring it to the line of the straight profile. Changes include: proper angles of the nose, it occupies one third of the face, correct aesthetic proportions of the face (three equal parts; chin to upper lip length in correct proportion 2:1 instead of 3:1 ratio before); the upper lip is elongated and brought forward (thus, the prognatic jaw is included in the correct proportions instead of mandibular remodeling resection); a straight noble profile is present. The result is beautification of the face.

FIGURE 12. A disproportionally long nose is shortened by tip rotation via T-excision to obtain 3 equal parts of the face with correct angles of the nose. The dropping columella is corrected using a retrocolumellar incision parallel to the columella (see first incision).
CONCLUSIONS

Beautification is a work of art. Rhinoplasty, including shortening of a long nose aims at obtaining exact aesthetic proportions, volumes and angles of the face. The nose cannot be isolated aesthetically. T-excision en bloc, including cephalic strip and elongated caudal septum resection can rotate the nasal tip to obtain correct proportions of the face. The procedure takes very little time, even less than an injection rhinoplasty.

The procedure is atraumatic, virtually bloodless, does not require plaster fixation, tampons and downtime and the results are permanent. Patients return to work and social life almost immediately. There is no bruising and edema is not visible to untrained personnel. Swelling can minimally change the tip position but this only lasts during the first 5–7 days. After that it falls into a correct and natural position. T-excision is the shortest rhinoplasty procedure for correcting long noses and dropping columella, with the most stable and permanent results, due to minimal or complete lack of trauma to the greater alar cartilages and surrounding tissue.

REFERENCES