

Clinical Trial Protocol

Iranian Registry of Clinical Trials

04 Aug 2026

Evaluating the effect of dry needling on pain and activities of daily living in patients with mild and moderate knee osteoarthritis (a pilot study)

Protocol summary

Study aim

Determining the effect of dry needling on pain and activities of daily living in patients with mild and moderate knee osteoarthritis and myofascial pain syndrome in the muscles around the knee.

Design

Before and after quasi experimental clinical trial (pilot study)

Settings and conduct

The study will be held in Sedigheh Tahereh Rehabilitation center.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Subjects with knee osteoarthritis who do not have other problems and diseases associated with knee pain and function .

Intervention groups

All of the participants receive dry needling into the trigger points.

Main outcome variables

Pain; activities of daily living

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180427039430N1**

Registration date: **2018-08-03, 1397/05/12**

Registration timing: **registered_while_recruiting**

Last update: **2018-08-03, 1397/05/12**

Update count: **0**

Registration date

2018-08-03, 1397/05/12

Registrant information

Name

Mohammad Amani

Name of organization / entity

Country

Iran (Islamic Republic of)

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Email address

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-06-22, 1397/04/01

Expected recruitment end date

2019-03-16, 1397/12/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluating the effect of dry needling on pain and activities of daily living in patients with mild and moderate knee osteoarthritis (a pilot study)

Public title

The effect of dry needling on pain and activities of daily living in knee osteoarthritis

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Radiological signs of moderate knee osteoarthritis with grade 1 to 3 of Kellgren and Lawrence scale in at least one knee Knee osteoarthritis (tibiofemoral joint) signs according to American college of rheumatology such as pain in last 3 months ago; crepitus on joint mobilization and morning stiffness lasting 30 min or more pain level higher than 30 millimeters on visual analogue scale

Having trigger points in muscles surrounding the knee

Exclusion criteria:
 History of any severe trauma to lower limbs
 Fibromyalgia; Hypothyroidism; Meralgia paresthetica
 History of surgery in lower limbs Radiculopathy or myopathy in lower limbs
 Ulceration or skin diseases
 Injection of corticosteroids or dry needling in last 6 months

Age
 From 50 years old

Gender
 Both

Phase
 N/A

Groups that have been masked
 No information

Sample size
 Target sample size: 15

Randomization (investigator's opinion)
 N/A

Randomization description

Blinding (investigator's opinion)
 Not blinded

Blinding description

Placebo
 Not used

Assignment
 Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Isfahan University of Medical Sciences, Ethics Committee

Street address

Secretariat of the Ethics Committee, Room 209, Second Floor, Building No. 4, Isfahan University of Medical Sciences, Hezar Jerib Street

City

Isfahan

Province

Isfahan

Postal code

81745-164

Approval date

2018-05-14, 1397/02/24

Ethics committee reference number

IR.MUI.REC.1397.3.036

Health conditions studied

1

Description of health condition studied

Knee Osteoarthritis

ICD-10 code

M19.9

ICD-10 code description

Osteoarthritis, unspecified site

Primary outcomes

1

Description

Pain

Timepoint

Before, 4 days and one month after intervention

Method of measurement

Visual analogue scale (VAS)

2

Description

Activities of daily living

Timepoint

Before, 4 days and one month after intervention

Method of measurement

Knee outcome survey (KOS)

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Dry needling includes using of 5 cm needle specified for dry needling. Trigger points of Quadriceps and Gastrocnemius muscles will be choosed for needling. The needle was deeply inserted perpendicular to the skin using fast-in and fast out cone shape technique.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Sedigheh Tahereh rehabilitation center

Full name of responsible person

Navid Taheri

Street address

Khorram St., Jomhuri-e-Eslami Square, Isfahan town

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Esfahan University of Medical Sciences
Full name of responsible person
Dr. Shaghayegh Haghjoo Javanmard
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Vice Chancellory of Research and Technology, Isfahan
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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

Esfahan University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity
Esfahan University of Medical Sciences
Full name of responsible person
Navid Taheri
Position
PhD, Assistant Professor
Latest degree
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Other areas of specialty/work
Physiotherapy
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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Undecided - It is not yet known if there will be a plan to make this available

Study Protocol

Undecided - It is not yet known if there will be a plan to

make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available