

**Facial Dimensions and Asymmetry in
Clinically Symmetrical Faces with Skeletal
Class I & Class III Malocclusion in Adult
Sample Aged Between 18-28 years
(A Digital Panoramic 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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December 2009 A.D.

Dhu al-Hijjah 1430 A.H.

Baghdad-Iraq

Abstract

Several studies attempted to find the relationship between facial asymmetry and malocclusion and many authors found some extent of asymmetry in individual with normal occlusion. The purposes of this study were to assess the amount and direction of facial asymmetry and the differences in facial angles and dimensions in clinically symmetrical faces with class I normal occlusion and class III malocclusion for both genders.

The sample consisted of 58 individuals with clinically symmetrical faces aged 18-28 years, divided into two groups; class I group consisted of 30 individuals (14 males and 16 females) and class III group consisted of 28 individuals (14 males and 14 females). Clinical examination and digital lateral cephalometric and panoramic radiographs were performed for each individual. Four angular (*Go*, *Y-C-Go*, *Y-C-PTM* and *Y-C-O*) and three areal measurements (*Maxillary*, *Mandibular* and *dental*) were measured for each individual's panoramic radiograph using AutoCAD program 2008.

The results showed that clinically symmetrical faces demonstrate significant asymmetry with the left side being significantly larger than the right side and the amount of asymmetry was more at the level of the mandible and the least amount of asymmetry was found at the dental area. The amount of asymmetry was independent neither to gender nor to the skeletal jaws relationship. Facial structures in term of size and shape are larger in males than in females in both class I and class III groups.