Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparison of effectiveness of piriformis stretch and muscle activation exercises among patients with piriformis syndrome

Protocol summary

Study aim
To find out the effectiveness of Piriformis stretch and muscle activation exercise among patients with Piriformis syndrome.

Design
The design of this study is Randomized, parallel clinical trial. Randomization is done by Lottery method. In this method the researcher gives each participant of the trial a number. Researchers draw numbers from the box randomly to allocate participants in two groups.

Settings and conduct
The study is conducted at Arif Memorial Teachning Hospital. in this trial participants are blinded through concealment to avoid baisness.

Participants/Inclusion and exclusion criteria
Inclusion criteria: suffering from Piriformis syndrome; both male and female; being at the age between 20 and 50 years. Non-inclusion criteria: The condition be a complication of hip surgery or fracture

Intervention groups
Intervention group: All the patients of this group will be treated by Piriformis stretch. Control group: All the patients of this group will be treated by muscle activation exercise.

Main outcome variables
Pain intensity; Low back Disability

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20210326050770N2**
Registration date: **2023-07-19, 1402/04/28**
Registration timing: **registered_while_recruiting**

Last update: **2023-07-19, 1402/04/28**
Update count: **0**

Registration date
2023-07-19, 1402/04/28

Registrant information
Name
Mohammad Abbas Jamil
Name of organization / entity
Rashid latif medical college
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Pakistan
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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-06-30, 1402/04/09

Expected recruitment end date
2023-09-30, 1402/07/08

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Comparison of effectiveness of piriformis stretch and muscle activation exercises among patients with piriformis syndrome

Public title
Effect of piriformis stretch and muscle activation exercises on piriformis syndrome

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria:

Suffering from Piriformis syndrome Piriformis syndrome patients both male and female. Age between 20 and 50 years. Those patients who use steroids and non-steroids.

Exclusion criteria:

The condition be a complication of hip surgery or fracture

Age

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

Gender

Both

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **26**

Randomization (investigator's opinion)

Randomized

Randomization description

Patients will be allocated by lottery method into two groups. In this method the researcher gives each participant of the trial a number. Researchers draw numbers from the box randomly to allocate participants in two groups.

Blinding (investigator's opinion)

Single blinded

Blinding description

The blinding is achieved by concealment in which the treatment allocation for each patient is not revealed to the patient. This is done to avoid biasness

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Institutional review board of Rashid Latif Medical College

Street address

35- km Ferozepur road; Lahore

City

Lahore

Postal code

54000

Approval date

2022-09-02, 1401/06/11

Ethics committee reference number

IRB/2022/039

Health conditions studied

1

Description of health condition studied

Piriformis syndrome is one of the common causes of sciatic pain which negatively affects the activities of daily life of an individual and ultimately leads to poor quality of life.

ICD-10 code

G57.00

ICD-10 code description

Lesion of sciatic nerve, unspecified lower limb

Primary outcomes

1

Description

Pain

Timepoint

On 1st day pre-intervention measurement and post-intervention measurement after 4 weeks

Method of measurement

Numeric Pain Rating Scale

2

Description

Disability

Timepoint

On 1st day pre-intervention measurement and post-intervention measurement after 4 weeks

Method of measurement

Oswestry disability index

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group (Piriformis stretch): All the patients of this group were treated by piriformis stretch. First baseline treatment was given. The subjects were made to bent two legs in a supine position and kept the leg of one side on the opposite side knee that would be measured. The subjects bent their knee over 90° until they felt tension in the direction toward the shoulder on the same side as the leg that was being stretched and then maintained the position for 30 seconds.This was repeated twice with a 30-second resting time in between.

Category

Treatment - Other

2

Description

Control group (Muscles Activation Exercises): All the patients of this group were treated by muscle activation exercise. First baseline treatment was given, Then for left hamstrings, adductor magnus, and gluteus medius). For Adductor Magnus Activation, Patient was asked to perform the close chain, weight-bearing task-sit to stand, to activate the Adductor Magnus. For Gluteus Medius Activation, Patient was asked to perform bridging on a stable surface, to activate the gluteus medius. For Hamstring Activation, The patient was asked to do a glute-hamstrings raise, to activate the Hamstrings.

Category
Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center
Arif Memorial Teaching hospital
Full name of responsible person
Naseer Ahmad
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35- km Feroze pur road lahore
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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Rashid Latif Medical College
Full name of responsible person
Dr Abbas Jamil
Street address
35-km Ferozepur road; Lahore
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54000
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m.abbas@rlmc.edu.pk

Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Rashid Latif Medical College
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
Academic

Person responsible for general inquiries

Contact

Name of organization / entity
Rashid Latif Medical College
Full name of responsible person
Naseer Ahmad
Position
physiotherapist
Latest degree
Bachelor
Other areas of specialty/work
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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available

Study Protocol
Undecided - It is not yet known if there will be 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
Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available

Analytic Code
Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available