

Clinical Trial Protocol

Iranian Registry of Clinical Trials

09 Jun 2026

COMPARISON OF MULLIGAN TECHNIQUE VERSUS MUSCLE ENERGY TECHNIQUE IN PATIENTS WITH ADHESIVE CAPSULITIS

Protocol summary

Study aim

To compare the effects of Mulligan technique and muscle energy technique in patients with adhesive capsulitis.

Design

A concealed, randomized, blinded, controlled clinical trial with a parallel group design of 78 patients, enrolled between September 2019 and March 2020, and followed for one year

Settings and conduct

The list of diagnosed cases were obtained from the physiotherapy department of Government Mian Munshi Hospital, Lahore, Pakistan. Patients were randomly selected and approached by principal investigator after informed consent taken and their approval and ethical approval they were included in the study. The principal investigator was known to the type of treatment but the assessor here was kept blinded by labeling treatment A and treatment B to either group.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Subject diagnosed with unilateral idiopathic adhesive capsulitis, Age: 35 - 60 years, Both gender, Subject diagnosed with stage I and stage II adhesive capsulitis. Exclusion criteria: History of rotator cuff tear, History of rheumatoid arthritis, History of Malignancies in shoulder region, History of any neurological disorder, History of Thoracic outlet syndrome, History of Peripheral nerve injuries.

Intervention groups

Group A: received the routine physical therapy and mulligan technique Group B: received the routine physical therapy and muscle energy technique.

Main outcome variables

Pain, Range of Motion, Functional Disability

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200605047660N1**

Registration date: **2020-06-08, 1399/03/19**

Registration timing: **retrospective**

Last update: **2020-06-08, 1399/03/19**

Update count: **0**

Registration date

2020-06-08, 1399/03/19

Registrant information

Name

Rabia Khalil

Name of organization / entity

Health

Country

Pakistan

Phone

+92 42 92001143

Email address

rabiakhalil98@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-09-01, 1398/06/10

Expected recruitment end date

2020-03-31, 1399/01/12

Actual recruitment start date

2019-09-01, 1398/06/10

Actual recruitment end date

2020-03-31, 1399/01/12

Trial completion date

2020-03-31, 1399/01/12

Scientific title

COMPARISON OF MULLIGAN TECHNIQUE VERSUS MUSCLE ENERGY TECHNIQUE IN PATIENTS WITH ADHESIVE CAPSULITIS

Public title

COMPARISON OF MULLIGAN TECHNIQUE VERSUS MUSCLE ENERGY TECHNIQUE IN PATIENTS WITH ADHESIVE CAPSULITIS

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

Subject diagnosed with unilateral idiopathic adhesive capsulitis Age: 35 - 60 years Both gender Subject diagnosed with stage I and stage II adhesive capsulitis.

Exclusion criteria:

History of rotator cuff tear History of rheumatoid arthritis History of malignancies in shoulder region History of any neurological disorder History of thoracic outlet syndrome History of peripheral nerve injuries

Age

From **35 years** old to **60 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **78**

Actual sample size reached: **78**

Randomization (investigator's opinion)

Randomized

Randomization description

Lottery method

Blinding (investigator's opinion)

Single blinded

Blinding description

The assessor was blinded as the treatment groups were named as group A or group B. Assessor was not aware about group A and group B

Placebo

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

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

Institutional Review Board of University Institute of Physical Therapy, The University of Lahore

Street address

1 Km Off Raiwind Road, Lahore

City

Lahore

Postal code

54792

Approval date

2019-08-29, 1398/06/07

Ethics committee reference number

IRB-UOL-FAHS/668/2019

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

Adhesive Capsulitis

ICD-10 code

M75.0

ICD-10 code description

Adhesive capsulitis of shoulder

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

Pain

Timepoint

Before intervention and 3, 6 weeks after intervention

Method of measurement

Visual Analogue Scale

2**Description**

Range of Motion

Timepoint

Before intervention and 3, 6 weeks after intervention

Method of measurement

Universal Goniometer

3**Description**

Functional Disability

Timepoint

Before intervention and 3, 6 weeks after intervention

Method of measurement

The Shoulder Pain and Disability Index

Secondary outcomes

empty

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

Intervention Group- Routine Physical Therapy + Mulligan Technique 40 minutes of session, Alternative three days/ week for 6 weeks.

Category

Rehabilitation

2

Description

Control Group- Routine Physical Therapy + Muscle Energy Technique 40 minutes of session, Alternative three days/ week for 6 weeks.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Government Mian Munshi Hospital, Lahore, Pakistan

Full name of responsible person

Muhammad Yousaf Rabbani

Street address

Sagian Wala Bypass, Data Gunj Buksh Town, Lahore.

City

Lahore

Postal code

54000

Phone

+92 42 37147265

Email

sd.health@punjab.gov.pk

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

University of Lahore, Lahore

Full name of responsible person

Dr Fahad Tanveer

Street address

1 Km Off Raiwind Road, Lahore

City

Lahore

Postal code

54792

Phone

+92 42 35963424

Email

fahad.tanveer@uipt.uol.edu.pk

Grant name

Grant code / Reference number

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

Yes

Title of funding source

University of Lahore, Lahore

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

Government Mian Munshi Hospital, Lahore, Pakistan

Full name of responsible person

Dr Rabia Khalil

Position

Physiotherapist

Latest degree

Master

Other areas of specialty/work

Physiotherapy

Street address

Sagian Wala Bypass, Data Gunj Buksh Town, Lahore, Punjab , Pakistan

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Person responsible for scientific inquiries

Contact

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Government Mian Munshi Hospital, Lahore, Pakistan

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Person responsible for updating data

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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

IPD collected for the primary outcome measure only

When the data will become available and for how long

after publication of the study

To whom data/document is available

people working in academic institutions and researchers

Under which criteria data/document could be used

on informed request from the investigator

From where data/document is obtainable

via email / telephonic contact with investigator

What processes are involved for a request to access data/document

on email request data will be provided within week

Comments