

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Conjunct effect of supported standing and functional electrical stimulation on strength and functional mobility in acute stroke:A randomized clinical trial

Protocol summary

Study aim

To determine the conjunct effects of supported standing and functional electrical stimulation on strength and functional mobility in acute stroke.

Design

Randomized clinical trial.

Settings and conduct

Data was collected from Dr. Ajaz Ali Physical Therapy clinic, and Wahid trust hospital in Gujrat, Punjab Pakistan

Participants/Inclusion and exclusion criteria

Inclusion Criteria 1. Patients 30-65 years of age. 2. Adults with acute stroke. 3. Adults with ischemic stroke. 4. Patients able to react on verbal command. 5. Medically stable patient. 6. Patient was able to walk before stroke. Exclusion Criteria Patients were excluded if they have; 1. Unstable cerebral perfusion. 2. Uncontrolled diabetes mellitus, hypertension and associated cardiac problems. 3. Associated problems in the limb e.g., deep vein thrombosis. 4. Any orthopedic condition e.g., arthritis and fractures. 5. If the physiological variables (blood pressure, oxygen, heart rate, temperature) go beyond set safety limits and patients with severe fatigue.

Intervention groups

Group A: Receiving both Functional electrical stimulation and weight bearing along with conventional therapy.
Group B: Receiving early weight bearing along with conventional therapy

Main outcome variables

Strength Functional Mobility

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20190828044636N1**
Registration date: **2021-01-31, 1399/11/12**

Registration timing: **retrospective**

Last update: **2021-01-31, 1399/11/12**

Update count: **0**

Registration date

2021-01-31, 1399/11/12

Registrant information

Name

Sadia Iftikhar

Name of organization / entity

Riphah International University

Country

Pakistan

Phone

+92 53 3515229

Email address

drsipt@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-03-10, 1396/12/19

Expected recruitment end date

2018-09-15, 1397/06/24

Actual recruitment start date

2018-03-10, 1396/12/19

Actual recruitment end date

2018-09-25, 1397/07/03

Trial completion date

2018-12-10, 1397/09/19

Scientific title

Conjunct effect of supported standing and functional electrical stimulation on strength and functional mobility in acute stroke:A randomized clinical trial

Public title

Effects of Supported Standing and Functional Electrical Stimulation in acute stroke

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Patients 30-65 years of age. Adults with acute stroke. Adults with ischemic stroke. Patients able to react on verbal command. Medically stable patient. Patient was able to walk before stroke.

Exclusion criteria:

Unstable cerebral perfusion. Uncontrolled diabetes mellitus, hypertension and associated cardiac problems. Associated problems in the limb e.g., deep vein thrombosis Any orthopedic condition e.g., arthritis and fractures. If the physiological variables (blood pressure, oxygen, heart rate, temperature) go beyond set safety limits and patients with severe fatigue

Age

From **30 years** old to **65 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **58**

Actual sample size reached: **60**

Randomization (investigator's opinion)

Randomized

Randomization description

simple random sampling technique was used .Computer generated randomization technique using the online sequence number generator for random allocation of patients in two groups has been used to collect the data.

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

Institutional review board of Riphah International University Lahore campus

Street address

28-M,Quaid-e-Azam, Industrial Estate, Kot Lakhpat, Lahore

City

Lahore

Postal code

54000

Approval date

2018-03-10, 1396/12/19

Ethics committee reference number

Ref.NO.RCRS-RE-MS-NMPT/spring2018/002

Health conditions studied

1

Description of health condition studied

stroke

ICD-10 code

I63

ICD-10 code description

Cerebral infarction

Primary outcomes

1

Description

Strength

Timepoint

Baseline(before intervention) , After 6 weeks of intervention

Method of measurement

Manual muscle testing,The River Mead Mobility Index

Secondary outcomes

1

Description

Balance and Functional mobility

Timepoint

Baseline(before intervention), After six weeks of intervention

Method of measurement

Berge Balance Scale

Intervention groups

1

Description

Intervention group:Group A: Participants were treated with conventional therapy (positioning, ROM exercises, bed mobility exercises) along with FES(Functional Electrical Stimulation) and supported standing by using tilt table initially later on standing frames and walkers for 30 minutes once a day and five times a week for six weeks.Stimulation was applied by two channel comfy stimulators (model no EV-806).stimulations was applied by surface electrodes. Electrodes were applied at the points Gluteus Maximus,QuadricepsFemoris, Tibialis Anterior for 10 minutes each. Stimulation was applied at pulse rate of 40 Hz and pulse width of 180 μ s. Group B: received conventional therapy (positioning, ROM exercises, and bed mobility exercises) along with

supported standing by using tilt table initially later on standing frames and walkers for 30 minutes once a day and five times a week. Both groups received treatment for six weeks.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Wahid Trust hospital

Full name of responsible person

Dr. Abdul Sattar

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2

Recruitment center

Name of recruitment center

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Full name of responsible person

Dr.Ajaz Ali

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Self

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Web page address**Grant name****Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

No

Title of funding source

self

Proportion provided by this source

100

Public or private sector

Private

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin**Type of organization providing the funding**

Persons

Person responsible for general inquiries

Contact

Name of organization / entity

Riphah International University lahore campus

Full name of responsible person

Sadia Iftikhar

Position

Student

Latest degree

Master

Other areas of specialty/work

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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

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

data collected from the primary outcomes only

When the data will become available and for how long

starting 6 months after publications. when it will be published

To whom data/document is available

people working in academic and clinical practice

Under which criteria data/document could be used

for clinical trial data can be shared

From where data/document is obtainable

through email

What processes are involved for a request to access data/document

when any one want to review it and request through email than data will be provided

Comments