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AUGMENTATION RHINOPLASTY

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"If one is happy with a result, why change the method? If dissatisfied, why not experiment?"

Jacob Bronowski

Improving the appearance of a virgin, uninjured caucasian nose by adding support, rather than by structural reduction has rarely, if ever, been discussed. It is quite true that procedures to "Westernise" the oriental nose have been reported by Flowers (1974), among other surgeons, along with several techniques to correct saddle nose deformities after trauma. But we believe that there are specific instances where the introduction of material to fill out irregularities or stretch the skin of the nose may be the method of choice for cosmetic rhinoplasty. Once this concept is accepted, indications for it do not appear to be rare:

(*a*) A congenitally hypoplastic nose which is often associated with hypoplasia of other structures particularly in the middle third of the face.

(*b*) People with strong bony features get a better facial balance by enlarging the nose to match their prominent malars, chins and foreheads. In this context, even large noses can be "beautiful" and are accepted by the patient.

(*c*) If the nasal skin is indurated, diseased or very sebaceous, a reduction of cartilage support will produce a bag of scar tissue. Indeed, Sheen (1975) described the treatment of supra-tip deformities by the addition of a small autogenous cartilage graft.

(*d*) A rounded, featureless or blobby nose needs to have sharper definition of the dorsum and tip to produce a sculptured and balanced effect. This may be most easily achieved by introducing material to selectively stretch specific areas such as the dorsum and tip.

We all see patients with "difficult" noses where one may be inclined to avoid operation because of past sad experiences. However, if these patients can be helped it may well be by augmentation rather than reduction.

CASE REPORTS

Case 1. A 23-year-old musician complained that people looked up his nostrils when he was on stage. He had a hypoplastic nose which appeared to be too short, the glabella was excavated to give the so-called "Mickey Mouse" nose (Fig. 1A, B). Augmentation of the bridgeline by a silastic implant transformed the balance of the features and "strengthened" the nose (Fig. 1C, D).

Case 2. This patient requested a reduction rhinoplasty because she thought her nose was a "big blob" (Fig. 2A, B). Although the nose appeared too large itself, it could not be reduced because the quality of the overlying tissues, particularly at the

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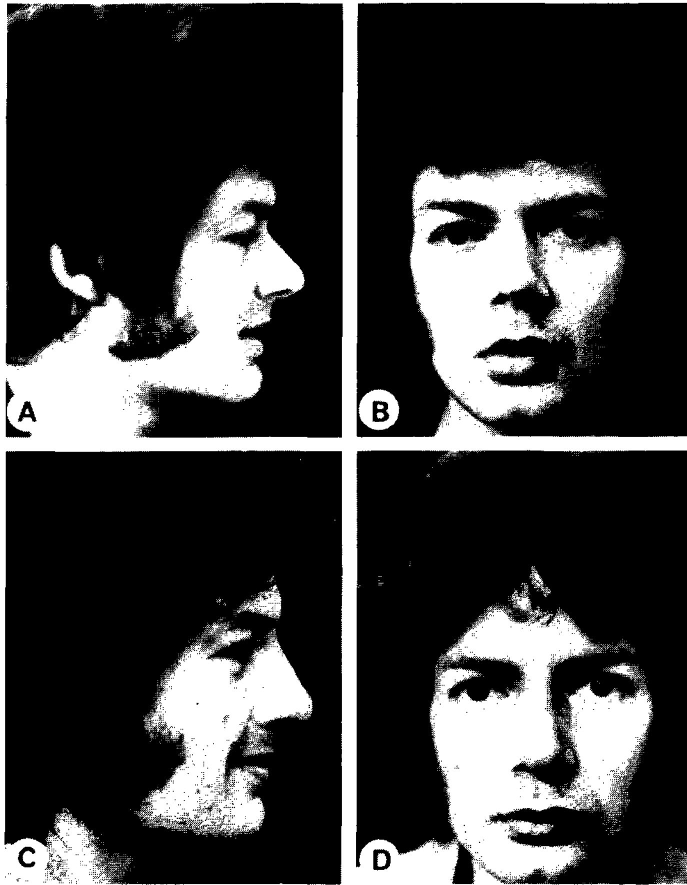

FIG. 1. A and B. Hypoplastic nose with "Mickey Mouse" appearance. C and D. After insertion of bridge line silastic implant.

tip, made it doubtful whether they would retract satisfactorily. A silastic strut was introduced along the whole length of the dorsum to the proximal part of the tip. The result of this simple manoeuvre transformed her facial balance (Fig. 2C, D).

