

Neurofunctional physical therapy protocol in patients with associated myelopathy to HTLV-1 (HAM).

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Introduction:

HTLV-1-associated myelopathy (HAM) has a negative impact on mobility, interfering with quality of life. The aim of this study was to propose and to evaluate a physiotherapeutic neurofunctional rehabilitation protocol with a focus on reducing the local inflammatory response in patients with HAM.

Methods:

This is a single-arm, phase one clinical trial, which studies the response to physiotherapy intervention using cryotherapy and reduction in the number of sets and repetitions. The protocol consisted of one physiotherapy rehabilitation session per week, for eight consecutive weeks. The session consisted of 20 minutes of cryotherapy and 40 minutes of exercises, totaling one hour of intervention. Two series of 5 repetitions of exercises to strengthen the abdominal muscles and legs were applied, in addition to training the motor learning in the function and the specific complaint of the patient. The exercises were supervised and guided by the same physiotherapist who interrupted the exercises in case of fatigue, if necessary. Before and at the end of the intervention, participants were asked to assess pain (analog pain scale), muscle strength (muscle strength rating scale), muscle fatigue (BORG scale), spasticity (ASHWORTH scale), motor incapacity (Osame Motor Disability Score - ODMS) and quality of life (WHOQOL-bref). Static balance (Romberg), urinary symptoms and intestinal habits were also assessed.

Results:

The physiotherapy protocol was completed by 14 individuals with HAM. Pain decreased in all patients; 11 patients did not report pain at the end of the intervention ($p = 0.001$). There was an improvement in muscle strength ($p = 0.001$), intestinal habit ($p = 0.001$), spasticity ($p = 0.008$), mobility ($p = 0.002$) and, consequently, in quality of life ($p = 0.010$).

Conclusion:

A protocol that focuses on not increasing inflammation, using cryotherapy and avoiding fatigue, improved muscle performance and reduced pain in HAM. This generated a gain in functionality and an improvement in the quality of life of these individuals.

Disclosure of Interest Statement:

Nothing to disclose.