Palatally erupted maxillary lateral incisors may be a causative factor of mandibular deficiency

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Aim: The aim of this study was to evaluate the influence of palatally displaced maxillary incisors on mandibular growth in a group of Egyptian patients.

Material and Methods: The sample consisted of the digital lateral cephalograms of 24 patients with age range of 15-30 years during the permanent dentition stage. The radiographs were selected from the patient database of private practice in Cairo. The sample was divided into 2 groups each consisting of 12 patients. Group A had palatally displaced maxillary lateral incisors without crossbite. Group B had palatally displaced maxillary lateral incisors with crossbite. Cephalometric measurements were used to assess the anteroposterior skeletal malocclusion (SNA, SNB, ANB, Witts appraisal). Independent samples t-test was performed between two groups.

Results: Cephalometric measurements revealed statistically significant differences between groups A and B. Group A had skeletal Class II with retrognathic mandible while group B had skeletal Class I pattern with normal mandibular position. The maxilla was well positioned in relation to the cranial base. No statistically significant difference between genders was evident.

Conclusion: Palatally displaced maxillary lateral incisors without crossbite cause restraining effect on normal mandibular growth which results in skeletal Class II with mandibular deficiency.

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