

NEW METHOD OF NOSE RECONSTRUCTION

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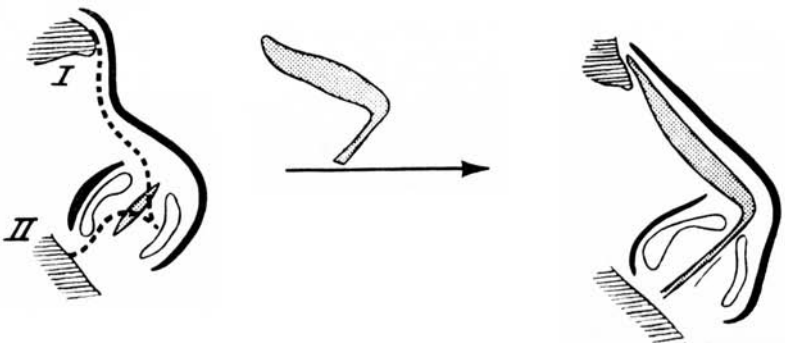
S. Heart H.D. Hospital, Kumbakonam, India.

Collapsed nose is a major obstacle of rehabilitation of H.D. patients. At the Sacred Heart H.D. Hospital, Kumbakonam, India, between 1959 and 1963 research was conducted for detection of easier methods of nose reconstruction.

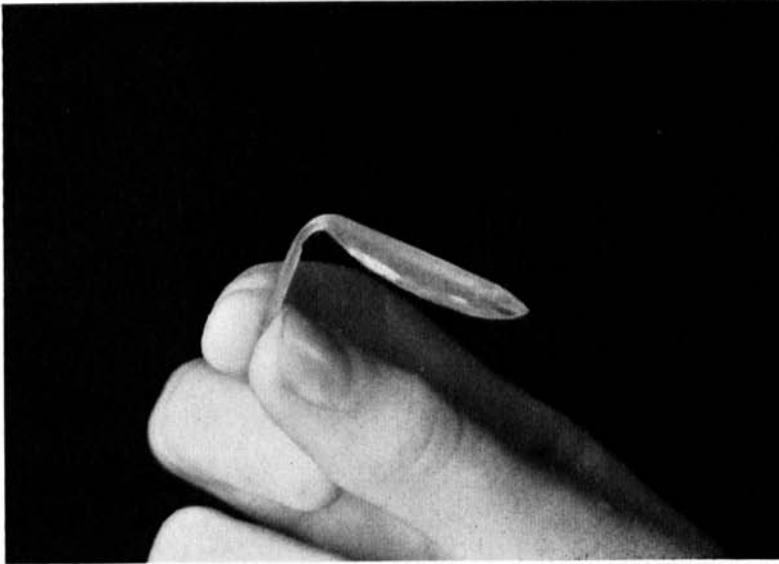
A good number of attempts have been made to introduce L-shaped nylon or polymethacrylate inserts, in order to substitute the destroyed cartilage of the septum. But the long-term results of this kind of alloplasty were usually bad, as the insert was extruded or attracted infection sooner or later.

There is good evidence, that this bad long-term tolerance of the insert is *not* due to the plastic material itself but only to its hard consistence, which will damage the skin and tissue by mechanical stress. The new idea was to use for the alloplasty some *very soft* material, which would imitate the consistence of the genuine cartilage. Ordinary commercial soft polyethylene has proved to be the well tolerated and adequate material. It gives excellent tolerance for years and allows easy shape giving. Only disadvantage is low melting point, prohibiting autoclaving. Boiling in desogen-solution was used for sterilising.

Operation technique was done in the following way: 1.5 cc. Procain 2% infiltrated in the dorsum nasi, 0.5 cc. in columna nasi. Quarter inch incision in columna nasi. Mosquito forceps, starting from the incision digging two subcutaneous tunnels, one reaching os nasale, the other os maxillare. Paraseptal tissue mobilised by opening of the mosquito forceps only, thus avoiding all sharp cutting inside nose substance (which would create bleeding or danger of perforation into nose cavity). Horizontal beam of the alloplastic insert, handled by sterile forceps, is pushed into horizontal tunnel and deposited on os nasale. Vertical beam taken through columna and placed on os maxillare. The flexibility of the soft polyethylene



is very helpful for the placing. Lateral deviations of the nose can be corrected by asymmetrical placing of vertical beam of the insert. Two U-stitches close the incision. No further fixation.



The alloplastic insert made from soft Polyethylene.

