Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 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

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+92 42 35220878

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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.

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Lahore

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2

Recruitment center

Name of recruitment center
Omer medical centre

Full name of responsible person
Dr Fariha Khalid

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

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3

Recruitment center

Name of recruitment center
Yaseen Medical Centre

Full name of responsible person
Dr Fariha Khalid

Street address
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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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Email
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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

Person responsible for general inquiries

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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Person responsible for updating data

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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