CONTRIBUTING FACTORS OF MEDIAN DIASTEMA IN IRAQI ADULTS

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Abstract

This study is conducted to evaluate the contributing factors for median diastema in Iraqi adults sample of 18-25 years of age, with skeletal and dental ClassI and skeletal ClassII associated with dental Class II division 1 classification. The sample was collected according to certain criteria and consists of 54 Iraqi adults (27 ClassI and 27 ClassII division 1 malocclusion). Lateral cephalometric, orthopantamograph, periapical radiographs and study models were taken for each subject. Nine variables were recorded. The following results were found:

- ♣ There is a combination of contributing factors that affected on occurrences of median diastema. One patient could have 2 or more of these factors.
- ♣ The contributing factors of median diastema appear more clearly in Class I than Class II division 1 malocclusion because other variables like skeletal, soft tissue factors that considered as etiological factors of Class II malocclusion are irrelevant in Class I.
- Abnormal active frenum and median diastema are almost synonymous terms, rather than to look up on them as more or less separate entities in both Class I and Class II malocclusion, although it is not known whether abnormal active frenum is a causative or a result of median diastema.
- ← Cranial rotation of both jaws are directly correlated with the size median diastema in Class I, while in class II division 1 malocclusion, the cranial rotation of mandible is only a combination factor and the size of median diastema is affected only by the cranial rotation of maxilla.

- ♣ Straight axial inclination of central incisors is important contributing factor of median diastema in Class I malocclusion.
- ♣ Median diastema is more prevalent in cases of spaced dentition when
 there is increase in dental arch length, although its size not affected by
 spacing / crowding conditions.
- ♣ Significant occurrence of deepbite and increase overjet in Class II division 1 indicate possible contributing factors of median diastema in this type of malocclusion.
- Facial divergence, missing laterals and impacted canines are not contributing factors of median diastema but it is important combination factors.