



Service Priorities and Programmes
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Can acupuncture benefit putaminal hemorrhagic stroke patients? A randomized controlled clinical trial.

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Introduction

Acupuncture is a low-risk treatment with purported claims of effectiveness for poststroke rehabilitation. Poor study quality hinders the strength of previous studies to support acupuncture as a routine clinical practice. Moreover, most of the reported studies focus on ischemic stroke patients. In daily neurosurgical encounter, putaminal hemorrhagic stroke patients have a significantly worse functional and neurological prognosis than ischemic stroke patients.

Objectives

We hypothesize that acupuncture can improve functional outcome of putaminal hemorrhagic stroke patients by improving the neurological outcome.

Methodology

Study design: Randomized controlled clinical trial (ClinicalTrial.gov: NCT01037894).

Study population: Putaminal hemorrhagic stroke patients who are hemiplegic and can cooperate with acupuncture treatment. Study intervention: Acupuncture treatment for six weeks versus placebo. All patients received intensive inpatient rehabilitation.

Study outcome: Functional (primary) outcome is measured by Functional Independent Measure (FIM); Neurological (secondary) outcomes include by Fugl-Meyers Scale (FMS), Modified Functional Ambulation Category (MFAC), Modified Rivermead Mobility Index (MRMI), Glasgow Outcome Scale Extended (GOSE), Neurocognitive State Examination (NCSE), and Short Form-36.

Result

Twenty-nine eligible patients were randomized and completed all assessments. Acupuncture and placebo groups have similar baseline FIM scores ($p=0.337$). At both weeks 3 and 6 assessments, the FIM scores are significantly higher among acupuncture group (week 3: 51 ± 19 vs 68 ± 20 , $p=0.027$; week 6: 59 ± 20 vs 80 ± 23 , $p=0.017$). There is significant improvement of FMS of both upper and lower limbs at week 6. In conclusions, acupuncture, in addition to intensive inpatient rehabilitation, improves functional and neurological outcomes of putaminal hemorrhagic stroke

patients.