

## THE RESPONSIBILITY OF THE SURGEON IN TREATING PALATAL AND RELATED DEFECTS

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**P**ALATAL defects are either acquired or congenital. The incidence of the acquired form, caused by disease or trauma, is very small compared with the congenital form of cleft palate which occurs about once in every 1,000 to 1,200 births. Since the principles involved in the management of the acquired defects are the same as those in the treatment of secondary deformities which sometimes follow primary operations for congenital clefts of the palate, this short paper can be confined in the main to a general discussion concerning the latter.

Rehabilitation of the cleft palate patient may be likened to a great drama in which there are a number of actors, each playing an important role under the direction of one individual, the surgeon, who is responsible for its management and production. The most distinguished and important character, the central figure in the play, is the patient, whose successful performance is dependent on the skillful guidance of the director (the surgeon) and the combined efforts of all the other members of the cast.

Upon the surgeon rest many responsibilities. These begin when he first sees the patient and continue through to the time when the most satisfactory and complete treatment has been carried out, that is, when the patient is able to take his rightful place in society and satisfactorily carry on in our present-day highly competitive way of life. That time may come early in the patient's life, immediately after surgery, but in many cases it extends through childhood and into adult life.

To assume these responsibilities the surgeon must have a full understanding of the other nonsurgical problems essential to his program of complete treatment and at all times give fullest cooperation to those other specialists concerned in these special fields. These special problems must be considered inseparable from his surgical responsibilities. Let us then consider his responsibilities in the order of their occurrence in the life of the cleft palate patient.

The most immediate and sometimes urgent problem is feeding and nursing care during the first few hours or days of the infant's life, especially in those cases of complete cleft of the palate complicated by a cleft of the lip. For the first few days some time may be required in feeding by means of a medicine dropper or small bulb syringe, but, within a few days, the formula can be given from a bottle and nipple with perforations large enough to permit

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the fluid through gravity to drip into the mouth without the act of vigorous sucking. In no case has it been our experience to have to resort to the use of a special gadget, nipple, or prosthetic appliance, or any other complicated procedure to feed the infant.

The next responsibility of the surgeon should be a heart-to-heart talk with the distressed parents and relatives in an attempt to explain: how such a deformity occurs; that it is a frequent occurrence; that the anatomical defect is caused by a miscarriage of Nature's plans and is not a mark of disgrace or infamy; and that the baby, except for this defect, is a normal individual and, if treated as such through their cooperation, in all probability will develop to be a completely normal child. In order to give the parents a more vivid and hopeful illustration of the possibilities of complete cooperative treatment, arrangements can be made for them to see other children who have been successfully treated for a similar or more complicated lip and palate deformity. To arouse hope early in the parents, relatives, and friends of the patient, and to emphasize the importance of their continued cooperation in the plan of treatment outlined to them, is, in my opinion, often a most significant part of the successful management of the whole problem. To assume this responsibility requires much patience and consumes considerable time on the part of the surgeon, who is very often engrossed in a busy surgical practice; yet it is time well spent and often sets the stage for a smooth-running and coordinated program of complete care of the child.

The surgical responsibility, of course, rests wholly with the surgeon, who, after a thorough examination and accurate diagnosis, must decide when and how to operate the case. In making these decisions, many things must be considered, such as the health of the patient, the type and degree and nature of the deformity, the quality as well as quantity of tissue, etc., always with the sole purpose of obtaining a normal anatomical and functional repair. The ultimate surgical result will depend not only on the surgeon's technical skill, but also on his surgical judgment, which he has developed over a long period of specialized surgical training and experience in the management of these cases.

The activity of the growth processes during childhood is an all-important biologic factor which must always be taken into consideration in any surgical procedure attempted at that time. The inherent power of repair of tissues and their response to function are in early life at their highest levels and are essential factors in the creation of normal anatomical design. If any operative procedures are performed which tend to inhibit these physiologic processes, healing will occur slowly or not at all, and there will be little if any attempt toward the restoration of normal structural integrity.

There are numerous sound surgical techniques more or less standardized which are generally accepted and used by most surgeons in palate surgery, but no one can be adopted uniformly in every case. In general, many cleft lip and cleft palate deformities appear similar, yet in most instances there are many anatomical variations which the surgeon must recognize, and through

his experience and judgment he must decide what procedure or variation or modification of various procedures should be used to give the best results in each specific case.

