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Use of Cephalic Trim Cartilages from Lower Lateral Cartilage to Elongate Short Nose

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***Abstract*---**In our study, we used cephalic trim cartilage from LLC uniting strategies to be compelling in amending short nose, with a low occurrence of complications. Preferences of this procedure incorporate extension of the whole nasal tip and ala, which brings about more far reaching and proportioned nasal length. The versatile nasal tip is kept up by sufficiently liberating the holding powers of the LLC while offering enough underlying help.

***Keywords*---**Cephalic Trim Cartilages, Lower Lateral Cartilage, short nose.

Introduction

The short nose has represented one of the greatest challenges in rhinoplasty. This type of deformity typically involves all 3 layers of nasal tissue (i.e., skin, internal lining, and skeletal support). Short noses present both aesthetic problems and functional deficits. When skillfully executed, the short nose rhinoplasty can produce dramatic improvement (Lee & Jang, 2016). The excellent short nose is upturned and discouraged. That's only the tip of the iceberg specifically, it may be characterized concerning illustration a nose needing measurement from the nasofrontal point to the tip. An absence from claiming tip projection regularly is inferred in the finding. With figure out whether a short nose may be present, a specialist to start with must be mindful of the measurements of the typical nose. When recognizing a short nose, examination of the full face, especially of the profile, will be embraced alongside dissection of the nose specifically, the short nose might a chance to be encountered as a variant from claiming ordinary. Generally solid people who need a discouraged nasal root, an upturned nasal tip

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alternately a blending is not surprising. Such patients might search revision for purely cosmea motivations. Trauma, Prior nasal surgery, Drug abuse, Infectious and inflammatory conditions, Neoplasms and Binder syndrome are regarding in etiology of short nose (Aiach & Monaghan, 1995).

Indications for Short nose rhinoplasty are for functional or cosmetic problems for those who are regarded as good surgical candidates. Functional indications for short nose rhinoplasty include nasal obstruction, infection, dryness, epistaxis, crusting, or pain. Cosmetic indications include a tip that is upturned or retracted, those associated with nasal dorsum collapse (Goh & Chen, 2010).

In there is no history from claiming underlying malady or trauma, one might think as of a cosmea rhinoplasty to the short nose. Most likely the greater part normal sort performed around the world will be person in which an l-molded silicone strut will be acquainted over those dorsa, tip, and Also columella by means of a shut methodology. It may be best tolerated over patients for a thick skin-soft tissue envelope Furthermore generally solid cartilages. Expulsion of the insert will be possible, at doubtful (Ahn, 2006).

The proper length of the nose should be one third of the longitudinal length of the face. If one divides the face into 3 parts, the upper is from the frontal hair line to the glabellar nasal angle (the level of the brow), the middle is from the glabellar nasal angle to the tip and The lower third is from the tip to the lower border of the chin Surgical (Robert et al., 2008). Nasal length is the apparent length of the nose from radix to tip. This should be approximately the same as the distance from stomion to the menton.

The apparent length of the nose can be changed by changing the position of nasal frontal angle or tip defining point. Decreasing the rotation of the tip and/or elevating the area of radix thus moving the nasal frontal angle cephalad will give the perception of a longer nose (Gruber, 2002).

Short nose needs those cartilage necessary on augment the length of the nose. A rhinoplasty system utilizing more level parallel cartilage (LLC) store Also ear cartilage grafting considers addition nasal protracting also nasal tip portability in the revision from claiming short nose. Several methods have been described regarding the treatment of this deformity. They range from simple tip grafting in the mildly affected patient to complete nasal reconstruction in the patient with severe structural loss and skin retraction (Han & Kang, 1996).

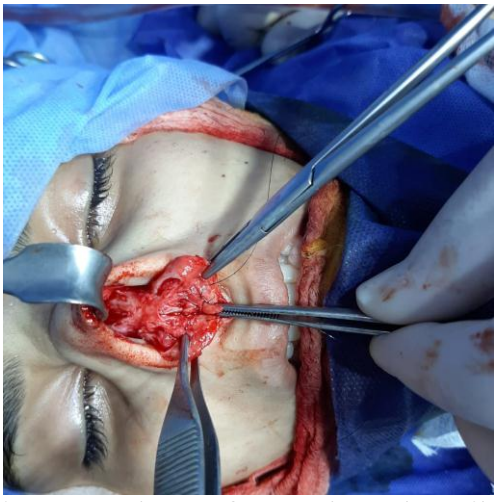
Patients and Methods

Twenty patients with short nose (their nose length less than one third of longitudinal length of the face}, seeking for rhinoplasty presented to the department of plastic surgery in Al Diwanyia teaching hospital between October, 2016 to November 2018. All patient had no history of previous rhinoplasty. Patients were studied clinically and evaluated according to: -age, sex, dorsal profile, if there is any deviation of the nose, thickness of the skin , size ,shape and width of the nostrils . Apparent length and projection of the nose were measured (2 points were marked on each patient's nasion and tip of the nose and the length

