

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Effectiveness of routine physical therapy with and without equal weight bearing sit-to-stand exercise program on balance and functional independence in stroke patients

Protocol summary

Study aim

To determine the effectiveness of routine physical therapy with and without equal weight bearing exercise program on balance and functional outcome in stroke patients.

Design

randomized clinical trial, parallel groups, no blinding

Settings and conduct

The participants were allocated from Omer medical centre, Yaseen medical centre, UOL teaching hospital Lahore. The participant was asked to pick a sealed envelop and then according to the number in envelop the group was allocated. There was no blinding done.

Participants/Inclusion and exclusion criteria

Clinically diagnosed sub-acute stroke patients aged between 40-60 years by neurologist and able to understand command were included. where as the patients with any Musculoskeletal Disorder, Disability or other comorbid disease, any Previous history of neurological disease, or enrolled in another experimental study were excluded.

Intervention groups

Control group: received the 3 sessions per week for 2 months of routine physical therapy treatment that includes electrical stimulation, Muscles Stretching, Strengthening and range of Motion Exercises for 45-60 minutes. In a session, electrical stimulation and Hot pack was given for 15 minutes. Static stretching of affected muscles was performed according to the participant requirement. The muscle strengthening included loading of affected leg with unaffected leg placed on a wooden block, stepping up exercise with the affected leg, stepping down with the affected leg, heels lift. Fifteen repetitions of each exercise was given with a resting period of 1minute between exercises. Intervention group: received 3 sessions per week for 2 months of routine physical therapy with equal weight bearing sit-to-stand

exercise for 45-60 minutes. In one session, routine physiotherapy was given with equal weight bearing sit-to-stand exercise (20 repetitions).

Main outcome variables

Balance, Functional independence

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200225046616N2**

Registration date: **2020-10-15, 1399/07/24**

Registration timing: **retrospective**

Last update: **2020-10-15, 1399/07/24**

Update count: **0**

Registration date

2020-10-15, 1399/07/24

Registrant information

Name

Fariha Khalid

Name of organization / entity

University of Lahore

Country

Pakistan

Phone

+92 42 35220878

Email address

fariha.khalid@dhpt.uol.edu.pk

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-11-01, 1398/08/10

Expected recruitment end date

2020-05-01, 1399/02/12
Actual recruitment start date
2019-11-23, 1398/09/02
Actual recruitment end date
2020-06-03, 1399/03/14
Trial completion date
2020-07-29, 1399/05/08

Scientific title
Effectiveness of routine physical therapy with and without equal weight bearing sit-to-stand exercise program on balance and functional independence in stroke patients

Public title
Equal weight bearing sit-to-stand exercise in stroke patients

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Clinically diagnosed stroke patients by neurologist Sub-acute stage (between 2 weeks to 6 months after onset) Both males and females aged 40-60 years Both hemorrhagic or ischemic types Able to understand command and have the capacity to provide informed consent

Exclusion criteria:

Musculoskeletal Disorder i.e. Substantial loss of joint range due to arthritis etc Unstable Angina Participation in other interventional or pharmacological studies which can affect the results of this study Disability or other comorbid disease such as cancer or amputation that will limit or prevent assessment of the patients Previous history of neurological disease other than stroke

Age
From **40 years** old to **60 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **28**
Actual sample size reached: **24**

Randomization (investigator's opinion)
Randomized

Randomization description
28 participant were allocated in control or experimental group by simple randomization method at individual level. A random sequence for patients allocation was generated on computer using commentpicker.com. Each number was kept in a sealed envelope. For each patient a sealed envelope was opened and according to mentioned number, group was allocated. No allocation concealment was carried out.

