

Upper Limb Neurodynamic Test 1 in patients with Acquired Brain Injury: a cross-sectional study

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Introduction: Neurodynamic intervention is used in the treatment of patients with Acquired Brain Injury as a method to inhibit the spasticity or reduce the sensory impairment. **Purpose of the study:** Assess and compare bilateral median nerve mechanosensitivity and its relationship with physical and functional status in patients with hemiparesis or upper limb paresis after ABI. **Materials and Methods:** Volunteer Patients from the Brain Injury Rehabilitation Unit of the Hospital Universitario Central de Asturias were evaluated for six months. Taking into account inclusion and exclusion criteria, from the 98 original patients having treatment in the Unit included, only 32 were admitted to the final study. The assessment protocol incorporated as main outcomes: bilateral mechanosensitivity of the median nerve (sensory responses, structural differentiation and maximum range of movement in Upper Limb Neurodynamic Test 1) and as secondary outcomes: hypertonia, sensory impairment, upper limb motor function and Activities of Daily Living performance. **Results:** Significant differences were found when comparing the bilateral maximum range of movement in Upper Limb Neurodynamic Test 1. No relationship was found between the results of the neurodynamic test of the affected upper limb and the secondary outcomes. **Conclusions:** Mechanosensitivity disturbance observed in the affected upper limb may benefit from neurodynamic treatment. © 2019, © 2019 Taylor & Francis Group, LLC.

brain injury

neural mobilization

neural tension

Neurodynamics

neuromobilization

stroke

Upper Limb Neurodynamic Test 1 (ULNT1)

acquired brain injury

adult

Article

cross-sectional study

daily life activity

female

functional status

hemiparesis

hospital admission

human

major clinical study

male

median nerve

middle aged

motor performance

muscle hypertonia

neurologic examination

observational study

outcome assessment

paresis

upper limb neurodynamic test 1

upper limb paresis

aged

brain injury

complication

devices

innervation

neurologic examination

pathophysiology

physiology

procedures

upper limb

Activities of Daily Living

Aged

Brain Injuries

Cross-Sectional Studies

Female

Humans

Male

Median Nerve

Middle Aged

Neurologic Examination

Upper Extremity