Clinical Trial Protocol
Iranian Registry of Clinical Trials

12 Nov 2026

COMPARING THE EFFECT OF MUSCLE ENERGY TECHNIQUE AND MULLIGAN MOBILIZATION WITH MOVEMENT ON PAIN, RANGE OF MOTION AND DISABILTIY IN ADHESIVE CAPSULITIS

Protocol summary

Study aim

To compare the effect of Mulligan's mobilization with movement and Muscle energy technique to decrease pain, disability and increase ROM in patients of adhesive capsulitis.

Design

Parallel group, single blinded, randomized controlled trial

Settings and conduct

OPD Physiotherapy department Mayo Hospital, Lahore.

Participants/Inclusion and exclusion criteria

Inclusion Criteria Subject having stage 2 of frozen shoulder Age group 30-70years Subject with bilateral/unilateral adhesive capsulitis Both males and females Subject who willing to participate Exclusion Criteria: Malignancy Patients was excluded if they exhibited Subjects with Neuromuscular disorders Conditions that contraindicated to manual therapy. Any participant who was unable to return for follow up treatment or evaluation. Any participant who received treatment concurrent to the research.

Intervention groups

All the participant who came to physiotherapy department was considered and screened for adhesive capsulitis stage 2 with having a restriction of movements. 70 patients were allotted in two groups i.e.; group A(MWM) and group B(MET) via lottery method, 35 in each group. Consider the inclusion and exclusion criteria before concerning them in study. Both groups were received the conventional therapy, which was remain same throughout the study. Patient in A group was treated with Mulligan's mobilization and in B group with muscle energy technique. Dosage:- Totally, 6 repetitions of the technique were performed during a single treatment session. The period between each repetition was no longer than 60s. Duration: - Three session/week (alternative days) and treatment last for 3 weeks.

Main outcome variables

• assessing the intensity of pain via using Numeric pain scale • range of motion was measure by Goniometer • and functional disability was measured by SPADI tool

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200611047734N2**
Registration date: **2020-06-22, 1399/04/02**
Registration timing: **retrospective**

Last update: **2020-06-22, 1399/04/02**
Update count: **0**

Registration date

2020-06-22, 1399/04/02

Registrant information

Name

AYESHA RAZZAQ

Name of organization / entity

King Edward Medical University,Lahore

Country

Pakistan

Phone

+92 61 6521475

Email address

drayesharazzak@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-06-11, 1397/03/21

Expected recruitment end date

2018-12-11, 1397/09/20

Actual recruitment start date
2018-09-10, 1397/06/19
Actual recruitment end date
2019-03-10, 1397/12/19
Trial completion date
2019-03-10, 1397/12/19

Scientific title
COMPARING THE EFFECT OF MUSCLE ENERGY TECHNIQUE AND MULLIGAN MOBILIZATION WITH MOVEMENT ON PAIN, RANGE OF MOTION AND DISABILTIY IN ADHESIVE CAPSULITIS

Public title
COMPARING THE EFFECT OF MUSCLE ENERGY TECHNIQUE AND MULLIGAN MOBILIZATION WITH MOVEMENT ON PAIN, RANGE OF MOTION AND DISABILTIY IN ADHESIVE CAPSULITIS
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
 Subject having stage 2 of frozen shoulder Age group 30-70years Subject with bilateral/unilateral adhesive capsulitis Both males and females Subject who willing to participate
Exclusion criteria:
 Malignancy Patients was excluded if they exhibited Subjects with Neuromuscular disorders Conditions that contraindicated to manual therapy. Any participant who was unable to return for follow up treatment or evaluation. Any participant who received treatment concurrent to the research.
Age
From **30 years** old to **70 years** old
Gender
Both

Phase
N/A
Groups that have been masked

- Participant

Sample size
Target sample size: **70**
More than 1 sample in each individual
Number of samples in each individual: **35**
35 patients in each group was estimated by using 5% level of significance, 90% power of test
Actual sample size reached: **70**
More than 1 sample in each individual
Actual sample size in each individual: **35**
35 patients in each group was estimated by using 5% level of significance, 90% power of test
Randomization (investigator's opinion)
Randomized
Randomization description
it was a single blinded randomized control trial. in which participant were kept blind. All the participant who came to physiotherapy department was considered and screened for adhesive capsulitis stage 2 with having a restriction of movements. 70 patients were allotted in two groups i.e.; group A(MWM) and group B(MET) via lottery method, 35 in each group. Consider the inclusion and exclusion criteria before concerning them in study. Informed consent was taken whether they were willing to participate or not in written form.
Blinding (investigator's opinion)
Single blinded
Blinding description
it was a single blinded study in which participant/ patients were kept blind for treatment technique. 2 different technique were provided to patients. and they were blind about that which technique was given to which patients.
Placebo
Not used
Assignment
Parallel
Other design features
Parallel groups, single blinded, single setting

