

Methods: This was a cross-sectional observational study with a non-probabilistic convenience sample. Subjects included were those diagnosed with CM by a neurologist, on stable CM medication for at least three months, and without other associated headaches. Pain levels were assessed using the VAS, NPS, and the Migraine Disability Assessment Scale (MIDAS). Upon inclusion, participants were asked, "What is the intensity of your headache during a migraine attack?", which was quantified using the NPS. Next, the second part of the assessment was conducted, where the MIDAS and VAS were applied. Data were analyzed descriptively and inferentially using SPSS software, version 20. The Kolmogorov-Smirnov test was used to assess data normality; the Wilcoxon test was applied to compare NPS and VAS scores; and Spearman's correlation was used to evaluate the relationship between the variables and the MIDAS scale. A 95% confidence interval and a p-value < 0.05 were considered statistically significant.

Results: The sample comprised 80 women, with a mean age of 35.99 ± 2.17 years. The median NPS pain score was 10 (2.00), while the median VAS score was 8.35 (2.78). The MIDAS median score was 81.5 (88.75), indicating a significant functional impact of migraine. A statistically significant difference ($p < 0.05$) was observed in the comparison between the scales, with a positive correlation ($r_s = 0.27$; $p < 0.05$). The NPS showed a stronger correlation with the MIDAS scale ($r_s = 0.33$; $p < 0.01$) compared to the VAS ($r_s = 0.27$; $p < 0.05$), though both correlations were significant.

Conclusion: The NPS demonstrated a stronger correlation with pain-related functional impairment, suggesting it may be a more sensitive tool for this purpose.

Implications: The stronger correlation between the NPS and MIDAS suggests that the NPS may be more effective in monitoring the impact of pain on patients' functionality, aiding in therapeutic decision-making. Further studies are needed to confirm these findings and expand the understanding of the clinical applicability of pain assessment scales.

Keywords: Pain scales, Chronic migraine, Functional disability

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PASSIVE MOBILIZATION PERFORMED BY AN AUTOMATED KINESIOTHERAPY DEVICE: IMMEDIATE EFFECTS OF ON GAIT BIOMECHANICS IN HEMIPARETIC PATIENTS

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Background: Brain injuries refer to damage in cerebral structures, either vascular or traumatic in origin, leading to impairments in postural, balance, and muscle tone. These manifestations result in significant movement limitations, thus affecting daily activities and increasing the risk of falls, pain, and discomfort. Passive mobilization is a therapeutic approach that can influence joint range of motion and the properties of muscle and connective tissues. Automated devices enable passive movement repetition with greater intensity, reproducibility, and specificity while also reducing the physical strain on physical therapists. However, studies assessing the effects of this intervention on the lower limbs of spastic and hemiparetic patients remain scarce.

Objectives: This study evaluated the immediate effects of passive mobilization performed with a kinesiotherapy device on spatiotemporal gait parameters in hemiparetic patients.

Methods: This clinical trial included 18 hemiparetic patients diagnosed with brain injury. We performed gait assessment using an Inertial Measurement Unit (IMU) with an accelerometer and gyroscope and evaluated discomfort using the Visual Analog Scale (VAS). The intervention protocol involved passive kinesiotherapy using an automated device for 30 minutes, with all tests applied pre- and post-intervention.

Results: The intervention improved cadence, symmetry, step length, and propulsion for both the affected and unaffected hemibody, with a significant increase in walking speed ($p = 0.02$). Step length of both the affected and unaffected limbs, as well as propulsion of the affected limb, showed a moderate effect size.

Conclusion: The results of this study demonstrate that passive mobilization using an automated kinesiotherapy device has immediate effects on gait biomechanics in hemiparetic patients. It is well established that muscle joint complex function depends on the integrity of the mechanical components of the tissue, and the passive kinesiotherapy device protocol suggests that passive mobilization positively impacts components related to muscle-joint integrity.

Implications: These findings represent a new perspective on applying automated passive mobilization to complement conventional physiotherapy in neurological rehabilitation. An important point to highlight is that the device is intended for home use and does not replace physiotherapy but should be considered a complementary treatment. This approach can maximize gains and minimize losses, optimizing rehabilitation goals based on the ICF framework, as patients can continue guided rehabilitation at home.

Keywords: brain injury, muscle spasticity, gait, hemiparesis, continuous passive motion therapy

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ASSOCIATION BETWEEN ABDOMINAL PERFORMANCE AND BICEPS BRACHII ACTIVATION RANGE DURING FOUR IRRADIATION MANEUVERS: A CROSS-SECTIONAL STUDY

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Background: Proprioceptive Neuromuscular Facilitation (PNF) is a therapeutic approach with principles and procedures used to promote motor rehabilitation. One of the principles of PNF is motor irradiation, in which the application of resistance to a stronger body segment promotes muscle contraction in another weaker limb. This is useful in motor recovery when voluntary contraction is not possible, such as in cases of paralysis of a segment. Abdominal strength is fundamental to the effectiveness of various training and rehabilitation techniques. But, in clinical practice, it is commonly observed that people with greater abdominal strength produce weaker contractions in target muscle during the application of irradiation maneuvers.

Objectives: To investigate the relationship between abdominal strength and the amplitude of activation of the biceps brachii