Aesthetic Plastic Surgery 1:61–69, 1976
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Aesthetic Surgery in the Perioral Region

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ABSTRACT / The authors describe six procedures used for the correction of various symptoms of the aging process in the perioral region, featuring augmentation cheiloplasty and smoothening of the nasolabial crease.

The perioral region is, after the periocular structures, the most important site of facial expression. Deep nasolabial folds may be hereditary; they can also be acquired and betray a disgusted attitude or a stomach disease. Thin tightly closed lips reveal, especially in women past their prime, a certain resignation or even bitterness which is but poorly camouflaged by generous application of lipstick. The thin vertical wrinkles across the upper lip are the unsightly stigma of age and perhaps a badly fitted denture.

Among the many operations recommended for the correction of these details in the unaesthetic appearance of the perioral region, we use the following small interventions that can be performed as separate corrections or added as ancillary procedures to a rhytidectomy:

1. Augmentation cheiloplasty
2. Correction of pouting lips
3. Height reduction of upper lip
4. Deepening of shallow philtrum
5. Smoothening of wrinkled upper lip
6. Smoothening of nasolabial creases

Augmentation cheiloplasty

To create or recreate pleasing lips with a harmonic cupids bow, we have devised and published (4) a simple but efficient method that has given us satisfaction during the last 12 years in more than 100 cases.

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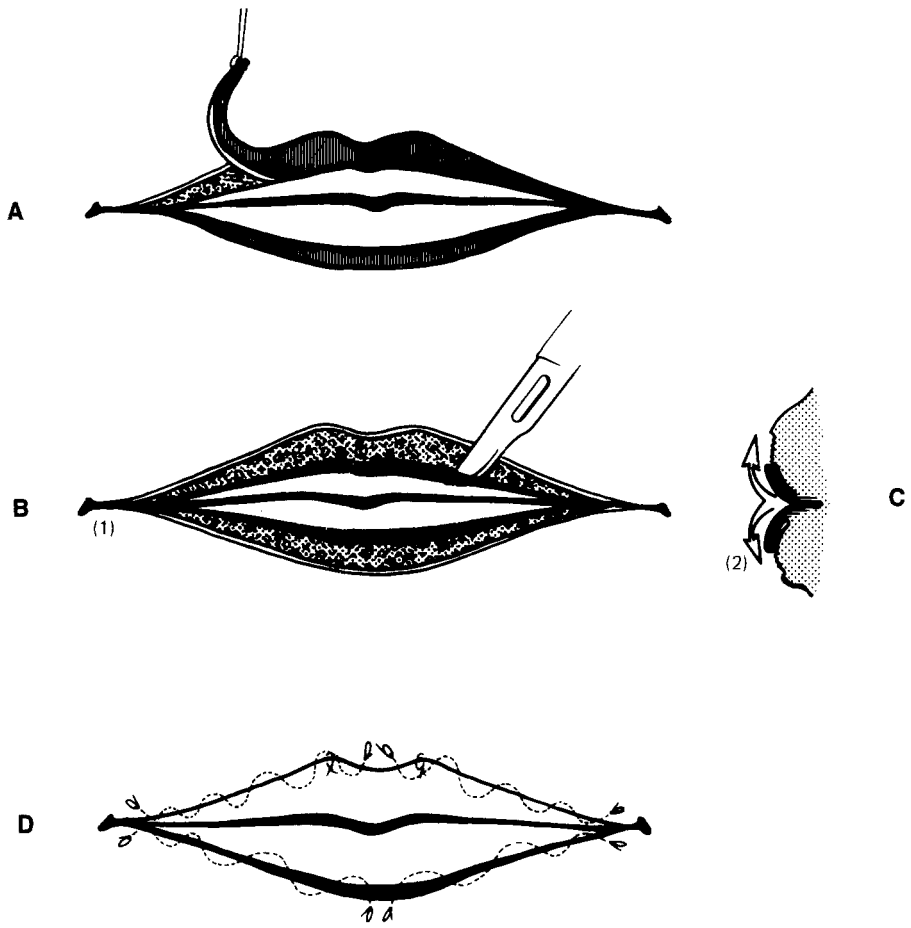


Fig 1. Schematic drawing of the operative technique for augmentation cheiloplasty.(**A**) Deepithelialization of the additional lip area; (**B**) undermining the vermilion; (**C**) advancement of the vermilion; and (**D**) closure with single suture.

