

e-MS Experts' Summit Season 2020

Abstracts

The influence of physiotherapy intervention on patients with MS spasticity

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The EU-SPASM working group defines spasticity as a sensorimotor control disorder resulting from an upper motor neurone lesion, which presents as an intermittent or sustained involuntary activation of muscles.¹ A patient-level practical definition considers spasticity as an unusual tightening of muscles that feels like leg stiffness and results in the jumping of legs, a repetitive bouncing of the foot, muscle cramping in the legs or arms, and legs going out tight and straight or drawing up.²

Spasticity occurs in an estimated 80% of patients with MS, and although it may affect the upper extremities, it is more common in the lower extremities. There are several complications of spasticity in MS, such as contractures (spasms), declining mobility, pain, further bladder dysfunction, more fatigue/decreased endurance and falls. The variability of spasticity is very important; in one patient, spasticity may cause a stiff leg, while in another, it may make walking impossible. On the one hand, for many patients, the extra effort needed to move around contributes significantly to fatigue. On the other hand, spasticity can also compensate for muscle weakness, making it easier to stand, walk and move.

Spasticity management includes stretching positioning, strengthening (especially in opposing muscles) and correcting mobility. Relaxation techniques, such as yoga and tai chi, may also be beneficial. Hydrotherapy is also a very effective way to relax spastic limbs. Occupational therapists are experts in the modifications that make daily life with spasticity more comfortable and can enhance independence.

Effective medication management may require the use of two or more drugs or a combination of oral medications with another type of treatment. Intramuscular injections of botulinum toxin are effective in treating spasticity, especially when associated with early mobilisation and physical therapies. The presence of physiotherapy intervention was also the main predictor of effectiveness and persistence with nabiximols (delta-9-tetrahydrocannabinol [THC] plus cannabidiol [CBD] oromucosal spray) treatment.

References

1. Stevenson VL. *Clin Rehab* 2010; 24(4): 293–304.
2. Rizzo MA, Hadjimichael OC, Preiningerova J, et al. *Mult Scler* 2004; 10(5): 589–595.