

13 Videofluorographic Analysis of Articulation Movements and of Velopharyngeal Closure during Phonation in Cleft Lip and Palate Children with Two Stage Palatoplasty

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Movements of articulation and velopharyngeal closure during phonation (ka)(pa)(a) were analyzed with the use of videofluorography in cleft lip and palate children who received a two-stage palatoplasty followed by Perko's method. A total of 38 patients were assigned to each of the four experimental groups : 12 patients before hard palate (group I), another 13 patients who were within one year after achievement of normal speech (group II), and the other 13 patients who were at more than two years after achievement of normal speech following hard palate closure (group III). The results shown below were obtained. 1) Consonant articulatory movements were found to have improved following hard palatoplasty surgery. Following the completion of speech therapy, normal or nearly normal articulation movements were obtained. 2) Following hard palatoplasty, velopharyngeal closure was seen in approximately 90% of the patients. Following the completion of speech therapy, velopharyngeal closure was confirmed in almost all of the patients. 3) The amount of time required to produce the consonants and the vowel were shortened following hard palatoplasty, and they were further shortened following the completion of speech therapy. 4) During the phonation of the consonants (ka), the approach and separation time of the tongue and soft palate in the group I was shortened more than in the group III. Furthermore the approach and separation time of the tongue and soft palate in the group III was shortened more than in the group II.