Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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
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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
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Sponsors / Funding sources

1

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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

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Person responsible for scientific inquiries

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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 Tril.

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