

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jul 2026

Effects of Mulligan Pain Release Phenomenon Technique in the Management of Patellofemoral Pain Syndrome; A Randomized Controlled Trial.

Protocol summary

Study aim

The purpose of this study was to find out effectiveness of Mulligan pain release phenomenon (PRP) for the treatment of PFP Syndrome.

Design

Single Blind-Randomized Controlled Trial.

Settings and conduct

Physiotherapy Department, Sialkot College of Physical Therapy, Amin Welfare & Teaching Hospital, Sialkot Pakistan.

Participants/Inclusion and exclusion criteria

Patients of Age 35 -65 years of both Genders with positive Symptoms for patellofemoral pain syndrome, Positive Clarke's Test, Positive symptom provocation tests (patellar tracking, crepitus, J sign) and Patients with grade-I Osteoarthritis were included. While patients with Age less than 35 or more than 65 years, Any Infection -Tuberculosis, acute Inflammation around the knee, Tumors around the knee, Rheumatoid Arthritis, trauma, ligamentous injury, Osteoporosis and with Any Red Flag Signs were excluded.

Intervention groups

Treatment Group A received compression with Mulligan's Pain Release Phenomenon, three times per week for four weeks. Treatment Group B received distraction with Mulligan's Pain Release Phenomenon, three times per week for four weeks. Control Group c received isometric Quad's Exercises three times per week for four weeks.

Main outcome variables

Primary Outcomes: 1: Change in Pain score on VAS. 2: Knee ROM
Secondary Outcomes: 1: LEFS

General information

Reason for update

Acronym

PFP Syndrome

IRCT registration information

IRCT registration number: **IRCT20201031049207N2**

Registration date: **2020-12-11, 1399/09/21**

Registration timing: **retrospective**

Last update: **2020-12-11, 1399/09/21**

Update count: **0**

Registration date

2020-12-11, 1399/09/21

Registrant information

Name

Wajida Perveen

Name of organization / entity

Sialkot college of Physical Therapy, Amin Welfare & Teaching Hospital, defence Road, Sialkot Pakistan

Country

Pakistan

Phone

+92 52 3250520

Email address

drwajidaperveenpt@scptamc.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2017-03-02, 1395/12/12

Expected recruitment end date

2017-08-31, 1396/06/09

Actual recruitment start date

2017-03-02, 1395/12/12

Actual recruitment end date

2017-08-31, 1396/06/09

Trial completion date

2017-10-20, 1396/07/28

Scientific title

Effects of Mulligan Pain Release Phenomenon Technique in the Management of Patellofemoral Pain Syndrome; A Randomized Controlled Trial.

Public title

Patello Femoral Pain Syndrome

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Age: 35 -65 years. Both Genders Symptoms positive for patellofemoral pain syndrome. Positive Clarke's Test Positive for provocative tests: patellar tracking, crepitus, J sign. Patients with grade-I Osteoarthritis

Exclusion criteria:

Age less than 35 or more than 65 years. Any Infection -Tuberculosis. Inflammation around the knee. Tumors around the knee. Rheumatoid Arthritis, trauma, ligamentous injury. Osteoporosis Any Red Flag Signs

Age

From **35 years** old to **65 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **45**

Actual sample size reached: **45**

Randomization (investigator's opinion)

Randomized

Randomization description

Patients were randomly divided into three groups with fifteen patients in each group. Groups allocation was assigned using computer generated random number table and the allocation was kept concealed.

Blinding (investigator's opinion)

Single blinded

Blinding description

It was single blind study, only outcome assessor was blind of allocation of treatment group.

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

SCPT-IRB

Street address

Umer Street

City

Sialkot

Postal code

51310

Approval date

2017-02-20, 1395/12/02

Ethics committee reference number

SCPT-IRB-DPT-142-2017

Health conditions studied

1

Description of health condition studied

Normal Healthy Individuals with patellofemoral pain syndrome.

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Visual Analogue Scale (VAS) for Pain

Timepoint

Before 1st Treatment session and after last Treatment session.

Method of measurement

On VAS

2

Description

Knee Range of Motion (ROM)

Timepoint

Before 1st Treatment Session and after Last Treatment session.

Method of measurement

Measured by Standard Goniometer.

Secondary outcomes

1

Description

Lower Extremity Function scale (LEFS)

Timepoint

Before 1st Treatment Session and after Last Treatment session

Method of measurement

The LEFS was completed by the patient him/her self and calculated by the therapist.

Intervention groups

1

Description

Intervention Group A will receive Compression Technique along with Mulligan's PRP. The treatment was

administered three times a week for four weeks.

Category

Treatment - Other

2

Description

Intervention Group B will receive Distraction Technique along with Mulligan's PRP. The treatment was administered three times a week for four weeks.

Category

Treatment - Other

3

Description

Control Group C will receive Isometric Quads Exercises only. The treatment was administered three times a week for four weeks.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Physical Therapy Department, Sialkot College of Physical Therapy, Amin Welfare & Teaching

Full name of responsible person

Wajida Perveen

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

None

Full name of responsible person

None

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Grant name

None

Grant code / Reference number

None

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

No

Title of funding source

None

Proportion provided by this source

1

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

Other

Person responsible for general inquiries

Contact

Name of organization / entity

Sialkot College of Physical Therapy, Amin Welfare & Teaching Hospital.

Full name of responsible person

Wajida Perveen

Position

Assistant Professor

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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Person responsible for scientific inquiries

Contact

Name of organization / entity

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Full name of responsible person

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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

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

Title and more details about the data/document

Effects of Mulligan Pain Release Phenomenon Technique in the Management of Patellofemoral Pain Syndrome; A randomized Controlled Trial.

When the data will become available and for how long

After Publication of Manuscript, depends on the open access policy of the Journal.

To whom data/document is available

Only Relevant Personnel

Under which criteria data/document could be used

Citation/ Evidence

From where data/document is obtainable

Principal Investigator

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

A formal Email Request.

Comments