Digital Lateral Cephalometric Assessment of Maxillary Sinus Dimensions in different Skeletal Classes (Comparative Study)

A thesis
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Abstract

The maxillary sinus is the largest of the four paranasl sinus ,among the paranasal sinus its plays an important role in the formation of facial contours. Therefore, knowledge of the development and size of the maxillary sinus may be crucial for diagnosing and treating various cases of malocclusion.

The purpose of this study is to evaluate the effect of malocclusion in three skeletal classes on maxillary sinus dimensions ,120 Iraqi subjects have been chosen, lateral cephalometric radiograph had been taken for each examined subject, then samples has been divided into three groups according to A.N.B .angle classification .the first group included 40 subjects who were class I skeletal malocclusion which composed of 20 males and 20 females ,the second group included 40 subjects who were class II skeletal malocclusion which composed of 20 males and 20 females , the third group included 40 subjects who were class III skeletal malocclusion which composed of 20 males and 20 females. the ages of the samples ranged between 18 &25.

Then the radiograph traced and measured to determine the measurements of maxillary sinus (Length ,Height, Area).

The procedure was accomplished by mean of computer and Auto Cad program version 2008,it had been found that maxillary sinus dimensions were significantly Larger in male than females in different skeletal malocclusion classes in male maxillary sinus length ,height ,area was44.62,44.51,1428.93 respectively and for female was 42.0002,41,35,1239.89 respectively

skeletal malocclusion classes has no effect on dimensions of maxillary sinus except in male class II skeletal malocclusion(maxillary

sinus length,height,area was 45.57,44.97,1467.7 respectively) ,that show significantly higher than male and female class I, female class II,male female class III