The Skeletal features of Iraqi adult nasal obstruction sample (A POSTEROANTERIOR CEPHALOMETRIC COMPARATIVE STUDY)

A thesis submitted to
The council of the College of Dentistry at the University
of Baghdad, in partial fulfillment of the requirements for
the Degree of Master of Science in Orthodontics

By Saief Asem Mustafa B.D.S.

Supervised By: Prof. Dr. Ausama AL-Mulla B.D.S., Dr.D.Sc.

Baghdad-Iraq

October 2011

Thu Al-quda 1432

Abstract

Chronic respiratory obstruction can be produced by prolonged inflammation of the nasal mucosa associated with allergies or chronic infection. In order to breathe through the mouth, it is necessary to lower the mandible and tongue, and extend (tip back) the head. The increased pressure from the stretched cheeks might cause a narrower maxillary dental arch. There may be a relation between the skeletal features of the facial skeleton and the respiratory pattern.

The aims of this study were to study and compare the relation between the nasal obstruction and skeletal features of the facial skeleton in adults between the sample and control groups and to Find the Pearson correlation coefficient between the variables related to the nasomaxillary complex for the sample and control groups.

The sample was comprised of 50 Iraqi subjects with the age range (18-35) years in which they complain from nasal obstruction. The patients were examined by the E.N.T. specialist to certify their complaint and to identify the cause of the obstruction.

The control group was comprised of 50 Iraqi subjects with the age range (18-35) years, also they were examined by the ENT specialist to certify the absence of nasal obstruction. Also all the controls were nose breathers with normal occlusion.

Each subject had a posteroanterior cephalometric X-ray to aid in the diagnosis of nasal obstruction and to measure the cephalometric variables and compare them between the two groups.

The following results were obtained: The mean value of the variables (MSL,NCR-MSL,NCL-MSL,CsR-MSL,CsL-MSL,JR MSL,JL-MSL) showed no significant difference between the sample and control groups in adults between 18 and 35 years old. The mean value of the variables (JR-JL,Ag-Ag,Go-Go,JR-JL/Ag-Ag) showed no significant difference between the sample and control groups in adults between 18 and 35 years old.

The ramal height(RH-R and RH-L)showed high significant difference between the sample and control groups for the right and left sides in adults between 18 and 35 years old.

The pearson correlation coefficient between (NCR-MSL and JR-MSL) is weak and positive in the sample or the nasal obstruction group but this correlation is positive and stronger in the control group than the sample group. The pearson correlation coefficient between (NCL-MSL and JL-MSL) is weak and positive in the sample group but this correlation is still stronger in the control group than the sample group.