

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

Evaluation of the effect of sacroiliac joint manipulation on pain ,function and electromyographic activity of vastus medialis and latralis in athletes with patellofemoral pain syndrome

Protocol summary

Summary

Objectives: To evaluation of the effect of sacroiliac joint manipulation on pain ,function and electromyographic activity of vastus medialis and latralis in athletes with patellofemoral pain syndrome. inclusion criteria: athletes that have anterior or retro-patellar and around knee pain; pain at least as long as 6 month; pain during squat, step up and step down, running and jumping; At least one positive test: eccentric step down test, vastus medialis coordination test, patellar apprehension test. exclusion criteria: pain is due to trauma; acute and subacute neuromuscular disease; history of surgery in the knee. subjects: 28 athletes that aged between 18 to 40 that have anterior knee pain on one side participate in this study, Being an athlete is a measure of the individual's regular schedule for at least 3 sessions per week, each session is 2 hours of practice Interventions: participants divide in two groups, the first group is received manipulation to the sacroiliac joint and second group is not received manipulation but received manipulation position. electromyographic activity(onset and amplitude)of vastus medialis and vastus latralis , pain and functional level of knee joint at both groups is measured before and after by electromyographic device on rock task , VAS and Kujala Patellofemoral Scale. One group the high-velocity low-amplitude (HVLA) manipulation and the other group receive position(placebo) in a single session.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2013122515932N1**

Registration date: **2014-01-30, 1392/11/10**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2014-01-30, 1392/11/10

Registrant information

Name

Alireza Motealleh

Name of organization / entity

Shiraz University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Shiraz University of Medical Sciences

Expected recruitment start date

2013-12-05, 1392/09/14

Expected recruitment end date

2014-02-07, 1392/11/18

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of the effect of sacroiliac joint manipulation on pain ,function and electromyographic activity of vastus medialis and latralis in athletes with patellofemoral pain syndrome

Public title

Evaluation of the effect of sacroiliac joint manipulation on pain ,function and electromyographic activity of vastus medialis and latralis in athletes with patellofemoral pain syndrome

Purpose

Treatment

Inclusion/Exclusion criteria

inclusion criteria: athletes that have anterior or retro-patellar and around knee pain; pain at least as long as 6 month; pain during squat, step up and step down, running and jumping; At least one positive test: eccentric step down test, vastus medialis coordination test, patellar apprehension test. exclusion criteria: pain is due to trauma; acute and subacute neuromuscular disease; history of surgery in the knee,postural deformities,osteoporosis

Age

From **18 years** old to **40 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **28**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Shiraz University of Medical Sciences

Street address

Central Building of Shiraz University of Medical Sciences, Zand avenue -shiraz

City

shiraz

Postal code

1978-71345

Approval date

2013-10-12, 1392/07/20

Ethics committee reference number

CT-92_6722

Health conditions studied

1

Description of health condition studied

Patellofemoral pain syndrome

ICD-10 code

M22.2 , M2

ICD-10 code description

Patellofemoral disorders, Chondromalacia patellae

Primary outcomes

1

Description

electromyographic activity(onset and amplitude) of vastus medialis and latralis in heel rise task

Timepoint

before_ after

Method of measurement

electromyographic device

2

Description

pain intensity

Timepoint

before- after

Method of measurement

Visual analoug scale

Secondary outcomes

1

Description

functional level of knee

Timepoint

before - after

Method of measurement

Kujala Patellofemoral Scale

Intervention groups

1

Description

Intervention:in the intervention group,the patient is supine on the bed and the therapist bends contralateral to the side which is to be manipulated.The patient is passively move into side bending. toward the side to be manipulated. The patient interlock the fingers behind his or her head. The therapist passively rotate the patient, and then deliver a quick thrust to the Anterior Superior Iliac Spine (ASIS) in a posterior and inferior direction. Treatment is one session.Then the patient to br evaluated immediately and the information to be recorded.

Category

Rehabilitation

2

Description

Control group:the patient is given sacroiliac manipulation position But the technique should not be placed.Then the patient to be evaluated immediately and the information to be recorded

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Rehabilitation Collage of Shiraz Medical Science University

Full name of responsible person

Ali Reza Motealeh

Street address

NO.32, Abiverdi 1 Avenue, Chamran Blvd, Shiraz ,Fars

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shiraz University of Medical Sciences

Full name of responsible person

Dr.Hatam

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Central Building of Shiraz University of Medical Sciences ,Zand avenue ,Shiraz

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Grant name

Grant code / Reference number

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

Yes

Title of funding source

Shiraz University of Medical Sciences

Proportion provided by this source

100

Public or private sector

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

empty

Person responsible for general inquiries

Contact

Name of organization / entity

Shiraz University of Medical Sciences

Full name of responsible person

Elham Gheissary

Position

Master science student of Physical Therapy

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

empty

Study Protocol

empty

Statistical Analysis Plan

empty

Informed Consent Form

empty

Clinical Study Report

empty

Analytic Code

empty

Data Dictionary

empty