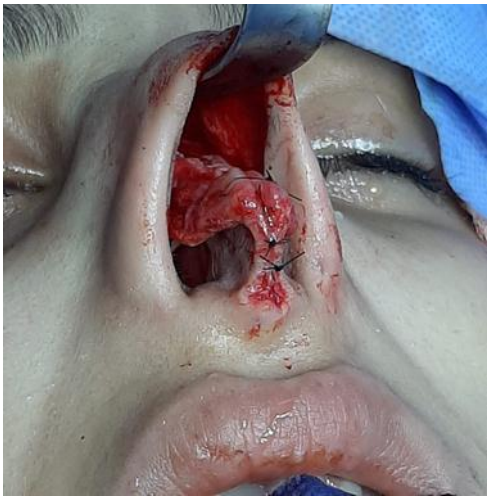
of the nose was measured between these 2 landmarks with a ruler. On examination the Patients talked about things can be done to change that they need in their nose but they also told that in reality it may not be possible .

All procedures were performed under general anesthesia. The solution used for hemostasis consisted of 1% xylocaine (lidocaine hydrochloride) with 1:200 000 epinephrine. A total of 15 to 20 mL of local anesthetic solution was used for infiltration of the nose, including the dorsal skin, nasal floor, and septum.

An open rhinoplasty approach was used. A mid- columellar inverted V-shaped incision was made, running along the rim of the lower lateral cartilage (LLC) at its caudal aspect. The columella and dorsal skin flap were elevated to the level of the perichondrium of the LLC with angled iris scissors. The upper lateral cartilage was then released from its attachment to the dorsal septum using scalpel as shown in picture 1. The nasal septal mucoperichondrium was elevated bilaterally to make mucoperichondrial pockets for insertion of the septal extension graft. We use cephalic trim cartilages from LLC (1 cm long and 0.5 cm wide * to elongate the septum. Both cephalic trim cartilages sutured together as a one block, then posterior part of graft sutured to the caudal septum as high as possible with both cartilages engulf the septum in between, and the anterior part sutured to the medial crurae, the most posterior point of crura, near the middle of vertical height of collumella. The graft was fixed to the septum with 5-0 nylon lastly, the nasal skin was closed with 5-0 nylon sutures.as shown in picture 2.



Picture 1 release of upper lateral cartilage



Picture 2. Cartilage fixation

On follow up that continued for one and half year, we assessed:

- Patient satisfaction by asking the patients 3 questions. A standard 3-point scale was used, with the ratings as follows: 3 satisfied, 2 neither satisfied nor dissatisfied, 1 dissatisfied.
- Nasal tip examination by inspection for appearance of the tip and palpation for any rigidity.
- Measuring length of the nose.

Results

The total number of patients involved in this study was 20 patients. 17 patients were female (85%) and 3 patients were male (15%).as shown in figure 1.

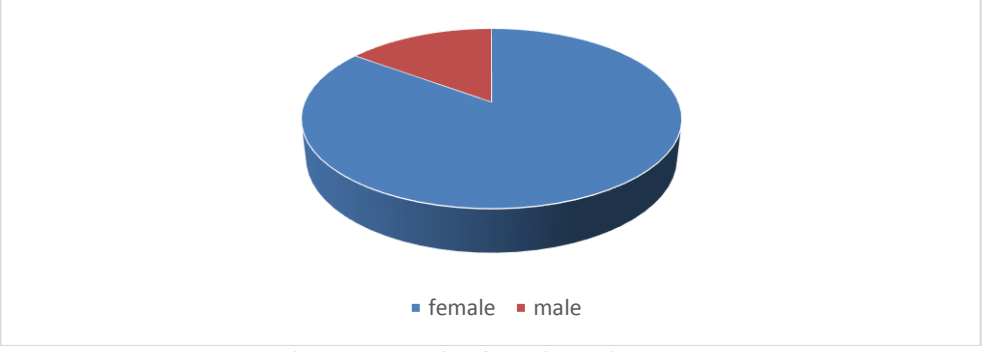


Figure 1. Male: female ratio

Age presentation ranged from 20 years to 35 years, most patients presented below 25 years.

