

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

the effect of sacroiliac joint manipulation on balance and knee position sense of patients with patellofemoral pain syndrome

Protocol summary

Summary

Objectives: To examine the effectiveness of sacroiliac joint manipulation to improve balance and knee position sense of patients with patellofemoral pain syndrome.

Design of study: 44 persons (men & women) that have anterior knee pain participate in this study. Inclusion criteria consist of: have anterior or retro-patellar knee 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.

Interventions: volunteers 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. position sense and balance at both groups is measured before and after by Biodex Dynamometer and star excursion balance test. Primary outcome measures: knee position sense error For angles 20 and 60 according to degrees. Secondary outcome measures: reach direction measures at anterior, postero-lateral, postero- medial by used of star excursion balance test before and after at both group. One group the high-velocity low-amplitude (HVLA) manipulation and the other group receive position (placebo) in a single session.

Measurement: using the Biodex dynamometer to evaluate position sense and star execution test to evaluate balance ability and VAS (visual analog scale) to evaluate pain before and after intervention in both groups

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2013061213651N1**

Registration date: **2013-10-13, 1392/07/21**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2013-10-13, 1392/07/21

Registrant information

Name

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Name of organization / entity

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Recruitment status

Recruitment complete

Funding source

Shiraz University of Medical Sciences

Expected recruitment start date

2013-07-20, 1392/04/29

Expected recruitment end date

2013-09-20, 1392/06/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

the effect of sacroiliac joint manipulation on balance and knee position sense of patients with patellofemoral pain syndrome

Public title

knee pain and position sense

Purpose

Treatment

Inclusion/Exclusion criteria

inclusion criteria: they 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.

Age

From **18 years** old to **35 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **44**

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

Approval date

2013-05-14, 1392/02/24

Ethics committee reference number

CT- 92- 6512

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

knee Position Sense

Timepoint

Before - After

Method of measurement

by Biodex Dynamometer Based on degrees

Secondary outcomes

1

Description

Balance

Timepoint

Before - After

Method of measurement

by Star Execution Test Based on centimeter by tape meter

Intervention groups

1

Description

Intervention: The patient to be evaluated before intervention.After a fifteen minute rest in the intervention group: the patient is supine 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 to be evaluated beforeid given sacroiliac manipulation position.After a fifteen minute rest.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 Motealleh

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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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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

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Position

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Other areas of specialty/work

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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