Rhinoplasty in Cleft Lip/Palate Deformity

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Rhinoplasty for the deformity of the nose, associated with cleft lip/palate, is a difficult procedure. Proper aesthetic consideration is vital to its success. It principally involves correction of the lower lateral cartilages and the septum. The autogenous septal cartilage pieces are used for minor adjustment and augmentation for elevation of the depressed segment of nasal tip. Open rhinoplasty approach has significantly simplified the procedure. (Rethi 1956, Goodman 1974). It is a good approach since it offers a direct and wide view of the whole nasal skeleton and is an easily teachable and learnable one.

Fig. 1
Preoperative photographs of the patient

CASE REPORT

A 22 year old boy presented himself with gross rhinolalia aperta and nasal deformity (fig.1). His speech was totally unintelligible to strangers. During early childhood his cleft lip and the palate were repaired for the unilateral defect (left). Vegetative function of the palate was normal i.e. there was no nasal regurgitation during

Fig. 2
Basic defects

deglutition. Hearing was normal. On examination, the soft palate was found to be short and scarred resulting in palatopharyngeal incompetence. Palatal movements were essentially normal. Speech, especially the nasal sounds, improved on pinching the nostrils. I performed palatopharyngoplasty with transmitted dynamism (Ghosh, 1984 & 1986) one year back. Speech has improved remarkably which is now intelligible to all.

Being encouraged by the improvement in speech, he became very particular about getting his nasal deformity corrected; but not the "minor" lip one,

as he put it. Consultant plastic surgeon opined that further lip operation was unlikely to give a better shape.

The basic defect in unilateral cleft lip/palate is the asymmetrical and retrodisplaced lower lateral cartilage with caudal displacement of the lateral crus, resulting in depressed dome of the lower lateral cartilage with lack of tip projection on the involved side and short columella (Fig.2). Besides the above, the patient had displacement of the caudal septum to the opposite side with a huge bony ridge along the nasal floor on the left side. He had marked lack of tip projection on the left side (Fig.1). There was no significant increase in width of the nasal floor on the left side.

PROCEDURE

A classical SMR was performed through a Killian incision on the left side and the septal cartilage was harvested. The displacement was corrected after removing the bony ridge. Through an inverted midcolumellar gull wing incision with blunted sharp angles the upper and the lower lateral cartilages were exposed. Dissection was carried out from the midline extending laterally rather than in the reverse direction, as advocated by some, since the former is easier and the chances of injury to and splintering off of the thin lateral crus is less. The lateral crus on the left

side was extremely thin and was carefully dissected if the vestibular and external skins. The right crus was also similarly dissected. The right alar dome had normal thickness. The right alar

Fig.4

Left lower lateral crus stitched to the upper lateral cartilage, stitches

Fig.3

Operative technique. RD-Right dome, st-Stitch between right lateral crus and medially recruited left lateral crus, sc - Septal cartilage

Fig.5A

Post operative photograph

cartilage was divided lateral to the dome. The medial crus and the medial portion of the lateral crus was then swung to the left after making incomplete cuts on the concave side of the dome which facilitated bending the cartilage to the left

Fig.5B

Post operative photograph

side. The left lateral crus was so thin that at one place it splintered off while dissecting. The crus was advanced medially and sutured to the swung right cartilage with 000 vicryl (Fig.3). Its caudal displacement was corrected by suturing it to the upper lateral cartilage (Fig.4). The tip projection on the left side was adequate after the medial and cephalic recruitment of the left alar cartilage. Some pieces of harvested septal cartilage, properly shaped, were inserted on the right side of the tip in order to maintain its smoothness (Fig3C) after healing. The cartilage pieces were stabilized by suturing them to the right lateral crus with vicryl. Finally the wounds were stitched with 000 vicryl after replacing the flaps. Wing incision on the columella was closed with one

stitch only. The septal incision was sutured and merocel packing inserted. The external nose was properly strapped to keep the shape aesthetically acceptable. Finally gauge dressing was applied. The patient was put on a broad spectrum antibiotics and analgesic.

After seventy two hours the strapping was removed; so also the merocel packing. The stitches were removed after six days. Post operatively, the recovery was uneventful. Photographs taken after two months are satisfactory (Fig.5A, B, C). The columellar scar is hardly visible.

DISCUSSION

Though rhinoplasty in cleft lip/palate defect is

Fig.5C

Post operative photograph

difficult, the postoperative rectified appearance is gratifying. The lateral crus of the lower lateral cartilage is malformed and thin which requires careful dissection in order to avoid its splintering.

Medial and cephalic recruitment of this cartilage along with stitching it to the opposite lower lateral cartilage and the ipsilateral upper lateral cartilage stabilises the depressed ala and offers an improved tip projection. Autogenous septal cartilage is an excellent material for improving the appearance. Contralateral Goldman type tip correction procedure is helpful. Plastic surgeon's

help should be sought whenever necessary. The scar of the columellar incision is hardly visible. External rhinoplasty approach has significantly simplified the procedure.

ACKNOWLEDGEMENT

I am grateful to Mrs. R. Bhatia and Prof. N. Gopinath for providing me with facilities and permitting me access to the case files.

References

1. Ghosh. P. (1983 & 1986) : *Palatopharyngoplasty with transmitted dynamism (a new operation)*. *Papua New Guinea Medical Journal*, 26 : 136; 29: 193.
2. Goldman I. B. (1965) : *Rhinoplastic sequelae causing nasal obstruction*. *Arch. of Otolaryng*, 83 : 151.
3. Goodman, W.S. (1974) : *External approach to rhinoplasty*, *The Laryngoscope*, 84 : 2195.
4. Rethi, A (1956) : *Operation wegen enstellender sattelnose*, *Chirurg*, 27 : 356.