An Endorsement of Division of the Nasal Lining to Achieve Push-Back of the Palate

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IT is generally accepted that repair of the cleft palate should be combined with lengthening of the soft palate. A number of operative manouvers are necessary to achieve satisfactory push-back e.g. complete elevation of mucoperiosteal flaps, mobilization of the greater palatine artery, fracture of the hook of the hamulus and division of the nasal lining. This last procedure, though permitting lengthening of the soft palate, results in a raw area on the nasal surface of the soft palate which most surgeons accept as an unavoidable consequence of the procedure. Some, however, are loathe to leave a raw area behind and employ local flaps to close it (Cronin 1957, Millard 1962, Dijkstra 1969). A few surgeons avoid a raw area by employing a Z-plasty to elongate the free margin of nasal mucosa whilst Braithwaite (1964) suggests that lengthening *per se* is unnecessary. Those who favour lengthening generally concede that 10mm. lengthening is all that is necessary (Dijkstra 1969).

Division of the nasal layer along the posterior border of the hard palate is by far the simplest method available and has been employed by us for the last ten years. It is our belief that though scar contracture does occur on the nasal surface to some extent, rapid epithelialization occurs side by side and that a fair amount of length obtained at operation persists. The one layer repair in this region does not pre-dispose to fistulae formation if the oral layer is closed without tension with widely placed mattress sutures. Infection of the area is discouraged by gently irrigating the nasal cavity with 1:4 hydrogen peroxide twice a day for a week. A note of warning seems to be justified at this stage. The Eustacian cushion may be injured if the cut is extended too far laterally and therefore the cushion must be visualised clearly and the incision made to skirt the cushion.

To substantiate (or refute) our contention that a substantial part of the length obtained at operation is preserved, we carried out a simple radiological examination of the palate similar to that described by Hage (1966). A wire suture was placed in the midline along the anterior and posterior border of the raw area on the nasal side at the time of repair. Lateral radiographs were taken on the tenth day, three months and six months after operation by the same radiologist. Care was taken to ensure that the distance between subject, plate and X-ray source was the same each time. Three patients were examined in this manner and

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though the number is small, the results were so consistent that we felt that these three cases were representative of what actually happens in the average cases. The distances between the two sutures were measured accurately (Fig. 1-3) and tabulated. From the measurements made the following conclusions have been drawn :

1. Contracture takes place in the first three months after operation and that this is about 40% of the initial length gained at operation.

2. There is almost no contracture after three months.

3. An average of 10 mm. length is permanently preserved.

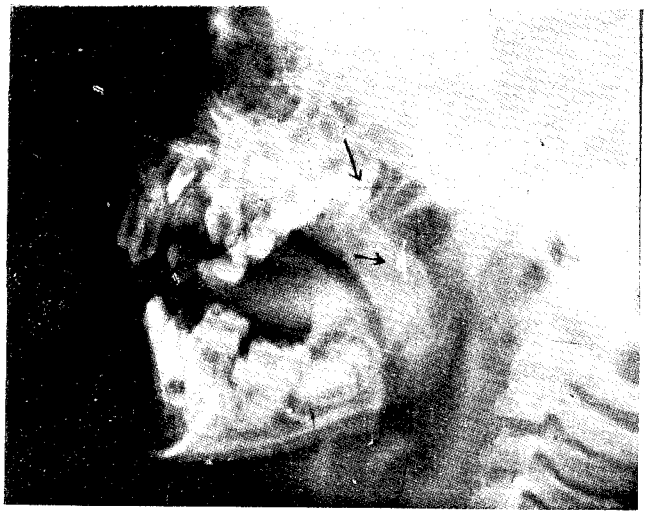

Fig 1—10 days postoperative.

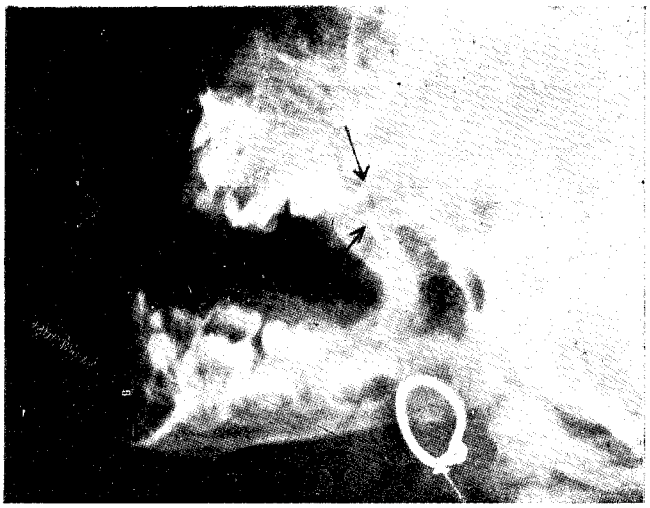

Fig. 2—3 months postoperative.

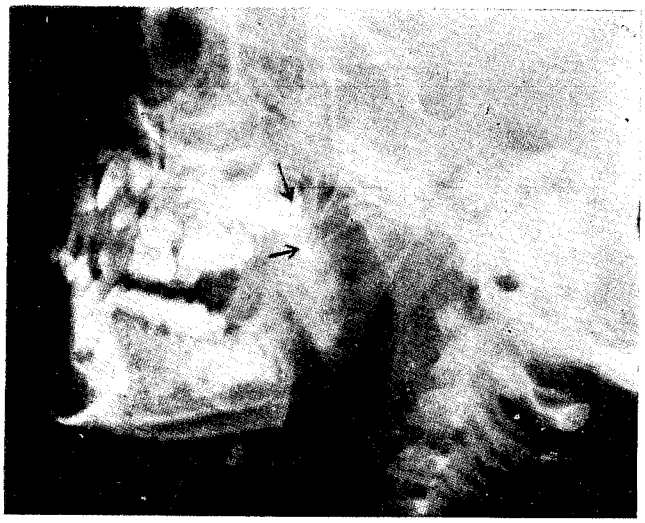

Fig. 3—6 months postoperative.

Table

Distance between wire markers on radiographs

Case	After 10 days	After 3 mths	After 6 mths	% loss in length
1.	18 mm.	13 mm.	11 mm.	39%
2.	13 mm.	9 mm.	8 mm.	38%
3.	17 mm.	11 mm.	10 mm.	38.5%
Average	16 mm.	11 mm.	10 mm.	37.5%

Conclusions : Division of the nasal layer along the posterior border of the hard palate is a simple and efficient method of achieving elongation of the nasal layer. The raw area on the nasal surface epithelialises rapidly resulting in a mobile and adequately elongated soft palate. It is our impression that speech following this procedure is as good as after more complicated procedures.

Acknowledgements

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