

RECONSTITUTION OF THE ORAL SPHINCTER

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SUMMARY

The result in a fourteen year old female child with macroglossia and lax oral sphincter who was treated successfully by glossectomy and free palmaris longus muscle grafts for reconstituting the oral sphincter is being presented.

Case Report

A fourteen year old girl with macroglossia, machrochelia, ptosis having absence of the lip seal and open bite deformity was brought for advise regarding management to the department of Plastic Surgery of the Institute of Post-graduate Medical Education and Research, Calcutta in the year 1985 (Fig. 1). On Electromyography fibrillations and fasciculations were seen in the frontal belly of the occipito-frontalis,

zygomaticus and orbicularis oris of both sides. Volitional activity of motor unit showed evidence of neurogenic atrophy of facial muscles on both sides. N.C.V. showed normal latency on both sides.

It was decided that palmaris longus muscle graft should be used on both sides for providing her the lip seal. A two stage operation was planned. In the 1st stage, the palmaris longus muscles on both sides were denervated and the ptosis correction of the left eye was done by the anterior approach (Everbush, 1883). During the 2nd stage operation, three weeks later, the palmaris longus units were taken out. The muscle belly was split longitudinally so that it could be used for the upper and lower lips as shown in the diagram (Fig. 2). The tendon was slung around the zygomatic



Fig. 1. Child has grown to a 14 year old girl.

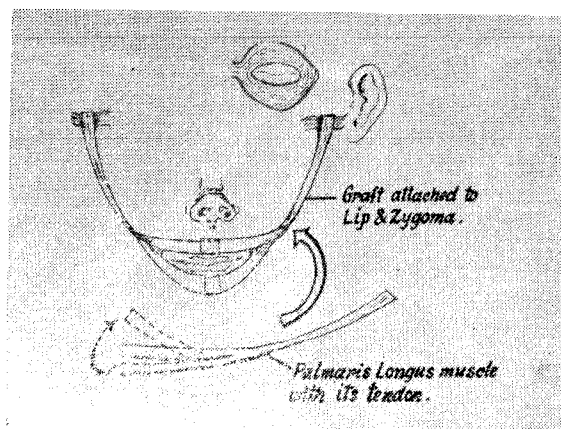


Fig. 2. Line drawing of the palmaris longus graft at its new attachment.

arch and fixed in that positions. Resection of the tongue for macroglossia was done simultaneously.

Result

Contractions of the transplanted muscle could be clinically observed about 10 weeks after the surgery, which became quite marked after about 9 months (Fig. 3). The patient was now able to control her drooling of the



Fig. 3. Complete tight closure of mouth following wedge excision of skin and mucosa after one year.

saliva (Fig. 4) and was provided with a denture for correction of her open bite deformity. Histologically the excised tissue from the tongue turned out to be a vascular hamartoma.

Conclusion

A case of macroglossia with lax oral sphinc-

ter was successfully treated by denervated palmaris longus muscle grafts with good result.

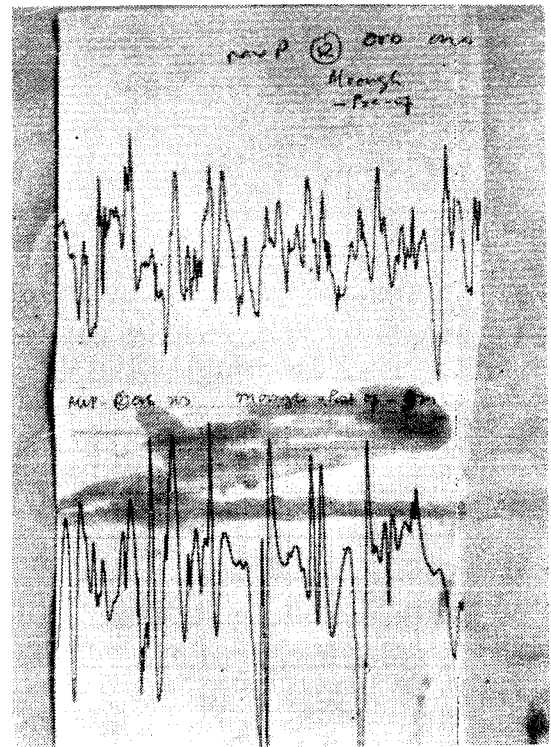


Fig. 4. Pre- and post-operative electromyography. Pre-operative at the top shows the compound motor action potentials are of long duration and polyphasic. The recruitment is poor and interference reduced. Post-operative tracing taken at 1 year. Compared to the pre-operative E.M.G. picture, recruitment of compound motor action potential is better and interference is near complete.

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