Congenital Median Cleft Lower Lip, Mandibe and Tongue

L. K. Sharma, M.S., M.Ch. (Plastic)
Head of the Deptt. Deptt. of Plastic and Maxillo-facial Surgery

Congenital deformity of the lower half of the first visceral arch i.e. mandibular arch is much less common than the upper half of this arch. Various clefts of the upper lip and palate and lateral facial clefts are well known. Median cleft of the lower lip, mandible, and tongue is sufficiently rare malformation and the author thought it worth reporting

Case Report : (Fig. 1, 2, 3.)

A female child M. aged $2\frac{1}{2}$ years was admitted in the Department of Plastic and Maxillo-facial Surgery, Medical College, Nagpur on 17th March, 1969. She was born with full term normal pregnancy. Her birth weight was 5 pounds 9 ounces. Mother was 20 years of age and father 27 years. She was their first child. The mother had no trouble during ante-natal period. There was no history of taking drugs, any illness or exposure to X-rays. The family history could be traced upto two previous generations but no other member had any congenital deformity.

Examination revealed a poorly, under nourished female child with 62% Haemoglobin and 11 pounds of weight on admission. The lower lip was completely cleft. The mandible was absent in the middle segment and the free edges of the right and left segments of the mandible were separated wide apart creating a defect of 3 cm. The tongue was protuding out and it was fixed to the floor of the mouth and the free edges of the cleft lip and mandible. The apex of the tongue was bifid and one big firm

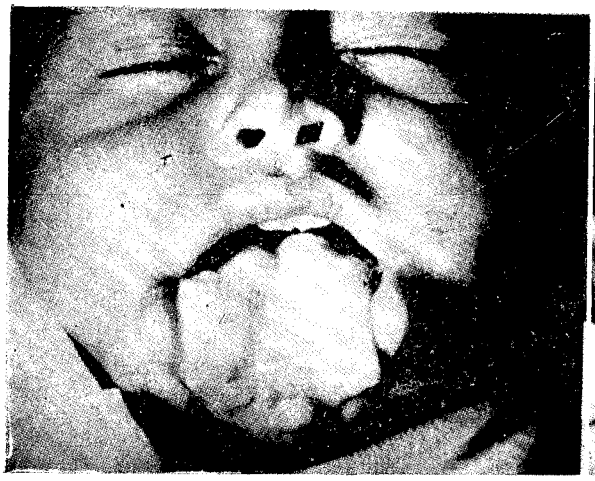

Fig. 1—Median Cleft of the lower lip, mandible and tongue before operation

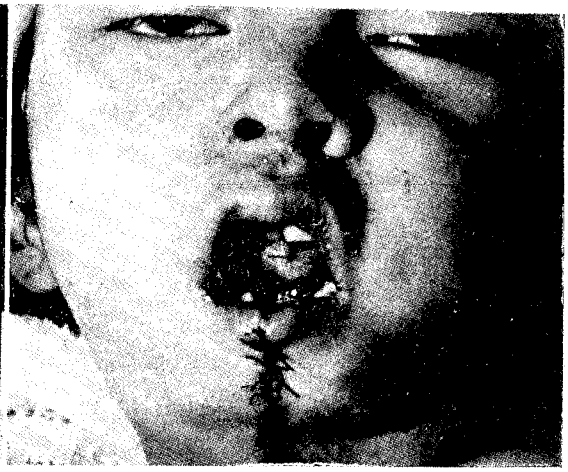

Fig. 2—After operation. Stitches are still in Position

reddish mass was protuding out through the defect in the tongue. It was interesting to note that all the teeth were present but in maloccluded position. Each half of the mandible was bearing 2 incisors, 1 canine and 1 molar. The presence of all teeth showed that the mandible developed normally without any missing tissue but it failed to fuse. Saliva was constantly dribling which resulted in excoriation of the skin of the neck. The child had syndactyly 4th and 5th toes (R) foot as associated anomaly.

X-ray of the mandible confirmed the separation of the two halves of the mandible (Fig 3)

Examination of the heart by the physician revealed soft systolic murmur in the left second space with P2 split and Atrioseptal defect was suspected.

