

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Jun 2026

Evaluation the effect of erythropoietin versus dextrose prolotherapy in pain relief of knee osteoarthritis

Protocol summary

Summary

This double blind study was done on 40 patients diagnosed with early knee osteoarthritis in Hazrat Rasoul hospital, Tehran, Iran. inclusion criteria: knee osteoarthritis; 40 to 70 years of age. Exclusion criteria: addiction to alcohol or drugs; coagulopathic states such as hemophilia; rheumatoid arthritis; other verified rheumatologic diseases. Then the patients were checked for the visual analog scale of pain score and recorded. then group of them were randomized by computer and divided in two 20 patients for each groups. the patients in group one were injected with 5 milliliter of ropivacaine 0.5% and 4000 Unite of erythropoietin 2 milliliter and 3 milliliter of normal saline under ultrasound guidance in the knee. Group two patients were injected with 5 milliliter of ropivacaine 0.5% and 5cc of dextrose 25% under ultrasound guidance in the knee. the patients were examined, by an expert physician blinded to their group, on the second, fourth and twelfth weeks to record the Visual analog scale.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016051320112N6**

Registration date: **2016-06-11, 1395/03/22**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2016-06-11, 1395/03/22

Registrant information

Name

Pooya Derakhshan

Name of organization / entity

Birjand Univesity of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

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Recruitment status

Recruitment complete

Funding source

Iran university of medical sciences

Expected recruitment start date

2015-01-01, 1393/10/11

Expected recruitment end date

2016-01-01, 1394/10/11

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation the effect of erythropoietin versus dextrose prolotherapy in pain relief of knee osteoarthritis

Public title

Erythropoietin versus dextrose prolotherapy in pain relief of knee osteoarthritis

Purpose

Treatment

Inclusion/Exclusion criteria

inclusion criteria: knee osteoarthritis; 40 to 70 years of age. Exclusion criteria: addiction to alcohol or drugs; coagulopathic states such as hemophilia; rheumatoid arthritis; other verified rheumatologic diseases.

Age

From **40 years** old to **70 years** old

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: 40

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

Ethics committee of Iran univercity of medical sciences

Street address

Iran univercity of medical sciences, hemmat highway, tehran, iran.

City

tehran

Postal code

Approval date

2014-11-02, 1393/08/11

Ethics committee reference number

1393-09-21

Health conditions studied

1

Description of health condition studied

Arthrosis of first carpometacarpal joint

ICD-10 code

M18

ICD-10 code description

Arthrosis of first carpometacarpal joint

Primary outcomes

1

Description

pain

Timepoint

second, fourth and twelfth weeks post injection

Method of measurement

Visual Analuge Scale

Secondary outcomes

empty

Intervention groups

1

Description

5 milliliter of ropivacaine 0.5% (Naropin® Fresenius Kabi USA) and 5 milliliter of dextrose 25% (Shahid ghazi, iran)

Category

Treatment - Drugs

2

Description

5 milliliter of ropivacaine 0.5% (Naropin® Fresenius Kabi USA) and 4000 unite of erythropoietin (osvepoietin, osve, Tehran, iran) 2 milliliter and 3 milliliter of normal saline

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Rsool Akram Hospital

Full name of responsible person

Dr Pooya Derakhshan

Street address

Niyayesh St., Satarkhan St.

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Pain Research Center, Iran University of Medical Sceinces

Full name of responsible person

Dr Farnad Imani

Street address

department of pain research, Iran University of Medical Siences, Thran

City

Tehran

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Pain Research Center, Iran University of Medical Sceinces

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 science
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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