

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparison of Muscle Energy technique and Mobilization with Movement to reduce pain and improve functional status in subjects with anterior innominate iliosacral dysfunction

Protocol summary

Study aim

To compare Muscle energy technique and Mobilization with movement to reduce pain and improve functional status in subjects with anterior innominate iliosacral dysfunction.

Design

Single blinded, randomized clinical trial (RCT), assessor will be blinded

Settings and conduct

Settings: 1.Lifeline Hospital, Johar town Lahore, Pakistan
2.Fatima Memorial Hospital. Shadman, Lahore. Conduct: Single blinded, outcome assessor will be blinded.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Patients aged from 18 to 45 years old; Patients with lumbopelvic pain radiating to knee and associated groin region; Positive SI joint dysfunction test (= or more than 3 tests positive); Seated / standing flexion test must be positive. Exclusion criteria: Pregnant females; Ankylosing spondylitis; SLR< 45 degree; Previous surgical history of back; Diagnosed by physician with any other disease other than iliosacral dysfunction.

Intervention groups

Intervention group 1: Muscle Energy Techniques (MET's). Muscle Energy Technique for Anterior Innominate Iliosacral Dysfunction will be applied to Hamstrings and Iliopsoas muscles. Intervention group 2: Mobilization with Movement (MWM). Mulligan's Mobilization with Movement for Anterior innominate Iliosacral dysfunction will be given to this group.

Main outcome variables

Pain; Functional Disability

General information

Reason for update

Acronym

CMETOIID

IRCT registration information

IRCT registration number: **IRCT20191122045467N1**

Registration date: **2020-02-12, 1398/11/23**

Registration timing: **registered_while_recruiting**

Last update: **2020-02-12, 1398/11/23**

Update count: **0**

Registration date

2020-02-12, 1398/11/23

Registrant information

Name

Hira Akram

Name of organization / entity

Riphah International University

Country

Pakistan

Phone

+92 42 35126110

Email address

hi.mohtsin24@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-12-07, 1398/09/16

Expected recruitment end date

2020-03-03, 1398/12/13

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of Muscle Energy technique and Mobilization

with Movement to reduce pain and improve functional status in subjects with anterior innominate iliosacral dysfunction

Public title

The effect of Muscle Energy technique and Mobilization with Movement anterior innominate iliosacral dysfunction

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Patients aged from 18 to 45 years old Patients with lumbopelvic pain radiating to knee and associated groin region Positive SI joint dysfunction test (= or more than 3 positive tests) Seated / standing flexion test must be positive

Exclusion criteria:

Pregnant females Ankylosing spondylitis SLR< 45 degrees Previous surgical history of back Diagnosed by physician with any other disease other than iliosacral dysfunction

Age

From **18 years** old to **45 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **36**

Randomization (investigator's opinion)

Randomized

Randomization description

Once the above mentioned inclusion and exclusion criteria will be taken into account, potential participants will be considered. They will be requested to participate in the study. Written informed consent will be taken. Each participant will be requested to draw either odd number or even number from a box. Odd Numbers will be allocated to Group A and even number will be allocated to group B.

Blinding (investigator's opinion)

Single blinded

Blinding description

The study is single blinded. The assessment will be done by one therapist and treatment will be given by other therapist. So the assessor will be blinded with regard of treatment.

Placebo

Not used

Assignment

Parallel

Other design features

Rehabilitation.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethical committee of Riphah International University

Street address

13-14-C-Civic Center, Near Hamdard Chowk, Township Commercial Area Lahore.

City

Lahore

Postal code

54770

Approval date

2019-07-16, 1398/04/25

Ethics committee reference number

RCRS&AHS/REC/MS-OMPT/S19/002

Health conditions studied

1

Description of health condition studied

Anterior Innominate Iliosacral Dysfunction.

ICD-10 code

M53.88

ICD-10 code description

Other specified dorsopathies, sacral and sacrococcygeal region

Primary outcomes

1

Description

Pain

Timepoint

Before intervention and 6 weeks after intervention

Method of measurement

Numeric Pain Rating Scale (NPRS)

2

Description

Functional Disability

Timepoint

Before intervention and 6 weeks after intervention.

Method of measurement

Modified Oswestry Disability Index (MODI)

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group A will receive Mulligan's mobilization with movement. 3 sets of 10 MWM according to PILL and

CROOKS principal
Category
Treatment - Other

2

Description
Intervention group B will receive Muscle Energy
Technique 3 sets of MET's Post isometric relaxation
technique
Category
Treatment - Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Lifeline Hospital
Full name of responsible person
Muhammad Salman Bashir
Street address
Building # 462, 463, Khokhar Chowk Block G 3 Phase
2 Johar Town., Lahore.
City
Lahore
Postal code
54000
Phone
+92 42 35445684
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chistisalman@yahoo.com

2

Recruitment center
Name of recruitment center
Fatima Memorial Hospital
Full name of responsible person
Dr. Farhia Shah
Street address
Main Shadman Road, Ichhra Lahore.
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Phone
+92 42 35126110
Email
farhia@gmail.com
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<http://www.fmsystem.org/>

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Riphah International University
Full name of responsible person

Muhammad Salman Bashir
Street address
13-14-C-Civic Center, Near Hamdard Chowk,
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<https://www.riphah.edu.pk/>

Grant name
N/A
Grant code / Reference number
N/A
**Is the source of funding the same sponsor
organization/entity?**
Yes
Title of funding source
Riphah International University
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
Riphah International University
Full name of responsible person
Muhammad Salman Bashir
Position
Student
Latest degree
Bachelor
Other areas of specialty/work
Physiotherapy
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Person responsible for scientific inquiries

Contact

Name of organization / entity

Riphah International University

Full name of responsible person

Muhammad Salman Bashir

Position

Associate professor

Latest degree

Ph.D.

Other areas of specialty/work

Physiotherapy

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Full name of responsible person

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Student

Latest degree

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Other areas of specialty/work

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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

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