A Three Dimensional Cephalometric Analysis of Skeletal Class I and II Iraqi Patients Aged 15 – 20 Years in Baghdad City.

(A Comparative Study)

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Abstract

Considerable cephalometric data are required to define the complex skeletal pathology or craniofacial deformities; especially, skeletal class II relationship. In fact, more information is needed than can be provided by the lateral cephalogram alone. Therefore, the additional use of the frontal cephalomretric radiograph will provide valuable information for the diagnosis and treatment planning.

The aim of the present study is to establish a comparative study for the Iraqi patients with skeletal class I and II relationship in Baghdad city by means of angular, linear, and volumetric analysis of posteroanterior and lateral cephlometric radiographs and to reveal any correlation between the variables measured.

The sample was 50 patients attending the Orthodontics Department of College of Dentistry /Baghdad University were selected prior to receiving any orthodontic treatment according to certain criteria, and divided into two groups; skeletal class II group (4 males; 21 females) and skeletal class I group (10 males; 15 females), the age range between 15 – 20 years, and all the subjects are Iraqi in origin and their residency in Baghdad city.

Posteroanterior and lateral cephalometric radiographs were taken for each subject. Thirty cephalometric measurements (9 angular, 13 linear, 6 ratios, and 2 volumetric measurements) were determined, and the following results were found:

- All the lateral angular and linear measurements have no significant mean differences between skeletal class I and II groups, except for SNA and ANB angles, which revealed a more forward position of the maxilla in skeletal class II.
- All the frontal linear measurements have significant mean differences between skeletal class I and II groups, which lead to constrictions in the width measurements of craniofacial skeleton in skeletal class II in this study.
- All the volumetric measurements have no significant mean differences between skeletal class I and II groups, which indicate that the size of the jaws plays no role in the etiology of skeletal class II in this study.