Indian Journal of Plastic Surgery (1990), 23 (1), pp. 27-30

## DOUBLE UPPER LIP

RAVINDRA TAH AND S.N. SHARMA

#### **SUMMARY**

Eleven cases of double upper lip were seen by us during the last 10 years, of which 9 were males and 2 were females. The embryology, clinical appearance, histopathology and surgical correction of the deformity has been discussed with a review of the literature. A new technique, to enhance aesthetics of the lip, is being described.

(Key Words: Lip, Double, Duplication, Congenital.)

Double lip is a rare congenital anomaly. The total number of cases reported in the literature till 1989 are only about 36. We are reporting 11 cases of double lip seen in the Department of Plastic Surgery during the last 10 years. Though the deformity is congenital, none of the patients reported at birth or in early infancy. The deformity became more evident following the eruption of permanent teeth.

## **Embryology**

Lip develops around 47th embryonic day with 20 mm CR length of foetus. A labio-gingival lamina or lip furrow band divides the lip into two zones called porn glabra and porn villora. Neustaetter (1895) and Warbrick et al (1952) believed that the inner portion known as porn villora becomes hypertrophic and lip band persists in exaggerated form to manifest as double lip deformity.

#### **Observations**

All the eleven patients in our series showed the involvement of the upper lip, nine of them were males and two were females. The age wise distribution of the cases is shown in Table 1.

Table 1

Age	No. of Cases
15-22 years	9
36 years	1
60 years	1

All patients had thick lips and showed a vertical median furrow over the tubercle of the vermilion and this tubercle was not involved ir duplication. A transverse furrow extends laterally towards the commissure from which hang two loose, redundant baggy swellings with darker and smoother mucosa. These mucosal swellings are less prominent when mouth is closed, but become more prominent on smiling and opening of mouth. One of our patient had hypertrophy of parotid and lacrimal glands. No other patient had any other associated congenital abnormality.

Surgery is the only form of treatment. The principle of surgical treatment is extirpation of redundant mucosa and hypertrophied glands. It is wise to excise the furrows with the redundant mucosa of double lip. We prefer to operate under regional block to avoid distortion of mucosa and soft tissues of the lip. Two elliptical incisions circumscribing the redundant baggy swellings or either side are joined with a bow shaped excision in the middle (Fig. 1). If there is a median furrow we add an inverted 'V' incision in the middle to excise that crease. Near the commissure 2 small Z-plasties are incorporated so that the contour near the commissure can be adjusted and dog ears avoided. This technique gives very pleasing and aesthetically gratifying results. We have followed our cases from 5 months to 14 months. None of the cases showed any recurrence.

#### Discussion

Ascher (1920) described a patient of double lig

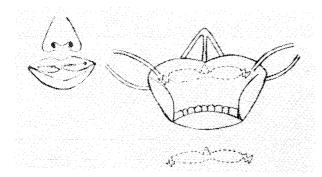


Fig. 1. Authors' Technique of Excision and Correction of Double Lip Deformity.

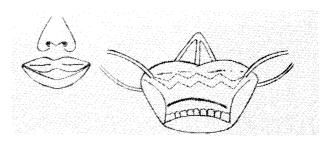


Fig. 2. Guerrero-Santos 'W' Plasty for Double Lip Correction.

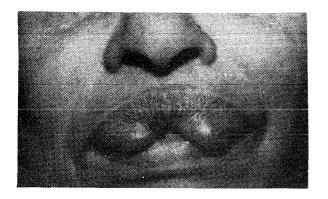


Fig. 3. Preoperative Photograph of Double Lip in a female.

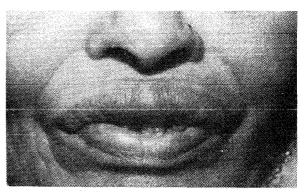


Fig. 4. Postoperative Photograph of the same.

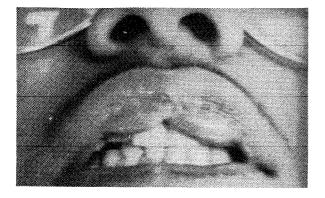


Fig. 5. Pre-operative view (close up) of another case in a male patient.



Fig. 6. Immediate Post-operative photograph (Note the prominent tubercle).

associated with blepharo-chalasis. Dorrance (1922) reported another case of double lip involving upper lip but without any associated pathology. In our series, we also have one case with associated hypertrophy of salivary and lacrimal glands. It suggests that double lip deformity may

be part of generalised hypertrophy due to involvement of labial glands.

