

Estimation of Cephalometric Norm for Bangladeshi Children (Steiners Method)

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ABSTRACT

Objective: The objective of this study was to establish cephalometric norms of Bangladeshi children age range (10-13years) and to compare it with accepted standards for the Caucasian population according to Steiner analysis.

Methods: Fifty healthy Bangladeshi children both male and female, with a mean age of 12.3 years, were selected from different schools of Dhaka. Selection was made on the basis of normal occlusion, balanced and pleasing profile with no obvious facial asymmetry. None of the children have undergone orthodontic treatment prior to this study. Lateral skull cephalograms were taken and traced using a standardized technique. Each cephalogram was traced twice with a one week interval by the authors. All angular and linear measurements were calculated to the nearest 0.5 degree and 0.5 mm, respectively. Steiner's method of cephalometric analysis was used to establish cephalometric norms.

Results: A comparison of the results with the Steiner standards showed that the Bangladeshi children were more protrusive skeletally and dentally with a greater tendency towards bimaxillary protrusion. Further, there was a decrease in the lower facial height.

Conclusion: The results of the study support the fact that norms and standards of one racial group could not be used without modification for other racial group and each different racial group would have to be treated according to its individual characteristics.

Keywords: Cephalometric norms, analysis, racial group. (Ban J Orthod & Dentofac Orthop, April 2011; Vol-1, No. 2, 37)

A dissertation on Tooth Size and Arch Dimension in Uncrowded versus Crowded Class I Malocclusion

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ABSTRACT

Aim: The purpose of this investigation was to examine the extent to which arch dimension or tooth size contributes to dental crowding.

Materials and Methods: Two groups of dental casts were selected. Each group consisted of 30 pairs of dental casts including equal male and female samples. The first group had class-I malocclusion without crowding. The second group exhibited class-I malocclusion with dental crowding (more than 5 mm space deficiency). The following parameters were measured and used to compare the two groups: individual and collective mesiodistal widths of tooth, dental arch length, as well as buccal and lingual dental arch widths in the canine and molar regions.

Results: Statistically significant differences in both tooth widths and transverse arch dimensions (widths) were found between the crowded and the normal groups. The crowded group was found to have a significantly smaller maxillary arch width and larger tooth size when compared with the uncrowded or normal group. There were no significant differences in arch length in the two groups in either the maxilla or the mandible. In comparing the anterior and overall Bolton ratios no significant difference was detected between the crowded and normal groups.

Conclusion: The results of this study suggest under two study groups (class-I skeletal base of crowded and uncrowded group) tooth size has a greater role in developing dental crowding. (Ban J Orthod & Dentofac Orthop, April 2011; Vol-1, No. 2, 37)