

The Management Of Clefts Of The Lip, Alveolus & Palate In Older Children And Adults

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PLASTIC surgeons working in the less advanced countries of the world frequently encounter clefts of the primary and secondary palate in older children and adults. Although the basic problems in the management of these clefts in infants and adults are similar, yet there are certain differences which merit a careful consideration. When one looks through the literature, one scarcely finds any reports dealing specifically with these problems in adults, and therefore it was felt appropriate to describe our experience in their management.

CASE MATERIAL

This paper is based on our observations in 34 cases of clefts of the lip, alveolus and palate, all of whom were beyond the age of six years and who presented for treatment at the Plastic Surgery Unit of the S. S. Hospital, Banaras Hindu University. Tables I and II show the sex and age incidence in this series respectively. The females were much fewer as compared to males. This was due to the local customs that female children are brought for treatment earlier by their parents. Table III shows the distribution of the various types of clefts, and table IV the type of operations performed in various cases. All the cases stood the operations well and there was no mortality. The specific

problems met with and the line of treatment adopted is discussed in the subsequent sections of this paper.

THE PROBLEM

An adult unoperated patient with a complete cleft of the primary and secondary palate is more or less a cripple. His speech is unintelligible. He may have a defective hearing. He is handicapped by his appearance and by the constant nasal regurgitation of food to which he may have become accustomed. In complete clefts, the teeth are usually not in alignment and he has a defective occlusion. In bilateral clefts the premaxilla may be protruding far forwards and the maxillae underdeveloped. His nose is deformed. In his school days he is the target for fun among his classmates and develops a marked inferiority complex. He loses all confidence in himself and finds it difficult to adjust to society.

AIMS OF TREATMENT

The surgeon caring for such patients is frequently handicapped by the absence of ancillary aids like orthodontic and prosthodontic treatment, speech therapy etc. Although it is difficult to hope for an ideal result in these neglected patients, yet the best possible under the circumstances should be attempted. The aim of treatment

should, therefore, be to restore the patient to as near normal as possible functionally, cosmetically and psychologically within the shortest possible time and by the means available within his reach. Most of these patients cannot afford to remain under prolonged medical supervision.

THE PLAN OF TREATMENT

Multistaged operations for complete clefts as practised in infants are unnecessary. It is quite safe and practical to perform a complete repair of the whole cleft in one stage. Our views are supported by David Davies 1966 who reported twenty cases operated in one stage. The patients tolerate the operation well. A pharyngeal flap, correction of the nose and a surgical set back of the premaxilla may be done at the same time. This saves the patient from the

raising a pharyngeal flap first, repairing the palate next, and the lip and nose are dealt last of all. This entailed only one hospital admission and an average stay of eight to ten days. Thus, a much larger number of cases could be tackled in the limited number of beds available.

ANAESTHESIA

General anaesthesia through a cuffed endotracheal tube passed through the mouth is ideal for adults with complete clefts. For cases with clefts of the lip only, infraorbital block with 2 per cent xylocaine is quite satisfactory. The adult cases are likely to bleed more as compared to infants. Local infiltration of a few drops of 1 : 100,000 adrenaline solution help to achieve the required haemostasis. A blood transfusion



Fig. 1 Preoperative. Showing a case with bilateral cleft of lip. Repair done in one stage.



Fig. 2 Post operative view.

risk of repeated anaesthesia and hospitalisation. We commence the operation by

has been given in all cases when the whole cleft has been dealt in one stage.

REPAIR OF CLEFT LIP

Compared to an infant, it is easier to repair a cleft of the lip in adults as the tissues are bigger and easier to handle. However, it is important to pay particular attention to detail and try to obtain the optimum result in the very first operation, so that the question of secondary corrections does not arise. Since the tissues have already obtained the maximum size, there is no risk of growth affecting the result of repair. In our series we have used the triangular flap repair with satisfactory results. Because of the risk of scar contraction, methods of repair resulting in a straight scar line are not advocated.

In bilateral clefts if the premaxilla is protruding far forwards, a surgical setback should be done to remove the tenting effect on the repaired lip. Both sides of the lip can be repaired at the same time. To increase the thickness of the vermilion, lateral vermilion flaps were incorporated in the vermilion of the prolabium. The lip at the time of repair appears a little tight, but in due course it enlarges in size when subjected to the natural tension (Figs. 1-2).

THE DEFORMED NOSE

In infants, there is no unanimity of opinion whether to tackle the nose at the same time as the lip repair. In adults, however, there seems to be no reason for not trying to restore the nose to its best possible shape at the time of lip repair. Since the alar cartilages have remained in a deformed position for a long time, the procedure of trying to shift the cartilage into a more natural position alone may not suffice in all cases, and additional procedures may

have to be tried. A secondary operation for nose correction may be required in some cases.

