Standards of soft tissue Arnett analysis for surgical planning in Turkish adults

Tancan Uysal, Ahmet Yagci, Faruk Ayhan Basciftci and Yildiray Sisman

SUMMARY The aims of this study were (1) to establish standards for Arnett soft tissue cephalometric analysis of Anatolian Turkish young adults and (2) to identify possible gender differences between males and females. After analysing the cephalometric radiographs of 350 individuals, 133 subjects (67 males, mean age 22.6 ± 2.2 years, and 66 females, mean age 22.1 ± 2.6 years) with normal antero-posterior and vertical skeletal relationships were selected. The true vertical line was established. The landmarks were marked and soft tissue facial analysis was performed. For statistical evaluation, an independent-samples t-test was used. The lower lip thickness of the Turkish population was lower and menton thickness was greater than Arnett’s norms. Turkish subjects have depressed orbital rims, cheek bones, subpupils, upright and thin upper and lower lips, retruded incisors, and pogonion and point B. Most of the Turkish mean harmony values were within the range of Arnett’s harmony standards. Soft tissue thicknesses were greater and facial lengths, except upper incisor exposure, were longer in Turkish males than females. These differences between ethnic groups should be taken into consideration when formulating orthodontic/orthognathic treatment plans for patients with dentofacial deformity.