PROSPECTIVE STUDY OF VOICE THERAPY EFFECTIVENESS IN PATIENTS WITH DYSPHONIA: CASE SERIES

Author: Alise Adoviča

Scientific research supervisors: MD Dins Sumerags, BD Māra Lokenbaha

1 Rīga Stradiņš University, Latvia
2 P. Stradins Clinical University Hospital, Latvia

Keywords. Dysphonia, voice therapy, speech therapist.

Introduction. Dysphonia term is used for voice disorder characterized by altered vocal quality, pitch, loudness, or vocal effort that impairs communication or reduces voice-related quality of life (QoL). Depending on primary diagnosis patients have recommendations for further therapy: operation, passive physiotherapy or voice therapy (guided by speech therapist).

Description. The aim of this study was to evaluate the effectiveness of voice therapy in patients, who used only this method in P. Stradins Clinical University Hospital in year 2015. 5 patients with different diagnosis were observed. Objective and subjective evaluations of patients were made before and after therapy. Patients’ voice was analysed by Inventis program Daisy: jitter (Jt), shimmer (Sh), fundamental frequency (F0), harmonics to noise ratio (HNR), spectrography, phonetogram. Maximum phonation time (MPT) was measured and patients were asked to fill voice handicap index (VHI) questionnaire. Afterwards dysphonia severity index (DSI) was calculated. Additionally, voice was evaluated with GRBAS (grade, roughness, breathiness, asthenia, strain) score by patient and researcher.

In all patients Jt, Sh and F0, HNR parameters has improved after therapy. In 2 patients HNR has reached normal findings (> 7.4 dB). 2 patients had normal MPT before therapy, however, one of them managed to improve it (15.17 sec to 15.52 sec). One patient has improved it significantly; from abnormal level (9.04 sec) to normal (21.59 sec). DSI value for normal voice equals +5, for severe dysphonia -5, but it can be more negative in serious cases. 4 of 5 patients had improvement of DSI after the therapy. The best result was from -10.79 to -4.0 in patient with hypofunctional dysphonia. In 4 cases VHI score was raised by self-assessment, major point difference was 37 (VHI score can variate 0 to 116). Value of GRBAS score was mostly different in view of patient and researcher.

Conclusions. This case study confirms that voice therapy could be effective also as a single therapeutic method in patients with dysphonia. Despite small number of patients objective and subjective values demonstrate improvement in voice disorders. It is reasonable to include voice therapy in the therapeutic strategy. As patients are actively involved in the process of treatment, collaboration and motivation is essential.

Summary. Dysphonia is voice disorder that can reduce QoL. Patients can choose voice therapy as one of the treatment method but they have to be aware that active collaboration is essential. This case study confirms that voice therapy can improve patients’ objective and subjective values also as a single therapeutic method.