A fairly large percentage of cleft palate patients frequently have an associated cleft lip deformity. It is important that the lip be repaired early (within the first month to six weeks), if the patient's health permits. It is our policy to wait until the birth weight has been regained and the infant shows a daily increase in weight, which is usually about 1 month of age. During these first few weeks of the patient's life, the general condition can be observed and evaluated by the pediatrician, and preparations can be made leading up to the operation. The purpose of early cheilorrhaphy is not for cosmetic effects alone, but in the main it is to obtain normal lip pressure against the protruding or rotated premaxilla in order to encourage, by normal growth process and tissue response to function, its normal alignment in approximation with the maxilla and the closure of the cleft of the alveolar ridge. The growth of the maxilla during the following few months effects a closure of the cleft of the jaw and in most cases gives a normally developed maxilla except for a slight depression or notch of the alveolar ridge where the cleft previously existed.

During the interim between the lip operation and the time to close the palatal defect (which is usually about 2 years of age), cleft palate infants are usually predisposed to upper respiratory and middle-ear infections and should be examined at regular intervals of three to six months, or that responsibility should be turned over to a pediatrician. We consider the optimum time for the reconstruction of the palate is shortly before the child begins to talk freely or has had the opportunity to form faulty habits of speech, which in most instances is between 18 months and 2 years of age.

Fortunately, in nearly every case of this deformity, sufficient tissues are present to permit their rearrangement and fabrication into a finished functioning unit. The nature of the operative program will of course depend upon the degree and type of defect, and the individual preference of the surgeon. Since it is his responsibility to create as near normal an anatomical and functional palate as possible, it is his duty to carry out the surgical procedures which in his experience have given the most satisfactory results. His ultimate aim should be preservation of a normal form to the palatal and dental arches, a flexible musculature, and a palate long enough to permit velopharyngeal closure.

Before beginning surgery it may be well for the surgeon to look ahead and consider his next immediate and very essential postsurgical responsibility and, if possible, to see the patient in consultation with the speech correctionist. A consultative examination by the surgeon and speech teacher prior to the operation permits each to have a better understanding of the other's perspective of the case and effects a more closely coordinated plan of treatment. Normal function may follow surgery, but until the child reaches the age when he talks freely, this cannot be definitely determined. Since normal speech is, unfortunately, seldom a postsurgical reality, a speech training program should

be planned early in every case. If preoperative speech consultation is not possible, it is the surgeon's responsibility to arrange one directly following surgery so that a program of active and passive exercises can be started and carried through until the age when the child can comprehend. Then specific speech training can be instituted. Regular surgeon-speech-teacher consultations should be maintained as long as speech training is necessary.

With the completion of the first dentition arises another responsibility of the surgeon, the dental problem. Dental care, of course, is the responsibility of the dentist. It is, however, the obligation of the surgeon to see that dental care is carried out at the right time and in the right manner. This can be accomplished more effectively when the surgeon has a complete understanding of the existing operative, orthodontic, and prosthetic needs and when he maintains the closest cooperation with the dental specialists.

Secondary operations are not infrequently necessary for residual deformities following an unsuccessful repair of a cleft of the palate. Secondary deformities are in many respects similar to acquired defects and their surgical repair should be considered in the light of an old healed injury.

Small perforations of the hard palate may in some cases be repaired by interpolated flaps of adjacent tissue or the transposition of an extraoral graft. In defects with considerable tissue loss, especially when they involve the soft palate, the advantages of prosthetic assistance should be given just consideration. The surgeon should always keep uppermost in his mind the surgical limitations in many of these cases and should not permit his good judgment to be overbalanced by his enthusiasm and desire to repair by surgery alone. When a prosthesis is indicated for the correction of a defect, either congenital or acquired, he should have a complete understanding of the existing prosthetic problem. By the same token, the prosthodontist should understand not only the involved technical problem but also the surgical, anatomical, and physiological aspects of the case.

A complete study and timely correction of associated secondary facial deformities is another responsibility of the surgeon. Facial disfigurements are occasionally seen following surgical correction of cleft lip and cleft palate deformities, especially the bilateral types. These unfortunate individuals are often as conscious of their abnormal appearance as they are of a major speech defect, and it is of utmost importance that, if possible, normal facial contour be restored in order to avoid the possible added handicap of a psychoneurosis.

The complete care of patients with palatal and related defects carries with it many responsibilities. The greatest responsibility rests with the surgeon who must formulate and organize a plan of treatment and direct its execution. If, under his direction, the highest degree of coordinated and cooperative performance is attained by all those who play a part in this program, the future social and economic welfare of most of these patients will be secured.