Voice training after operation for cleft palate / by Cortlandt MacMahon.

VOICE TRAINING

AFTER

OPERATION FOR CLEFT PALATE

BY

CORTLANDT MACMAHON, B.A. (OXON.)

INSTRUCTOR FOR SPEECH DEFECTS AT ST. BARTHOLOMEW'S HOSPITAL
AND ETON COLLEGE

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'The training of the voice after operation for cleft palate is a matter of very great importance, as so much can be done to remedy the imperfections in the voice, thereby adding very materially to the comfort of the patient and of those with whom he or she is brought into contact. The extent of the defect in the speech varies naturally with the extent of the abnormality, and where hare-lip is added to a cleft of both hard and soft palates there is, of course, additional vocal trouble to be remedied.

'Voice being caused by air vibrating in the various vocal resonating chambers of the body, which comprise the chest, pharynx, larynx, the mouth, the nasal cavities, and the other cavities of the head, it is at once apparent that, if the two very important resonators formed by the mouth and nasal cavities are impaired, there will be very serious interference with its quality. Whether the cleft includes both the hard and the soft palates or is confined only to the soft palate, the speech is certain to suffer to

a more or less serious degree, as the soft palate, when intact, has the enormously important function to perform of directing the ascending air column during vocalisation in proper proportions into the mouth and nasal cavities. Before the cleft is repaired the air column finds its way into the nasal cavities in undue proportions, thereby helping to make speech generally very indistinct. The tongue, also, owing to the cleft, is unable to accomplish what is required of it in the production of the linguo-palatal consonants. When, however, the cleft has been repaired by operation early in life, the soft palate and the tongue can be trained to perform their functions in a manner very nearly approaching the normal. The orbicular muscle of the mouth, after operation for hare-lip, requires careful training so that the tension necessarily following the operation is relieved and the lips made mobile and elastic by means of exercises, and especially by use of the "oo" sound, for which the lips are protruded as far as possible. One cannot over-emphasise the enormous importance of free lip-movement whenever the voice is used.

'The nature of the instruction given to the individual must vary somewhat in accordance with the time of life when the operation was performed. If the patient has been operated upon in early infancy or before speech has been established, one can expect more perfect involuntary natural movement in the levator muscles of the soft palate than would be the case if the operation had not been performed until speech had existed for a considerable period. In the latter case, instead of leaving the muscles to act involuntarily, one will generally have to teach the patient to contract the sterno-thyroid and the sterno-hyoid muscles continually during vocalisation and

so cause a descent of the larynx and of the muscles forming the floor of the mouth, which movement will compensate for the inefficient working of the soft palate and will enable the air column to be directed more on to the lips, and so largely made to escape the nasal cavities. In all cases, whether the muscles are deliberately contracted or left to act involuntarily, a deeper pitch of voice will be found very helpful in acquiring the requisite apportionment of the air column.

'The first instruction should consist in teaching the patient to breathe properly and to produce, as perfectly as possible, the main vowel sounds: "oo," "oh," "aw," "ah," "a," and "ee," each of which has its own shape at the lips, its tongue position, and its space between the teeth. When the word "resonator" is made use of in connection with one of the main vowel sounds, as when, for instance, the "EE" resonator is spoken of, one is referring to the whole conformation brought about by the setting of the lips, tongue, and jaw for that particular sound. The main vowel sounds and positions are made use of either alone, in combination, or subordinately whenever speech occurs. When these sounds have been learnt, the chief consonants—and especially those which one knows from experience are a source of considerable difficulty—should be put in front of the main vowels and practised assiduously until they are produced with clearness and ease.

'The most difficult consonants are G and K, whatever the nature of the cleft. If the cleft has been through both palates, one will find serious difficulty with the D and T—in fact, in the early stages of training one frequently finds D, G, K, and T entirely missing. If there is also hare-lip one naturally finds trouble with the labials P and B. All words containing subordinate vowels on

the "EE" resonator—such as "British," "little," "singing," and words beginning with "s," when joined to another consonant as in "ship," "stoop," and "speak" —will be a cause of considerable trouble before improvement is attained.

'As the training progresses the main vowels, when used in combination in various words as, for instance, "ah" and "oo" in "town," "aw" and "ee" in "boy," "oh" and "oo" in "boat," must be given their definite positions, and words containing subordinate vowels, as previously instanced, must have their main vowel position recognised and correctly shaped for. By so doing overtones and harmonics will occur in the vocal resonators and the voice will, in consequence, have a much improved quality.

'The voice-training of cleft palate cases after operation is extremely interesting and differs considerably from that of every other form of speech defect. The treatment of the air column is a very difficult matter until the patient learns how to manipulate it with skill; sometimes it must be full and powerful, and at other times it will have to be light and rapidly dealt with. It is remarkable how cleverly, in most cases, the patient learns what is necessary for improvement in the voice. When the required knowledge is combined with regularity in carrying out daily, physical, breathing and vocal exercises one may, within a reasonable time, expect the voice, in less severe cases, to become very nearly normal and the cleft to be unsuspected, but in all cases one can certainly anticipate a very definite improvement both in the quality of the voice and in clearness of enunciation.'

13 Wimpole Street, W.