Schwartz Cephalometric analyses for class-1 patients in chennai population

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**INTRODUCTION**

Class I malocclusion is characterized by a skeletal difference of the maxillary bases vs the basis of the skull, produced through maxillary protrusion and/or mandibular retrusion. The molar and canine sagittal relation is distalized, evidencing according to the classification of Angle, two clinical entities—division 1, with proclination of the upper incisors and increased over jet, division 2, with retroclination of the upper incisors and minimum over jet1. Introduction of cephalometric radiography, in 1934, by Hofrath in Germany and by Broadbent, respectively, in the USA, permitted study of malocclusions by evidencing skeletal discrepancies2. Several authors made known the cephalometric analyses they had performed for the diagnosis of skeletal malocclusions, including various angular, linear and percetual measurements. The literature of the eld provides numerous cephalometric studies, developed comparatively on skeletal classes I and II, on sexes, age, clinical divisions, dentitions and different populations3,5. The results are debatable, if considering the size and selection criteria of the experimental groups, ethnic heterogeneity, races and diversity of the investigation methods applied4,6,7. In order to establish an accurate diagnosis and proper therapy planning in orthodontics, it is necessary to perform the analysis of transverse and sagittal dental arch development in relation to the facial type of the patient. The aim of this study was to determine sagittal and transverse parameters of dental arches in the population of RepublikaSrpska (Bosnia and Herzegovina) based on Schwarz analysis8. Objectives of cephalometrics is to visualize the contribution of skeletal and dental relationship to malocclusion. It is not to generate drawings and tables of numbers that are estimators of relationship. Measurements and other analytical procedures are used to understand dental and skeletal relationship for each individual patient5,9,10.

**MATERIALS AND METHOD**

The study population comprised of 50 subjects of which 25 were male and 25 were female. Lateral cephalometric radiographs were taken for all the subjects. Schwartz analysis was done and the data was tabulated. Mean values for the male and female population was compared and statistical significance was determined for the same.

**RESULTS**

The following table indicates the Extent of anterior cranial base (1), Extent of ascending Ramus (2), Extent of maxillary base (ANS-PNS) (3), Extent of mandibular base (Go-Mn) (4) in males (fig 1) and females (fig2).
DISCUSSION

During the past three decades, research in the field of cephalometrics has contributed a vast amount of information about the growth and development of the human face. The development and application of cephalometry has provided not only those associated with research, but also the clinical orthodontist with data on normal and abnormal facial growth, general facial and skeletal types, the dynamics of function, and case analysis and treatment planning.

Most of this information has been obtained by using angular measurements to assess spatial relationships. Methods of assessing linear measurements (Wylie, 1947, and Bjihk, 1947) have been proposed; but, for one reason or another, have never become popular with the everyday practitioner. Most current cephalometric discussions are centered around the more popular angular methods, proposed by Downs (1948), Tweed (1946, 1953, 1954), and Steiner (1953), for evaluating skeletal and dental disharmonies.

The purpose of this study is to give norms for linear measurements like Extent of anterior cranial base, Extent of ascending Ramus, Extent of maxillary base, Extent of mandibular base in South Indian population were derived for both males and females. Statistics shows that there is no statistical significance between males and females in all four parameters.

CONCLUSION

In this study cephalometric analyses norms for Extent of anterior cranial base, Extent of ascending ramus, Extent of maxillary base, Extent of mandibular base in South Indian population were derived for both males and females. Statistics shows that there is no statistical significance between males and females in all four parameters.

Reference

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