Anterior maxillary osteotomies are generally used to treat horizontal maxillary excess when posterior occlusion is correct or correctable by mandibular surgery but sometimes used for correction of premaxilla in vertical plane as required anterior deep bite or open bite. Currently, mainly three variations of anterior segmental osteomies are used; the Wassmund, Wunderer, and down fracture methods. In this case report we aim to present treatment of 21 year old female patient with congenital absence of tooth and anterior open bite by anterior segmental osteotomy and distraction osteogenesis. Treatment plan was made with orthodontics. Following initial orthodontic treatment then anterior segmental osteotomy without palatal flap or incision was done. After down fracture of maxilla 2 anchorage screws placed premaxilla and 2 anchorage screws placed posterior part of the palate. Special prepared bidirectional distractor fixed to the screws.

Keywords: Anterior Segmental Osteotomy, Open Bite, Distraction Osteogenesis