THE ARTIFICIAL LARYNX

By JOYCE MITCHELL (Sunderland)

THE Western Electric Artificial Larynx is now available for supply throughout the Hospital Service (Ministry of Health Hospital Equipment Information Leaflet no. 16, April 1966) and is intended to bridge the gap between a patient's loss of voice and the acquisition of pseudo-voice following laryngectomy or pharyngo-laryngectomy. It is assumed that the artificial larynx "will be required for longer periods by those who are unable to learn an alternative method of speech".

It might be advisable to recapitulate some of the reasons for prescribing the artificial larynx and these are fully described by Margaret Greene (1964) in *Voice and its Disorders*. Among those patients who may find acceptable pseudo-voice difficult to acquire are the old or the debilitated and those persons with a chronic chest condition, resulting in poor breath control. There are patients who have received prior to the operation a course of irradiation which may temporarily affect the adjacent tissues in such a way that mobility of neck and head is impaired, a pre-requisite for successful pseudo-voice, or there is a resulting oedema.

One elderly patient in my experience had continued difficulty in injecting air into the oesophagus because of his inability to relax the crico-pharyngeal sphincter voluntarily. Following on the lines of Damsté (1958), this patient was encouraged to pass a rubber catheter (bougies) down the oesophagus daily and this he has continued to do since his operation 5 years ago. His pseudo-voice is variable and there are added complications in his history of chronic bronchitis and in his deafness. This patient has made an adjustment to his communication problems and is now an active member of several social clubs. Five years ago an artificial larynx would have been invaluable to him.

There are patients whose "readiness" to acquire pseudo-voice may not be fully in accord with their physical recovery (Fontaine and Mitchell, 1960). There may be psychological reasons for their slow progress, taking origin in the patient's previous history, or the patient may not utilize his vocal skills for aesthetic reasons. This tends to be more common among women who dislike the quality of their acquired voice.

It is accepted that the acquisition of good pseudo-voice is the aim of both surgeon and speech therapist following the operation for laryngectomy. Where there are difficulties in rehabilitation, the use of an artificial aid can now be considered, if only for a short period. Sometimes it is suspected that the acquiring of oesophageal voice becomes a principle to be upheld at all costs and this does not act necessarily in favour of the patient's welfare. A recent example in my clinical practice has brought this point home very forcibly.

A 42-year old man had a total laryngectomy 2 years ago. This was followed by a prolonged period of emotional disturbance which affected his relations

https://doi.org/10.1017/S0022215100067876 Published online by Cambridge University Press

with his wife, family, and colleagues at work. Various social agencies were involved in supporting this patient and his family and he received speech therapy regularly. He had little incentive to use a pseudo-voice as he was a steel-worker in noisy surroundings and he was given little encouragement at home. There was no apparent physical reason to account for the slow utilization of his newly learned skill.

Due to the timely co-operation of the Medical Social Worker at the Sunderland Royal Infirmary, a Western Electric Artificial Larynx was procured for this patient prior to its release under the N.H.S. This "aid" has been used continuously for several months with efficiency and to some effect. The patient has been interviewed by the Ministry of Labour for admission to an I.R.U. with a view to being trained for a skilled job: he finds that the "aid" is accepted by his colleagues at work but its real value to him was expressed in a few words to me. "At last I'm master in my own house again."

Received by the editor August 1966.

BIBLIOGRAPHY

DAMSTÉ, P. H. (1958) *Oesophageal speech after laryngectomy*, Groningen.
FONTAINE, A., and MITCHELL, J. (1960) *J. Laryng.*, **74**, 870.
GREENE, M. C. L. (1964) *The voice and its disorders*, 2nd edition, London.

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https://doi.org/10.1017/S0022215100067876 Published online by Cambridge University Press