

48. *Outline of My Approach to Secondary Bilateral Cleft Lip Rhinoplasty*

THE cleft lip nose is renowned for its stubborn resistance to correction. Musgrave and Garrett in 1972 expressed the surgeon's frustration eloquently:

As have many of our colleagues, we have whittled, pared, maneuvered, coaxed, and even lashed together these ponderous alar cartilages with what looked to be a fair result on the operating table, only to be most disappointed with the end results months and years later. The patients' families are frequently pleased with our gamesmanship, but we usually are not, and neither are the young adults whose misfortune it was to have been thus affected.

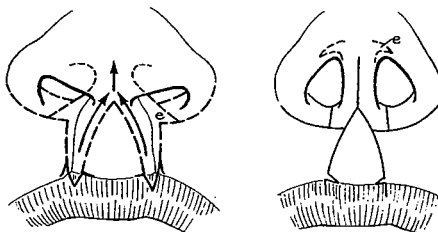
It is indeed extremely difficult to transform a flat and flared nose into a graceful, natural one but it can be done.

The secondary bilateral cleft lip nose usually presents a reasonable symmetry. There is, of course, the inherent central shortness of the entire frontonasal component as reflected in the flatness of the nasal tip, acute angle of the alar cartilages at the tip and their separation and downward dislocation, shortness of the columella, shortness of the vestibular lining with contracture folds, webbing overhang of the medial alar rims, width and flatness of the nasal floors, flaring of the alar bases and retroposition of the maxillary platform under the alar bases. Any or all of these can appear and must be dealt with to the degree of their need.

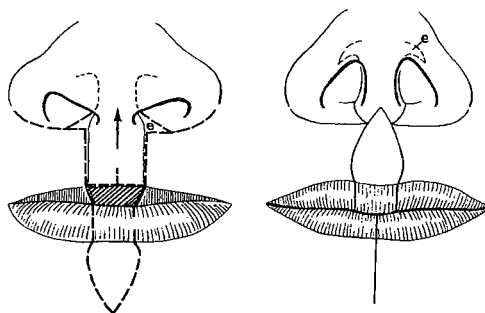
TIP FLATNESS AND COLUMELLA SHORTNESS

For nasal tip release and columella lengthening I most commonly use three methods.

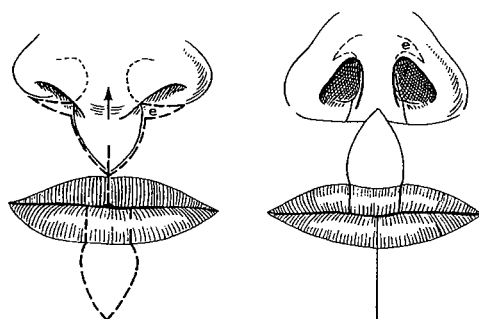
1. In general, if the lip is not tight in its upper portion, the F.F. *forked flap* is first choice.



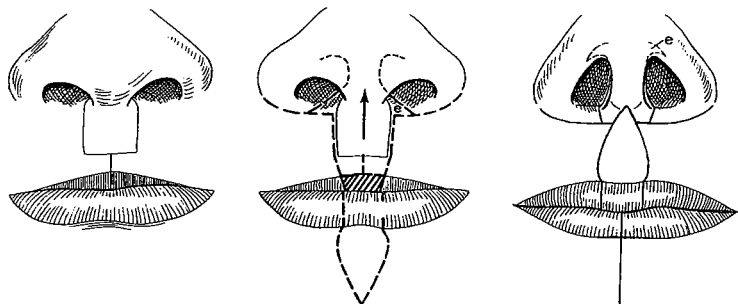
2. If the lip is already slightly tight and the lower lip is relatively protuberant, the *total prolabium* is shifted with an Abbe flap to follow. When the prolabium constitutes the full length of the central lip segment, it is shifted as a single unit into the T.P. columella and an Abbe flap is transposed to fill its place.



When the prolabium has an inferior spear shape with lateral lip flaps joining tip to tip beneath it, the prolabium is shifted into the columella similarly, but its point is split to accept the tip of the Abbe flap.

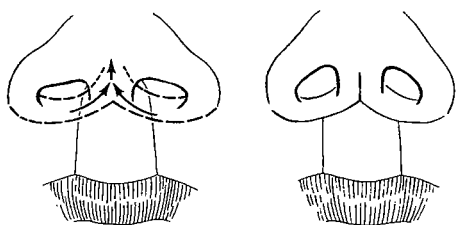


When the prolabium constitutes the upper half of the central lip segment with lateral lip flaps beneath it, the entire central segment can be cut as a unit out of the lip and shifted into the columella and an Abbe flap switched to fill the philtrum defect.



