

## عنوان مقاله:

Evaluation of skeletal, dental, soft tissue and airway cephalometric changes in severe class II malocclusions treated by bilateral mandibular distraction osteogenesis

## محل انتشار:

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## خلاصه مقاله:

Background and aim: Bilateral mandibular distraction osteogenesis (BMDO) has been suggested as a suitable method for correcting severe mandibular deficiencies. The purpose of this study was to evaluate the cephalometric changes of patients undergoing BMDO. Materials and methods: Seven patients were selected for BMDO, all suffering from severe mandibular retrognathia as a result of previous trauma. Pre-treatment (T<sub>1</sub>), post-treatment (T<sub>2</sub>) and follow up (T<sub>3</sub>) cephalograms were obtained. The changes in skeletal and soft tissue parameters were assessed by paired t-test within two time intervals (T<sub>1</sub>-T<sub>2</sub> and T<sub>2</sub>-T<sub>3</sub>). Results with a P value < 0.05 were considered statistically significant. Results: In patients treated by extra-oral distractor, BMDO improved jaw relationships by increasing SNB (12.1°) and mandibular length (22.5mm) and decreasing ANB (10.3°) and Wits (17.2mm). Lower facial height increased significantly (4.5mm). Dental relationships were changed by increasing interincisal angle (24.8°) and decreasing IMPA (23.2°) and overjet (8.8mm). Reduction in the distance between upper and lower lip to E-line led to changes in the soft tissue profile. Airway space analysis revealed an increase in the nasopharyngeal space (Nph<sub>2</sub>) (4.7 mm), the oropharyngeal space (Oph<sub>2</sub>) (5.4mm) and the posterior airway space (PAS) (9mm). The available cases remained stable during the follow up period. Conclusion: BMDO improved maxillomandibular discrepancy by lengthening mandibular body. Lower anterior facial height was increased significantly. Lip prominence relative to the nose and the chin was decreased and dental relationships were corrected by the treatment. DO procedure significantly improves the pharyngeal spaces.

## کلمات کلیدی:

Distraction Osteogenesis, Retrognathia, Cephalometry

## لینک ثابت مقاله در پایگاه سیویلیکا:

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