Operative technique (Fig. 1)

With a very fine pen the vermilion border is marked; then the desired additional lip area is designed whereby an initial hypercorrection must be obtained in order to compensate for the retractive forces. After having incised along the actual and the future vermilion the area in between is deepithelialized. After undermining, the vermilion can be advanced into its new site where we fix it with a single suture on either of the philtrum ridges, the remaining wound being closed with an intradermal running nonabsorbable 5/0 suture (Figs. 2 and 3).

If in rare cases the lips need not only to be enlarged but also require additional volume, we employ free dermal grafts introduced through small incisions in a subcutaneous pocket

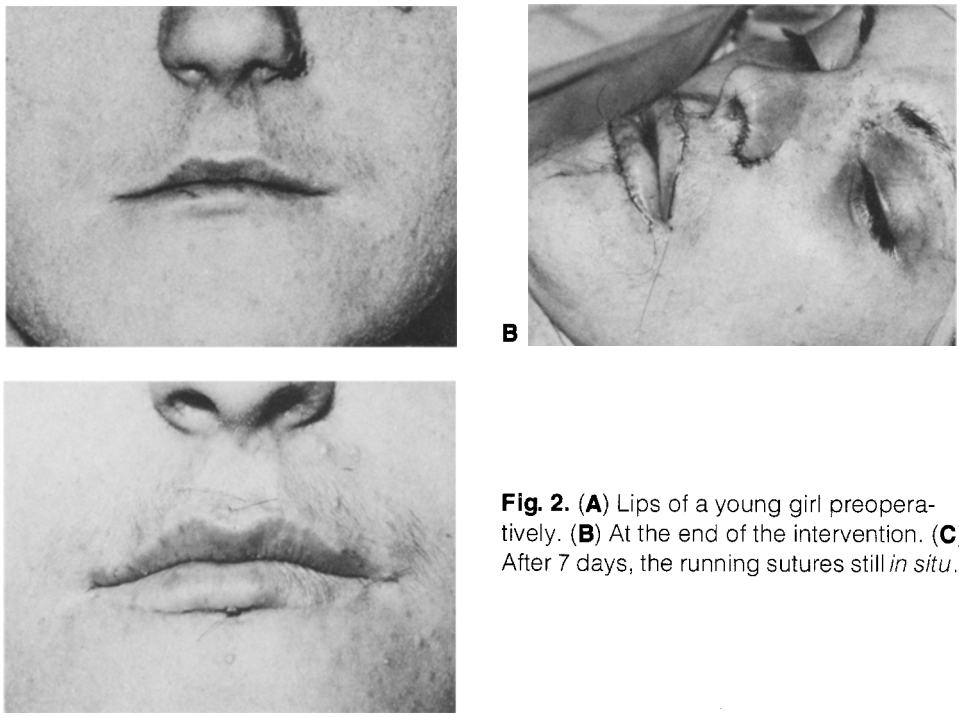


Fig. 2. (**A**) Lips of a young girl preoperatively. (**B**) At the end of the intervention. (**C**) After 7 days, the running sutures still *in situ*.

beneath the lip. Recently a method has been described by Delerm (1) for this kind of augmentation which consists of an VY advancement, mucosal plasty, and a muscle plasty. We believe however that the same result can be achieved by our simple procedure.

Correction of pouting lips

This sometimes undesired trait is treated simply by excision of the vermilion and the subcutaneous tissue along its upper border (Fig. 4).

Height reduction of upper lip

A long upper lip cannot only be corrected by the above described cupids bow displacement but also, especially if accompanied by an unpleasingly pointed nasolabial angle, by a simple procedure: A buffalo horn-shaped excision along the nasolabial junction solves both problems and leaves an inconspicuous scar. Both techniques can, of course, be combined. The resection can sometimes be reduced to a V-shaped one at the columellar base (Fig. 5).

