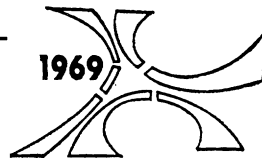


A New Approach to the Surgical Treatment of Rhinolalia in Cleft Palate



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Although the many various anatomic, physiologic, and psychological problems presented by cleft palate have more or less been resolved in the last two hundred years, in many cases the problem of velopharyngeal incompetence has not yet been solved.

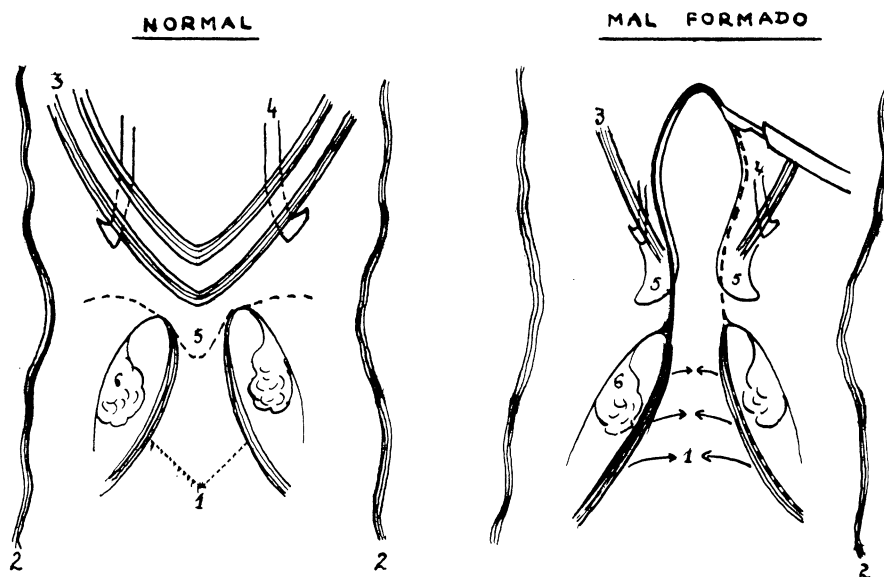
In 1966, at the National Congress of Stomatology in Portugal, we defended the idea of associated staphylorrhaphy and pharyngoplasty in one surgical session. Our initial speech results were encouraging. However, after re-examination of 308 cases, we found that some phonetic defects continued. In our opinion, the problem is that the flaps were fibrous filiform cords instead of an elastic blade, as intended. For these reasons, we decided to look for a more physiological solution, with anatomic improvement of the muscular structures and their natural property of elasticity and contractability and with good irrigation and innervation.

We used the muscles of the posterior pillars of the tonsils (the pharyngopalatinus), by simple dissection, and an anterosuperior approach to get an active muscular sphincter. For blood supply of this new formation of the sphincter, we have only to tie off, after incision of the uvula base, a branch dependent of the anastomosis of the two descendent palatine arteries.

For innervation, the anastomosis which the pneumogastric nerve gives to the facial nerve will arrive at the muscles of the palate by the posterior palatine nerve. The nerve fiber came from the same origin, by the recurrent nerve to the vocal cords, having thus a functional conjugation of the soft palate and vocal cords during speech. Truly, in this way, the simultaneous contraction of the palatopharyngeal muscles results in the approximation of the posterior cords of the pillars, thus reducing the isthmus of the fauces and enlarging the soft palate rectropulsion. On the

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Cleft Palate

FIGURE 1. 1, pharyngopalatinus, palate pharyngeal arch; 2, superior constrictor pharyngeus; 3, levator and tensor palati; 4, pterygoid hamulus; 5, uvula; 6, tonsil.

