THE YEAR BOOK *of* PLASTIC *and* RECONSTRUCTIVE SURGERY 1973

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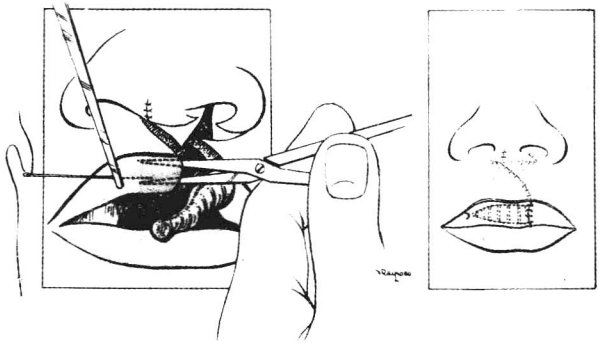
CONGENITAL CLEFTS

Crossed-Denuded Flap as Complement to Millard Technic in Correction of Cleft Lip is described by Jose Guerrero-Santos, Marcos Ramirez, Abel Casteñeda and Alfonso Torres[1] (Univ. of Guadalajara). The Millard technic is widely used to close cleft lips but the vermilion border may not be balanced. If a simple edge-to-edge approximation is made, an unattractive vermilion border may result with the central labial tubercle partially or totally absent, asymmetry in the lateral segments of the vermilion and notches present. A crossed-denuded flap has been added to prevent these complications.

Instead of closing the two segments of vermilion by simple approximation, the vermilion of the lateral side of the cleft is removed from the mucosa and a flap of submucosal and muscular tissue is formed. The flap is introduced into a tunnel made in the vermilion of the other side (Fig. 1); it remains buried in the part of the vermilion border situated below the philtrum, where it helps form the central tubercle.

This procedure is facilitated in adults, in whom it is easier to form the flap and tunnel. Good results can be obtained in

Fig. 1.--Surgical variant of Millard technic brings denuded flap of vermilion from lateral side through tunnel in medial vermilion to build out bulk of median tubercle area. (Courtesy of Guerrero-Santos, J., *et al.*: Plast. & Reconstruct. Surg. 48:506-508, November, 1971.)



(1) Plast. & Reconstruct. Surg. 48:506-508, November, 1971.

children with a little practice. The method is now combined with the extended Millard procedure in wide cleft lips. The crossed-denuded flap has given better long-term esthetic results than the complementary procedure described by Millard. Any redundant tissue can be removed later in secondary cleft lip corrections by a simple lens-shaped excision.

►[This technic protects against scar contracture notching which may sometimes occur and also can be used to correct the whistling deformity, as pointed out by Chong and Winslow in "Simple Technic for Correction of 'Whistling' Deformity in Repaired Cleft Lips" (Plast. & Reconstruct. Surg. 48:84, 1971). –K.L.S.]

Primary Nostril Reconstruction in Complete Cleft Lips: Round Nostril Technic. Sidney K. Wynn[2] (Med. College of Wisconsin) has modified the technic for primary nostril reconstruction in the complete cleft lip case to give a better nose. The new "round nostril technic" is intended for use with the Wynn lateral flap lip closure, but it can be used with any technic that cuts through the base of the columella. A 4-mm.-wide superiorly based lateral flap can be adapted properly in practically all deformities of this type. Over 50 cases have now been treated without exact caliper control. Any correction of the complete cleft lip should include a simple nostril reconstruction to give the best primary result.

TECHNIC. – A line is drawn from the base of the involved ala to where the crest of the cupid's bow should be on the lateral lip segment side. A point is marked 4 mm. downward at a 45-degree angle from the top of the line, and another line is drawn down to the crest of the cupid's bow at the bottom of the first line, to outline an inverted V-shaped lateral flap. A third line is drawn from the base of the columella on the involved side to where the crest of the cupid's bow would be on the medial lip segment, and a fourth is drawn across the base of the columella, ending just short of the opposite side. The first and second lines are incised and a book flap is made in the medial segment by incising tangentially through three fourths of the thickness. An incision is made downward to detach this vermilion, and another is made across the base of the columella. The lateral buccal sulcus incision then is made (Fig. 2), and extensive freeing of the tissues from the alar cartilage is done. The lip is closed, and a suture is placed through the outside skin to the lumen and back through the nostril to fix the alar cartilage to the skin at a new level. A suture then is placed high across the columella, and the medial crus is elevated to normal height (Fig. 3) and fastened to its fellow on the normal side in a more anterior position.

