Objective: The purpose of the study was to investigate the effects of fatigue on cognitive, physical, and psychosocial functioning and quality of life in patients with MS.

Material and methods: Thirty eight patients with MS with mild to moderate disability (EDSS: 1.76 ± 1.24 , Age: 38.37 ± 10.81 years) were included the study. Their fatigue severity was assessed using the self-report Fatigue Severity Scale (FSS), the perceived impact of fatigue on cognitive, physical, and psychosocial functioning were evaluated by Fatigue Impact Scale (FIS) and health related quality of life was assessed using the Multiple Sclerosis Quality of Life-54 (MSQOL-54) Instrument. **Results:** Correlation analysis showed a significant relationship between FSS and cognitive, physical, psychosocial functioning ($r = 0.55/0.72/0.66$ respectively; $p < 0.001$) and physical and mental dimensions of MSQOL-54 ($r = -0.73, -0.70$ respectively, $p < 0.001$).

Conclusion: These results showed that fatigue severity significantly affect functioning and health related quality of life, especially physical dimension of functioning and health related quality of life. Although our patients didn't have significant disability, fatigue was important factor at their functions and quality of life. So this results showed us that it is even more important to teach how to save energy and handle fatigue as well as possible in patients with MS.

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1205

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Neurorehabilitation

Effects of transcranial direct current stimulation on naming tasks in aphasic subjects after stroke

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Introduction: Aphasia is a language disorder, characterized by impairment of both the comprehension and expression of oral and written language, in different linguistic levels. The transcranial direct current (tDCS) stimulation shows to be a safe neurophysiological, easily applicable and non-invasive technique for aphasia treatment.

Objective: To compare the Boston and Snodgrass naming tasks results in aphasic subjects divided in active and sham groups in which tDCS was applied.

Methods: A double-blind randomized-controlled study with 14 non-fluent aphasic subjects. Patients had 5 sessions of 20 minutes and 2 mA in consecutive days. The area stimulated with the cathode was homologous to Broca's area in the right hemisphere (area F8 of system 10-20). The anode was placed in the supraorbital region of the left hemisphere. For sham group the stimulator was turned on for only 20 seconds to mimic the stimulation effect. The Boston and the Snodgrass naming task were assessed (before, immediately after and 30 days after the tDCS) and the results compared between the groups before and after stimulation.

Results: Data confirmed a positive tendency related to correct answer mean time for the Snodgrass Test and that the Boston test indicated significance from the post moment to reassessment for the active group in this test.

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1206

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Neurorehabilitation

The impact of botulinum toxin type A treatment on a patient with lingual dystonia: case report

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Background: Lingual dystonia is characterized by involuntary contractions of the tongue, activated by speech and eating, causing the tongue to push the food out of the mouth. Botulinum Toxin Type A (BoNT-A) injections are considered an effective treatment, as it induces the reduction of the spasms.

Objective: To describe the safety and efficacy of BoNT-A in a patient with lingual dystonia in relation to the aspects of speech and swallowing.

Method: The patient was submitted to swallowing and speech evaluation before and after the treatment. The choice of the superior longitudinal muscle and transverse muscle of the tongue occurred due to the kind of movement presented and to avoid side effects that could worsen the symptoms.

Results: Before the treatment, there was moderate dysphagia with laryngeal penetration and oral phase disturbances, and prejudice of speech. One week after the BoNT-A injections, there was local swelling and speech and swallowing worsening. After two weeks, there was improvement of the symptoms and the videofluoroscopy showed moderate dysphagia with laryngeal penetration without aspiration and better oral control. In speech, there was increased voluntary control of the tongue movement with improvement in resonance and articulation. The stabilization of the blocked muscles lasted a higher period than expected with significant impact on patient's quality of life.

Conclusion: Treatment with BoNT-A injections in the intrinsic muscles of the tongue can be an option for lingual dystonia, bringing benefits as for the movement control as for the aspects of speech and swallowing.

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1207

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Neurorehabilitation

Efficacy of a computer-assisted neuropsychological training programme in cognitive performance of patients with relapsing remitting Multiple Sclerosis

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Background: To date, no effective pharmacological treatment for cognitive decline in MS has been established. Alternatively, initial evidence suggests that computer-assisted cognitive rehabilitation (CACR) may improve cognitive performance. Moreover, evidence from fMRI studies suggest that restorative training leads to compensatory changes in the brains of MS patients and increased functional connectivity.

Objective: To evaluate an intensive short-term (10 consecutive weeks) CACR program (www.Schuhfried.at) for retraining cognitive dysfunction in MS patients in Greece.

Patients and methods: Thirty five Relapsing-remitting patients with a mean EDSS = 3.90, SD = 1.10, who failed ≥ 2 cognitive tests on a flexible