

ECTROPION OF THE LOWER LIP FOLLOWING DEEP BURNS AN APPROACH TO CORRECTION

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SUMMARY

Recurrence of deformity after correction of the ectropion of the lower lip is fairly common. It can be prevented by slight over-correction and use of proper splints for 6-9 months in the post-operative period. Design of one such splint and the results have been discussed.

Lower lip, chin, angle of the mouth and the adjoining skin of the face is an important functional and esthetic unit of the face. Although lower lip has no skeletal frame-work and is liable to droop down under influence of gravity yet it remains upright because of normal tone of the superficial muscles of the face i.e. risorius, levator anguli oris, buccinator and orbicularis oris, which through their attachments to skin not only support the lower lip but also help in its function. Being superficial these muscles get easily trapped in the scar following deep burns and get fibrosed, atrophic and contracted in this region. Ectropion of the lower lip is not uncommon and the lower lip gets everted to a varying extent depending on the severity of scar contracture, exposing the teeth and preventing closure of the mouth (Fig. 1 and 5). There is consequently constant dribbling of saliva and difficulty in swallowing of liquids and in speech. Whereas surgical correction of the deformity has never posed a problem, maintenance of the corrected position and prevention of skin graft contraction to prevent recurrences has been difficult necessitating use of various means. This paper aims to outline a plan of management which has been followed with success in such cases.

Aim of Treatment

The aim of the treatment is restoration of lower lip to its original up-right position in

apposition to the upper lip completely covering the teeth, retention of the normal vermilion thickness, mucocutaneous ridge and slight pouthing of the lower lip, restoration of normal function by protecting superficial muscles of the face and restoration of normal lip chin depression for better cosmetic appearance.

Operative Technique

The release of the scar contracture is done through an incision given 1 mm below the mucocutaneous ridge of lower lip. The vermilion is gradually pulled up by silk traction sutures as the contracture is released. The plane of dissection is deep to the scar and superficial to the muscles and this is helped by having a bloodless field obtained by injecting 1 in 200,000 adrenaline in saline. Dissection has to be careful, avoiding mutilation of muscles. The whole of the scar over the lower lip, chin and surrounding area must be excised to get full correction. One should aim at over correction of the defect so as to have a larger skin graft covering it in order to compensate for subsequent contraction. After ensuring complete haemostasis a thick split skin graft from thigh is laid over the raw area and immobilized by a tie over dressing. Post-operative feeding is through a Ryles tube.

Primary dressing is changed on the 6th post-operative day and complete take of skin graft is ensured. A Plaster of Paris splint well

moulded on the chin and the lower lip is laid to maintain the corrected position of the lip over a pressure dressing (Fig. 2). This is retained for three weeks until the skin graft is well consolidated. This is followed by a proper splint to be worn continuously for 9 months to prevent contraction of the skin graft and recurrence of the deformity.

Preparation of the splint

A Plaster of Paris model of the chin and lip is prepared on which a thin aluminium plate or plastic material is moulded to conform to the shape of chin and lip in their new corrected position so that when laid in position, it will maintain the upright position of the lower lip,



Fig. 1. Pre-operative, photograph of a case of post burn ectropion of the lower lip.



Fig. 2. Photograph showing application of Plaster of Paris splint after primary dressing.



Fig. 3. Photograph showing the type of splint worn for 6-9 months post-operatively.



Fig. 4. Photograph showing follow-up results 1½ years after release.



Fig. 5. Pre-operative photograph of a boy.



Fig. 6. Follow-up results 1 1/2 year after release in him.

chin lip angle and the shape of the chin. The moulded splint is lined by thin foam rubber sponge and is retained in position by elastic bands on either side which are connected to a half head cap of elastic material. It should exert mild pressure on the skin graft to prevent its contraction. The pressure on the chin can be adjusted by tightening or loosening the elastic on either side as required (Fig. 3). The splint is worn continuously day and night and only removed for cleaning of the face and skin graft. Gentle massage of the graft with lanolin or cold cream is done twice a day. Follow-up showed that the skin graft does contract minimally during the first 3 to 4 weeks under the splint, when it shows slight wrinkles and is found to be densely adherent to the bed but after six weeks the graft starts getting smoothed and gradually becomes soft and pliable. Within four to six months the graft stretches almost to its

original size. Even after this is achieved the splintage is continued as otherwise contraction of the graft is liable to occur. We have generally maintained the splint for 8 to 9 months after which no contraction of graft and recurrence of deformity is observed. The size and shape of the splint varies depending on the extent of the graft which in turn is determined by the extent of scar on chin and adjoining face.

Results

Results following use of this splint after surgical release of the contracture have been satisfactory (Fig. 4 and 6). The ectropion does not recur and the lower lip maintains its upright position. The shape of the chin and the lip chin angle is restored. The lip functions normally. The skin graft however is thin in texture and becomes slightly hyperpigmented but remains soft and pliable.

REFERENCE

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