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Institutional Review Board
Street address
Neela Gumbad,New Anarkali,Lahore
City
Lahore
Postal code
36121
Approval date
2018-06-11, 1397/03/21
Ethics committee reference number
407/RC/KEMU

Health conditions studied

1

Description of health condition studied
adhesive Capsulitis stage 2
ICD-10 code
M75
ICD-10 code description
Shoulder lesions

Primary outcomes

1

Description
pain
Timepoint
Baseline and after 3rd week
Method of measurement
Numeric Pain Rating Scale

2

Description
Range of motion
Timepoint
baseline and after 3rd week
Method of measurement
Goniometer

3

Description
functional Disability
Timepoint
baseline and after 3rd week
Method of measurement
SPADI Tool

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Patient in A group was treated with Mulligan's mobilization.Both groups were received the conventional therapy, which was remain same throughout the study. The conventional therapy includes hot pack for 10 minutes and shoulder exercises which include wand exercise, pulley rope, shoulder wheel exercise and wall climbing exercises. Group A: - Application of hot pack, exercises and mulligan's mobilization. Dosage: - The glide was applied and sustained for approximately 5-10 s while the patient performed the pain-free gripping action. Totally, 6 repetitions of the technique were performed during a single treatment session. The period between each repetition was no longer than 60s. Duration: - Three session/week (alternative days) and treatment last for 3 weeks
Category
Treatment - Devices

2

Description
Intervention group: Patient in B group was treated with muscle energy technique.Both groups were received the conventional therapy, which was remain same throughout the study. The conventional therapy includes hot pack for 10 minutes and shoulder exercises which include wand exercise, pulley rope, shoulder wheel exercise and wall climbing exercises. Dosage: - Hold the position for 8-10and relax for 3-4 sec than gain new range. Totally, 6 repetitions of the technique were performed during a single treatment session. The period between each repetition was no longer than 60s. Duration: 3 weeks with 3 sessions per weeks.
Category
Treatment - Devices

Recruitment centers

1

Recruitment center
Name of recruitment center
OPD Physiotherapy department Mayo Hospital, Lahore.
Full name of responsible person
AYESHA RAZZAQ
Street address
sahar villa, opposite to multan public boys school road multan
City
Multan
Postal code
66000
Phone
+92 61 6521475
Email
drayesharazzak@gmail.com

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
king edward medical university,Lahore
Full name of responsible person
RANA DILAWAAIZ NADEEM
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Email
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Grant name
ayesha razzaq
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
No
Title of funding source
academic support only
Proportion provided by this source
20
Public or private sector
Public
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
king edward medical university,Lahore

Full name of responsible person
ayesha razzaq

Position
senior Lecturer/Senior Physiotherapist

Latest degree
Medical doctor

Other areas of specialty/work
Physiotherapy

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sahar villa, boys multan public school road,Multan

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Province
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Person responsible for scientific inquiries

Contact

Name of organization / entity
king edward Medical University,Lahore

Full name of responsible person
Rana Dilawaaiz Nadeem

Position
professor/ head of department orthopedic king edward medical university/Mayo hospital.

Latest degree
Specialist

Other areas of specialty/work
Orthopedics

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Person responsible for updating data

Contact

Name of organization / entity
king edward medical universsity

Full name of responsible person
ayesha razzaq

Position
senior lecturer/ senior physiotherapist

Latest degree
Master

Other areas of specialty/work
Physiotherapy

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Sharing plan

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

Title and more details about the data/document
COMPARING THE EFFECT OF MUSCLE ENERGY TECHNIQUE AND MULLIGAN MOBILIZATION WITH MOVEMENT ON PAIN, RANGE OF MOTION AND DISABILTIY IN ADHESIVE CAPSULITIS

When the data will become available and for how long
study is completed and become available after its publication

To whom data/document is available
person in academic institute. Patient data will not be shown .

Under which criteria data/document could be used
under the usage with terms in which journal is accessed /processed for publication it could be used in request.

From where data/document is obtainable
+923367595206 from the University office and Responsible supervisor and from journal we will process in future

What processes are involved for a request to access data/document
can be on call or mail It will be only used in confidential way for improving research and benefit of humanity

Comments
data can bee provided on request