This operation helps hold the nasal tip in a better position

(2) Plast. & Reconstruct. Surg. 49:56-60, January, 1972.

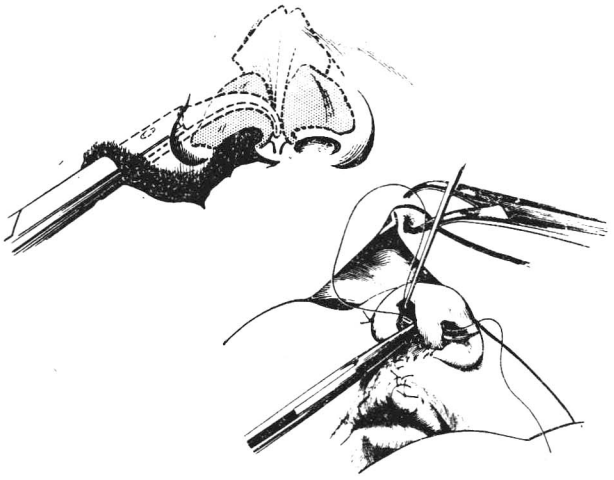


Fig. 2 (top). – Separation of covering skin from the alar cartilage in primary nostril reconstruction in complete cleft lip.

Fig. 3 (bottom). – While the involved alar cartilage is held forward with a hook, thus sliding the medial crus forward on the medial crus of the normal cartilage, a through-and-through mattress suture is placed across the columella and tied.

(Courtesy of Wynn, S. K.: Plast. & Reconstruct. Surg. 49:56-60, January, 1972.)

to produce a better-looking and more symmetrical nose. The good result persists. In complete unilateral cleft lip, it seems best to construct a round nostril at the time of primary lip closure.

Repair of Columella Base Deformity in Unilateral Cleft Lip is described by Takuya Onizuka[3] (Showa Univ., Tokyo). The normal columella is broadened at its base by the medial crura of the alar cartilages. Although partly corrected by several technics, many repaired unilateral cleft lips exhibit a typical deformity with asymmetric nostrils, the outer rim of the nostril on the affected side hanging down like a curtain, and the normal bulk of tissue at the columella base missing because of underdevelopment of the medial crus. The lack of bulk is particularly conspicuous when the lip and nasal contours have been completely repaired. Excision of part of the medial crus of the normal side would destroy the normal fairing between the columella and nostril floor. A method was

(3) Brit. J. Plast. Surg. 25:33-36, January, 1972.

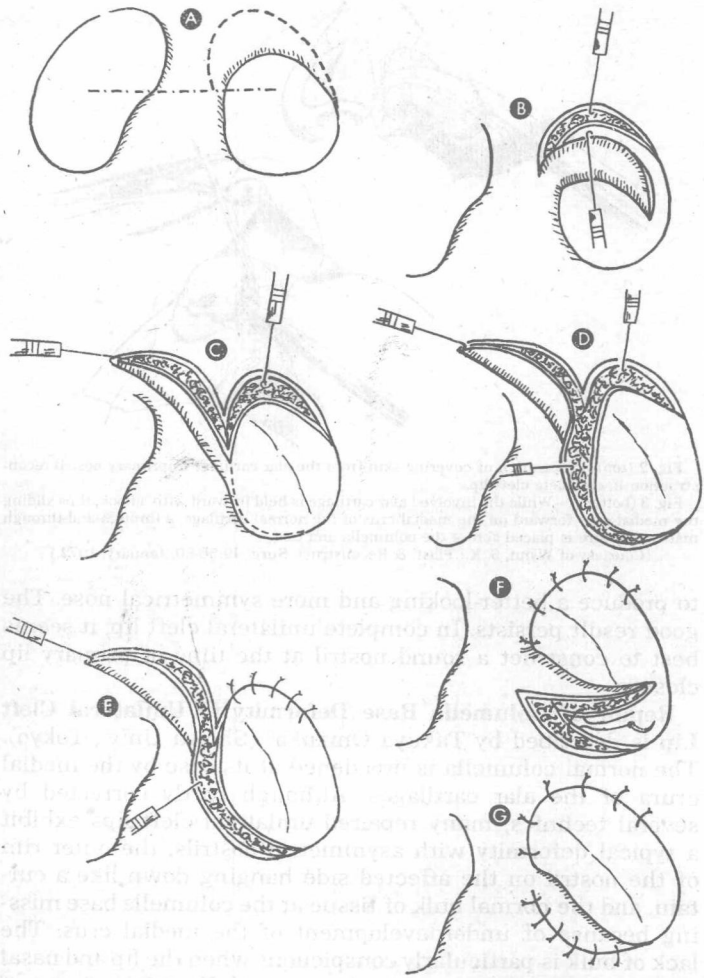


Fig. 4.—*A*, incision line. *B*, nostril rim flap is raised. *C*, inner incision is extended to nostril floor. *D*, columella base and nostril floor are undermined. *E*, nostril rim is closed. *F*, flap is rotated into defect. *G*, sutures are completed. (Courtesy of Onizuka, T.: Brit. J. Plast. Surg. 25:33-36, January, 1972.)

