

IS THE MAXILLARY ADVANCEMENT PROPORTION A DETERMINING FACTOR FOR VELOFARYNGEAL DYSFUNCTION IN CASES OF CLEFT LIP AND PALATE?

Franciele Aparecida Fumagali, Flávia Ferlin, Bruna Mara Adorno Marmontel Araújo, Andressa Sharlene Carreiro da Silva, Ana Paula Fukushiro

Objectives: Dentofacial deformity generates functional adaptations of the stomatognathic system, including changes in speech. Correction of maxilomandibular disproportions requires a treatment that involves orthodontics and orthognathic surgery. However, in patients with cleft lip and palate, maxillary advancement may lead to the development of velopharyngeal dysfunction. The study investigated speech resonance of two patients submitted to orthognathic surgery, with different proportions of maxillary advancement.

Clinical report: Two female patients, 21 and 25 years old, submitted to surgical advancement of maxilla to correct dentofacial deformity. The first presented normal speech resonance and low nasalance scores (9%) suggesting balanced oronasal resonance before surgery. After surgery (1 year), the patient presented mild hypernasality, with 32% of nasalance scores, confirming the change in speech resonance after the surgical advancement. The difference in overjet measures between pre and post-surgery was 5.74mm. For the second patient, mild hypernasality and 31% of nasalance scores were observed before surgery. After surgery (1 year) there was a maintenance of the speech resonance patterns, with mild hypernasality and nasalance scores of 36%, despite the accentuated maxillary advancement comparatively to the first patient. The difference between pre and post-operative overjet was 9.89mm.

Conclusion: When comparing the two cases analyzed, it was observed that the proportion of maxillary advancement was not a determining factor for the deterioration of velopharyngeal function. Other factors related to the functioning of velopharyngeal mechanism should be involved and should be part of the preoperative guidelines.