Deepening of shallow philtrum

Quite often it is not only the lip border that needs reshaping but also the philtrum which is too shallow. This delicate structure, whose normal anatomy has been rather neglected until recently, gives to the face a youthful and tender expression. We approach it by a short

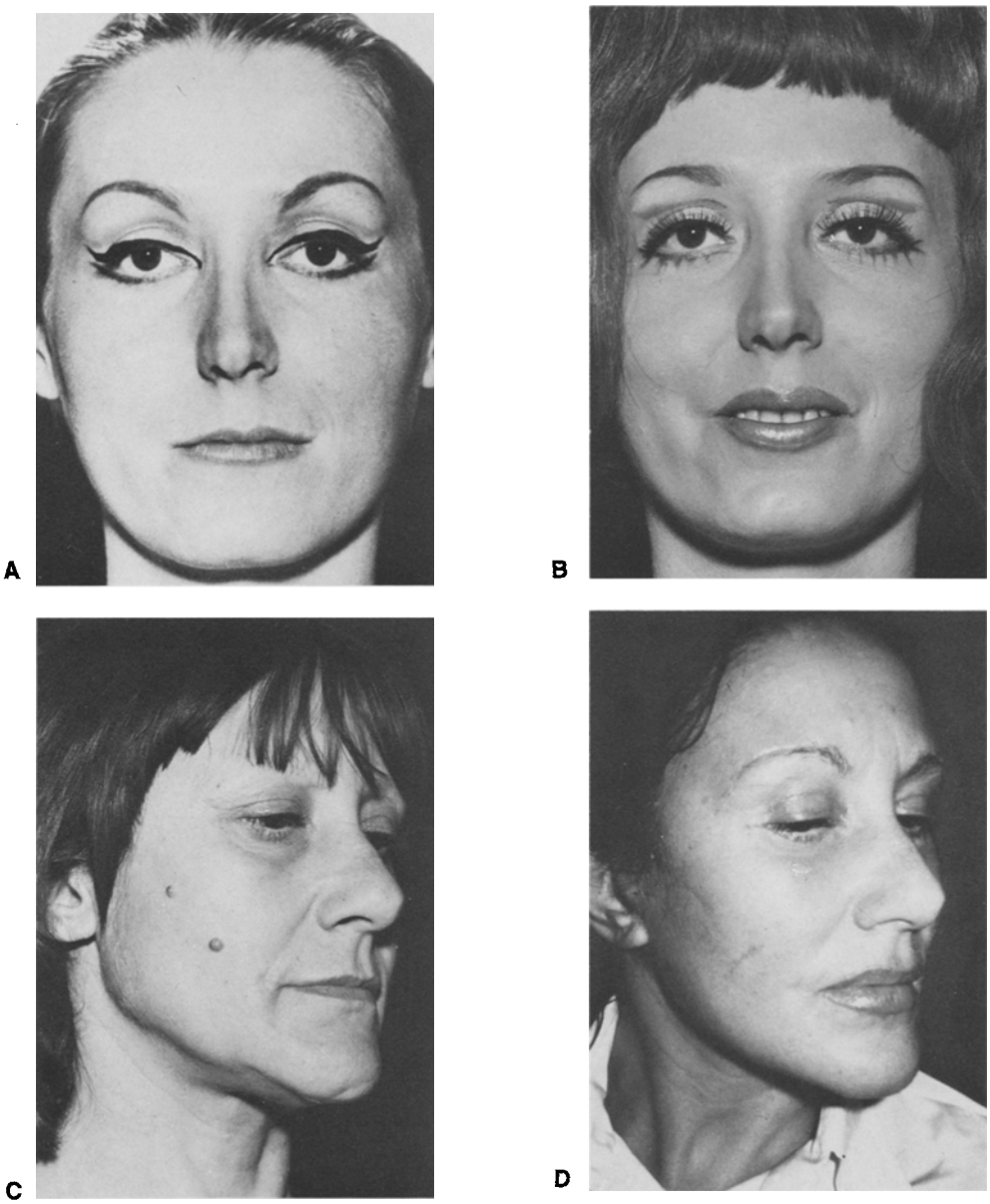
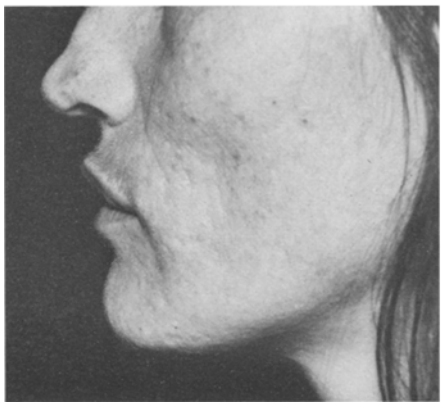
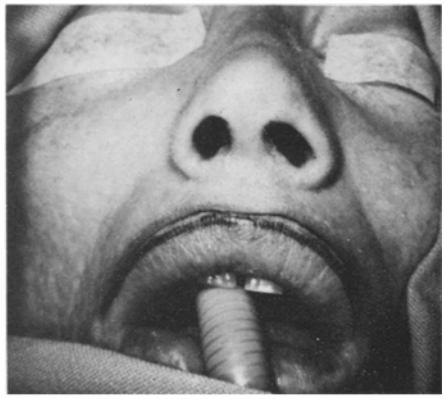


