

**SKELETODENTAL MEASUREMENTS IN
IRAQI PATIENTS SAMPLE WITH CLASS II
DIVISION 1 MALOCCLUSION AND
DIFFERENT VERTICAL DISCREPANCIES
(A COMPARATIVE CEPHALOMETRIC STUDY)**

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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November, 2009 Thu Alhijja, 1430
Baghdad-Iraq

Abstract

The diagnosis and planning of treatment for patients who have maxillofacial deformities can be complex and challenging, particularly when there is a vertical discrepancy that is superimposed on anteroposterior malrelationships of the teeth and jaws.

This study was conducted to assess the angular and linear skeletodental measurements with the vertical height increase and decrease of the face in Class II Division 1 malocclusion in a sample of adult Iraqi patient.

The sample consisted of 75 adult patients selected according to certain criteria; the sample was divided into three groups according to SN-MP angle: High angle group consist of 25 patients (7 male and 18 female), Low angle group consist of 25 patients (11 male and 14 female), and Control group consist of 25 patients (6 male and 19 female).

Thirteen angular and nine linear measurements were recorded and analyzed on computer using AutoCAD (2008) programs; All the data were subjected to computerized statistical analysis using SPSS (2006), the following results were found:

1. In high angle cases, the maxillary growth in downward direction is expected to exceed its growth in forward direction, which rotate the mandible downward and backward, and aggravating the horizontal as well as the vertical discrepancy of the jaws.
2. In low angle cases, the skeletal horizontal discrepancy is less than that of the high angle cases, possibly due to forward upward rotation of the mandible.
3. Posterior facial height is significantly increased in low angle group and insignificantly decreased in high angle group when compared to normal angle group.
4. In Class II division 1 malocclusion, both maxillary and mandibular anterior teeth are proclined regardless the skeletal vertical discrepancy.
5. The normal overbite is independent of the skeletal vertical discrepancy.
6. In Class II division 1 malocclusion, the vertical problem is mainly arises in the jaws area and the orthodontic treatment may effectively improve this deformity.