Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

Comparison of functional improvement and quality of life in knee osteoarthritis after treatment of PRP (platelet rich plasma) and exercise: a randomized controlled trial

Protocol summary

Summary

Goal: comparison of functional improvement and quality of life in knee osteoarthritis after treatment of PRP (platelet rich plasma) and exercise. Osteoarthritis (OA) is a highly prevalent, chronic, degenerative condition that generates a high expense. Alternative and co-adjuvant therapies to improve the quality of life and physical function of patients are currently being sought. Methods: A total of 66 patients with knee OA were treated with PRP (plasma rich in growth factors), and exercise in 2 groups (intervention and control) with OA of the knee (Outer bridge grades I–IV) and symptoms of >3 months duration met the inclusion criteria (age <75yr, history without of hematologic disorder and diabetes ...) and. 2 intra-articular injections of autologous PRP were administered at 4-week intervals in outpatient surgery and knee exercise is taught to both intervention and control groups. Participants were asked to fill out a questionnaire with personal data and the following assessment instruments: SF-36, WOMAC Index, before the injection of PRP and 6 months after injection or exercise.

General information

Acronym

PRP =platelet rich plasma

IRCT registration information

IRCT registration number: **IRCT201110117770N1**
Registration date: **2013-01-18, 1391/10/29**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2013-01-18, 1391/10/29

Registrant information

Name

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Name of organization / entity

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Recruitment status

Recruitment complete

Funding source

Vice chancellor for research of Shahid Beheshti University of Medical Sciences

Expected recruitment start date

2012-02-20, 1390/12/01

Expected recruitment end date

2013-02-19, 1391/12/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of functional improvement and quality of life in knee osteoarthritis after treatment of PRP (platelet rich plasma) and exercise: a randomized controlled trial

Public title

Effectiveness of PRP in treatment of Knee degenerative disorder

Purpose

Treatment

Inclusion/Exclusion criteria
Inclusion criteria: history of chronic (at least 3months) pain or swelling of the knee and imaging findings (X-ray or MRI) of degenerative changes of the joint according of American college of Rheumatology. Exclusion criteria: systemic disorders such as diabetes, rheumatoid arthritis, major axial deviation (varum 20 degree, valgum 20 degree), hematological diseases (coagulopathy), severe cardiovascular diseases, infections, immunodepression, patients in therapy with anticoagulants or antiaggregants, the use of NSAIDs in the 2 days before blood donation and patients with Hb values of 12 and platelet values of 150,000/mmc; Pregnancy; breast feeding; vasovagal shock; severe trauma; injection of corticosteroid in knee joint since 2 weeks ago.
Age
To **75 years** old
Gender
Both

Phase
3
Groups that have been masked
No information
Sample size
Target sample size: **66**
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
Ethic committe of Shahid beheshti University of Medical siences
Street address
Shahid beheshti University of Medical siences,Velenjak
City
Tehran
Postal code
Approval date
2012-10-28, 1391/08/07
Ethics committee reference number
124

Health conditions studied

1

Description of health condition studied
Knee osteoarthritis
ICD-10 code
M17
ICD-10 code description
Gonarthrosis [arthrosis of knee]

Primary outcomes

1

Description
function
Timepoint
6 months
Method of measurement
WOMAC Questianir

2

Description
quality of life
Timepoint
6 months
Method of measurement
SF36 questinair

Secondary outcomes

empty

Intervention groups

1

Description
5 cc of PRP injection in 4 weeks interval and knee isometric exercise (4 types) 3 times in day, 10 times every exercise
Category
Treatment - Drugs

2

Description
knee isometric exercise (4 types) 3 times in day, 10 times every exercise
Category
Treatment - Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Modares and Shohadaye Tajrish Hospital
Full name of responsible person

Street address
City
Tehran

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Shahid Beheshti university of Medical siences
Full name of responsible person
Vice chancellor for research, Dr. Rahmati Roodsari
Street address
Shahid Beheshti university of Medical siences , Kodakyar alley,Velenjak
City
Tehran
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Shahid Beheshti university of Medical siences
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
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00
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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