Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Effect of leg muscles exercise on clinical improvement of knee osteoarthritis

Protocol summary

Summary

Adding calf muscles physical therapy to the ordinary physiotherapy, can improve functional state of patients with knee osteoarthritis. Sixty patients are set in two intervention and control groups randomly. In intervention group we will add calf muscles strengthening and stretching exercises on knee physiotherapy during 20 sessions. Before and after program, functional tests as WOMAC, Lequesne questionnaire and falling risk with balance system would be tested to compare groups.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT138808132664N1**
Registration date: **2009-12-18, 1388/09/27**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2009-12-18, 1388/09/27

Registrant information

Name
Yaghoub Salekzamani
Name of organization / entity
Tabriz University of medical sciences
Country
Iran (Islamic Republic of)
Phone
+98 41 1337 3967
Email address
salekzamaniy@tbzmed.ac.ir

Recruitment status

Recruitment complete

Funding source

Tabriz Univercity of medical sciences

Expected recruitment start date

2009-11-22, 1388/09/01

Expected recruitment end date

2010-01-21, 1388/11/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of leg muscles exercise on clinical improvement of knee osteoarthritis

Public title

Effect of leg muscles exercise on clinical improvement of knee osteoarthritis

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: moderate knee osteoarthritis Exclusion criteria: severe systemic illness, joint injection, surgery or physical therapy within last six months

Age

From **40 years** old to **80 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **60**

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
Tabriz University of medical sciences
Street address
Imam Reza Hospital
City
Tabriz
Postal code
Approval date
2009-04-01, 1388/01/12
Ethics committee reference number
173/4/5

Health conditions studied

1

Description of health condition studied
knee osteoarthritis
ICD-10 code
M19
ICD-10 code description
Other arthrosis

Primary outcomes

1

Description
Functional improvment
Timepoint
Before and after 20 sessions of physiotherapy
Method of measurement
WOMAC & Lequesne Questionnaires

Secondary outcomes

1

Description
Falling Risk
Timepoint
Before and after 20 sessions of physiotherapy
Method of measurement
Biodex Balance system

Intervention groups

1

Description
Control group: only routine physiotherapy
Category
Rehabilitation

2

Description
Intervention group: routine physiotherapy and calf musles strengthening and stretching excercises
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Tabriz Imam Reza Hospital
Full name of responsible person
Yaghoub Salekzamani
Street address
Golgasht st.
City
Tabriz

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Research vice-chancellor of Tabriz univercity of medical sciences
Full name of responsible person
Mir Ali Eteraf Oskouee
Street address
Tabriz univercity of medical sciences
City
Tabriz
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Research vice-chancellor of Tabriz univercity 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
Tabriz university of medical sciences
Full name of responsible person
Yaghoub Salekzamani
Position
Assistant professor
Other areas of specialty/work
Street address
Golgasht st.
City
Tabriz
Postal code
Phone
+98 41 1337 3967
Fax
Email
salekzamaniy@tbzmed.ac.ir
Web page address

Person responsible for scientific inquiries

Contact
Name of organization / entity
Tabriz univercity of medical sciences
Full name of responsible person
Yaghoub Salekzamani
Position
Assistant professor
Other areas of specialty/work
Street address
Golgasht st.
City
Tabriz
Postal code
Phone
+98 41 1337 3967
Fax
Email
salekzamaniy@tbzmed.ac.ir
Web page address

Person responsible for updating data

Contact
Name of organization / entity
Tabriz univercity of medical sciences
Full name of responsible person
Babak Kolahi
Position
Resident
Other areas of specialty/work
Street address
Golgasht St.
City
Tabriz
Postal code
Phone
Fax
Email
kolahi_md@yahoo.com
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