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BACKGROUND

Multiple Sclerosis (MS) is a demyelinating, degenerative, chronic and uncertain course with a variation in the involvement of the central nervous system and potential for the propagation of speech disorders. Approximately 40-70% of people with MS develop dysarthria over the course of the disease. In most of these individuals, the dysarthria is of the mixed type with spastic and ataxic components.

OBJECTIVE

To establish a comparison between the perception of groups of people with MS in the impact of dysarthria on quality of life.

METHODS

Twenty individuals with dysarthria due to MS were divided into two groups. Group 1: people with mild dysarthria (10 individuals) and Group 2: with moderate dysarthria (10 individuals). The individuals aged from 27 to 55 years and Expanded Disability Status Scale (EDSS) between 2.5 and 7.5. All the participants underwent vocal assessment, perceptual and acoustic analysis, based on "Dysarthria Assessment Protocol" and the analysis of impact of dysarthria using questionnaire "Living with Dysarthria" (LwD). The data underwent statistical analysis to compare the groups in each parameter (Mann-Whitney Test) and correlations (Spearman's Coefficient): p-value (<0.05).

RESULTS

In the assessment of dysarthria, individuals in Group 1 showed differences in intensity range (p=0.015). Maximum phonation time (p=0.010), breathing (p=0.018), phonation (p=0.048), resonance (p=0.026), articulation (p=0.020), prosody (p=0.028), and dysarthria degree (p=0.012). There was no correlation between the total score for dysarthria, EDSS, disease duration, and age. There was a correlation between dysarthria and quality of life.

Comparison of means of the ten sections and total score of the Living with Dysarthria protocol:

LwD	Group 1	Group 2	p-value
1. Communication problems related primarily to speech	9.1	10.2	=0.328
2. Communication problems related primarily to language/cognition	14.5	14.1	=0.215
3. Communication problems related primarily to fatigue	13.2	13.8	=0.189
4. Effects of emotions	10.8	11.0	=0.302
5. Effects of different persons	8.5	8.4	=0.206
6. Effects of different situations	9.4	9.8	=0.240
7. My difficulties in communicating affect my possibilities to ...	10.2	9.9	=0.262
8. What do you think contributes to the changes in the way you communicate?	10.0	10.3	=0.304
9. How altered is my communication?	10.5	10.7	=0.215
10. How do you perceive changes and the possibility to alter your way of speaking?	11.2	11.8	=0.253

CONCLUSIONS

Self-assessment of voice, speech and communication does not necessarily reflect the severity of dysarthria, indicating that systematic protocols are necessary to help the identification of problems of that need to be addresses in the intervention, as well as the individualized rehabilitation planning.

- 1) Wannberg P, Schalling E, Hartelius L. Perceptual assessment of dysarthria: comparison of a general and a detailed assessment protocol. *Logoped Phoniatr Vocol* 2016;41(4):159-67.
- 2) Hartelius L, Elmberg M, Holm R, Löfberg AS, Nikolaidis S. Living with Dysarthria: Evaluation of a Self-Report Questionnaire. *Folia Phoniatr Logop*. 2008;60(1):11-9.