

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

30 May 2026

### Comparison of Electroacupuncture and Sham Acupuncture on Pain and Function of Patients with Patellofemoral Pain Syndrome

#### Protocol summary

##### Summary

The aim of the current study is to compare the effects of electroacupuncture on pain and function of the patients with patellofemoral pain syndrome (PFPS). This randomized clinical trial will be conducted in outpatient clinics of Isfahan. We will include a total number of 40 patients with PFPS who will be randomly assigned to receive electroacupuncture (n=20) or sham electroacupuncture (n=20) twice weekly for 10 sessions using a random digit table. The patients also will receive gluteal and quadriceps strengthening exercise. All the patients will be visited 1, 3 and 6 months after the intervention and the pain intensity and functional recovery will be measured using visual analogue scale (VAS) and anterior knee pain scale (AKPS), respectively. Those assessing the outcome are blind toward the study groups.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT201701242445N4**

Registration date: **2017-04-06, 1396/01/17**

Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2017-04-06, 1396/01/17

##### Registrant information

##### Name

Fariborz Ghaffarpasand

##### Name of organization / entity

Shiraz University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 71 3647 4259

##### Email address

ghafarf@sums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Vice Chancellor of Research, Isfahan University of Medical Sciences

##### Expected recruitment start date

2015-02-01, 1393/11/12

##### Expected recruitment end date

2016-09-01, 1395/06/11

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparison of Electroacupuncture and Sham Acupuncture on Pain and Function of Patients with Patellofemoral Pain Syndrome

##### Public title

Electroacupuncture for Patellofemoral Pain Syndrome

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

Inclusion criteria: anterior or retropatellar knee pain from at least two of the following: prolonged sitting, stair-climbing, squatting, running, kneeling, and hopping/jumping; insidious onset of symptoms unrelated to a traumatic incident; presence of pain on palpation of the patellar facets, on step down from a 25-cm step, or during a double-legged squat; positive Clarke's test; patella lateral displacement in patellar view radiography; age between 17 and 35 years; disease duration of more than 2 months; unresponsive to at least one month of

conservative therapy. Exclusion criteria: previous history of lumbosacral spine; pelvic or lower extremity surgery; history of severe knee trauma within the past 6 months; minor knee trauma within previous 2 months; symptoms of meniscal or other intraarticular pathologic conditions; evidence of a knee joint effusion or hip or lumbar referred pain; history of patellar dislocation; steroids consumption at time of inclusion; coagulopathies; systemic diseases such as rheumatoid arthritis, diabetes mellitus and dermatitis; presence of scar at the site of acupuncture; needle phobia; pregnancy

#### Age

From **17 years** old to **35 years** old

#### Gender

Both

#### Phase

2

#### Groups that have been masked

*No information*

#### Sample size

Target sample size: **40**

#### Randomization (investigator's opinion)

Randomized

#### Randomization description

#### Blinding (investigator's opinion)

Single blinded

#### Blinding description

#### Placebo

Not used

#### Assignment

Parallel

#### Other design features

### Secondary Ids

empty

### Ethics committees

#### 1

##### Ethics committee

###### Name of ethics committee

Medical Ethics Committee of Isfahan University of Medical Sciences

###### Street address

Vice Chancellor of Research, Building No. 4, Isfahan University of Medical Sciences, Hezar Jarib Street

###### City

Isfahan

###### Postal code

8174675731

##### Approval date

2017-02-02, 1395/11/14

##### Ethics committee reference number

IR.MUI.REC.YEAE395102

### Health conditions studied

#### 1

##### Description of health condition studied

Patellofemoral Pain Syndrome

##### ICD-10 code

M22.2

##### ICD-10 code description

Patellofemoral disorders

### Primary outcomes

#### 1

##### Description

Pain

##### Timepoint

Baseline and 1, 3, 6 months after the intervention

##### Method of measurement

Visual Analogue Scale

#### 2

##### Description

Function

##### Timepoint

Baseline and 1, 3, 6 months after the intervention

##### Method of measurement

Anterior Knee Pain Scale (AKPS)

### Secondary outcomes

#### 1

##### Description

Complications

##### Timepoint

Baseline and 1, 3, 6 months after the intervention

##### Method of measurement

Evaluating in each visit

### Intervention groups

#### 1

##### Description

Electroacupuncture twice weekly for 10 sessions

##### Category

Treatment - Other

#### 2

##### Description

Sham electroacupuncture twice weekly for 10 sessions

##### Category

Placebo

### Recruitment centers

#### 1

##### Recruitment center

Name of recruitment center

Al-Zahra Hospital  
**Full name of responsible person**  
Hoda Jafari  
**Street address**  
**City**  
Isfahan

## Sponsors / Funding sources

1

### Sponsor

**Name of organization / entity**  
Vice Chancellor of Research, Isfahan University of  
Medical Sciences  
**Full name of responsible person**  
Mohammad Hashemi  
**Street address**  
Vice Chancellor of Research, Building No. 4, Isfahan  
University of Medical Sciences, Hezar Jarib Street  
**City**  
Isfahan

### Grant name

### Grant code / Reference number

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

Yes

### Title of funding source

Vice Chancellor of Research, Isfahan 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**  
Isfahan University of Medical Sciences  
**Full name of responsible person**  
Hoda Jafari  
**Position**  
Resident  
**Other areas of specialty/work**  
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### Web page address

## Person responsible for scientific inquiries

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## Person responsible for updating data

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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*