Fig. 3. (**A** and **C**) pre-operative; (**B** and **D**) post-operative. Two cases of upper and lower augmentation cheiloplasty.





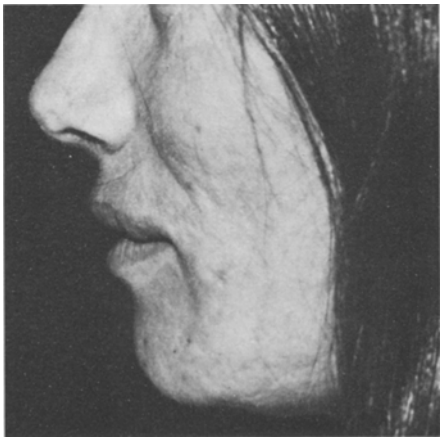


Fig. 4. Correction of pouting upper lip.

incision along the vermilion border; the dimple of the philtrum is deepened by dissecting the subcutaneous tissue, shaping two inferiorly based flaps which subsequently are pulled into two tunnels running beneath the philtrum ridges. This technique is somewhat similar to the one described by O'Connor and McGregor (5). Mattress sutures tied over a small oval plastic sheet prevent hematoma and help to maintain the desired concavity and depth during the healing process. In very selected cases we introduce a shell-shaped graft of auricular cartilage as reinforcement according to the method of Schmid (6). We do not, however, use composite grafts as he recommends.

Smoothening of wrinkled upper lip

Many methods have been tried to remove the wrinkles of the upper lip. Hinderer (2) suggested the temporary implantation of a silicone sheet which, by formation of a connective tissue membrane, might prevent a new fixation of the cutaneous and muscular layers. For over 12 years we have been using intradermal silicone injections and dermabrasion as