Case 3. This 23-year-old hairdresser had hypoplasia of the central part of the face. There was some weakness of the orbital septa, but a reasonably sized chin and nose tip. The pre-operative saddle-nose deformity with the uptilted tip looked very much like an overdone rhinoplasty (Fig. 3A, B). Treatment was confined to the insertion of a silastic implant on the dorsum of the nose. Post-operatively the nose appeared longer, stronger and more in balance with the forehead and chin (Fig. 3C, D).

Case 4. This girl had hypertrophy of the lower half of the nose with relative hypoplasia of the bony pyramid (Fig. 4A, B). Reduction of the alar cartilages alone was unlikely to produce significant improvement and adding alar base excisions would almost certainly have run the risk of obstructing the airway (Rozner, 1979). In this case the imbalance between the upper and lower parts of the nose was reduced by augmenting the bony dorsum. The alar bases were remodelled to reduce the nostril flare, but because the nasal tip was not lowered the nasal airway was not affected (Fig. 4C, D).

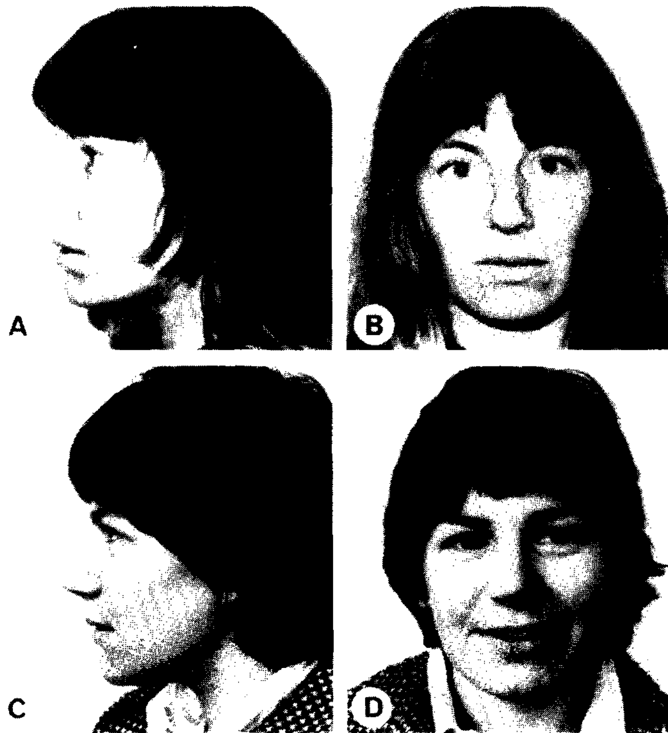

FIG. 2. A and B. Bulbous nose tip with rather thick overlying skin. C and D. After insertion of a silastic strut along the whole length of the dorsum of the nose.

Case 5. A very bright 34-year-old girl presented with a classical Pinocchio nasal tip. The skin over the nose tip was red with early acne rosacea (Fig. 5A, B). This type of skin does not shrink after reshaping the supporting structures and leaves an unpleasant bag of scar. It was decided to accept the size of the nose tip, but to reduce the disproportion between the bony pyramid and tip with a silastic implant.

The post-operative photographs (Fig. 5C, D) show the striking contour improvement and the larger nose improved the balance of her face.

DISCUSSION

This technique has now been adopted in twenty-two cases over two years. In discussion with colleagues, two points are always raised:

1. How do the patients who come along for a reduction rhinoplasty accept that their nose is to be made bigger? The answer is—with gratitude, providing it gives them what they truly want, namely features that are balanced and harmonious. No one has yet asked for a graft to be removed, but one can envisage the advantages of a procedure which can easily be totally reversed if a patient does not like the result. How very different from the situation when a reduction rhinoplasty is not accepted by the patient!