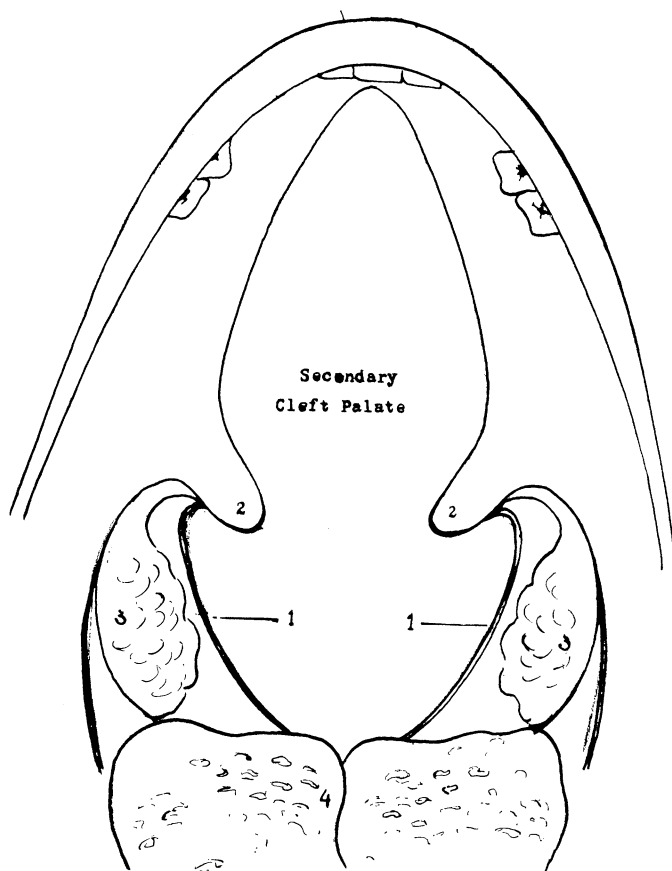


FIGURE 2. 1, palate pharyngeal arch; 2, hemi-uvula; 3, tonsil; 4, tongue.

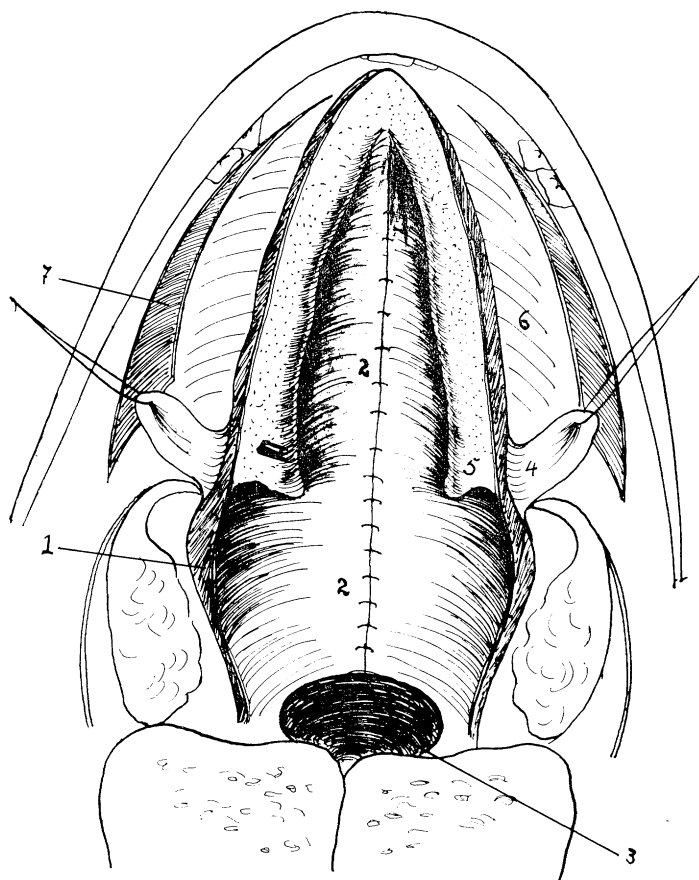


FIGURE 3. 1, palate pharyngeal arch, anteroposterior incision; 2, palatopharyngeus approach, backward displacement of the soft palate and nasal mucosa sutured; 3, neosphincter muscle dynamic; 4, hemi-uvula base; 5, hard palate (raw area); 6, mucoperiosteum of the hard palate; and 7, lateral incisions.

