Clinical Trial Protocol
Iranian Registry of Clinical Trials

27 Jul 2026

The effect of proprioceptive neuromuscular facilitation on muscle strength and activities of daily living of client with cerebrovascular accident .

Protocol summary

Summary

Title: The effect of proprioceptive neuromuscular facilitation on muscle strength and activities of daily living of client with cerebrovascular accident .
Objectives: Stroke is a common disorder of the nervous system as a big reason is failure. This disease is unpredictable and devastating effects on the lives of patients lining is a change in their lifestyle And satisfaction and quality of life that impressed. Thus, according to the different aspects of stroke patients and its impact on the lives, personal and social functioning in these patients, finding ways to improve and reduce the disabilities these people to be effective, especially in ways that do not require special tools and by everyone and in every where possible, can help reduce the consequences of disease. Thus, the aim of this study was to examine the effects of proprioceptive neuromuscular facilitation on muscle strength and activities of daily living of stroke patients admitted to hospital yasouj martyr beheshti is done. Study Design: This study is a interventional and clinical trial study.The study population for this study, 60 patients with stroke admitted to shahid beheshti hospital yasouj that 4 months to 2 years of disorder had been formed. Inclusion criteria: Over 4 months to 2 years of stroke; Over 60 years old; One catching of stroke; No active phase of the disease; The absence of spinal cord injury; Lack of PNF techniques from six months ago. Exclusion criteria: Re CVA, The need for hospitalization; Physiotherapy at the same time; Leave practice over two sessions; Death; Impairment of cognitive function during the study. Methods: The patients selected non probable sampling, then randomly assigned to two groups of 30 blocks were assigned to control and intervention. Interventions: First, muscle strength and daily activities of life in both groups using a questionnaire measuring the activities of daily living (ADL) and questionnaire to measure muscle strength (MMT) was measured. Interventional group will receive proprioceptive neuromuscular facilitation program for 8 weeks and each week for 30 to 45 minutes. Immediately and 4 weeks after the last training session, patients were evaluated muscle strength and activities of daily living (post test). The collected data using SPSS software through descriptive statistics and statistical tests were analyzed.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016043027676N1**
Registration date: **2016-05-29, 1395/03/09**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2016-05-29, 1395/03/09

Registrant information

Name
Yaghoub Parandvar
Name of organization / entity
Country
Iran (Islamic Republic of)
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+98 74 3322 4721
Email address
yaghoub.parandvar@yums.ac.ir

Recruitment status

Recruitment complete

Funding source

Investigator

Expected recruitment start date

2016-05-21, 1395/03/01

Expected recruitment end date

2016-08-22, 1395/06/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of proprioceptive neuromuscular facilitation on muscle strength and activities of daily living of client with cerebrovascular accident .

Public title

The effect of proprioceptive neuromuscular facilitation on cerebrovascular accident.

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria: Personal and informed consent to participate in the study; Residence in Yasouj; Over 4 months to 2 years after stroke; The definitive diagnosis of stroke by neurologist; Age over 60 years; One catching of stroke; No active phase of the disease; The absence of spinal cord injury; Lack of PNF techniques from six months ago; No other chronic diseases such as neurological disorders and orthopedic and rheumatology; Ability to communicate and answer questions Persian; The third and less muscle strength; Daily life activities less than 60 . Exclusion criteria: The unwillingness or inability of the Company to continue reading; Exacerbation or re CVA; The need for hospitalization; Physiotherapy at the same time; The occurrence of other diseases; Leave practice over two sessions; Death; Impairment of cognitive function; Mental alertness and presence of cognitive impairment during the study.