2. Why use silastic? The material used is irrelevant to the principle of augmenting an unbalanced nose.

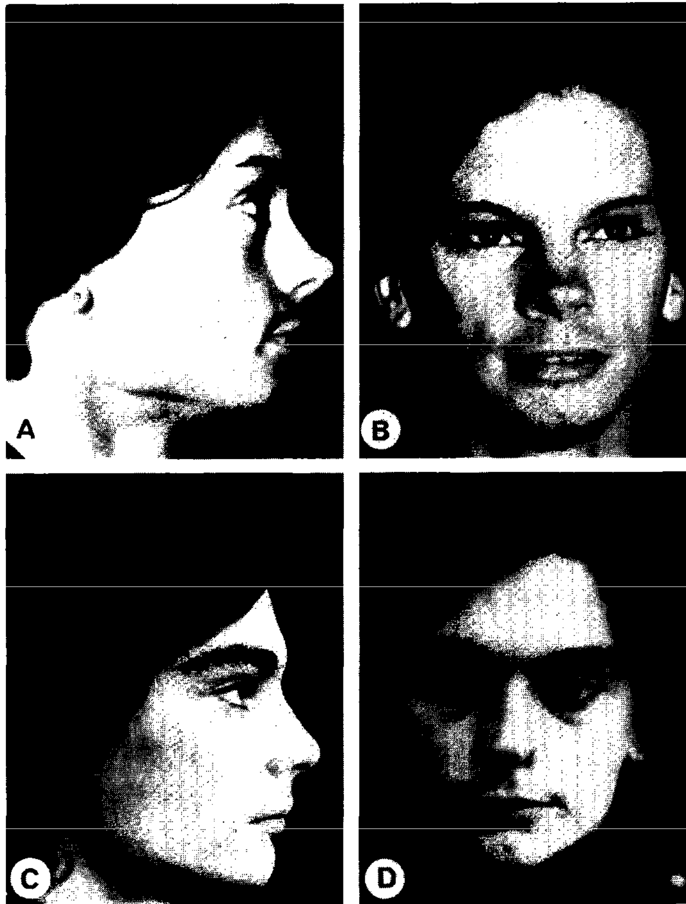

FIG. 3. A and B. Hypoplasia of the maxillae and gross saddle-nose deformity. C and D. After insertion of silastic implant to nasal bridgeline.

Although there is much speculation on implant rejection and extrusions, I have had trouble in only two cases. The first implant ulcerated at the site of insertion in the nostril and was removed. It was successfully re-inserted through a different incision six weeks later. In the second case, recurrent low grade infection required removal of the implant. It was successfully re-inserted after a six weeks course of the appropriate antibiotics.

Experience shows it is important to observe certain principles:

1. Fix the implant as firmly as possible onto the bony tissues. In particular, the implant should slip into its prepared pocket with just a shade of difficulty. If the pocket is too big the operation should be abandoned and repeated in six weeks time.
2. Keep the implant well away from the incision.
3. Choose a piece of silastic with a consistency comparable to the tissues which it is going to augment. For example, a fairly hard block may be used for the bony pyramid, but a softer grade material is better near the nasal tip.
4. Avoid operating on any patient with a focus of infection.