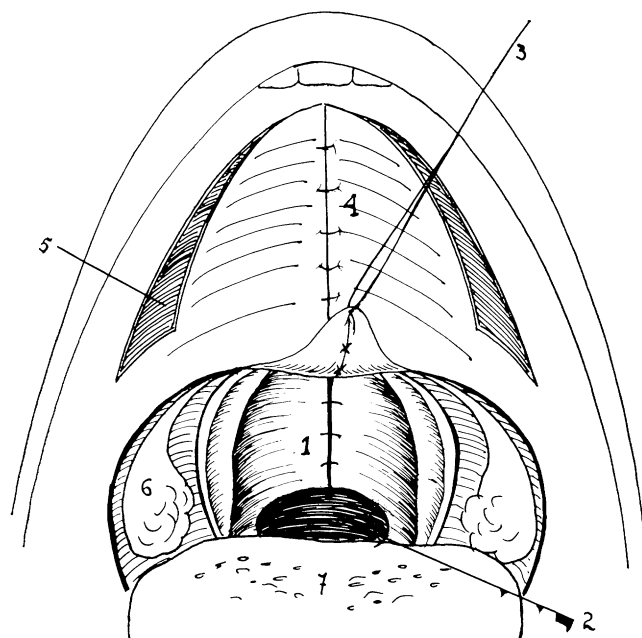


FIGURE 4. 1, palatopharyngeal neosphincter active; 2, orifice of the neosphincter; 3, soft palate everted; 4, mucoperiosteum of the hard palate sutured; 5, lateral incisions; 6, tonsils; 7, tongue.

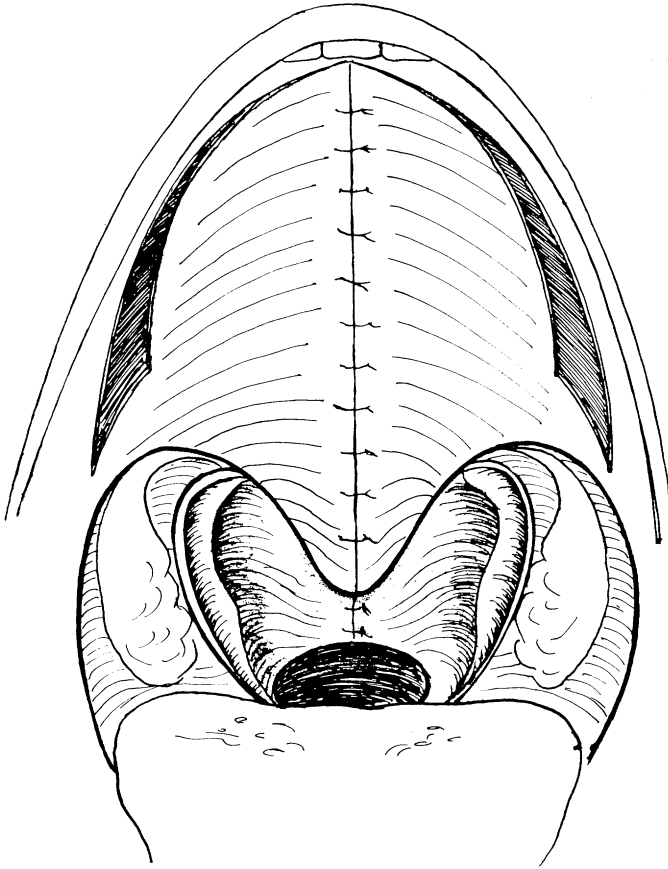


FIGURE 5. Diagram to illustrate the completed repair of the secondary cleft palate using the palatopharyngeal neosphincter, the author's technique for treating rhinolalia.

other hand, the contraction of the superior constrictor, which accompanies the palatopharyngeal action, results in the approximation of the palate to the pharyngeal wall.

The movements of this neosphincter are those which are made naturally in the speech of the normal individual, with the only difference being in the attachments. A normal anatomy is maintained. This uranostaphylopharyngoplasty results in a most abundant quantity of the soft tissue. Attempts to lengthen the soft palate are not needed.

We are waiting for further myographic studies of the results. In the meantime, we will continue to use this method. We feel that it has enabled us to attain more fully the objectives, not only anatomic, but also phonetic, which we did not achieve with the other methods we have utilized.

Figures 1 through 5 demonstrate the procedure.

Summary

A technique for using the muscles of the posterior tonsillar pillars for pharyngoplasty is described.

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