

A SUCCESSFULLY TREATED CASE OF DYSPHONIA ASSOCIATED WITH BILATERAL INTERARYTENOID PARALYSIS

SHYAMALA DHARMARAJ

The following case is reported for two reasons : (1) It is offered as an illustration of how a client with serious organic voice impairment was able to achieve extraordinary vocal rehabilitation through the development and improvement of overall voice and speech skills; (2) Typhoid which seems to be the etiological factor in this case has not been reported in any of the standard text-books to cause a voice problem. (Greene 1966; Luchsinger and Arnold 1967; Van Riper and Irwin 1958; Murphy 1964; West and Ansberry 1968; Berry and Eisenson 1962).

Mr N., 24 years of age reported to the clinic on 3-11-1966 with a voice problem. Case history disclosed that the case had two attacks of typhoid at the ages of 21 and 22 respectively; during the second attack he had high temperature, following which, it was discovered that the patient could not speak aloud and that his pitch had also changed.

The E.N.T. findings revealed that the case had a bilateral interarytenoid paralysis of the posterior one-third of the vocal cords; a clear bowing of the cords were observed. The voice on examination was found to be tense, breathy, high-pitched, and lacking in intensity and flexibility. The muscles of the neck were tense during phonation. Respiration was found to be normal. Psychological test findings suggested negligible degree of neuroticism and a considerable amount of extraversion on the Maundslay Personality Inventory (Hindi Version); and by clinical impression he appeared to be above average in intelligence.

Therapy for voice was started in November 1966 with the following objectives: (1) Lower the pitch, (2) Increase the intensity, and (3) Improve the flexibility of voice.

The mechanism involved in the production of voice and the factors responsible for variation in pitch, intensity, quality and flexibility of voice were explained to the case.

He was next asked to vary his pitch which he did easily; an optimum pitch was located. The criterion for optimum pitch being the voice produced with the least effort, with the greatest amplification and aesthetically most pleasing both to the speaker and the listener.

Once the optimum pitch was identified, he was taught to change his habitual pitch and to find the new pitch level (Optimum pitch); this pitch was stabilized by verbal reinforcement in different situations. The intensity increased once the

Miss Shyamala Dharmaraj is Lecturer in Speech Pathology at the A.I.I.S.H.

optimum pitch was established. It was also noticed at this time that the tension in the muscles of the neck had ceased to exist.

This was achieved in four therapy sessions of 45 minutes each; the case discontinued therapy after four sessions for personal reasons; he was advised to return to the clinic to continue therapy for intonation. When the case returned a month later, he had maintained his good voice, although it was lacking in intonation. Seven therapy sessions of 45 minutes each were devoted to bringing about a good intonation pattern; the techniques used for this purpose were: (1) varying his pitch within the pitch range (2) imitating the clinician's voice (3) and intoning an inflection pattern with the clinicians' help and then to follow the pattern without any help. He achieved all this with little effort which resulted in good flexibility of the voice.

He was discharged with the advise to return after 3 months for review. His voice at the time of discharge in December 1966 had no breathiness; intensity and flexibility were both normal. The patient however, could voluntarily produce his high-pitched voice and used it to amuse children.

He has been followed up several times with the interval of three months each. The last time we saw the case was a month ago and he had been using his new voice for the past three years with no problem. He has also been practicing to sing. The recent E.N.T. finding indicates that the paralysis still persists, apparently the normal voice production being due to compensatory mechanism.

REFERENCES

- Berry, M. F. and Eisenson, J. (1962) *Speech Disorders, Principles and Practices*. London: Peter Owen.
- Greene, M. (1966) *The Voice and its Disorders*. London: Pitman.
- Luchsinger, R. and Arnold, G. E. (1967) *Voice-Speech-Language*. Belmont: Wadsworth.
- Murphy, T. A. (1964) *Functional Voice Disorders*. Engle-Wood Cliffs: Prentice-Hall.
- Travis, L. E. (1963) *Handbook of Speech Pathology*. London: Peter Owen.
- Van Riper, C. and Irwin, J. V. (1968) *Voice and Articulation*. Engle-Wood Cliffs: Prentice-Hall.
- West, R. W. and Ansberry, M. (1968) *The Rehabilitation of Speech*. New York: Harper & Row.