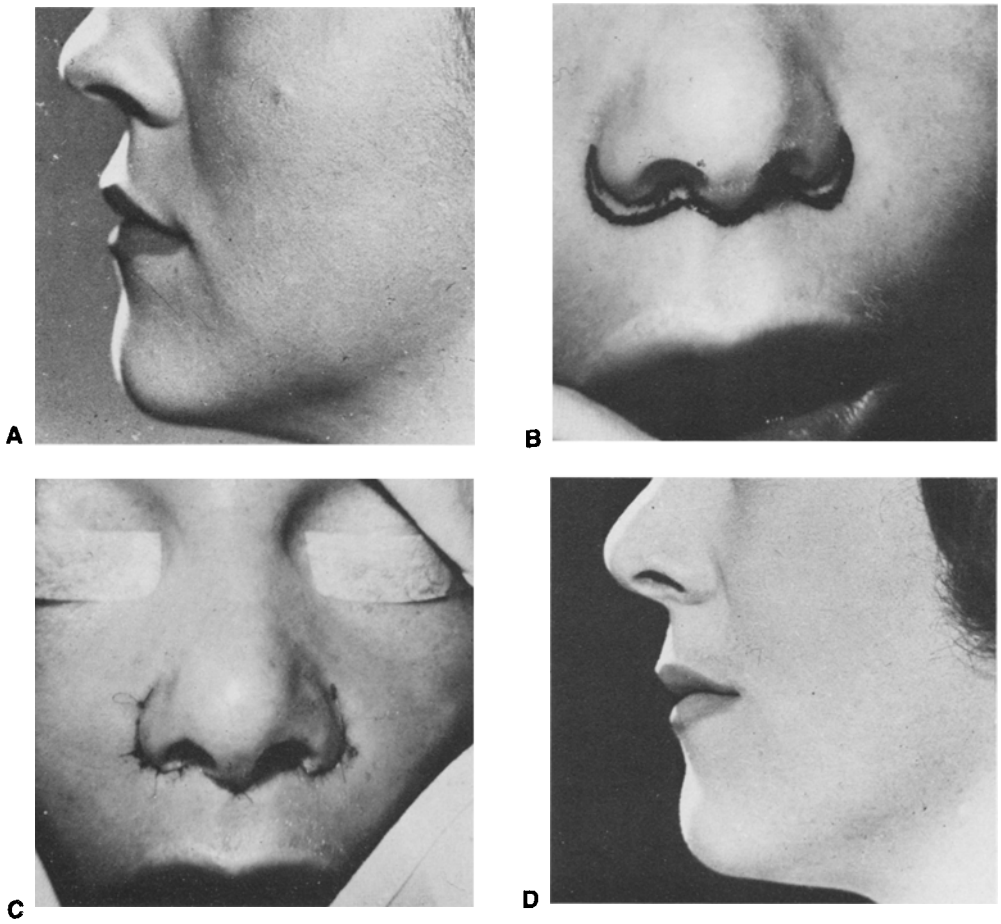


Fig. 5. Correction of a too long upper lip accompanied by a pointed nasolabial angle. (**A**) Preoperative view; (**B**) the "buffalo-horn" excision; (**C**) sutures; and (**D**) result.

well as chemical peeling in the last years. In our hands the combination of skin undermining followed by a dermabrasion 3 days later as advocated by Schmid (7) has given the best results. Since in most cases of senile lip wrinkling the upper vermilion has become sunken and thin, we like to combine the vermilion advancement with this technique taking advantage of the good approach possibilities for the undermining.

Smoothening of nasolabial creases

The problem of the deep nasolabial folds has been one of the unanswered questions in the treatment of the aging syndrome of the face. Complete excision seemed an operation too important in most cases; mere silicone injections had none or little durable effect. Un-

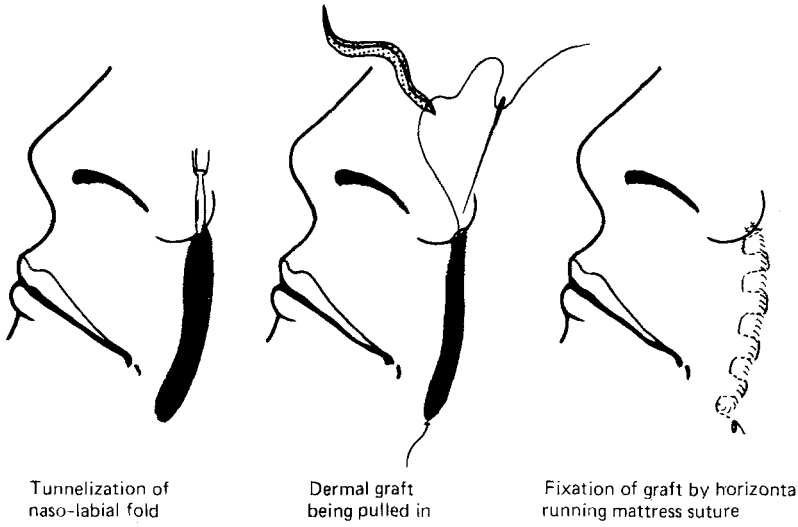


Fig. 6. Schematic drawing of the operative technique for smoothening deep nasolabial creases.

dermining and subsequent dermabrasion of the whole length of the groove were not much better. Even the good results achieved by subdermal implantation of dermal grafts which we have practiced for several years were of short durability. Only in some cases where we used a dermal flap gained from an excision around the alar base reaching the vestibular floor instead of a graft, we had a more lasting effect, but only in the upper part of the nasolabial fold. Having obtained little satisfaction with these minor procedures, we decided to use mattress sutures to evert the crease and at the same time fix temporarily the dermis graft.

Operative technique (Fig. 6)

From a small 2-mm incision in the nasolabial junction the nasolabial crease is undermined very superficially with a slender cataract knife. A worm-shaped dermis graft is pulled into this tunnel with the help of a long straight needle. A 4/0 nonabsorbable horizontal running mattress suture helps to keep the graft in the proper place and produces a forced evertion on the crease. The incision is closed by two interrupted 5/0 sutures (Figs. 7 and 8).

