

ABSTRACT

Background: Excessive vertical overlapping of the incisor teeth is one of the most common frequent problems in orthodontics and its correction must be considered as exceedingly important and essential to the welfare of the denture.

Aim: This study aimed to evaluate the cephalometric pattern of Class II Division 1 individuals with deep bite, and to determine possible correlations between dentoskeletal variables and deep bite. Comparisons were also made between genders.

Materials and Methods: A total of 54 lateral cephalograms were used, from both male (n = 27) and female (n = 27) individuals with the age of 18-25 years, who simultaneously presented with ANB $\geq 5^\circ$ and overbite ≥ 4 mm. Statistical analysis involved parametric (t-test) for independent samples, as well as the Pearson's correlation test ($p \leq 0.05$).

Results: The values of Ar-Go, Ar-Pog, PP-CMS, PM-1, PM-CMI and ANS-Me were higher in males ($p < 0.05$). However SN-Go.Me, MMPA, FMPA, UOP-FH were higher in female. Deep bite was negatively correlated to the PP-CMS, ANS-Me, Ar.Go.Me, MMPA and FMPA measurements.

Discussion: The main factors associated with the determination of deep bite in Angle's Class II Division 1 cases were: Decrease in upper posterior dentoalveolar height, lower anterior facial height, gonial angle, maxillomandibular plane angle and Frankfurt mandibular plane angle.