

## Surgical Correction of Facial Palsy

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Permanent paralysis of the facial nerve results in one of the most hideous deformities of the face. Young and old may suffer from this. Its correction, which is never perfect is a major challenge to the Plastic Surgeon. Apart from the facial asymmetry which is increased by expressions of emotions, these patients have other annoying disabilities like persistent epiphora, dribbling of saliva, ballooning of cheek while eating, drooping of the eye brow on the affected side, muffled speech etc. In those patients where nerve injury is irreparable and in whom nerve suture or grafting or such other repair is out of question, some form of palliative reconstruction should be done either by dynamic or static aid.

Various method of correction of established facial paralysis are devised by various authors. The numerous procedures devised over the years confirm the general discontent with the various attempts to reanimate the paralysed face. The facial musculature and expression are such delicate and intricate mechanisms that the transfer of a muscle innervated by another nerve can never replace or duplicate the action of facial muscles. Moreover the transferred muscle itself may be acting in a different direction and some of its fibres are likely to undergo atrophy in course of time either from injury to its ner-

ve fibres or vascular supply. These patients can be helped but not made perfect. Hence the final result may fall short of perfection. It is safer to keep this in mind when planning to do reconstruction in these patients.

Eighteen cases of facial paralyses corrected by various methods are presented here. There were 9 male and 9 female patients. Age varied from 14 years to 45 years. Cause of paralysis was polio in infancy in 12 cases, operative trauma in mastoid operation 1, operation for parotid tumours 3, and injury in 2 cases.

Fascial suspension was used in 5 cases as done by Brown et al (1948). (Fig. 1, 2, 3). Fascial suspension is a tedious operation



Fig. 1 Facial Palsy—before operation

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Fig. 2 Three months after fascial sling operation

taking lot of operating time. During the postoperative period the mouth cannot be opened fully for few days. There is always some oedema of lips in early postoperative period. The slings were tied in over corrected position but this over correction passes off very early.

Massetric transfer was done in 10 patients (Freeman, 1968). This was done mainly in young people. Anterior half of masseteric



Fig. 3 Six months after operation

ric muscle was detached from the lower border of mandible and brought subcutaneously to reach the corner of the mouth and muscle is sutured to both lips without any intermediary of fascia (Fig. 4, 5).

Temporalis transfer (Andersen, 1961) was done in 3 cases (Fig. 6, 7 and 8).

Tarsorrhaphy and dilatation of canaliculus by '3 snips operation' as designed by McLaughlin (1952) was performed in 14 cases. Techniques are quite simple and effective.



Fig. 4 Facial Palsy—before operation Fig. 5 Six months after masseteric transfer

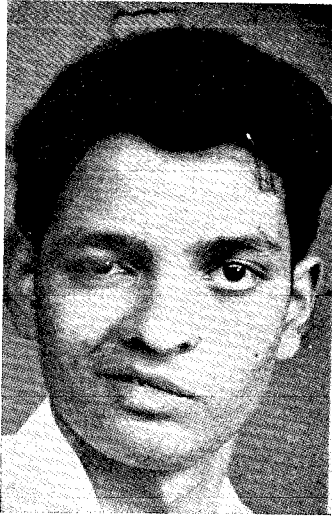


Fig. 6 Facial Palsy before operation

Re-education exercise, muscle stimulation etc. were carried out in the Physical Medicine Department under expert supervision. Follow up extended from 6 months to  $3\frac{1}{2}$  years.

As far as the results are concerned, of the 18 patients 17 subjectively satisfied with the result of treatment, one was not. The primary result of the operation was reported as good combined with a slow further improvement by 12 patients and unchanged by six. Size of the mouth was reported to be small in all cases where circumoral sling was used but the feeling gradually disappeared and secondary operation was however not done in any of these cases. Two cases had infection of the operation site, one was a case of temporalis transfer and the other a case of massetric transfer, but the infection was not severe and was controlled by broad spectrum antibiotics.

Eventhough the static support offered by fascia lata sling cannot correct the deformity completely, it can definitely mask the deformity to a large extent.

The best approach in this complicated problem is to combine the better effects of



Fig. 7 Same patient trying to close the eyes—before operation

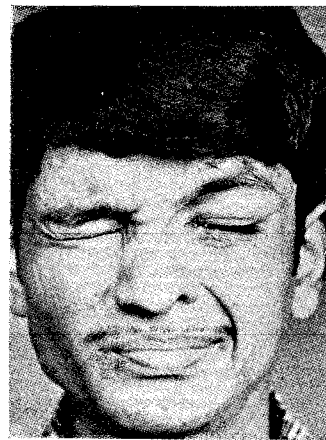


Fig. 8 One year after temporalis transfer to eye lids and massetric transfer to lower part face.

dynamic and static operations whenever possible. One may have to resort to a series of operative procedures to correct the

deformity and the particular operation has to be selected depending upon many factors such as age of the patient, sex, co-operation, psychological background of the patient etc. The Surgeon should regard the palliative management of facial palsy as a staged procedure. Certainly it is reasonable to expect some laxity of tissues as age and time progresses. But these patients with this disappointing condition (disappointing to patient and surgeon sometimes) will profit by

additional surgical procedures. In this context, one is less inclined to label any results as final.

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