It is important to remove the mattress suture some 60 hours after the operation which is about the time limit where the suture marks still disappear without leaving visible scars. Zinc paste helps to accelerate healing of the irritated skin.

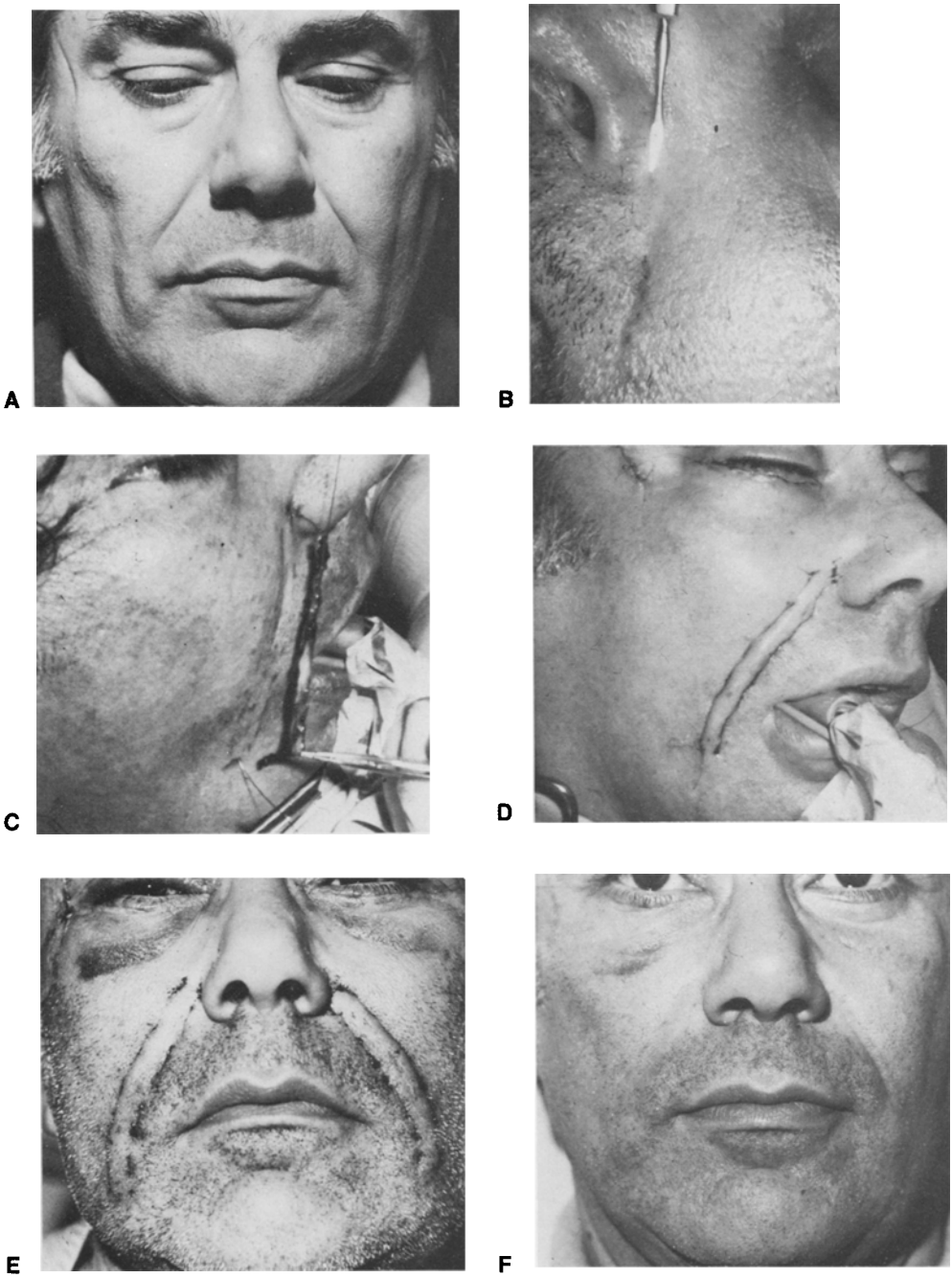


Fig. 7. Operation of nasolabial creases. (**A**) Preoperative view; (**B**) the instrument used for the tunnelization; (**C**) the dermis graft; (**D**) the horizontal running mattress suture at the end of the operation; (**E**) about 60 hours later, right after ablation of the suture; and (**F**) 1 week later.

