Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparison of McKenzie Extension Exercise versus Mulligan Sustained Natural Apopheseal 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 sociopsychatric 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 antereo 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
drdileeplumhs@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 Apopheseal 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 sociopsychatric 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
Oswetry 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 antereo 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
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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

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Master

Other areas of specialty/work
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Person responsible for updating data

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Dileep Kumar Lohana

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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
Comparison of McKenzie Extension Exercise versus Mulligan Sustained Natural Apopheseal 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 bee provided on request but after publication