

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparison of low power laser and %1 hydrocortisone phonophoresis in the treatment of Knee osteoarthritis

Protocol summary

Summary

The knee is affected to osteoarthritis more than any other joints. Knee osteoarthritis causes pain, inflammation, quadriceps muscle atrophy and tightness of hamstring muscles. The aim of this study is to compare the effects of low power laser and %1 hydrocortisone phonophoresis on knee osteoarthritis. This study is a double-blinded randomized clinical trial. 90 patients will refer to clinic of Fattemeh physiotherapy in Rafsanjan. They will be divided into three equal groups randomly. Three interventions of this study are low power laser (GaALAS,810nm, 100mv), %1 hydrocortisone phonophoresis (Ultrasound, ITO with %1 hydrocortisone ointment) and control (%1 hydrocortisone ointment). Intensity of pain, improvement of movement and reduction of inflammation are assessed during 1st, 5th and 10th sessions. Inclusion criteria are knee pain more than 3 months, osteophyte in knee joint, crepitation and reduction of joint space. Exclusion criteria are injection of corticosteroids during previous 1 month, fracture, dislocation and severe contracture of the knee joint.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201107293220N2**

Registration date: **2011-09-21, 1390/06/30**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2011-09-21, 1390/06/30

Registrant information

Name

Dadollah Shahimoridi

Name of organization / entity

Rafsanjan University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Rafsanjan University of Medical Sciences

Expected recruitment start date

2011-07-06, 1390/04/15

Expected recruitment end date

2012-05-04, 1391/02/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of low power laser and %1 hydrocortisone phonophoresis in the treatment of Knee osteoarthritis

Public title

Comparison of laser and phonophoresis in the treatment of Knee osteoarthritis

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion: Knee pain more than 3 months; knee osteophyte; sclerosis under cartilage; decrease of joint space; crepitation. Exclusion: Corticosteroide injection during previous 1 month; fracture and dislocation of Knee; severe osteoarthritis of Knee; pregnancy; severe joint stiffness.

Age

From **30 years** old to **80 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **90**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Rafsanjan University of Medical Sciences

Street address

Emam Ali street

City

Rafsanjan

Postal code

7717893591

Approval date

2011-08-09, 1390/05/18

Ethics committee reference number

492/20/9

Health conditions studied

1

Description of health condition studied

Knee osteoarthritis

ICD-10 code

M19.0

ICD-10 code description

Primary arthrosis of other joints

Primary outcomes

1

Description

Pain intensity at rest

Timepoint

1st, 5th and 10th sessions

Method of measurement

by Visual Analogue Scale (VAS)

2

Description

Inflammation around Knee joint

Timepoint

1st, 5th and 10th sessions

Method of measurement

By meter (cm)

3

Description

knee movements

Timepoint

1st, 5th and 10th sessions

Method of measurement

by Goniometer

Secondary outcomes

empty

Intervention groups

1

Description

First group will receive low power laser (GaALAS, 810 nm, 100mv) through 6J intensity and 5 minutes per session during 10 sessions on the knee joint (10 points)

Category

Rehabilitation

2

Description

Second group will receive %1 hydrocortisone phonophoresis by ultrasound (ITO, 7P, 1 MHZ, Japan) that is apply through 1/5 watt/cm2 intensity, continuous wave and 5 minutes per session plus %1 hydrocortisone ointment during 10 sessions on around knee joint.

Category

Rehabilitation

3

Description

Third group (control): %1 hydrocortisone ointment and jell massage around knee. Ultrasound and then laser is on but intensity (dose) of both sets are zero and apply on knee joint.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center
Fattemeh physiotherapy clinic
Full name of responsible person
Dadollah Shahimoridi
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Moalem street, alley 17
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Person responsible for scientific inquiries

Contact

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Rafsanjan University of Medical Sciences
Full name of responsible person
Reza Vazerinejad
Street address
Emam Ali street
City
Rafsanjan

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Rafsanjan 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

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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