Occult Clefts of Hard Palate in Relation to Group I Clefts

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Introduction :

The problem of nasal deformity in unilateral clefts has been studied by Khan & Sharma (1967) in their series of thirty cases. Which has already been discussed this morning in great detail. Present topic of "Occult clefts of hard palate in relation to group 1 clefts" is another curious finding which has been added while continuing the previous series of nasal deformity in unilateral clefts.

In the present series few changes have been made to the previous conventional methods. To be more accurate, the tracings of dental model is being done on a size photograph of the dental model and measurements of lip and nose are taken on a Plaster of Paris cast of the face.

Majority of patients presenting with group 1 cleft have clear cut orofacial deformities which are easily described and readily clarified. Besides these there are other complex deformities which are clinically undetectable. Therefore the use of roentgenographic techniques as an aid to diagnosis of extent of clinically undetectable clefts of hard palate have been made good.

Method :

1. Plaster of Paris dental cast was prepared in each case. A size to size photograph of this dental cast was taken for the purpose of tracing on graph paper.

2. Another plaster of Paris cast of face was prepared in each case for the measurements of lip and nose.

3. Dental occlusal x-ray was taken in each case to demonstrate the occult cleft in hard palate.

Case Reports :

1. S. 16 years old male admitted with cleft Group. 1. lip 3/3'a' (L) (Fig.1). Tracings on dental model reveal drift of arch and angle of rotation on the cleft side.

His occlusal x-ray film was taken which revealed occult cleft of hard palate on cleft as well as on noncleft side.

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2. J. L. 15 years old male admitted with cleft Group. 1. lip. 2/3 left. Tracing of dental model revealed rotation as well as drift of arch on the cleft side. Occlusal X-ray reveals deficiency of bone in hard palate on either side Fig. 2.

3. S. C. 20 years old male admitted with deformed nose and ugly scar of cleft lip repair on left side (Fig. 3). His occlusal X-ray reveals defect of bone in hard palate on cleft side (Fig. 3). Tracing of model shows drift of arch on cleft side.

4. P. S. 16 years old male admitted with cleft Group. 1. lip. 3/3 'a'. His occlusal X-ray shows occult cleft on the hard palate on cleft side. Tracing of dental model reveals drift of arch as well as rotation on cleft side Fig. 4.

5. S. A. 18 years old male admitted with Bilateral Cleft group. 1. lip., with Simonart's bands on either side. Occlusal X-ray of this Patient revealed extension of cleft into the hard palate on either side Fig. 5.

6. S. D. 2 years old male admitted with Bilateral Cleft. group. 1. lip 3/3 'a' with premaxilla protruding. His occlusal X-ray reveals extension of cleft on hard palate on either side Fig. 6.

Discussion :

Since Brown (1964), Stenstrom and Thilander (1965) reported cases with typical cleft lip nose without any apparent cleft lip. In many instances of our series also, the ala looked normal and symmetrical but on measurements it definately revealed broadening on the cleft side. Therefore one can safely say that if intercanine area and angle of rotation were studied in Brown's and Stenstrom and Thilander's patients there must have been some difference between two sides. Hence it tends to support another fact that the bony component of primary palate may be defective showing agenesis or hypoplasia without any soft tissue defect.

If palatal occlusal X-rays were taken and dental measurements were recorded in such patients they might have shown hypoplasia or agenesis of primary palate with a submucous or occult alveolar clefts.

For the confirmation of above assumption, if in cases with marked nasal deformity in group. 1. clefts without alveolar cleft routine occlusal X-rays has become an essential procedure to classify clefts properly according to International classification.

Conclusions :

Patients of unilateral group. 1. clefts with forward drift have a non united unstable maxillary segment with a submucous cleft extending into hard palate on affected side. In these cases deficiency is in secondary palate. On palpation of alveolar arch with finger there is unevenness at the site of the cleft and maxillary segment of the affected side has pushed forward. This can be explained due to an occult cleft as the bony segments fail to unite and makes it unstable segment on cleft side. In these cases despite unstable segment on cleft side it should be left as such. Simple repair of lip is needed without a bone graft.

Bilateral alveolar clefts which show mobility of premaxillary segment, examina-

tion in such cases revealed that septum in midline is not united and communication exists between two nostrils. Apparently there is no cleft of the primary palate but horizontal plates have failed to fuse in midline as seen in Fig. 5, 6.

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