

**Soft-tissue cephalometric norms for a sample
of Iraqi adults with class I normal occlusion in
natural head position**

A thesis

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Abstract

The purposes of this study were to establish the cephalometric norms for Iraqi adults with normal occlusion and well-balanced faces for both genders using **Arnett et al. (1999)** analysis, to establish the mean values of: (the dentoskeletal factor measurements, the soft tissues structures measurements, the facial length measurements, true vertical line (TVL) projection measurements and the harmony values measurements) and to verify the existence of gender difference.

60 Iraqi adult subjects (30 males and 30 females) with an age ranged between 18-25 years having normal occlusion and well-balanced face were chosen for this study. Each individual was subjected to clinical examination and digital true lateral cephalometric X-ray in the natural head position which is mirror position in which the patient looking straight into his eyes into the mirror mounted on the stand. The radiographs were analyzed using AutoCAD program 2007 to measure the distances and angles used in the Soft Tissue Cephalometric Analysis . Descriptive statistics was obtained for the measured variables for both genders and independent- samples t-test was performed to evaluate the genders difference.

The results indicated that :

1. For the dentoskeletal measurements, females tend to have high mean value of the angle between the maxillary occlusal plane and TVL.
2. For the soft tissue measurements, the males have thicker upper and lower lips and more soft tissue chin thicknesses than female, while females have increase in upper lip angle value more than males.
3. For the facial length measurements, the males have higher mean value of the facial height, lower third of the face height, upper lip length, lower lip length and mandibular height than female.
4. For the projection on the TVL, the males have higher mean value of the projection of the maxillary central incisor crown tip, mandibular central incisor crown tip, soft tissue B, soft tissue A and nasal tip projection on the TVL.

5. For the facial harmony values, males have backward position of point Pog' and point B'.