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ASSESSMENT OF MAXILLARY GROWTH IN CLEFT LIP AND PALATE PATIENTS AFTER PRIMARY CLEFT SURGERY AND NEED FOR ORTHOGNATHIC SURGERY.

BY

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ABSTRACT

TITLE: ASSESSMENT OF MAXILLARY GROWTH IN CLEFT LIP AND PALATE PATIENTS AFTER PRIMARY CLEFT SURGERY AND NEED FOR ORTHOGNATHIC SURGERY.

INTRODUCTION:

Cleft lip and cleft palate constitute the most common congenital malformation of head and neck. Many individuals with a cleft develop maxillary hypoplasia, which includes features such as concave facial profile, lack of adequate upper lip support and nasal tip projection, decreased upper incisor display, and anterior and posterior cross bites hence it is necessary to study the prevalence of maxillary hypoplasia and necessity of maxillary osteotomy in cleft lip and palate patients.

METHODOLOGY:

This study involves 88 patients who had undergone cleft lip and palate surgery which included subtypes like complete cleft lip and alveolus,cleft lip alveolus and palate,bilateral cleft lip alveolus and palate and isolated palate following standardized clinical protocol from infancy through adolescence.These induviduals were evaluated from data collected from patient records from SDM Craniofacial research center. lateral cephalogram radiographs are taken and cephalometric analysis is done using standardized techniques like SNA, SNB,

ANB, Witt's appraisal and burrstone's hard tissue inference to asses maxillary hypoplasia in these cleft lip and palate patients and necessity of maxillary osteotomy is evaluated.

RESEARCH AND DISCUSSION:

The goal of the current study was to report on the objective need for orthognathic surgery in patients with non-syndromic cleft lip and palate patients treated at our institution. According to literature, approximately one in eight patients was found to require orthognathic surgery but previously conducted studies did not have significant conclusions..Primary objective of this study is To assess growth of maxilla in cleft lip and palate patients after primary cleft surgery and secondary objective To determine the need for maxillary osteotomy in different type of clefts post primary cleft surgery.Various studies have been conducted pertaining to incidence of maxillary hypoplasia and necessary of maxillary osteotomy in cleft lip and palate patients around European and American populations. Our study involves extensive study of such patients treated in our unit, SDM Craniofacial research center from 2008-2011.In cleft palate patients operated with primary palate surgery, incidence of maxillary hypoplasia was observed to be 30 to 40% and require maxillary osteotomy. This study aids in predicting the need for

osteotomy in cleft lip and palate patients and for better treatment planning to clear the ambiguity.

CONCLUSION:

88 patients were involved in this current study group including 55.5% males and 45% were females.three dimensional objective cephalometric analysis was done using various parameters like horizontal vertical and angular dimensions were recorded and maxillary hypoplasia was evaluated at the age group at growth completion.using parameters three dimensional analysis was done and incidence was noted for different type of clefts as follows unilateral cleft lip alveolus was 32.26,bilateral cleft lip alveolus and palate was 31.25 ;21.43 in ,unilateral cleft lip alveolus was bilateral cleft lip laveolus is 0 and 14 % in isolated palate.and need for osteotomy was found to be 38.64% amongst the 88 individuals treated in our unit.