3. If the upper lip is natural and in good relationship with the lower and the columella is not severely short, advancement of the *nasal floors and alar bases* is a possibility.

N.F. and A.B.



COLUMELLA RETRACTION

This deformity occurs in bilateral clefts and should be treated according to its severity.

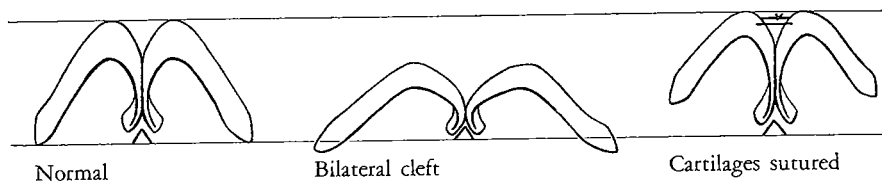
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|--|----------|
| 1. Septal cartilage strut graft. | S.C.S. |
| 2. Composite ear lobule graft. | E.L. |
| 3. Banana split chondrocutaneous auricular free graft. | B.S. |
| 4. Lip skin flap transpositions. | L.F. |
| 5. Lateral alar chondromucosal flaps. | C.M.F. |
| 6. When associated with a flat nose, costal osteochondral hinge graft. | C.O.C.H. |

REDUCTION RHINOPLASTY

Both the forked flap and the prolabium flap require a membranous septal incision which can be extended laterally as anterior R.R.

vestibular incisions, bringing about exposure for reduction rhinoplasty. At this time alar cartilages can be reduced, hump lowered, septum shortened and nasal bones narrowed by osteotomy.

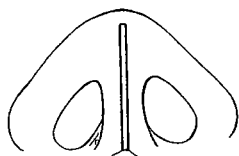
A.C.S. If the alar cartilages are severely separated, they can be sutured to each other during the reduction rhinoplasty.



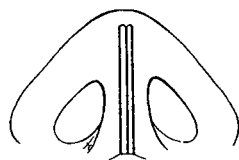
SUBMUCOUS RESECTION

S.M.R. There may be a septal deviation, explained by the accordion principle. Early closure of the lip over the projecting premaxilla produces pressure with varying degrees of telescoping as reflected in the septum by its deviating curves. Yet in the bilateral cleft a submucous resection, although occasionally relieving obstruction, more often produces fine cartilage for struts valuable for columella and nasal tip support.

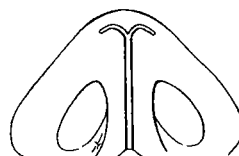
S.C.S. A septal cartilage strut is inserted in the columella to obtain column contour and retain elevation of nasal tip after a forked flap or prolabium advancement and also to give that little extra tip definition of which the septum of the bilateral cleft lip nose is incapable.



S.C.S.1 One straight strut.



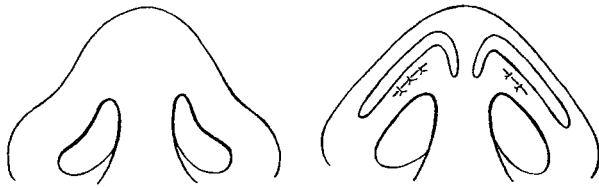
S.C.S.2 Two straight struts.



S.C.S.3 Fleur-de-lis split-end strut.

Alar margin strut.

S.C.S.4



When septal cartilage is unavailable, then cartilage struts from the nasal bridge, rib, or concha can be used. C.S.

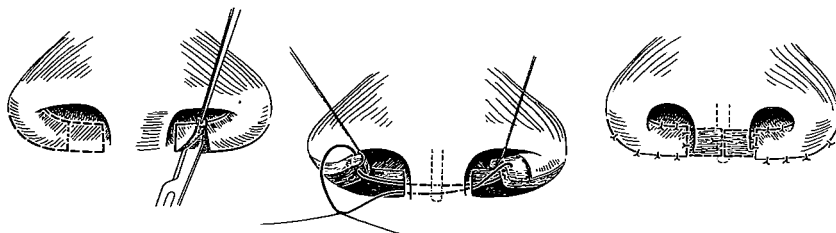
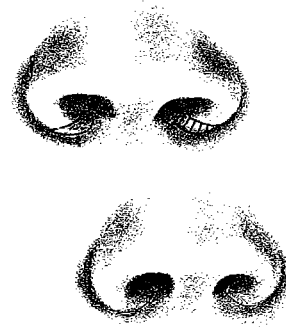
SHORTNESS OF VESTIBULAR LINING

If the mucosal paring flaps from the lateral lip elements during the primary lip closure have not been introduced across the vestibular lining shortness with release, evidence of this shortness will become apparent secondarily as vestibular folds. They can be lengthened by a V-Y or a Z-plasty or skin can be free-grafted. V.L., V-Y
V.L., Z

FLARING ALAR BASES

It is important to cut the alar bases free from the lateral lip elements so they can advance medially even more than the lip elements. The best method of correcting the alar base in a simple flare with a normal nasal floor width is an alar base wedge resection.