Fomans in 1939 described that it is usually limited to upper lip. In our series, the deformity of double lip is confined only to upper lip. In most of the cases double lip is visible even on closing of

mouth but certainly becomes more prominent on opening of mouth and smiling due to contraction of orbicularis oris muscle. The histopathological examination showed absence of muscle fibre under the excised mucosa. This leads us to conclude that hypertrophied glands herniate through a longitudinal vent which may be due to a developmental abnormality.

Calnan (1952) reported a case of congenital double lip with note on embryology. We agree with his observations that persistence of transverse furrow with associated factors which lead to hypertrophy of glands and mucosa are responsible for the development of this deformity.

Padgett and Strevensen (1948) reported double lip with cleft palate. No such association was found in our series.

Calnan, Dingman and Billman (1947) preferred regional anaesthesia and we also used the same to avoid distortion of the local tissues.

Guerrero-Santos and Altamirano (1967) advocated a 'W' plasty for excision of buccal segment which is cumbersome and does not excise anterior transverse and middle vertical furrow (Fig. 2). Gupta and Bhatnagar (1979) reported three cases treated with transverse elliptical excision. Bhattacharya (1979) reported a case treated with similar method. Sharma and Tarachandra (1984) reported two cases. K. Anji Reddy and A. Koteshwara Rao (1989) reported seven

cases treated by similar transverse elliptical excision. This method of transverse elliptical excision has following deficiencies:

- 1. Persistence of median notching;
- 2. Vermilion tubercle is not properly formed;
- 3. Presence of partial furrows.

Because of these deficiencies, the overall result is not aesthetically pleasing.

In our procedure, we do the transverse excisions and combine it with lateral 'Z' plasty. In the middle the ellipse are joined by a bow shaped excision of mucosa. This produces a good pouting vermilion (Fig. 3 & 4).

In this modified method of excision, transverse and median furrows are excised. There is preservation and pronouncement of vermilion tubercle and lateral Z-plasties avoid dog ears. Our method thus overcomes the deficiencies encountered in the method of transverse elliptical excision.

### Conclusion

Eleven cases of double upper lip were seen by us. It is not a very rare deformity. It is not commonly associated with other deformities. The new technique described, enhances the aesthetic results and gives a better lip appearance. It is important to excise all the furrows in order to achieve better results. No recurrence of the deformity has been observed in our cases.

### REFERENCES

- 1. Anji Reddy K., Koteshwara Rao.: Congenital double lip. A review of seven cases, Plastic and Reconst. Surg. 1989; 84: 420.
- 2. ASCHEN, K.W.: Blepharo Chalasis nut Strauma and Doppe Lippe. Klin. Mauetsbl. Augenheilkd. 1920; 95: 86.
- 3. BHATTACHARYA, V., TRIPATHI, F.M. AND SINHA, J.K.: Congenital double lip—A case report. Ind. J. Plast. Surg. 1979; 12: 38.
- 4. Calnan, J.: Congenital double lip. Record of a case with a note on embryology. Brit. J. Plast. Surg. 1952; 5: 197.
- 5. DORRANCE, G.M.: Double lip, Amer. Surg. 1922; 76: 776.
- 6. DINGMAN, R.O. AND BILLMAN, H: J. Oral Surg. 1947; 5: 146.
- 7. FOMAN, S.: Surgery of Injury and Plastic Repair, Baltimore, Williams and Wilkins, 1939.
- 8. Guerrero-Santos, J., Altamirano, J.T.: The use of 'W' plasty for the correction of double lip deformity. Plast. Reconst. Surg. 1967; 39: 478.
- 9. GUPTA, I.J. AND BHATNAGAR, S.K.: Congenital double lip. Ind. J. Plast. Surg. 1979; 12:27.
- 10. PADGETT, E.C. AND STREVENSEN, K.L.: Plastic and Reconstructive Surgery, Springfield, Illinois, C.C. Thomas, 1948.
- 11. NEUSTAETTER, O., UEBER DEN, LIPPENSAUN BEIM, MEUSCHEV, SEIMAN, BAU, SEIUE EUWICKEKING UND SEME BEDENTAUNG, HURA Z.: Naturwisseu Sch. 1895; 29, 345.
- 12. SHARMA, R.N. AND TARACHANDRA: Congenital double lip—A case report. Ind. J. Plast. Surg. 1984; 17:57.

13. WARBRICK, J.G., MCINTYRE, J.R. AND FERGUSSEN, A.G.: Remarks on the aetiology of congenital bilateral fistulae of the lower lip. Brit J. Plast. Surg. 1952; 4:254.

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<sup>\*</sup>Presented at Annual A.S.I. Conference—December, 1989 at Varanasi.