E-Poster

EP-292

The Multimodal Approach of Spasticity: A Framework for Clinical Practice

Topic: Complications/Sequelae (ie Spasticity, Immobilization and Frailty)

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BACKGROUND

Spasticity is complex due to its multifaceted nature, involving both neural and non-neural components and its understanding is still limited. From its original definition by Lance in 1980, definitions evolved to better reflect this complex condition's mechanisms. The complexity of spasticity requires a global understanding of its pathophysiology, clinical features, assessment methods, and a multimodal approach. Spasticity arises mainly from disruptions in upper motor neuron pathways leading to an imbalance between excitatory and inhibitory signals within the central nervous system, causing increased muscle tone and hyperreflexia. In addition, non-neural factors, such as muscle contractures and fibrosis, are major contributors to the severity of this condition. These complications accentuate muscle weakness, contractures, and stance, impacting daily activities. Effective management of spasticity involves detailed clinical and functional assessments from stroke diagnosis to long-term rehabilitation, tailored rehabilitation programs, and multimodal approach to maximize the beneficial effects.

METHODS

Aligning ongoing research with clinical practice experience, we created a framework to highlight the major need for precise diagnosis, evaluation, and management of spasticity considering how it impacts daily activities and participation of those affected individuals from the stroke diagnosis to the long-term continuum of care. We also discuss the need for a multimodal strategy approach, including pharmacological treatments, therapeutic modalities and interventions, and finally, innovative technologies such as robotic exoskeletons and virtual reality with and without immersion. We underscore how all interventions should be individualized to meet every`s patient needs to be able to improve overall functional outcomes. Finally, by integrating recent research on multimodal spasticity approach, we advocate for the dissemination of this strategy to enhance functional outcomes and improve quality of life by offering a framework for those treating spasticity on a daily basis.

RESULTS

A comprehensive framework integrating the multimodal approach of spasticity along with ongoing research and clinical innovations to maximize treatment effectiveness and patient-oriented care, are key factors to improved function and satisfying quality of life for individuals affected by spasticity.

CONCLUSION

Understanding the complexity of spasticity and targeting peripheral and central components through a multimodal strategy, leads to significant improvements in overall function and patient's quality of life. This strategy gathers recognition as active framework for post-stroke continuum of care through multimodal approach, highlighting its effectiveness in clinical practice.

Statement of Disclosures

None

Doi: 10.5606/archisprm.2026.EP- 292

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