

Clinical Trial Protocol

Iranian Registry of Clinical Trials

03 Jul 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

Intervention: 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

Kohgiluyeh-va-Boyer-Ahmad

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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y.parandvar@gmail.com

Web page address

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Yasouj University of Medical Sciences

Full name of responsible person

Dr. Marie oriad, Hossein

Street address

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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Person responsible for scientific inquiries**Contact****Name of organization / entity**

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Latest degree

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Other areas of specialty/work

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Position

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Other areas of specialty/work

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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