Table 1
Show ages of patients

Age	No.	Percentage
20-30	16	80%
31-40	4	20%
Total	20	100%

All patients received cephalic trim cartilages from lower lateral cartilage to elongate their short nose. The mean duration of follow-up was 1.5 years. One patient complicated by infection of suture line treated by local and oral antibiotic. Another patient complicated by cartilage graft malposition treated under local anesthesia through small incision and fixation was done by 4.0 nylon suture. The average increase in nasal length was 3 to 5 mm in females and 5 to 7 mm in males. The shape of the corrected nose was excellent, as evaluated by follow-up. 15 patients were satisfied with result, 3 patients were neither satisfied nor dissatisfied and 2 patients were dissatisfied with result as in table 1.

Table 2
Show degree of satisfaction

Degree of satisfaction	No.	Percentage
satisfied	15	75%
neither satisfied nor dissatisfied	3	15%
dissatisfied	2	10%
	20	100%

The average subjective patient satisfaction score was 2.65 out of 3 points, indicating good satisfaction with the shape of the lengthened nose. In 17 patients, the nasal tip was soft and natural in appearance while in 3 patients there is tip rigidity and unnatural appearance on smiling.

Discussion

Most plastic specialists would concur that adjustment of the short nose is one of the foremost challenging issues in facial plastic surgery. The causes of short nose can be classified as inherent, formative, posttraumatic, or postoperative. The short nose may be an intrinsic or developmental distortion in which there's as well much upward tilt of the nasal tip, making a foreshortened appearance. The separate between the nasofrontal angle and the tip-defining focuses is diminished, which is related with an expanded nasolabial point and increased nostril appear on the frontal see short nose deformity comes about from past rhinoplasty or injury (Kim & Kim, 2013). Autogenous cartilage is by and large considered the gold standard unite fabric for nasal surgery, and septal and conchal cartilage have customarily been the essential types of cartilage utilized in rhinoplasty (Zainab et al., 2021).

To lengthen short nose, adequate septal cartilage is reaped or costal cartilage is utilized for septal augmentation joining, or if the all-encompassing columellar swagger is fixed to the maxilla, the resultant tip will be unbending. The

unbending nature of the tip ruins versatility of the nasal tip, bringing about a tip that feels solid to the patient and to others connecting with the nose this issue can be overwhelmed by the utilization of cephalic trim of LLC. The use of cephalic trim LLC will provide septal elongation which is available autogenous graft easily accessible with no rigidity in nasal tip.

Byrd et al used the native caudal septum for septal extension in primary rhinoplasty and his procedure has drawbacks like stiffness of the nasal tip and thicking of nasal septum in nasal valve area. Preexisting trauma to the nasal septum precluded the use of septal cartilage (Huldani et al., 2022).

After the septum, the second choice for graft harvest for nasal lengthening is typically the concha of the ear. To obtain an extension graft from the concha of the ear, a posterior approach is utilized, exposing the convex concha, and a 3 × 2-cm piece of cartilage is removed for grafting, for severe cases, conchal cartilage would not have been strong enough to support the extended length of the septum (Ansari et al., 2022).

Rib cartilage is a strong, abundant, pliable, and durable tissue. However, the rib cartilage graft is often overlooked in reconstructive sept rhinoplasty because of the potential for donor site morbidity and the risk of cartilage warping. In our patients we obtained good aesthetic results with average extension length 5 mm. The complications rate was low like one patient complicated by wound infection and another patient complicated by cartilage malposition. Most patients were satisfied and happy with result and 2 patients were dissatisfied with result although the nasal length was corrected by surgery (Olegovich Bokov et al., 2022).

Conclusion

In our study, we used cephalic trim cartilage from LLC uniting strategies to be compelling in amending short nose, with a low occurrence of complications. Preferences of this procedure incorporate extension of the whole nasal tip and ala, which brings about more far reaching and proportioned nasal length. The versatile nasal tip is kept up by sufficiently liberating the holding powers of the LLC while offering enough underlying help.

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