Clinical Trial Protocol
Iranian Registry of Clinical Trials

09 Nov 2026

The Effect of Proprioceptive Neuromuscular Facilitation (PNF) on Quality of Life (QOL) of Patients with Stroke

Protocol summary

Study aim
The Effect of Proprioceptive Neuromuscular Facilitation Exercise on Quality of Life in Patients with Stroke

Design
Clinical trials with control group, Community based, With parallel groups, Not blind, Non-random

Settings and conduct
Satisfactory informed and written consent is obtained from eligible people who are willing to participate in the research. First, the quality of life is measured in both groups,then, the intervention is implemented. No action is taken in the control group. Immediately and 4 weeks after completing the exercises, quality of life will be measured in both groups.Exercises are done in the homes of patients

Participants/Inclusion and exclusion criteria
Inclusion: Personal and informed consent, Over 4 months to 2 years after stroke, Age more than 60 to 90 years, Once affected by stroke, The absence of spinal cord lesions, Lack of other chronic diseases, such as orthopedic and neurological diseases, Ability to communicate and answer questions Exclusion: Inability to communicate; Non-Residential in Yasuj; Passed less than 4 months and more than 2 years of stroke; Age less than 60 and more than 90 years

Intervention groups
ntervention: Proprioceptive neuromuscular facilitation exercise program are performed for 8 weeks and two sessions each week for 30-45 minutes based on the protocol in the intervention group.In this study, two motor patterns of upper and lower limbs are used. The first stage: A passive stretching or active within 10 to 20 seconds actions and target muscles gently used gradually the end range of motion. Second stage: Immediately or after a break of about 2 to 3 seconds of contraction unlike the therapist takes place.Third stage: Immediately or after a pause of about 2 to 3 seconds again to reach the target muscles twitching find a new point of range of motion. Control:There is no intervention in the control group.

Main outcome variables
Quality of Life

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20160430027676N2**
Registration date: **2018-10-30, 1397/08/08**
Registration timing: **retrospective**

Last update: **2018-10-30, 1397/08/08**
Update count: **0**

Registration date
2018-10-30, 1397/08/08

Registrant information

Name
Yaghoub Parandvar

Name of organization / entity

Country
Iran (Islamic Republic of)

Phone
+98 74 3322 4721

Email address
yaghoub.parandvar@yums.ac.ir

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2018-08-23, 1397/06/01

Expected recruitment end date
2018-10-22, 1397/07/30

Actual recruitment start date
empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The Effect of Proprioceptive Neuromuscular Facilitation (PNF) on Quality of Life (QOL) of Patients with Stroke

Public title

The Effect of Proprioceptive Neuromuscular Facilitation (PNF) on Quality of Life (QOL)

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

Personal and informed consent to attend the study Over 4 months to 2 years after stroke Definitive diagnosis of stroke by a neurologist Age more than 60 years to 90 years Once affected by stroke The absence of spinal cord lesions Failure to receive Proprioceptive Neuromuscular Facilitation Technique from 6 months ago Lack of other chronic diseases, such as orthopedic and neurological diseases Ability to communicate and answer Persian questions Residence in Yasuj

Exclusion criteria:

Disruption of the cognitive, alert and mental state of the patient Age more than 90 years old

Age

From **60 years** old to **90 years** old

Gender

Both

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Not randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee on Research, Yasuj University of Medical Sciences

Street address

Vice chancellor of research and technology, Yasuj University of Medical Sciences, Motahari Blvd,Yasouj, Iran

City

Yasuj

Province

Kohgilouyeh-va-Boyrahmad

Postal code

7591741417

Approval date

2018-08-04, 1397/05/13

Ethics committee reference number

IR.YUMS.REC.1397.057

Health conditions studied

1

Description of health condition studied

Cerebrovascular Accident

ICD-10 code

(I69.4)

ICD-10 code description

Stroke, not specified as haemorrhage or infarction

Primary outcomes

1

Description

Quality of life for stroke patients

Timepoint

Before the intervention, Immediately after the intervention, 4 week after the intervention

Method of measurement

World Health Organization Quality of Life Short Form questioner

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Proprioceptive neuromuscular facilitation exercise program was performed for 8 weeks and two sessions each week for 30-45 minutes (16 sessions within 2 months) based on the protocol and the relevant instruction in the intervention group. In this study, the pattern of motion of the arm (Upper Extremity) and hip movement patterns (lower Extremity) are 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 places the member in the position according to the three axes of motion. In this case, the muscles are drawn as far as possible (not up to the latest range of motion). 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 session of the exercise, the quality of life of the patients will be measured.

Category

Rehabilitation

2

Description

Control group: Before intervention, immediately after the intervention and 4 weeks after the end of the intervention,the quality of life will be measured using the relevant questionnaire.There will be no intervention in the control group.

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

Street address

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

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Yasouj University of Medical Sciences

Full name of responsible person

Dr. Marie oriad, Hossein

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

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Grant name

Grant code / Reference number

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

No

Title of funding source

Yasouj University of Medical Sciences and Health Services

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Yasouj University of Medical Sciences

Full name of responsible person

Parandvar Yaghoub

Position

Master science of Medical Surgical Nursing

Latest degree

Master

Other areas of specialty/work

Nursery

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available
Study Protocol
Undecided - It is not yet known if there will be a plan to make this available
Statistical Analysis Plan
Undecided - It is not yet known if there will be a plan to make this available
Informed Consent Form
Undecided - It is not yet known if there will be a plan to make this available
Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available
Analytic Code
Not applicable
Data Dictionary
Not applicable