

Rehabilitation influence on quality of life in neurological patients

Abstract:

This work focuses on neurorehabilitation procedures that influence disability and improve the quality of life of neurological patients, especially those with multiple sclerosis (MS). We identified several positive effects of a complex physiotherapy program based on optimal postural stabilization training, intra-abdominal pressure regulation, and pelvic floor activation with biofeedback on anorectal dysfunction in MS patients. Fecal incontinence and subjective discomfort measured by St. Mark's Incontinence Score Questionnaire significantly decreased after the rehabilitation program with a physiotherapist. Changes in anorectal pressures after the rehabilitation program were not statistically significant, but a positive trend was found in the ability to activate the anal sphincter and pelvic floor muscles. The MS patients also regularly performed Pilates exercises. Significant improvements in gait speed and endurance, even during dual tasking situations, i.e. when walking and performing cognitive tasks were identified. Pilates exercise also significantly improved balance measured by the MiniBEST test and by the Falls Efficacy Scale International Questionnaire. The immediate effect of electrical stimulation according to Jantsch confirmed a reduction in spasticity of the triceps surae muscle and increased activity of the tibialis anterior muscle. A positive trend towards reduced spasticity with repeated electrical stimulation was noted, but no significant effect of rehabilitation with electrostimulation on gait speed was confirmed. The MS patients' compliance with the recommended application of the RebiSmart autoinjector was also confirmed. In addition a specific User Study Questionnaire was identified as a suitable method to determine patient satisfaction, application compliance and to identify problematic aspects of the application. A consensus among experts has been reached through collaboration within the international working group "Study Group Clinical Assessment Schedule" for the implementation of the International Classification of Functioning, Disability and Health (ICF) in the health care system in the EU countries, and with the subsequent development of recommendations for health care providers and administrators of health care services to improve the quality of rehabilitation care provided in Europe.

Key words: neurorehabilitation, multiple sclerosis, anorectal dysfunction, balance disorders, gait disorders, quality of life, multidisciplinary team, International Classification of Functioning, Disability and Health (ICF)