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THE FREQUENCY OF COMPLEX FACIAL CLEFT AMONG PATIENTS PRESENT WITH OROFACIAL CLEFT

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ABSTRACT

Clefts of the upper lip and palate are the most common major congenital craniofacial malformation. Clefting of the facial structure (complex facial cleft) other than the typical nasolabial region is rare. The aim of this study is to determine the frequency of complex facial cleft(rare facial cleft). Paul Tessier described a numbering system for facial clefting phenomena to make description and surgical planning more easily explained. This a prospective study is include 200 cases of orofacial cleft from 2013 to 2016 attended to the department of oral and maxillofacial surgery. From 200 cases with orofacial clefts only 4 cases(2%) had complex facial clefts, 3 female and 1male ,female to male(3-1). large gap with hard and soft tissue deficiency appear clear in such patients, and several breakdown were occurred postoperatively ,therefore team approach with experience surgeons need to overcome this problem.

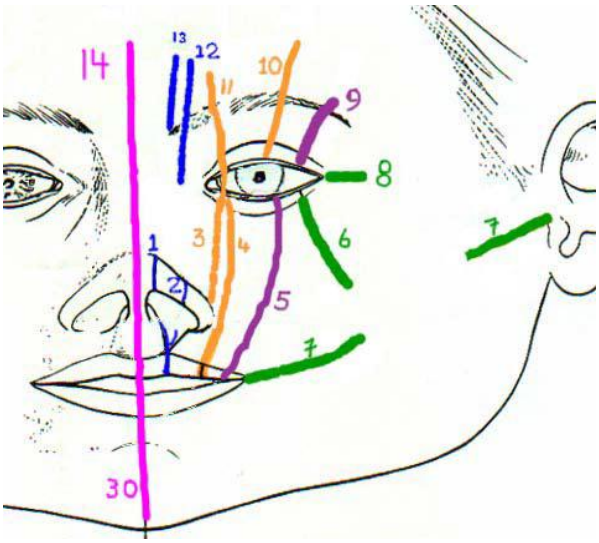
KEYWORDS: Frequency. Complex cleft. Orofacial cleft

Aim of study: The frequency of complex facial cleft.

INTRODUCTION

Clefts of the upper lip and palate are the most common major congenital craniofacial malformation and are present in approximately 1 in 700 live births.[1] Clefts of the lip occur more commonly in males than in females.[2] In addition left-sided cleft lips are more common than right-sided cleft lips and unilateral cleft lips are more common than the bilateral cleft of the lip.[3] "Bilateral clefts of the lip are most often associated with clefting of both the primary and secondary palates. Cleft palate alone is seen in approximately 1 in 2,000 live births and this incidence is similar in all racial Groups".[4] Clefting of the facial structure (complex facial cleft) other than the typical nasolabial region is so rare and often presents difficult challenges to the reconstructive cleft surgeon.[5] Paul Tessier provided a numbering system for facial clefting phenomena to make description and surgical planning more easily discussed.[6] picture (1)

Primary reconstruchion of severe facial clefts is often more difficult than even the most difficult standard bilateral clefts.[7-9]



Picture: (1) Tessier classification

MATERIAL AND METHODS

1-This prospective study is include 200 cases of orofacial cleft from July 2013 to december2016 attended to the department of oral and maxillofacial surgery.

2-All the patients were examined by maxillofacial surgeon, pediatrician and anaesthetist to exclude any other abnormalities and the fitness for general anaesthesia.

3- The surgical repair of lip depend on roll of 10, while surgical repair of palate between 9-18 months.
4-The classification of complex facial cleft basis on tessier classification. Picture(1)

RESULT

From 200 cases with orofacial clefts only 4 cases(2%) had complex facial clefts, three female and 1male ,female to male(3-1). The male with family history while the females without family history of clefts, family history (25%). two cases presents with median clefts, while the others with type 3,4 clefts (Tessier classification) picture 2,3. two cases (older than 10 years) are diagnosed as mentally retard, while the others are unknown(less than 2 years). Two cases are non syndromic, while the others are syndromic, one of them as part of oral facial digital syndrom(rare case), syndromic to non syndromic(1-1). Surgical repair difficult and several breakdown occurred followed by secondary repair, especially during palatal repair due to large gap.

Table: (1): Distribution of clefts.

Type of cleft	No.	%
Cleft lip with or without palate	196	98%
Complex facial cleft	4	2%
Total	200	100%

Table (2): Sex distribution of complex facial cleft .

Cleft type	Sex		Ratio (Male:Female)
	Male	Female	
Complex facial Cleft	1	3	1-3

Table: (3) The incidence family history in complex facial cleft.

Type of cleft	Negative history	Positive history	Incidence of Positive history
Complex facial cleft	3	1	25%

Picture (2).Complex facial cleft type 4(tessier classification)

Picture (3).complex facial cleft type 3 (tessier classification)

DISCUSSION

In this study only 4 cases out of 200 cases were presented with complex facial clefts (2%) table 1, this agree with *Monasterio 1987*, that the complex facial cleft type 0,1,2,3(tessier classification) comprise only 2.2 of unilateral or bilateral cleft lip/ palate.[10] Also agree with *Moore MH 1996*, that complex facial clefts are very rare, and the incidence between 1.5 to 6.0 per 100,000 live births.[11] Male to Female ratio (1-3), table 2.In this study one case only out of 4 with family history, table 3, that state it's not Mandatory that complex clefts are due to genetic factor and there are many predisposing factors that may precipitate this malformation such as radiation, Viral infection, drugs, chemicals during pregnancy, folic acid deficiency and may be due to amniotic band.[12] Two cases out of 4 with complex facial clefts(50%) diagnosis as mentally retard and this agree (Strauss RP 1993) that "higher rates of facial disfiguration and impaired speech were found in patients with cleft and mental retardation, that craniofacial teams need to develop strategies to address the special needs of this group of Patients".[13] large gap with hard and soft tissue deficiency appear clear in such patients and several breakdown were occurred postoperatively, therefore team approach with experience surgeons need to overcome this problem, in addition to high percentage of them associated with other abnormalities that indicated for precise examination by pediatrician and anaesthetic to determine the fitness for general anaesthesia. and this agree with *peterson,2004*, that complex facial clefts presents difficult challenges to the reconstructive cleft surgeon.[5]

SUGGESTION

1. Large centre's with multidisciplinary teams with highly qualified surgeon need for surgical repair of complex facial clefts.
2. Approximation surgery is better befor definitive surgery. (two stages).
3. Avoid the marriage between families with history of clefts defects.
4. As the complex clefts are rare, the study better to be retrospective in long duration and large centre's.

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