Evaluation and Comparison of Sella Turcica’s Shape and Dimensions in Patients with Normal, Decreased and Increased Facial Height

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Abstract

Statement of problem: Sella turcica is an important anatomical structure in radiographic analysis of neurocranial and craniofacial complex and also it is important in orthodontics, because sella is a useful landmark in lateral cephalometric analysis. Alteration in the size and shape of sella turcica can be considered as a pathologic procedure. These alterations can also occur in some syndromes and craniofacial abnormalities.

Purpose: The aim of this study was to evaluate and determine the size and shape of sella turcica in patients with normal, low and high facial height.

Material & Methods: In this retrospective study, 300 files of patients who referred to orthodontics clinic of Shiraz dental school were evaluated. The patients’ mean age was 17.33±1.40 years. At first, lateral cephalograms were scanned and then analyzed with lighting ceph software. Then, the size of sella was evaluated using autocad software and finally the shape of sella was determined according to standard references. Data were analyzed using Chi-square and ANOVA tests in SPSS, version 16.

Results: This study showed that shape and size of sella turcica change in patients with normal, low and high facial height but these changes are not significantly different (p>0.05).

Conclusion: According to the results of this study, it seems that alteration in the size and shape of sella turcica can be affected radiographically by malocclusions of different facial dimensions and dental and craniofacial abnormalities.

Key words: Sella Turcica, Normal facial height, Short face, Long face