

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparison of McKenzie Extension Exercise versus Mulligan Sustained Natural Apophyseal Glides on Pain, Range of Motion and Functional Disability in Patients with Acute Non-Specific Low Back Pain

Protocol summary

Study aim

To compare the effects of McKenzie Extension Exercises versus Mulligan Sustained Natural Apophyseal Glides on Pain, Range of motion and Functional Disability in patients with Acute Non-Specific Low Back Pain

Design

Parallel group, double blinded, randomized controlled trial

Settings and conduct

The study would be double blinded as participants and assessors of the study would be kept blind of the treatment group and will be done at Physiotherapy Department Gosh-e-Shifa Hospital Gulshan Ravi, Lahore.

Participants/Inclusion and exclusion criteria

inclusion criteria: A patient with history of acute non specific Low Back Pain, Patients of both Gender, Age range 20-50 Years and only Married people will include in study. Exclusion criteria: Any neurological symptoms, Any pathology of spine like Spondylosis, Spondylolisthesis, Patients with other comorbidity such as systemic disorders, Patients with sociopsychiatric disorders and Pregnancy.

Intervention groups

Randomly, treatment will be assigned to patients in this study In Group 1 participants will receive routine physical therapy (10 minutes hot pack, 5 minutes TENS, 5 minutes soft tissue massage) along with McKenzie Extension Exercises in prone position with repeated movements. Patient will have 5 repetitions of every set of exercise with 20 seconds of pause in per session. In group 2 participants will receive same routine physical therapy along with Mulligan's SNAGs in sitting and prone position by applying antero cranial glide in the direction of treatment plane over the spinous process at 8 repetitions per session.

Main outcome variables

pain, range and functional disability

General information

Reason for update

Acronym

Dileep Kumar

IRCT registration information

IRCT registration number: **IRCT20200608047700N1**

Registration date: **2020-07-22, 1399/05/01**

Registration timing: **registered_while_recruiting**

Last update: **2020-07-22, 1399/05/01**

Update count: **0**

Registration date

2020-07-22, 1399/05/01

Registrant information

Name

Dileep Kumar Lohana

Name of organization / entity

University of Lahore

Country

Pakistan

Phone

+92 232 291057

Email address

drdileepmhs@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-03-19, 1398/12/29

Expected recruitment end date

2020-09-19, 1399/06/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of McKenzie Extension Exercise versus Mulligan Sustained Natural Apophyseal Glides on Pain, Range of Motion and Functional Disability in Patients with Acute Non- Specific Low Back Pain

Public title

Acute Non- Specific Low Back Pain

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

•Patient with history of acute non specific Low Back Pain
Either gender age ranges from 20-50 years only Married people will include in study

Exclusion criteria:

•Any neurological symptoms Any pathology of spine like Spondylosis, Spondylolisthesis Patients with other comorbidity such as systemic disorders •Patients with sociopsychiatric disorders Pregnancy

Age

From **20 years** old to **50 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant
- Outcome assessor

Sample size

Target sample size: **84**

Randomization (investigator's opinion)

Randomized

Randomization description

The randomization will be performed by selection of a participant place odd and even number in two different groups

Blinding (investigator's opinion)

Double blinded

Blinding description

This will be double blind study as the assessor and participant will not be disclosed about the study group. The data will be collected by assessor and will be provided to the researcher.

Placebo

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethics Committee of The University of Lahore
"Institutional Review Board"

Street address

defence road campus,new campus ,The University of Lahore

City

lahore

Postal code

54000

Approval date

2020-03-04, 1398/12/14

Ethics committee reference number

IRB-UOL-FAHS/716-II/2020

Health conditions studied**1****Description of health condition studied**

acute low back pain

ICD-10 code

M54.5

ICD-10 code description

Low back pain

Primary outcomes**1****Description**

Pain Intensity

Timepoint

before intervention and then on 4th and 8th week

Method of measurement

Visual analogue scale

2**Description**

Lumbar Range of motion

Timepoint

before intervention and then on 4th and 8th week

Method of measurement

Back Performance Scale

3**Description**

Functional Disability

Timepoint

before intervention and then on 4th and 8th week

Method of measurement

Oswestry Low Back Pain Disability Questionnaire

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Participants will receive routine physical therapy (10 minutes hot pack, 5 minutes TENS, 5 minutes soft tissue massage) along with McKenzie Extension Exercises in prone position with repeated movements. Patient will have 5 repetitions of every set of exercise with 20 seconds of pause in per session.

Category

Rehabilitation

2

Description

Control group: Participants will receive routine physical therapy (10 minutes hot pack, 5 minutes TENS, 5 minutes soft tissue massage) along with Mulligan's SNAGs in sitting and prone position by applying anteroo cranial glide in the direction of treatment plane over the spinous process at 8 repetitions per session.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Physiotherapy Department Gosh-e-Shifa Hospital
Gulshan Ravi, Lahore.

Full name of responsible person

Dr Aisha Tahir

Street address

759-A Block Gulshan-e-Ravi Lahore

City

lahore

Postal code

same as address

Phone

+92 42 37413842

Email

info@grwtrust.org

Web page address

<http://www.grwtrust.org/>

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

The University of lahore

Full name of responsible person

Waqar Afzal

Street address

1-Km Defence Road, Near Bhuptian Chowk, Lahore

City

lahore

Postal code

54000

Phone

+92 42 37812194

Email

waqarafzal621@gmail.com

Grant name

Grant code / Reference number

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

No

Title of funding source

The University of Lahore

Proportion provided by this source

60

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

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Gosha e shifa Hospital

Full name of responsible person

Dileep Kumar Lohana

Position

Physiotherapist

Latest degree

Master

Other areas of specialty/work

Physiotherapy

Street address

759-A Block Gulshan-e-Ravi, Lahore

City

lahore

Province

punjab

Postal code

54500

Phone

+92 42 37413842

Email

info@grwtust.org

Web page address

<http://www.grwtrust.org/>

Person responsible for scientific inquiries

Contact

Name of organization / entity

Gosha e Shifa Hospital

Full name of responsible person

Dileep Kumar Lohana

Position

Physiotherapist
Latest degree
Master
Other areas of specialty/work
Physiotherapy
Street address
759-A Block Gulshan-e-Ravi, Lahore
City
lahore
Province
punjab
Postal code
54500
Phone
+92 42 37413842
Email
info@grwtrust.org
Web page address
http://www.grwtrust.org/

Person responsible for updating data

Contact
Name of organization / entity
Gosha e Shifa Hospital
Full name of responsible person
Dileep Kumar Lohana
Position
physiotherapist
Latest degree
Master
Other areas of specialty/work
Physiotherapy
Street address
759-A Block Gulshan e Ravi, Lahore
City
lahore
Province
punjab
Postal code
54500
Phone

+92 42 37413842
Email
info@grwtrust.org
Web page address
http://www.grwtrust.org/

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
Comparison of McKenzie Extension Exercise versus Mulligan Sustained Natural Apophyseal Glides on Pain, Range of Motion and Functional Disability in Patients with Acute Non- Specific Low Back Pain and all collected deidentified IPD will be shared.
When the data will become available and for how long
After Publication
To whom data/document is available
people working in academic institutions and researchers
Under which criteria data/document could be used
it could be used on request
From where data/document is obtainable
Through Email and phone drdileeplumhs@gmail.com
What processes are involved for a request to access data/document
Through Email and phone drdileeplumhs@gmail.com
0092 331 3837764
Comments
data can be provided on request but after publication