Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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

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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

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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
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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