Age

From **60 years** old to **100 years** old

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Does not

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee Yasuj University of Medical Sciences and Health Services

Street address

Yasuj University of Medical Sciences and Health Services, Mottahari BLvd, Yasuj

City

Yasuj

Postal code

7591741417

Approval date

2016-04-16, 1395/01/28

Ethics committee reference number

IR.YUMS.REC.1395.9

Health conditions studied

1

Description of health condition studied

Cerebrovascular Accident

ICD-10 code

sequelae o

ICD-10 code description

Stroke, not specified as haemorrhage or infarction

Primary outcomes

1

Description

Muscle strength

Timepoint

Before the intervention, Immediately after the intervention, One month after the intervention

Method of measurement

Manual Muscle Testing grading scale

2

Description

Activities of Daily living

Timepoint

Before the intervention, Immediately after the intervention, One month after the intervention

Method of measurement

Activities of Daily living Questionnaire

Secondary outcomes

1

Description

Quality of Life

Timepoint

Before the intervention, Immediately after the intervention, One month after the intervention

Method of measurement

The World Health Organization Quality of Life Questionnaire of 26 questions

2

Description

Muscle Strength

Timepoint

Before the intervention, Immediately after the intervention, One month after the intervention

Method of measurement

Digital Balance/Kg

Intervention groups

1

Description

Control group: First, while the experimental group, muscle strength and activities of daily living will be measured using the relevant protocol. Next any specific action on the control, proprioceptive neuromuscular facilitation exercise will be done in experimental group.Immediately and four weeks after the intervention in the experimental group, muscle strength and activity of daily living in both groups was measured using the relevant protocol.

Category

Rehabilitation

2

Description

The intervention groups: First samples are available as a convenient choice then randomly allocated to two groups of test and control blocks would be allocated. Then the patients eligible for inclusion in the control groups, before exercise, muscle strength and activities of daily living will be measured. Then proprioceptive neuromuscular facilitation exercise program for 8 weeks, each session lasting 30 to 45 minutes (16 sessions during 2 months) based on the protocol will be implemented following the intervention group. In this study, the pattern of motion of the arm (Upper Extremity) and hip movement patterns (lower Extremity) is used. Patterns of the arm joint (upper extremity): D1 flexion pattern: Flexion, abduction, External rotation (elbow flexed and elbow extended). D1 extension pattern: Extension, adduction, internal rotation (elbow flexed and elbow extended). D2 flexion pattern: flexion, adduction, external rotation (elbow flexed and elbow extended). D2 extension pattern: extension, abduction, internal rotation (elbow flexed and elbow extended). Patterns of knee joint(lower extremity): D1 flexion pattern: Flexion, abduction, internal rotation (knee flexed and knee extended). D1 extension pattern: Extension, adduction, external rotation (knee flexed and knee extended). D2 flexion pattern: Flexion, adduction, external rotation (knee flexed and knee extended). D2 extension pattern: Extension, abduction, internal rotation (knee flexed and knee extended). The therapist first member to be balanced with respect to the three axes of motion in the desired position and in this case the muscles as much as possible not to limit your range of motion dragged. The first step: A passive stretching or active within 10 to 20 seconds actions and target muscle or muscles gently used gradually the end range of motion.This situation is maintained for a while. Second stage: Immediately or after a break of about 2 to 3 seconds of contraction unlike the therapist takes place. The contract period is typically 3 to 6 seconds. Third stage: Immediately or after a pause of about 2 to 3 seconds again to reach the target muscle or muscle twitching find a new point of range of motion. Immediately and 4 weeks after the last training session, muscle strength and activities of daily living of the patient is measured (post test) will be.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Martyr Dr.Beheshti Hospital of Yasuj

Full name of responsible person

Dr.Hosseini Motlagh Amin, Health Ph.D., Assistant Professor, Responsible for clinical research devel

Street address

Martyr Dr.Beheshti Hospital, martyr Mohammad Montazeri street, Yasuj

City

Yasuj

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Yasouj University of Medical Sciences and Health Services

Full name of responsible person

Yasouj University of Medical Sciences,Vice chancellor for research, Abd Mohammad Mousavi

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Yasouj University of Medical Sciences,Vice chancellor for research, motahari BLvd, Yasuj

City

Yasuj

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Yasouj University of Medical Sciences and Health Services

Proportion provided by this source
100
Public or private sector
empty
Domestic or foreign origin
empty
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
empty

Person responsible for general inquiries

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www.shahidbeheshti.yums.ac.ir

Sharing plan

Deidentified Individual Participant Data Set (IPD)
empty
Study Protocol
empty
Statistical Analysis Plan
empty
Informed Consent Form
empty
Clinical Study Report
empty
Analytic Code
empty
Data Dictionary
empty