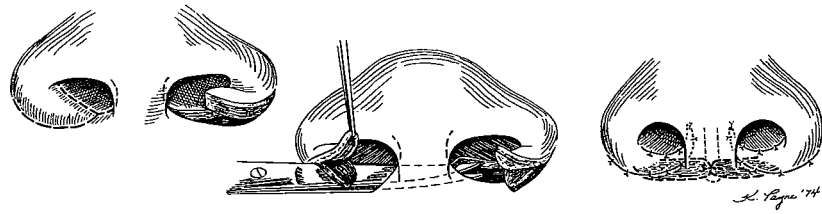
When the flare is severe and nasal floors are wide, flaps of this area are denuded at the tips, advanced to each other and sutured with Vicryl to the septum at the nasal spine. A.B.1
A.B.2



When the flare is not wide, the alar bases are taken as thick flaps, and each is dissected into a skin flap and a subcutaneous

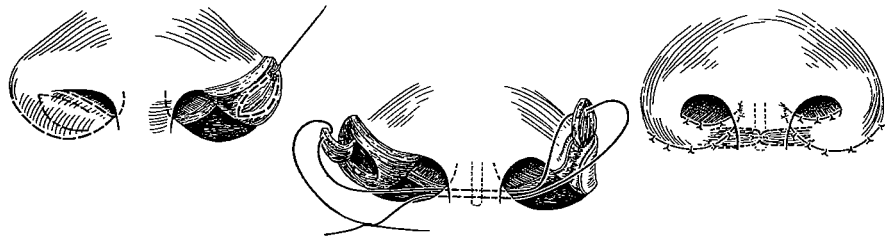
flap. The subcutaneous flaps are sutured to each other at the nasal spine, and the skin flaps form the nostril sills.

A.B.3



When the alar bases are flared and are also thick, subcutaneous pedicles are cut out of their "hearts" and left attached at the tip to be used as "tethering strings" to be sutured to each other at the base of the septum. Closure of the donor areas, of course, narrows the alar bases.

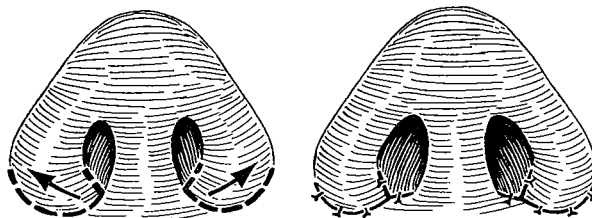
A.B.4



ALAR BASE WIDENING

V-Y lateral advancement of the alar bases can open a constricted airway and when carried out unilaterally can symmetrize the nostrils.

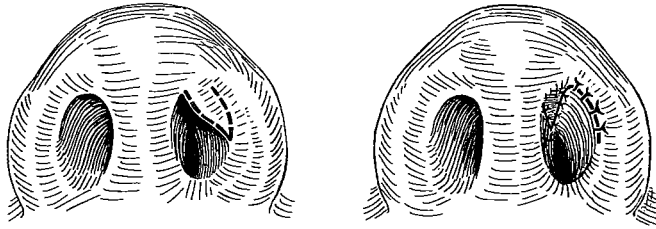
A.B.5



ALAR RIM

Bilateral webs overhanging the alar rims can be treated according to the severity of the deformity.

1. Marginal excision. A.R.1
2. Alar margin rim flap turned to the side of the columella (Z). A.R.2
3. Alar margin rim flap turned into vestibule. Either of these can round out a sharp columella-ala angle. A.R.3



4. Alar margin folding up of cartilage and tucking in of lining. A.R.4

RETROPOSED MAXILLA

When the maxillae do not supply enough anterior projection for an adequate platform to the alar bases, additional contour is necessary. If maxillary osteotomy is not indicated, implants are used. Through upper labial sulcus incisions the retroposed alar bases are dissected free of the hypoplastic maxilla. Then cancellous bone chips and strips from ilium or rib are implanted as onlays beneath the periosteum to maintain the forward positioning of the alar bases. A.B.I.1

In certain cases Silastic sponge has been inserted under the alar base on top of the periosteum for the same purpose. A.B.I.2