

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Effectiveness of Post Facilitation Stretch Technique versus Myofascial Release in Piriformis Syndrome; A Randomized Controlled Trial

Protocol summary

Study aim

- To determine and compare the effectiveness of post facilitation stretch technique with myofascial release in the management of pain and range of motion in piriformis syndrome.
- To improve the quality of life of individuals suffering from Piriformis Syndrome.

Design

Community based, Parallel group, Single blind, Randomized controlled trial

Settings and conduct

Setting was Railway General Hospital, Rawalpindi. Single blind study

Participants/Inclusion and exclusion criteria

Inclusion Criteria: Only Male Patients with Piriformis Tightness and pain along the distribution of Sciatic nerve
Age between 20-60
Exclusion Criteria: Acute traumatic cases
Patient with disc Herniation
Spinal stenosis
Lumbar muscle strain
Back Pain

Intervention groups

Group A was treated with muscle energy technique (MET), Post facilitation stretch technique, 1 set of 5 repetition/ session, 3 sessions per week on alternate days & conventional physical therapy for six weeks.
Group B was treated with Myofascial release technique included 3 set of repetitions per session, 3 sessions per week on alternate days plus conventional Physical therapy. Treated for the period of six weeks. Initially sweep is given to gain analgesic effects. Generally it is applied for appropriate time to achieve desired effects. The position for Myofascial release technique was prone lying and side lying.

Main outcome variables

Pain -Numeric pain rating scale
Functional Capacity at lower limb - Lower Extremity Functional Scale

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210222050451N1**

Registration date: **2021-03-03, 1399/12/13**

Registration timing: **retrospective**

Last update: **2021-03-03, 1399/12/13**

Update count: **0**

Registration date

2021-03-03, 1399/12/13

Registrant information

Name

Muhammad Junaid Akram

Name of organization / entity

Shifa Tameer e Millat University

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Pakistan

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2016-07-01, 1395/04/11

Expected recruitment end date

2017-01-01, 1395/10/12

Actual recruitment start date

2016-08-01, 1395/05/11

Actual recruitment end date

2017-01-30, 1395/11/11

Trial completion date

2017-02-01, 1395/11/13

Scientific title

Effectiveness of Post Facilitation Stretch Technique versus Myofascial Release in Piriformis Syndrome; A Randomized Controlled Trial

Public title

Effectiveness of Post Facilitation Stretch Technique versus Myofascial Release in Piriformis Syndrome; A Randomized Controlled Trial

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

Only male patients with piriformis muscle tightness
Patients with pain along the distribution of sciatic nerve
Aged between 20-60 years

Exclusion criteria:

Patients having spinal stenosis
Patients with lumbar muscle strain and facet arthrography
Acute traumatic cases
Disc herniation and back pain patients

Age

From **20 years** old to **60 years** old

Gender

Male

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **40**

Actual sample size reached: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

Recruited participants were randomly divided to two groups by coin tossing method.

Blinding (investigator's opinion)

Single blinded

Blinding description

The participants were not aware of their allotment to different groups. Apart that, they were also not aware of the treatment regarding the particular group being given to them.

Placebo

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

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

Research ethical committee, RCRS.

Street address

274-Peshawer Road Rawalpindi

City

Islamabad

Postal code

46000

Approval date

2016-07-27, 1395/05/06

Ethics committee reference number

RIPHAH/RCRS/REC/Letter-000131

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. Stretching techniques have proven to produce optimal results in the management of piriformis syndrome; however, there is little evidence available on the type of the most effective stretching technique with respect to clinical outcome.

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

Pain intensity, measured via Numeric pain rating scale (NPRS)

Timepoint

After 6 weeks

Method of measurement

Numeric Pain Rating Scale will be used to assess the Pain intensity level.

2**Description**

Lower Extremity Functional level

Timepoint

After 6 weeks

Method of measurement

Lower Extremity Functional Scale (LEFS)

Secondary outcomes**1****Description**

Rotation at joint and range of motion

Timepoint

After 6 weeks

Method of measurement

Goniometer

Intervention groups**1****Description**

Intervention group:

Category

Rehabilitation

Recruitment centers**1****Recruitment center****Name of recruitment center**

Research ethical committee, RCRS.

Full name of responsible person

Research ethical committee, RCRS.

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imran.amjad@riphah.edu.pk

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Riphah International University, Islamabad

Full name of responsible person

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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

Riphah International University, Islamabad

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**

Shifa Tameer e Millat University

Full name of responsible person

Dr. Muhammad Junaid Akram

Position

Lecturer

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

There is no further information

Study Protocol

No - There is not a plan to make this available

Statistical Analysis Plan

No - There is not 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

No - There is not a plan to make this available

Data Dictionary

No - There is not a plan to make this available