

## **A MODIFICATION OF THE MANCHESTER TECHNIQUE FOR SECONDARY REPAIR OF BILATERAL CLEFT LIP**

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The secondary repair of a bilateral cleft lip is often a difficult task. A simple straight line closure or a Veau type repair is not always entirely satisfactory and may produce a short inert prolabium with severe shortage of mucosa in the prolabial segment. Manchester (1965) described a technique for primary repair of the bilateral cleft lip. This short communication shows that the same technique with slight modifications may be very useful in selected cases for the secondary repair of a bilateral cleft lip.

### **CASE REPORT**

A 22-year-old man whose bilateral cleft lip had been repaired in infancy sought our advice to ascertain if something could be done to improve the appearance of his upper lip.

On examination the prolabium was oval in shape, devoid of any muscle, inert and short in vertical height exposing the lower half of the 2 central incisor teeth. The vermilion of the prolabial segment was narrow and deficient. There was obvious disparity in the vertical height between lateral parts of the lip and the central prolabial element (Fig. 1). In contrast to the central segment of the lip the lateral elements appeared full and showed the typical "orbicularis bulge" on contraction of the upper lip. The scars of the lip were prominent and the columella was short.

### **TECHNIQUE OF REPAIR**

The incisions were made as indicated in Figure 2. The upper points were placed between the alar and columellar base on each side. The lower 2 points, on each side, were located at the peak of the lateral bulge and on the prolabial vermilion. The medial incision was almost a straight line: the lateral incision skirted the prolabial scar till it reached the peak of the lateral bulge and then curved medially. This allowed excision of the scar and the intervening tissue and narrowed the prolabium to produce a more natural philtrum. An incision was then made across the back of the prolabial mucosa in the gingivo-labial sulcus. The prolabial mucosa was dissected off the prolabium extending sufficiently far forwards to allow eversion of the vermilion element. Incisions were then made into the gingivo-labial sulcus on each side to mobilise the lateral segments of the lip and permit closure without tension. The mobilised mucosal layer and the orbicularis oris muscle were united behind the prolabial skin with mattress sutures of 2/0 chromic catgut. Some additional sutures were inserted to reinforce the muscle using 3/0 chromic catgut. The prolabial skin and mucosa were now approximated with 5/0 silk. The everted prolabial mucosa compensated for the lack of vermilion, provided adequate fullness in the centre of the upper lip and restored the Cupid's bow (Figs. 3 and 4).

### **DISCUSSION**

One of the important principles of bilateral cleft lip repair is to preserve and augment the thin vermilion element in the prolabium (Converse, 1977). This is achieved

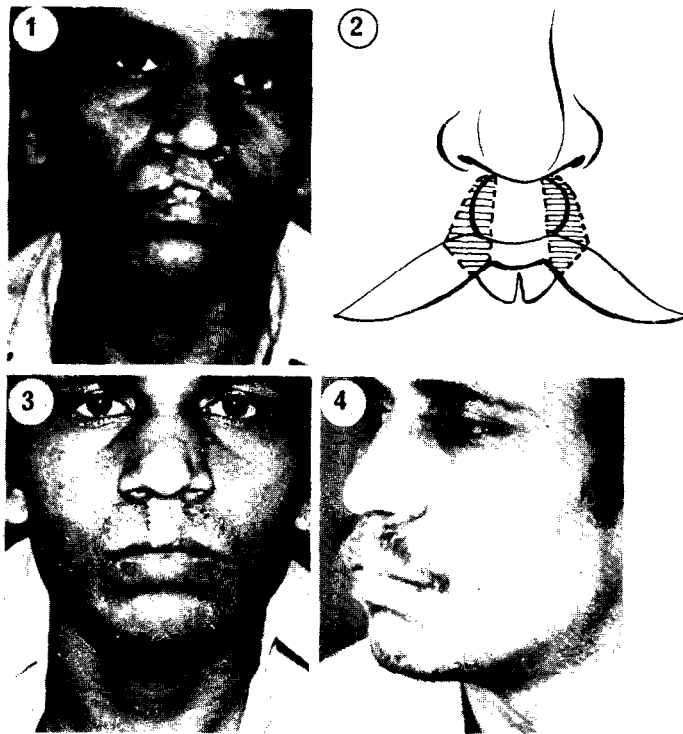


FIG. 1. Preoperative view showing a short prolabium, with deficiency of muscle in the central element and shortage of vermillion in the centre of the lip.

FIG. 2. Incisions used in the secondary repair of the lip.

FIG. 3. Immediate postoperative view showing pale prolabial mucosa in the central part of the lip.

FIG. 4. Late oblique view showing pleasing fullness of the repaired lip in the central part and return of pigmentation in the previously pale prolabial mucosa. Hairs have failed to grow in the prolabial skin.

in the Veau type of repair by using vermillion-muscle flaps from the lateral lip elements. There is no doubt that this helps to augment the prolabial vermillion, but it does nothing to reconstitute the oral sphincter and the labial sulcus. Veau, as early as 1938, stated that absence of muscle was the principal cause of the mediocre results in bilateral cleft lip repair. This can be overcome by a 2-stage Abbe flap but it remains doubtful whether meticulous suture of the muscle element of the Abbe flap to its counterpart in the lateral lip element ever achieved the goal of reconstitution of the oral sphincter (Converse *et al.*, 1970). Holdsworth (1963) suggested a 2-stage procedure for the repair of bilateral cleft lip. He sacrificed the prolabial mucosa and was still able to reconstruct a full vermillion border in the central part of the lip. However, this may not be possible in a secondary repair due to marked shortage of prolabial vermillion as was seen in the present case. In such a situation, a modified Manchester type repair gives an acceptable result. Instead of suturing the orbicularis muscle to the subcutaneous tissues of the prolabium to avoid tension, as emphasised by Manchester (1965), the muscles of the lateral lip elements were sutured together behind the prolabium.

This modification provides sufficient mucosa to augment the vermillion in the prolabial area, creates an adequate gingivo-labial sulcus and restores the oral muscle sphincter.

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