developed with the use of excess tissue from the nostril rim to fill the deficiency at the columellar base, correcting both deformities at the same time.

TECHNIC.—The excess on the nostril margin is excised as a flap (Fig. 4), the medial end of the incision being where the medial crus on the normal side begins to turn outward. The base of the pedicle is 2-3 mm. wide, depending on the contour required. The inner incision is extended to the nostril floor, and the floor and columellar base are undermined and the nostril rim is closed. The flap is rotated into the lower defect, trimmed if necessary to produce the same contour as on the normal side, and sutured in position. If much increase in bulk is needed, the base of the pedicle should be wider than when less additional tissue is required, but the base should not be made so narrow that the vascular supply is impaired. When this is the case, it is better to use a free composite graft taken from the nostril rim or, when tissue in the rim is insufficient, from the ear.

The columella base deformity caused by underdevelopment of the medial crus of the alar cartilage can be repaired by a pedicle flap or composite graft from the nostril rim.

►[Judging from the results obtained by the author as shown in the illustrations, this secondary correction of the nose associated with the cleft lip warrants further trial by other surgeons. It conserves all tissue and uses it to the best advantage.—K.L.S.]

Evaluation of Adults with Repaired Bilateral Cleft Lips and Palates. John R. Birch and William K. Lindsay[4] (Hosp. for Sick Children, Toronto) reviewed the records of 28 women and 36 men who had had bilateral complete clefts of the lip and palate repaired in early childhood. The women were aged 15-26 years and the males, 17-29 years. Personal reexamination was possible in 56 cases. Control subjects were aged 18-25 years. Social and family data are given in the table. The typical patient was from a poorer than average socioeconomic background and a larger than average family. Ten had had major psychologic problems; their operative outcome was about the same as that of the other patients. Their most obvious maladjustment was in heterosexual relation. Most patients had had a LeMesurier quadrilateral-flap lip repair at age 3-6 months, a modified Dorrance push-back palatoplasty at age 1½-2½ years and one or two additional lip or nose revisions in later childhood. Associated congenital anomalies were more frequent than in the general population. The average IQ was 96.

(4) Plast. & Reconstruct. Surg. 48:457-465, November, 1971.

PATIENT STATISTICS AND FAMILY BACKGROUNDS

	Female	Male
Number of patients	28	36
Residence		
Urban	19	18
Rural	9	18
Family data		
Average number of siblings	5	4
Average number of siblings older than patient	2	2
Average number of siblings younger than patient	2	1
Social status of father		
Laborer	14	14
Skilled tradesman	8	18
White collar worker, business or farm owner	6	4
Professional man or business executive	0	0
Clefting background		
Family history of clefting	21 (75%)	18 (50%)
Siblings who had clefting	8 (29%)	6 (15%)
Parents who had clefting	4 (15%)	3 (8%)
Associated anomalies	6 (21%)	7 (19%)
Treatment		
Average number of operations per patient	3.7	3.4
Average number of active orthodontic treatments per patient	30 to 40	40 to 50
IQ and education		
Average IQ	96	96
Average number of school years completed successfully	9	10
Social history of patients		
Married	7	2
Unmarried	21	34

Occupation of patients

Female	Male
7 high school students	11 high school students
2 vocational school students	1 medical student
7 housewives (3 also nurses)	3 factory workers
4 nurses (3 also housewives)	3 laborers
3 factory workers	2 warehousemen
2 nurse's aids	1 truck driver
1 secretary	1 highway researcher
1 typist	1 TV repairman
1 file clerk	1 electrician
1 switchboard operator	1 tool maker
1 domestic helper	1 machinist
1 unemployed (mentally retarded)	1 army corporal
	1 salesman
	1 commercial designer
	1 factory foreman
	1 clerk
	1 airport attendant
	1 printer's apprentice
	1 unemployed (mentally retarded)
	2 dead