

Orientation of the Cranial Base on Facial Skeleton in Different Skeletal Classes of Iraqi Adults

A Thesis

**Submitted to the council of the College Of
Dentistry at the University of Baghdad
In Partial Fulfillment of the Requirements for the
Degree of Master of Science in Orthodontics**

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Baghdad –Iraq

June 2007

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Abstract

This retrospective study was performed to analyze the effects of cranial base orientation on the morphology of the facial skeleton in different skeletal pattern.

The sample was collected according to certain criteria consisting of 142 lateral cephalometric radiographs of Iraqi adults at 18-25 years of age (68 males, 74 females), collected from postgraduate orthodontic student files, in college of dentistry, Baghdad University. The total sample was divided into three major groups depending on **ANB** angle. Skeletal class **I**, (24 males, 23 females), skeletal class **II**, (25 males, 35 females), skeletal class **III**, (19 males, 16 females). Five angular and three linear measurements from the cranial base and five angular and six linear measurements from the facial skeleton, were estimated using the posterior maxillary plane, and Frankfort horizontal plane as references for the study. A special software program (Autocad 2006) used to analyzing the sample.

Statistical analysis of the data was done and the following results were found:

- The linear measurements of cranial base in the males were higher than that in the females.
- No difference in the cranial base angle between genders within each class.
- There were significant differences in the cranial base angle between different classes within each gender. This variation in the cranial base angle effect on the variation of the facial skeleton between different skeletal classes.

According to the results of this study the cranial base angle and the orientation of the posterior cranial base leg (S-Ba) play a pivotal part in the establishment of skeletal Jaws discrepancy.