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Parallel
Other design features
No

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethic's committee of University of Lahore

Street address

1-Km, Defence Road, Bhupatian Chowk, Off Raiwind Road

City

Lahore

Postal code

54590

Approval date

2019-10-30, 1398/08/08

Ethics committee reference number

472

Health conditions studied

1

Description of health condition studied

stroke

ICD-10 code

I63.50

ICD-10 code description

Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebral artery

Primary outcomes

1

Description

Balance

Timepoint

Before intervention, 4th week of intervention, 8th week of intervention

Method of measurement

Berg balance scale

2

Description

functional independence

Timepoint

Before intervention, 4th week of intervention, 8th week of intervention

Method of measurement

Functional independence measure scale

Secondary outcomes

empty

Intervention groups

1

Description

Control group: 3 sessions per week for 2 months of routine physical therapy treatment that includes electrical stimulation, Muscles Stretching, Strengthening and range of Motion Exercises for 45-60 minutes. In one session, electrical stimulation and Hot pack was given for 15 minutes. Static stretching of affected muscles was performed according to the participant requirement. The muscle strengthening exercises included loading of affected leg with unaffected leg placed on a wooden block, stepping up exercise with the affected leg (stepping up a wooden block with the affected leg), stepping down with the affected leg, heels lift. Fifteen repetitions of each exercise was given with a resting period of 1 minute between exercises.

Category

Rehabilitation

2

Description

Intervention group: 3 sessions per week for 2 months of routine physical therapy with equal weight bearing sit-to-stand exercise for 45-60 minutes. In one session, routine physiotherapy mentioned above was given with equal weight bearing Sit-to-stand exercise (20 rep). In Sit-to-stand exercise affected foot positioned alongside the unaffected foot rising with chair arm-rest assistance.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

UOL Teaching Hospital

Full name of responsible person

Dr Muhammad hussain Iqbal

Street address

1 - KM Defence Road, Lahore.

City

Lahore

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54590

Phone

+92 42 99200600

Email

hussainiqbal94@gmail.com

2

Recruitment center

Name of recruitment center

Omer medical centre

Full name of responsible person

Dr Fariha Khalid

Street address

JOHAR TOWN 42 A/III , Colledge Road, near AL JANNAT MARRIAGE HALL, Lahore, Pakistan

City

Lahore

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54600

Phone

+92 42 35174737

Email

farihakhalid93@gmail.com

3

Recruitment center

Name of recruitment center

Yaseen Medical Centre

Full name of responsible person

Dr Fariha Khalid

Street address

246 Allama Iqbal road dharampura

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39571

Phone

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

The university of Lahore

Full name of responsible person

Dr Ashfaq Ahmad

Street address

1-Km, Defence Road, Bhupatian Chowk, Off Raiwind Road, Lahore, Pakistan

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54590

Phone

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Email

Farihakhalid93@gmail.com

Grant name

Grant code / Reference number

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

Yes

Title of funding source

The university of Lahore

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

farihakhalid93@gmail.com

Person responsible for updating data**Contact****Name of organization / entity**

University of Lahore

Full name of responsible person

Dr Fariha khalid

Position

Lecturer

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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University of Lahore, Main Campus, Lahore

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

University of Lahore

Full name of responsible person

Dr Fariha khalid

Position

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Latest degree

Master

Other areas of specialty/work

Physiotherapy

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

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Full name of responsible person

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Latest degree

Master

Other areas of specialty/work

Physiotherapy

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Postal code

54590

Phone

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Email**Sharing plan****Deidentified Individual Participant Data Set (IPD)**

Yes - There is a plan to make this available

Study Protocol

No - There is not 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

No - There is not a plan to make this available

Clinical Study Report

No - There is not a plan to make this available

Analytic Code

Not applicable

Data Dictionary

Not applicable

Title and more details about the data/document

All collected deidentified IPD

When the data will become available and for how long

Data will be available to other people after the completion of study and remained available till 3 months

To whom data/document is available

Data will be available to people working in academic institutions

Under which criteria data/document could be used

"Fariha Khalid" Institutional email address:

fariha.khalid@dhpt.uol.edu.pk

From where data/document is obtainable

"Fariha Khalid" Institutional email address:

fariha.khalid@dhpt.uol.edu.pk

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

Data can be accessed by communicating with principle investigator "Fariha Khalid" through institutional email

address: fariha.khalid@dhpt.uol.edu.pk
Comments