REPAIR OF THE CLEFT OF THE PALATE

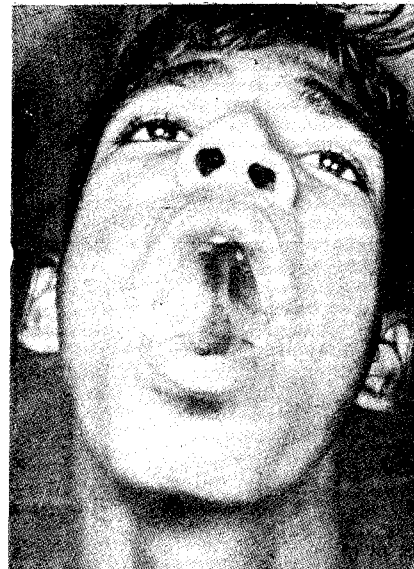
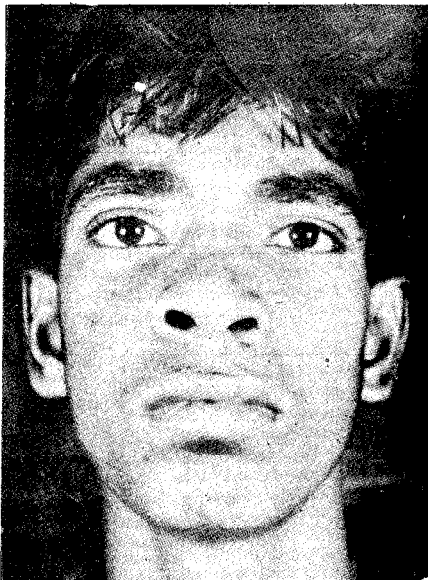
The cleft in the plate is proportionately wider as compared to infants, but the more capacious oral cavity makes it easier to work inside it. The pharynx is also wider and more capacious. Although a lengthening of the palate by about a centimeter is achieved with the Veau Wardill-Kilner type of operation yet it is unlikely that a competent naso-pharyngeal sphincter will be obtained. A pharyngoplasty as a primary procedure is thus indicated in these cases (Reidy 1964, Skoog 1965). In our series an inferiorly based pharyngeal flap has been used in all adult cases coming for palate repair for the first time. This, not only helps in preventing the nasal escape of air, but also relieves the tension from the sutured soft palate (Figs. 3-6).

The other steps in palate repair are similar to those in infants. Fracture of the posterior border of the posterior palatine foramen enables the greater palatine vascular pedicle to be shifted medially and the mucoperiosteal flap sutured without tension. In our experience there were no clefts so wide that could not be repaired in this way.

The tongue which is used to a greater freedom of movement in these cases, feels cramped after the operation, but soon gets accustomed to its new habitat. There have been no cases where the tongue was too big to require a surgical reduction in size.



Figs. 3-4 Showing a case with a combined cleft of primary and secondary palate.



Figs. 5-6 Post operative views-Pharyngoplasty, palate and lip repaired in one stage.

ORTHODONTIC TREATMENT

Orthodontic treatment for a cleft of lip and palate is a long and arduous process and the earlier orthodontic treatment is started the better will be the results. To retain the results of orthodontic treatment, bone grafting is advocated. Collapse of the lesser alveolar segment is not as common as in those cases where repair of the cleft has been done earlier. The major problems is to bring back the premaxillary segment which is protruding forwards both in unilateral and bilateral clefts.

SPEECH THERAPY

These unoperated cases of cleft palate have already become habituated to undesirable qualities of voice and articulation. They have become accustomed to their own defective speech which has also produced its impact on the personality development of these individuals. With these patients, speech therapy should be started soon after the surgical treatment has been completed. As stated previously, the addition of a pharyngeal flap from the beginning is advocated, as otherwise it is not easy to obtain a competent naso-pharyngeal sphincter. In spite of the intelligent cooperation that is forthcoming from these patients, the speech therapy has to be a concentrated and protracted affair. The patient must be given frequent opportunities to assess his own speech by hearing the 'play back' of recordings of his speech made during the various stages of treatment.

PERSONALITY ADJUSTMENT

Most of these cases have developed a sense of inferiority. They are likely to be anti-social and self-conscious. They are likely to withdraw into themselves or they may seek to compensate by aggression. In order to rehabilitate speech therapy and psychotherapy can be taken up hand in hand.

SUMMARY

Reports dealing with the management of clefts in adults are scarce. Our experiences in their management are presented. One stage repair of the whole cleft with a pharyngeal flap is recommended.

ACKNOWLEDGEMENT

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REFERENCES

Table I. *Showing the sex incidence of cases in this series*

Total number of cases	34
Males	29
Females	5

Table II. *Showing the age incidence of cases in the series*

Cases between the age of 6 and 12 years	20
Cases beyond the age of 12 years	14

Table III. *Showing the types of clefts*

Clefts of primary palate	17
Clefts of secondary palate	2
Combina clefts of primary and secondary palate.	15

Table IV. *Showing the types of operations performed*

Cleft lip repair	17
Cleft palate repair	3
One stage repair of lip alveolus and palate	14
Pharyngeal flaps	5