Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Evaluation of the effect of isokinetic exercise with conventional physiotherapy on power in patieuts with knee osteoarthritis.

Protocol summary

Summary

Introduction:Osteoarthritis (OA) is one of the prevalent disease in Joints.The Knee joint is the most frequently involved than other joint to OA.the research had shown quadriceps muscles weakness and proprioceptive deficits in patient related to knee osteoarthritis.The pharmacological treatment approaches that are used for management of knee OA, only reduce pain and swelling, on the other hand,these approaches have different complication with them.So using none-pharmacological treatments such as exercise performing, are very importants. The aim of this study is evaluation of the effect of isokinetic exercise with conventional physiotherapy on power and rate of Stiffness in patieuts with knee osteoarthritis. Methods: In this study with type " single blinded semi practical clinical traits" 30 women patient with mild to moderate knee osteoarthritis without pregnancy in age from 45-65 were used and divided into two groups (control and treatment). Exit criteria of this study were acute disease, existence of pain doing exersice and the intensification of pain under exercise. the first group (as control group) recevived routine knee physical therapy modalities; the second group (as isokenitec training group) in addition to routine protocol received isokinetic training. Rate of stiffens by questioner of Western Ontario McMasters Osteoarthritis index (WOMAC), and their power was evaluated by biodex4.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016070727359N3**
Registration date: **2017-03-06, 1395/12/16**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2017-03-06, 1395/12/16

Registrant information

Name
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Name of organization / entity
Tabriz University of Medical Sciences, Physical mediacine and rehabilitation department
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Recruitment status

Recruitment complete

Funding source

Tabriz Medical Science University

Expected recruitment start date

2016-05-23, 1395/03/03

Expected recruitment end date

2016-08-20, 1395/05/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of the effect of isokinetic exercise with conventional physiotherapy on power in patieuts with knee osteoarthritis.

Public title

The effect of isokinetic exercise in patieuts with knee osteoarthritis.

Purpose

Other

Inclusion/Exclusion criteria

inclusion criteria: patient with mild to moderate knee osteoarthritis without pregnancy in age from 45-65, existence of balance, lack of skin wound about knee. Exclusion criteria: acute disease, existence of pain doing exersice and the intensification of pain under exercise, surgery background in knee joint.

Age

From **45 years** old to **65 years** old

Gender

Female

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: **30**

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

Ethics Comittee, Tabriz Medical Science University

Street address

Tabriz Medical Science University, Golgasht street

City

Tabriz

Postal code

Approval date

2016-05-23, 1395/03/03

Ethics committee reference number

IR.TBZMED,REC.1395.275

Health conditions studied

1

Description of health condition studied

knee Osteoarthritis

ICD-10 code

M19.9

ICD-10 code description

knee Osteoarthritis

Primary outcomes

1

Description

Power Increasing

Timepoint

Before, After 6 sessions and after intervention

Method of measurement

Biodex 4

Secondary outcomes

1

Description

Rate of Stiffness

Timepoint

Befor, After 6 sessions and after intervention

Method of measurement

Biodex 4

Intervention groups

1

Description

Interventional group sit on chair of biodex 4 and then resistance pad of device was placed the top of leg ankle. Movement domain in range of flexion and full extension, and damping device was regulated hard. Concentric contraction with 10 to 90 degree, the 60-90 speed, 10 replications with six set (between sets 30 -60 second was given rest) defined for biodex4

Category

Rehabilitation

2

Description

For the first group (as control group) received routine knee physical therapy modalities.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Physical Medicine and Rehabilitation Research Center

Full name of responsible person

Seyed kazem Shakouri MD

Street address

Physical Medicine and Rehabilitation ward, Imam Reza hospital, Golgasht St.

City

Tabriz

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice chancellor of research, Tabriz Medical Science University
Full name of responsible person
Seyed kazem Shakouri. MD
Street address
Tabriz Medical Science University, Golgasht St.
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Tabriz
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, Tabriz Medical Science University
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

Person responsible for scientific inquiries

Contact
Name of organization / entity
Physical Medicine and Rehabilitation Group, Tabriz Medical Science University
Full name of responsible person
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Position
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Person responsible for updating data

Contact
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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