

Clinical Trial Protocol

Iranian Registry of Clinical Trials

24 Jul 2026

Comparison of intra-articular injection of platelet rich plasma (PRP) versus combined PRP/somatropin on pain and joint range of motion in patients with knee osteoarthritis

Protocol summary

Summary

Objectives: Various methods have been proposed to treat the pain of osteoarthritis. The platelet-rich plasma (PRP) is a concentrate of autologous growth factors in the blood and due to increase in tissue regeneration is applicable in various fields of medicine. Design: Block randomization, without placebo, single center, trial phase 2, including 54 patients with knee osteoarthritis. Participants including major eligibility criteria: All patients with knee osteoarthritis. Intervention: Intervention 1. Platelet-rich plasma, 8 ml, intra-articular injection Intervention 2. Platelet-rich plasma in combination with 4 units of growth hormone, 8 ml, intra-articular injection Main outcome measures: Pain, Joint movement.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015070210599N4**

Registration date: **2016-01-17, 1394/10/27**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2016-01-17, 1394/10/27

Registrant information

Name

Poupak Rahimzadeh

Name of organization / entity

Iran University of Medical Sciences

Country

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Recruitment status

Recruitment complete

Funding source

Iran University of Medical Sciences, Vice Chancellor for Research

Expected recruitment start date

2015-06-22, 1394/04/01

Expected recruitment end date

2016-02-19, 1394/11/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of intra-articular injection of platelet rich plasma (PRP) versus combined PRP/somatropin on pain and joint range of motion in patients with knee osteoarthritis

Public title

Comparison of the effect of injection of platelet-rich plasma and growth hormone into the knee joint and their effect on knee pain

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: Age between 30-70 years; Knee osteoarthritis stage I-III according to American Rheumatologist society criteria or radiologic criteria I-III according to Kalgreen-Lawrence criteria. Exclusion criteria: Addiction to opioids or alcohol; history of rheumatoid arthritis or any rheumatologic disease;

hemophilia.

Age
From **30 years** old to **70 years** old

Gender
Both

Phase
2

Groups that have been masked
No information

Sample size
Target sample size: **54**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Single blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features
Patients were divided into two groups using block randomization.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Iran University of Medical Sciences

Street address

Headquarters building, 5th floor, intersection of Sheikh Fazl-Allah Noori and Shahid Chamran, Western Hemmat highway, Tehran, Iran

City

Tehran

Postal code

Approval date

2014-07-06, 1393/04/15

Ethics committee reference number

93/105/1688/3

Health conditions studied

1

Description of health condition studied

Osteoarthritis

ICD-10 code

M15.9

ICD-10 code description

Polyarthrosis, unspecified

Primary outcomes

1

Description

Pain

Timepoint

Once a month to three times

Method of measurement

WOMAC score

Secondary outcomes

1

Description

Joint movement

Timepoint

Once a month to three times

Method of measurement

WOMAC score

Intervention groups

1

Description

Intervention 1. Platelet-rich plasma, 8 ml, intra-articular injection

Category

Treatment - Drugs

2

Description

Intervention 2. Platelet-rich plasma in combination with 4 units of growth hormone, made in Biosidus company, Argentina, 8 ml, intra-articular injection

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Firoozgar hospital

Full name of responsible person

Dr Damoon Azad

Street address

Firoozgar hospital, Beh-afarin St, Karim Khan Av.

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Iran University of Medical Sciences, Vice Chancellor
for Research

Full name of responsible person

Dr Seyed Mohsen Ziaeifard

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Headquarters building, 5th floor, intersection of
Sheikh Fazl-Allah Noori and Shahid Chamran, Western
Hemmat highway, Tehran, Iran

City

Tehran

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Iran University of Medical Sciences, Vice Chancellor for
Research

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

Iran University of Medical Sciences

Full name of responsible person

Dr Damoon Azad

Position

Anesthesiology resident

Other areas of specialty/work

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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