

Clinical Trial Protocol

Iranian Registry of Clinical Trials

09 Jun 2026

Effect of tele rehabilitation compared with rehabilitation at the clinic in patients with osteoarthritis of the knee

Protocol summary

Summary

Osteoarthritis is the most common disease of synovial joints and is a leading cause of disability in the elderly. In recent decades, many studies have been conducted on the treatment of non-pharmacological and physical therapy. Patients who live far away to attend the clinic regularly due to factors such as time and cost of transportation are an issue. We intended to compare the efficacy of telerehabilitation with office physiotherapy in terms of relief of symptoms and improvement of function in patients with knee osteoarthritis. Methods: In this randomized controlled study patients with osteoarthritis of the knee were enrolled. Those with radiological criteria of severe or grade 4 osteoarthritis were excluded. The patients were randomly assigned to two groups of telerehabilitation and office physiotherapy. In the first group, exercises were instructed to patients and they were told to continue this program for 6 weeks at home. During this period doctors supervised once a week by phone. In the second group, patients attended to physical therapy clinics 3 times a week for 6 weeks and were treated with passive physical therapy modalities. At baseline before the interventions, at 6 weeks, 1 and 6 months post rehab program KOOS and WOMAC questionnaires were completed by patients and the pain was evaluated according to VAS.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017013032251N2**
Registration date: **2017-06-01, 1396/03/11**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2017-06-01, 1396/03/11

Registrant information

Name

Kamran Azma

Name of organization / entity

Aja University of Medical Science

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Recruitment status

Recruitment complete

Funding source

Artesh University of Medical Sciences

Expected recruitment start date

2016-08-22, 1395/06/01

Expected recruitment end date

2017-04-20, 1396/01/31

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of tele rehabilitation compared with rehabilitation at the clinic in patients with osteoarthritis of the knee

Public title

Knee osteoarthritis rehabilitation

Purpose

Treatment

Inclusion/Exclusion criteria

knee pain in the most of the days in the previous month, crepitation in active movements of the joints, morning stiffness less than 30 minutes, age between 45 to 60

years of old, swelling at the examination exclusion criteria: severe osteoarthritis according to Kellgren and Lawrence radiologic criteria

Age

From **45 years** old to **60 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **54**

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

Aja university of medical sciences

Street address

Aja university of medical sciences, Shahid Etemadzadeh avenue, west Fatemi street

City

Tehran

Postal code

Approval date

2017-02-16, 1395/11/28

Ethics committee reference number

IR.AJAUMS.REC.1395.28

Health conditions studied

1

Description of health condition studied

Osteoarthritis of knee

ICD-10 code

M17.9

ICD-10 code description

Gonarthrosis, unspecified

Primary outcomes

1

Description

pain severity

Timepoint

at the lunch of study, at the end of 6th week, at the end of first month and at the end of 6th month

Method of measurement

Visual analogue scale, Knee injury and Osteoarthritis Outcome Score (KOOS) and Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) questionnaires

Secondary outcomes

1

Description

daily activity difficulty

Timepoint

at the lunch of study, at the end of 6th week, at the end of first month and at the end of 6th month

Method of measurement

Knee injury and Osteoarthritis Outcome Score (KOOS) and Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) questionnaires

2

Description

difficulty in exercise

Timepoint

at the lunch of study, at the end of 6th week, at the end of first month and at the end of 6th month

Method of measurement

Knee injury and Osteoarthritis Outcome Score (KOOS)

3

Description

Quality of life

Timepoint

at the lunch of study, at the end of 6th week, at the end of first month and at the end of 6th month

Method of measurement

Knee injury and Osteoarthritis Outcome Score (KOOS)

Intervention groups

1

Description

Strengthening exercises, Flexibility exercises, Endurance exercises and active range of motion will be trained to the first group. In addition a pamphlet which illustrates exercise movements will be given to each patient. patients should do these exercises 3 times a week for 6 weeks. Also before exercise they should put a bag of warm water on their knees for about 20 minutes. The doctor will monitor patients over the phone once a week.

Category

Rehabilitation

2

Description

The second group should attend in the rehabilitation clinic 3 times a week for 6 weeks. They will receive passive modalities including hot pack for 20 minutes, Trans-cutaneous Electrical Nerve Stimulation (TENS) with 50 Hz frequency for 20 minutes and Ultra-Sonography with 1 MHz frequency and the intensity of 1 watt per square centimeter for 20 minutes.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Emam reza Hospital

Full name of responsible person

Street address

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Aja university of medical science

Full name of responsible person

Kamran Azma

Street address

Emam reza hospital, Etemadzadeh Street

City

Tehran

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Aja university of medical science

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

Aja university of medical science

Full name of responsible person

Sara sadat Mohsenalhosseini

Position

Doctorate

Other areas of specialty/work

Street address

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Web page address

Person responsible for updating data

Contact

Name of organization / entity

Full name of responsible person

Position

Other areas of specialty/work

Street address

City

Postal code

Phone

00

Fax

Email

Web page address

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