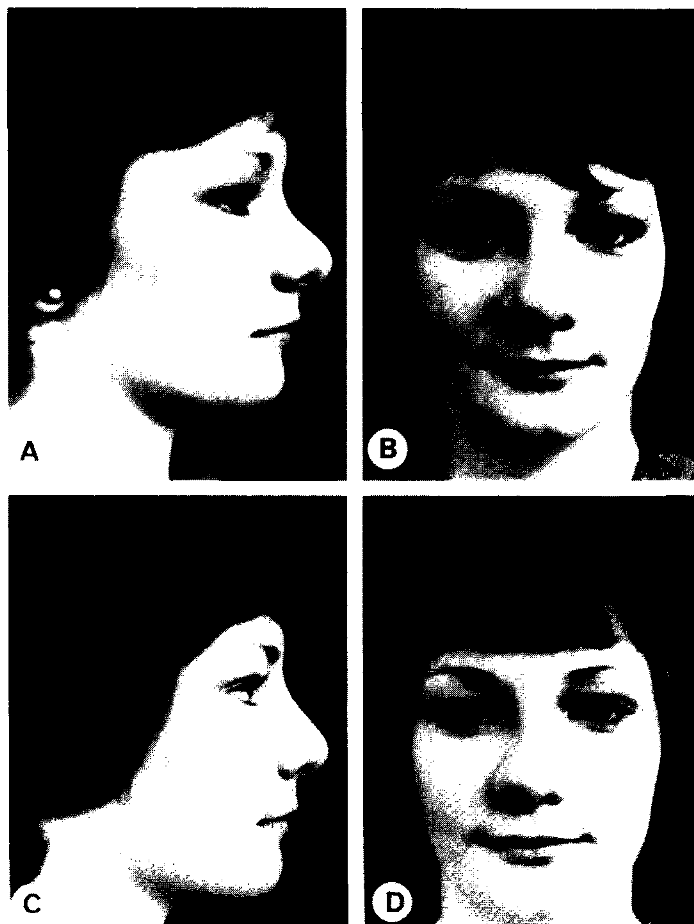

FIG. 4. A and B. Prominent lower third of the nose with hypertrophy of the nasal tip. C and D. After insertion of silastic bridgeline strut and remodelling of the alar bases.

SUMMARY

A cosmetic rhinoplasty must correct the intrinsic deformities of the nose and leave the facial features balanced and in harmony. Some caucasian noses which create difficult problems for conventional rhinoplasties can be readily dealt with by introducing additional support into part or all of the nose (or at the most, by a combination of augmentation with limited local reduction). Indications for the principle of augmentation in cosmetic rhinoplasty are illustrated by case reports.

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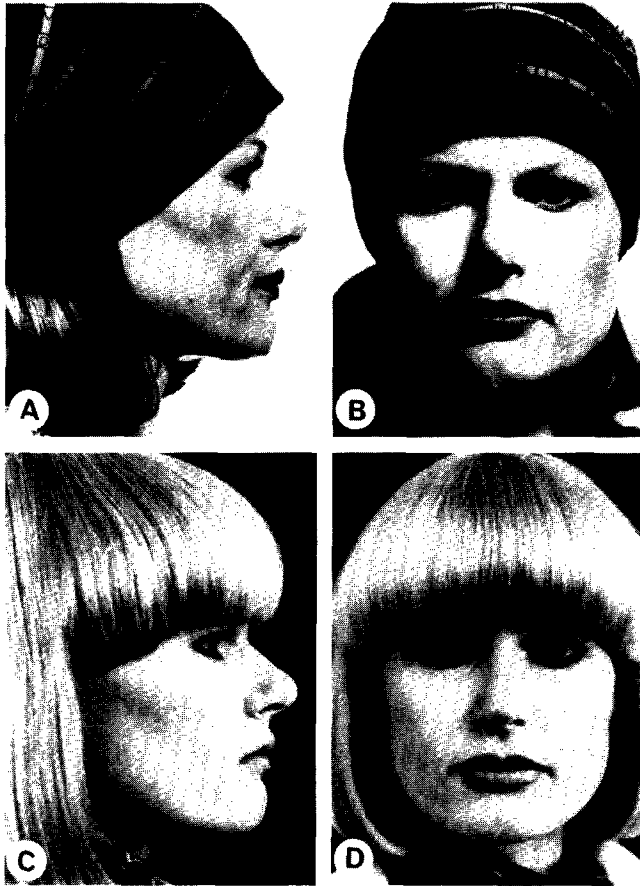

'IG. 5. A and B. Very prominent "Pinocchio-type" nose with early acne rosacea affecting the skin ove nose tip. C and D. After insertion of silastic implant to the bridgeline.