Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

The Effect Aquatic Training on the Muscle Strength Lower Extremity in Patients with Chronic Ischemic Stroke: A Randomized Clinical Trial

Protocol summary

Study aim
The Effect Aquatic Training on the Muscle Strength Lower Extremity in Patients with Chronic Ischemic Stroke: A Randomized Clinical Trial

Design
This clinical trial study with pretest and posttest design was performed on 30 patients with chronic ischemic stroke by available sampling method and classified into 3 groups equal 10: experimental group1 (shallow practice); experimental group 2 (deep training) and control group

Settings and conduct
Examination in the hospital and the protocol for water therapy in the pool. In general, the stages of this research include: 1. Preparing the subjects along with examining the criteria for entering and preparing the data collection tool: General information

Participants/Inclusion and exclusion criteria
A score of 21 to 44 from the berg balance scale

Intervention groups
groups did the aquatic exercise therapy program that included of 18 sessions in 6 weeks and 3 sessions per week for 30 minutes. But the control group did not experience any aquatic exercise

Main outcome variables
Lower Extremity Muscle Strength

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20180513039626N3**
Registration date: **2020-01-25, 1398/11/05**
Registration timing: **retrospective**

Last update: **2020-01-25, 1398/11/05**
Update count: **0**

Registration date
2020-01-25, 1398/11/05

Registrant information

Name
Hossein Babaeipour

Name of organization / entity
دانشگاه ولی عصر رفسنجان

Country
Iran (Islamic Republic of)

Phone
+98 34 3432 2717

Email address
h.babaei@vru.ac.ir

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2018-03-17, 1396/12/26

Expected recruitment end date
2018-04-04, 1397/01/15

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
The Effect Aquatic Training on the Muscle Strength Lower Extremity in Patients with Chronic Ischemic Stroke: A Randomized Clinical Trial

Public title
The Effect of Hydrotherapy in Patients with Stroke

Purpose
Prevention

Inclusion/Exclusion criteria

Inclusion criteria:
Patients with cerebral stroke and chronic, ischemic stroke Patients with hemiparesis (slight motor weakness)

Have at least 6 months from the onset of the disease and have a maximum of 2 years Have the ability to stand without help (at least 5 minutes) All subjects must be able to walk with or without the aid (at least 10 meters) To have the ability to follow orders Not participating in regular physical activity and not having a physical therapy program during the study Desire to participate in the research The first stroke Patients 50 to 70 years

Exclusion criteria:

Absence in training for 3 sessions Having a certain diseases

Age

From **50 years** old to **70 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **30**

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 of Rafsanjan University of Medical Sciences

Street address

Rafsanjan University of Medical Sciences, Ali Bin Abitaleb Square

City

Rafsanjan

Province

Kerman

Postal code

7717933777

Approval date

2018-03-15, 1396/12/24

Ethics committee reference number

IR.RUMS.REC.1396.207

Health conditions studied

1

Description of health condition studied

Stroke

ICD-10 code

I63.9

ICD-10 code description

Cerebral infarction, unspecified

Primary outcomes

1

Description

Lower Extremity Muscle Strength

Timepoint

At the beginning of the study (before the intervention) and after six weeks of aquatic trainingkvl

Method of measurement

Medical Research Council (MRC)

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: The first group (shallow) intervenes in depth, with water up to the height of the pelvis, the subjects performed this training session for 6 weeks (18 sessions) and 3 sessions per week for the implementation of the water exercise protocol.

Category

Rehabilitation

2

Description

Intervention group: The second group of interventions (deep) takes place deep in the water to the height of the chest, the subjects performed this training session for 6 weeks (18 sessions) and 3 sessions per week for the implementation of the water exercise protocol.

Category

Rehabilitation

3

Description

Control group: (Without exercise) that the group did not experience any blueprints that had their normal routine during these six weeks.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center
Ali ibn Abi Talib Rafsanjan Hospital

Full name of responsible person
Hossein Babaei Pour

Street address
Blvd Imam Ali (AS) , Central Organization

City
Rafsanjan

Province
Kerman

Postal code
7717933777

Phone
+98 34 3432 2717

Email
hosseinbabaei1906@yahoo.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Rafsanjan University of Medical Sciences

Full name of responsible person
Dr, Alireza Vakilian

Street address
Blvd Imam Ali (AS) , Central Organization

City
Rafsanjan

Province
Kerman

Postal code
7717933777

Phone
+98 34 3428 0038

Email
alirezavakilian7@gmail.com

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?
No

Title of funding source
Rafsanjan University of Medical Sciences

Proportion provided by this source
50

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
The University of Valiasr Rafsanjan

Full name of responsible person
Hossein Babaeipour

Position
Assistant Professor Valiasr University Rafsanjan

Latest degree
Ph.D.

Other areas of specialty/work
Sport Injuries and Corrective Exercises

Street address
Rafsanjan, Bahman 22 Field, Valiasr University

City
Rafsanjan

Province
Kerman

Postal code
7718897111

Phone
003434322717

Email
hosseinbabaei1906@yahoo.com

Person responsible for scientific inquiries

Contact

Name of organization / entity
The University of Valiasr Rafsanjan

Full name of responsible person
Hossein Babaeipour

Position
Assistant Professor Valiasr University Rafsanjan

Latest degree
Ph.D.

Other areas of specialty/work
Sport Injuries and Corrective Exercises

Street address
Rafsanjan, Bahman 22 Field, Valiasr University

City
Rafsanjan

Province
Kerman

Postal code
7718897111

Phone
003434322717

Email
hosseinbabaei1906@yahoo.com

Person responsible for updating data

Contact

Name of organization / entity
The University of Valiasr Rafsanjan

Full name of responsible person
Hossein Babaeipour

Position
Assistant Professor Valiasr University Rafsanjan

Latest degree
Ph.D.
Other areas of specialty/work
Sport Injuries and Corrective Exercises
Street address
Rafsanjan, Bahman 22 Field, Valiasr University
City
Rafsanjan
Province
Kerman
Postal code
7718897111
Phone
+98 34 3432 2717
Email
hosseinbabaei1906@yahoo.com

Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
Yes - There is 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
Undecided - It is not yet known if there will be a plan to make this available
Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available
Title and more details about the data/document
Physical and mental dimension of the patient
When the data will become available and for how long
After submitting and confirming the article
To whom data/document is available
All researchers in this area
Under which criteria data/document could be used
After submitting and confirming the article
From where data/document is obtainable
Hossinbabaei1906@yahoo.com
What processes are involved for a request to access data/document
Every time you order
Comments