One first batch of 12 patients in Sacred Heart H.D. Hospital, Kumbakonam, carry at present this type of alloplasty by soft polyethylene for more than three years.

From a second batch of 61 patients, 55 have the insert for more than one and a half years.

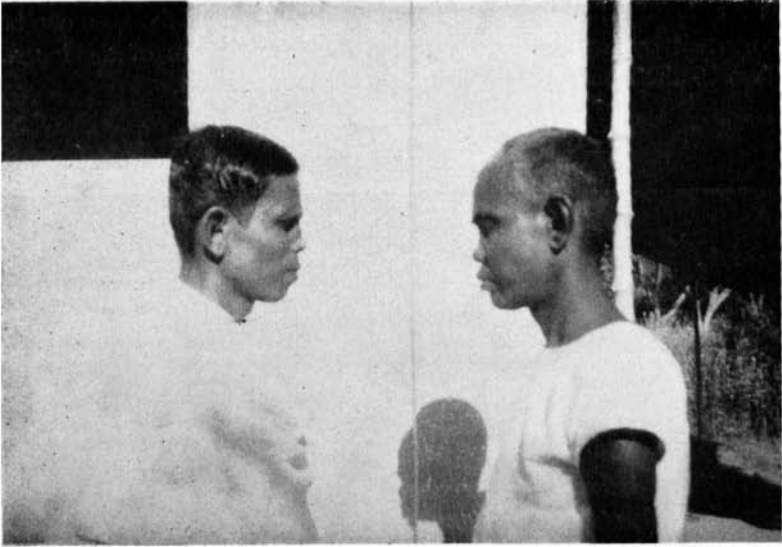
Six inserts had to be removed: 3 due to scar contraction, giving excessive stress on the insert, 2 due to inadequate shape of insert, one due to infection.

(1) Tolerance of the remaining inserts was excellent, no atrophy of skin, no tilting or absorption as frequently observed with bone grafts.

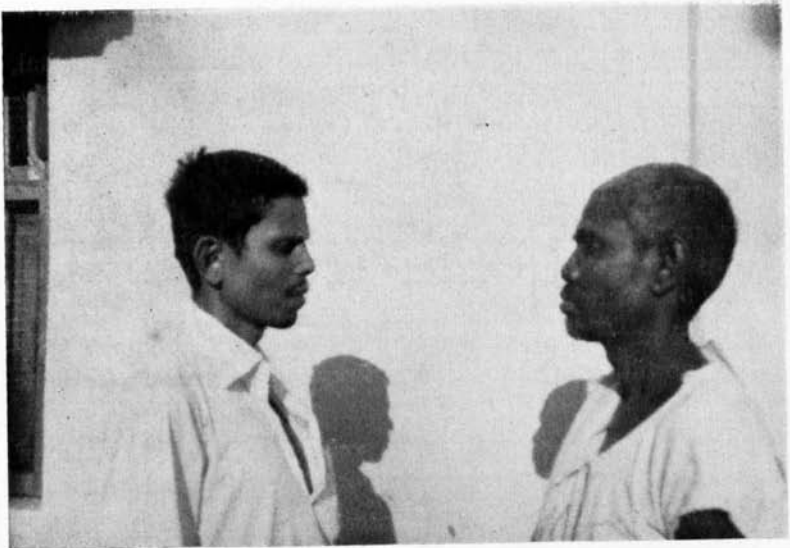
(2) Fifteen noses showed bacilli positive infiltration. In spite of that the inserts remained *in situ* for more than one and a half years.

(3) Due to the softness of the insert the nose remains flexible.

(4) In case of incompatibility or infection the insert can be removed easily by cutting in two pieces at the neck of the column.



Two patients with typical H.D. nose deformities.



Same patients 4 weeks after reconstruction.

(5) In case of extrusion due to inadequate shape or infection a second attempt can be made, as there will be very little scar-tissue from the polyethylene insert.

Summary

An easy, grateful and riskless alloplastic procedure is described for reconstruction of *loose* H.D. nose deformities with collapse of septum. This kind of nose deformity will exert only slight mechanical stress on the insert and thus, *soft* alloplastic material (polyethylene) will be tolerated for years. One major advantage is the fact, that even nose deformities with active infiltrations (Bacilli ++) can be reconstructed without risk of extrusion or infection. For heavily contracted noses with "short skin" this procedure is not adequate; those cases should be operated by complete plasty, that is by the method of N. H. Antia.

A further report will be given in a few years about the long-term tolerance of this type of alloplasty.