

## Orthodontic and orthopaedic treatment approaches in patients with unilateral cleft lip and palate in mixed dentition period



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### Abstract

Cleft Lip and Palate (CLP) are the most common congenital craniofacial birth defects. In the etiology of CLP, genetic and environmental factors play an important role. For an orthodontist; treatment plans for patients with CLP include nasoalveolar molding, orthodontic expansion and orthopaedic protraction of maxilla, to prepare the maxillary segment for secondary alveolar bone graft and comprehensive orthodontic treatment to re-establish facial aesthetics and proper function. There is usually a midfacial growth deficiency in patients with Cleft Lip and Palate (CLP) mainly as a result of surgical scars. This causes skeletal discrepancies between the maxilla and mandible, frequently resulting in anterior and/or posterior cross bite as well as retroclination of the maxillary incisor teeth. Due to these factors, there is a need for enlargement at the transversal direction in the maxilla. After this period, the secondary bone graft should be conducted to enable the eruption of canine in the cleft region. In patients with CLP, use of facemask along with rapid maxillary expansion is an efficient technique used in maxillary protraction. In this study, Alt-RAMEC protocol with the use of facemask in the mixed dentition period for the patients with unilateral CLP is discussed. The combined use of rapid maxillary expansion and a orthopaedic facemask is a contemporary technique for maxillary protraction in CLP patients. The treatment effects of the facemask are a combination of skeletal and dental changes in the maxilla and mandible. The maxilla moved downward and forward as a result of the protraction force. As a consequence of this effect, the mandible rotated downward and backward, thus improving maxilla-mandibular relationship in the sagittal dimension. This study show that the circummaxillary sutures may be disrupted by the use of Alt-RAMEC protocol which produce much more beneficial effects.

### Biography

Ege Dogan DDS PhD, had finished the dentistry faculty with the thesis named 'The evaluation of the patients with cleft in Aegean Region in Turkey between the years 2000-2011' in Ege University, Faculty of Dentistry, Izmir, Turkey. She did her PhD with the thesis named 'The Evaluation of Soft and Hard Tissues by Using Alt-RAMEC Protocol for Maxillary Protraction in Patients with Unilateral Cleft Lip and Palate' in Ege University, Faculty of Dentistry, Department of Orthodontics, Izmir, Turkey. Now she is working in her private clinic in Izmir, Turkey.

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