Table des matières

spasticity

Spasticité : évaluation de l'acupuncture

1. Systematic Reviews and Meta-Analysis

1.1. Special Clinical Forms

1.1.1. Spasticity after Stroke

see corresponding item

1.1.2. Spasticity in Disorders of Consciousness

1.1.2.1. Martens 2017

Martens G, Laureys S, Thibaut A. Spasticity Management in Disorders of Consciousness. Brain Sci. 2017;7(12). [52083].

Background	Spasticity is a motor disorder frequently encountered after a lesion involving the central nervous system. It is hypothesized to arise from an anarchic reorganization of the pyramidal and parapyramidal fibers and leads to hypertonia and hyperreflexia of the affected muscular groups. While this symptom and its management is well-known in patients suffering from stroke, multiple sclerosis or spinal cord lesion, little is known regarding its appropriate management in patients presenting disorders of consciousness after brain damage.
Objectives	Our aim was to review the occurrence of spasticity in patients with disorders of consciousness and the therapeutic interventions used to treat it.
Methods	We conducted a systematic review using the PubMed online database. It returned 157 articles. After applying our inclusion criteria (i.e., studies about patients in coma, unresponsive wakefulness syndrome or minimally conscious state, with spasticity objectively reported as a primary or secondary outcome), 18 studies were fully reviewed.
Results	The prevalence of spasticity in patients with disorders of consciousness ranged from 59% to 89%. Current treatment options include intrathecal baclofen and soft splints. Several treatment options still need further investigation; including acupuncture, botulin toxin or cortical activation by thalamic stimulation.
Conclusion	The small number of articles available in the current literature highlights that spasticity is poorly studied in patients with disorders of consciousness although it is one of the most common motor disorders. While treatments such as intrathecal baclofen and soft splints seem effective, large randomized controlled trials have to be done and new therapeutic options should be explored.

2. Overviews of Systematic Reviews

2.1. Khan 2019 ☆☆

Khan F, Amatya B, Bensmail D, Yelnik A. Non-pharmacological interventions for spasticity in adults: An overview of systematic reviews. Ann Phys Rehabil Med. 2019;62(4):265-273. [205191]. DOI

Objectives	Spasticity causes significant long-term disability-burden, requiring comprehensive management. This review evaluates evidence from published systematic reviews of clinical trials for effectiveness of non-pharmacological interventions for improved spasticity outcomes.
Methods	Data sources: a literature search was conducted using medical and health science electronic (MEDLINE, EMBASE, CINAHL, PubMed, and the Cochrane Library) databases for published systematic reviews up to 15th June 2017. DATA EXTRACTION AND SYNTHESIS: two reviewers applied inclusion criteria to select potential systematic reviews, independently extracted data for methodological quality using Assessment of Multiple Systematic Reviews (AMSTAR). Quality of evidence was critically appraised with Grades of Recommendation, Assessment, Development and Evaluation (GRADE).
Results	Overall 18 systematic reviews were evaluated for evidence for a range of non-pharmacological interventions currently used in managing spasticity in various neurological conditions. **There is "moderate" evidence for electro-neuromuscular stimulation and acupuncture** as an adjunct therapy to conventional routine care (pharmacological and rehabilitation) in persons following stroke. "Low" quality evidence for rehabilitation programs targeting spasticity (such as induced movement therapy, stretching, dynamic elbow-splinting, occupational therapy) in stroke and other neurological conditions; extracorporeal shock-wave therapy in brain injury; transcranial direct current stimulation in stroke; transcranial magnetic stimulation and transcutaneous electrical nerve stimulation for other neurological conditions; physical activity programs and repetitive magnetic stimulation in persons with MS, vibration therapy for SCI and stretching for other neurological condition. For other interventions, evidence was inconclusive.
Conclusions	Despite the available range of non-pharmacological interventions for spasticity, there is lack of high-quality evidence for many modalities. Further research is needed to judge the effect with appropriate study designs, timing and intensity of modalities, and associate costs of these interventions.

3. Clinical Practice Guidelines

⊕ positive recommendation (regardless of the level of evidence reported)
Ø negative recommendation (or lack of evidence)

3.1. American Academy of Physical Medicine and Rehabilitation (AAPM&R, USA) 2024 ⊕

Verduzco-Gutierrez M, Raghavan P, Pruente J, Moon D, List CM, Hornyak JE, Gul F, Deshpande S, Biffl S, Al Lawati Z, Alfaro A. AAPM&R consensus guidance on spasticity assessment and management. PM R. 2024 Aug;16(8):864-887. https://doi.org/10.1002/pmrj.13211

Acupuncture, including electro-acupuncture. Moderate level evidence for electro-acupuncture combined with conventional routine care (pharmacological and rehabilitation) in reduction in upper-limb and lower-limb spasticity, improved overall motor function, activities of daily living. It is proposed that acupuncture works by decreasing the pain-spasm cycle, spinal motor neuron regulation, and neurochemical regulation, though exact mechanisms are not clear.