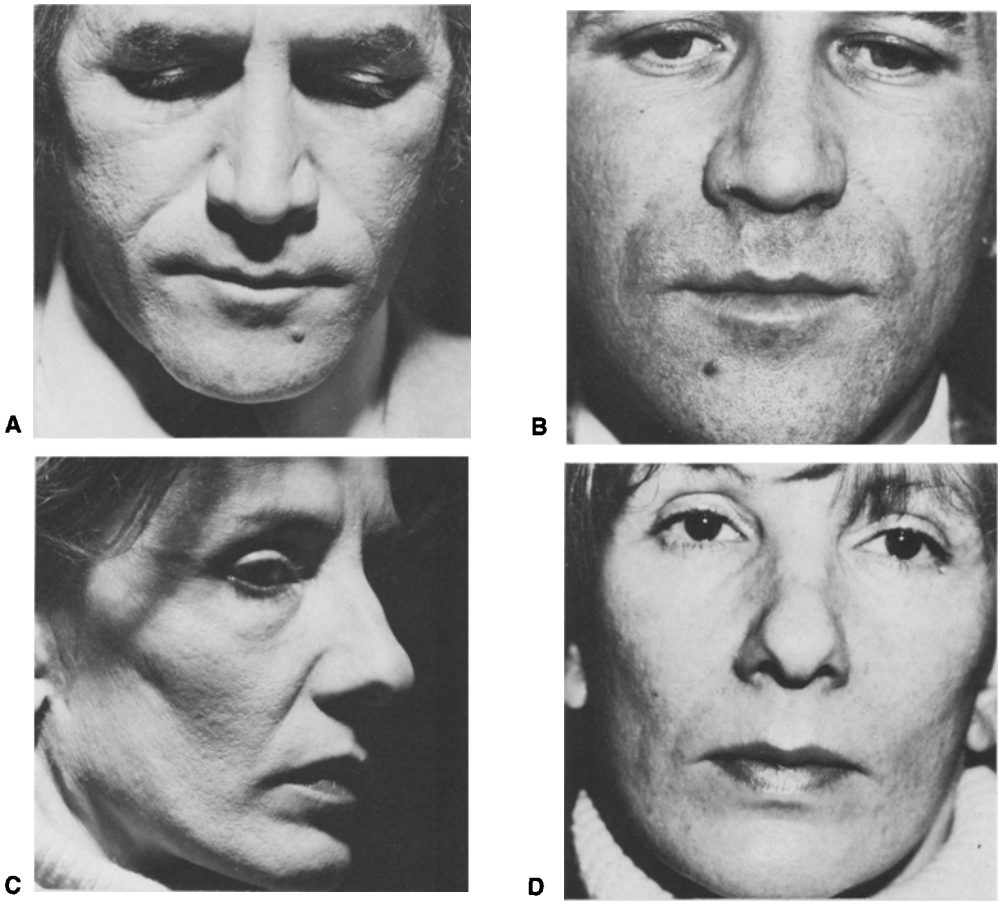


Fig. 8. (**A** and **C**) pre-operative; (**B** and **D**) post-operative. Two cases with smoothened nasolabial creases.

References

1. Delerm, A. and Elbaz, J.-S.: Chéiloplastie des lévres minces. Proposition d'une technique. Ann. Chir. Plast. 20: 243 (1975).
2. Hinderer Meise, U.: Treatment of the deep wrinkles of the upper lip by means of temporary subdermal implantation of silicone sheets. Rev. Esp. Cir. Plast. 3: 265 (1970).
3. Jackson, I.T.: Personal communication, March (1975).
4. Meyer, R.: Dauerhaftigkeit, Gefahren und Misserfolge kosmetischer Eingriffe im Gesichtsbereich. Aesthet. Med. 13: 273 (1964).
5. O'Connor, G.B. and McGregor, M.W.: Surgical formation of the philtrum and the cutaneous upsweep. Am. J. Surg. 95: 227 (1958).
6. Schmid, E.: The use of auricular cartilage and composite grafts in reconstruction of the upper lip with special reference to construction of the philtrum. Transactions of the Third International Congress of Plastic Surgery, Excerpta Medica, Amsterdam, 1964, p. 306.
7. Schmid, E.: Surgical method for removing wrinkles. Chir. Plast. 2: 239 (1974).