

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Sep 2026

Effect of ultrasound guided intra articular injection of platelet rich plasma(PRP), hyaluronic acid(HA) and combined PRP and HA in patients with hip osteoarthritis

Protocol summary

Study aim

the comparison between effect of platelet rich plasma(PRP), hyaluronic acid(HA) and combined PRP and HA intra articular injection on pain , stiffness and activity of daily living of patients with hip osteoarthritis

Design

single blind randomised clinical trial without control group, three groups of 20 parallel interventions

Settings and conduct

A randomized, single blind clinical trial was done on 60 patients with mild to moderate hip osteoarthritis referred to the educational center of Modarres Hospital in Tehran. Patients were randomly divided into three groups: Hyaluronic Acid and PRP and combination of these two .

Participants/Inclusion and exclusion criteria

Patients with hip osteoarthritis based on American College of Rheumatology criteria at the age of 70-40 years and with the duration of symptoms more than three months that are recognized by hip x-ray (Grade 2 and 3) 1-systemic diseases such as diabetes mellitus, collagen vascular disorders 2-history of malignancy 3-hip infection or active wound 4-autoimmune disorders or coagulopathy 5-history of NSAID use 2 days before injection 6-Patients who were under anticoagulant or anti platelet treatments 7-hemoglobin < 12 and plt < 150000 8- history of severe hip trauma 9- age less than 40 and more than 70 10-history of vasovagal shock 11- pregnancy and breastfeeding 12- allergy to protein of egg , feather or hypersensitivity to hyaluronate

Intervention groups

Intervention group 1: platelet rich plasma, Hip intraarticular injection, 4 to 6 milliliter, 2 times ,2 weeks interval Intervention group 2 : Hyaluronic acid (Over 3000 KiloDaltons), 2 times ,2 weeks interval Intervention group 3: Combination of platelet rich plasma and Hyaluronic acid ,2 times ,2 weeks interval

Main outcome variables

effect on pain : joint stiffness : patient's function : activity of daily living

General information

Reason for update

Unfortunately, the expected recruitment end date was filled 26/09/2019 instead of 26/09/2020.

Acronym

IRCT registration information

IRCT registration number: **IRCT20130523013442N30**

Registration date: **2019-11-29, 1398/09/08**

Registration timing: **registered_while_recruiting**

Last update: **2022-05-19, 1401/02/29**

Update count: **1**

Registration date

2019-11-29, 1398/09/08

Registrant information

Name

Seyed Ahmad Raeissadat

Name of organization / entity

Modares Hospital

Country

Iran (Islamic Republic of)

Phone

+98 21 2273 1112

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-06-04, 1398/03/14

Expected recruitment end date

2020-09-26, 1399/07/05

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Effect of ultrasound guided intra articular injection of platelet rich plasma (PRP), hyaluronic acid (HA) and combined PRP and HA in patients with hip osteoarthritis

Public title
Effect of ultrasound guided intra articular injection of platelet rich plasma (PRP), hyaluronic acid (HA) and combined PRP and HA in patients with hip osteoarthritis

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria:
Patients with hip osteoarthritis based on American College of Rheumatology criteria at the age of 70-40 years and with the duration of symptoms more than three months that are recognized by hip x-ray (Grade 2 and 3) at the age of 70-40 years duration of symptoms more than three months Grade 2 and 3 recognized by hip x-ray
Exclusion criteria:
Systemic diseases such as diabetes mellitus, collagen vascular disorders or immune deficiency History of malignancy Hip infection or active wound History of NSAIDs usage within 2 days before injection Patients who were under anticoagulant or antiplatelet treatments within 10 days before injection Hemoglobin < 12 and plt < 150000 History of severe hip trauma Pregnancy and breastfeeding Allergy to protein of egg , feather or hypersensitivity to hyaluronate

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

Gender
Both

Phase
N/A

Groups that have been masked

- Participant
- Data analyser

Sample size
Target sample size: **60**

Randomization (investigator's opinion)
Randomized

Randomization description
In this study a total of 60 patients with more than three months of chronic pain in the hip joints along with consistent imaging findings would be enrolled and randomly allocated into three groups of platelet rich plasma versus hyaluronic acid and the combination of these two.

Blinding (investigator's opinion)
Single blinded

Blinding description

Random table number is used to randomize. This is a single blind study and patients are not aware of the type of injected drug.

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids
empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Shahid Beheshti University of Medical Sciences
Street address
Shahid Arabi Ave., Yaman St., Shahid Chamran highway
City
Tehran
Province
Tehran
Postal code
1985717443

Approval date
2019-05-04, 1398/02/14

Ethics committee reference number
IR.SBMU.MSP.REC.1398.052

Health conditions studied

1

Description of health condition studied
hip osteoarthritis

ICD-10 code
M16

ICD-10 code description
Osteoarthritis of hip

Primary outcomes

1

Description
hip pain

Timepoint
before intervention, 2 months & 6 months after intervention

Method of measurement
changes of WOMAC and VAS and LEQUESNE questionnaires scores

2

Description

joint stiffness

Timepoint

before intervention, 2 months & 6 months after intervention

Method of measurement

change of WOMAC questionnaire scores

3

Description

function

Timepoint

before intervention, 2 months & 6 months after intervention

Method of measurement

change of WOMAC questionnaire scores

4

Description

activity of daily living

Timepoint

before intervention, 2 months & 6 months after intervention

Method of measurement

change of LEQUESNE questionnaire scores

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: platelet rich plasma , hip intraarticular injection, 4 to 6 milliliter, 2 times, 2 weeks interval

Category

Treatment - Drugs

2

Description

Intervention group: Hyaluronic acid (molecular weight more than 3000 kilo Daltons), 2 times, 2 weeks interval

Category

Treatment - Drugs

3

Description

Intervention group: Hyaluronic acid (molecular weight more than 3000 kilo Daltons) and platelet rich plasma , hip intraarticular injection, 2 times, 2 weeks interval

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Shahid Modarres Hospital

Full name of responsible person

Seyed Ahmad Raeissadat

Street address

Saadat Abad St.

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modarres@sbmu.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shahid Beheshti University of Medical Sciences

Full name of responsible person

Vice chancellor for research, Seyed Ahmad Raeissadat

Street address

Tehran, Saadat Abad, Kaj Square, Shahid Modarres Hospital

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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 Sciences

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Shahid Modarres Hospital

Full name of responsible person

Parya Peydayesh

Position

Resident of Physical Medicine and Rehabilitation

Latest degree

Medical doctor

Other areas of specialty/work

Physical Medicine

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Person responsible for scientific inquiries

Contact

Name of organization / entity

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Full name of responsible person

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Position

Associate Professor of Physical Medicine and Rehabilitation department, Shahid Beheshti University of

Latest degree

Specialist

Other areas of specialty/work

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Undecided - It is not yet known if there will be a plan to make this available

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available