

**THE CHARACTERISTICS OF PROFILE
FACIAL TYPES AND IT'S RELATION WITH
MANDIBULAR ROTATION IN A SAMPLE OF
IRAQI ADULTS WITH DIFFERENT
SKELETAL RELATIONS
(A LATERAL CEPHALOMETRIC STUDY)**

*A thesis submitted to
The council of the Collage of Dentistry at the University
of Baghdad, in partial fulfillment of the requirements for
the Degree of Master in Science of Orthodontics*

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Abstract

Facial type plays an important role in the information of an orthodontic treatment plan and prognosis that is whether an individual has long, short or average face and it is not possible to apply the same norms and treatment objective to cases with different facial patterns.

The aims of this study were to determine the characteristics of Bimler's facial types (dolichoprosopic, mesoprosopic, leptoprosopic) and their relationship with mandibular base rotation in Iraqi adults with different skeletal relations.

The sample consisted of 230 digital true lateral cephalometric radiographs of age range between 18-30years (104 males and 126 females), the sample was classified according to ANB angle into three skeletal classes (class I, class II and class III) and each class was classified depended on PP-MP angle into three facial patterns according to Bimler analysis(dolichoprosopic, mesoprosopic and leptoprosopic). Thirteen cephalometric measurements (five angular, seven linear and one ratio) were measured for each individual radiograph using AutoCAD program 2006. The following results were obtained:

1. The mean values of all measurements for males were significantly higher than females, except for the GA, UGA and LGA which were higher in females.
2. There was anterior mandibular rotation associated with dolichoprosopic face, while there was a posterior mandibular rotation associated with leptoprosopic face in all skeletal relation.
3. The mean values of GA, LGA, AFH and LAFH were high in leptoprosopic face, while their values decreased in dolichoprosopic face and the reversed were found with JR, PFH, RL and MAXL, moreover all these measurements revealed a highly significant difference between the three facial types.
4. There was a non significant difference between the three skeletal relations within the same facial type in all the measurements except for MANL, AFH, GA, MAXL and RL.
5. Best correlation between different measurements was found in mesoprosopic facial type followed by leptoprosopic and dolichoprosopic facial types.