The operation was performed under general anaesthesia. The tongue was freed from the floor of the mouth. Reddish mass at the apex of the tongue and going deep in the floor of the mouth was excised. The mass was cystic with thick walls and filled with mucoid material. Release incisions were given at the Dento-glossal sulci right upto the bone. Muco-periosteal tissues were mobilised from the mandible. Under surface of the tongue was covered with mucosal flaps. Tip of the tongue repaired by V-excision of the tongue bearing no musculature. Similar release incisions were made in the Dento-labial sulci and the right and left elements of the cleft lip mobilised. Free edges of the mandible were made raw and both the segments were stabilised by one wire suture. Lip repaired in two layers. Muco-muscular layer sutured with

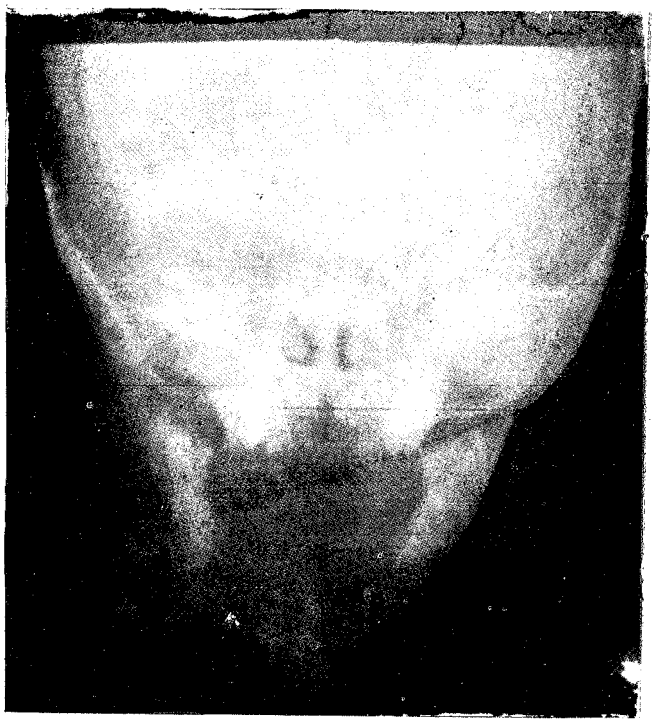

Fig. 3—X-ray showing wide seperation of the two components of the mandible.

3/0 Ch. catgut and skin by 5/0 atraumatic silk. Tracheostomy was performed as the child had obstructed breathing after the closure of the lip. The child behaved well in the post-operative period but on the second day of the operation the heart suddenly stopped and the patient expired.

Review of Literature

Dr. Albert Davis 1950 in reporting a case stated that only 6 cases of midline cleft of the lower lip, mandible and tongue had been recorded in the literature. Clarance Mouroe in 1966 reported a similar case and stated that it has been possible to find this deformity mentioned in the litrature as early as 1819 by Couronne of France. He found that 26 cases of similar deformity with varying degrees have been recorded in the literature including his own case. 17 cases reported in the literature were of the same degree of the severity as the case reported above.

The etiology of this deformity is not yet certain. It is presumed that the failure of fusion of the mandible is probably due to lack of mesodermal penetration. Why this should occure so frequently in the upper lip and so seldom in the lower lip is unanswered.

Summary

A rare case of median cleft of the lower lip, mandible and tongue has been presented. This literature on the subject has been reviewed.

REFERENCES

1. Abramson, P. D. : Bil. Congenital clefts of the lower lip. Surgery, 31 : 761-762, 1952.
2. Braithwaite, F. & Watson, J. : Three unusual cleft of the lip. Brit. J. Plast. Surg., 2 : 38-49, 1950.
3. Clarence, W. M. : Midline cleft of the lower lip, mandible and tongue, Plast. Reconst. Surg., 38 : 312-319, 1966.
4. Davis, A.D. : Median cleft of the lower lip and mandible. Plast. Reconst. Surg., 6 : 62-67, 1950.