

Clinical Trial Protocol

Iranian Registry of Clinical Trials

09 Jun 2026

Effects of platelet derived growth factor on In vitro Fertilization Failure

Protocol summary

Study aim

Effects of platelet derived growth factor on In vitro Fertilization (IVF) Failure

Design

The eligible patients are randomized (randomized by a statistician) to the two groups of patients (prescribe PRP (and control) without prescribing PRP). Assignment of samples (with or without growth factor) to patients Randomized random block method using Randomized permutation table (Random Block). Before PRP therapy and embryo transfer process, standard hormone replacement therapy (HRT) with Estradiol valerate was performed for all patients to endometrial thickness preparation. After sonographic assessment of endometrial thickness, PRP was injected to all patients whether they had appropriate endometrial thickness (7-10mm) or not (< 7mm). Intrauterine infusion of PRP was performed 48 h before embryo transfer in those who had appropriate endometrial thickness; while re-injections of PRP are needed for patients who had not an appropriate endometrial thickness. After sonographic reassessment, embryo transfer process was done through in vitro fertilization (IVF). Eventually, consequences of fertility, embryo implantation and pregnancy maintenance were evaluated.

Settings and conduct

The study will be conducted in Ahvaz Imam Khomeini hospital. The patients are randomized to the two groups of patients, prescribe PRP and without prescribing PRP.

Participants/Inclusion and exclusion criteria

Infertile Women: Under 40 y; Experienced at least one failure in the IVF process

Intervention groups

Intervention group: Before PRP therapy and embryo transfer process, standard hormone replacement therapy (HRT) with Estradiol valerate was performed for all patients to endometrial thickness preparation. After sonographic assessment of endometrial thickness, PRP was injected to all patients whether they had appropriate endometrial thickness or not. After sonographic

reassessment, embryo transfer process was done through in vitro fertilization (IVF). Control group: Before embryo transfer process, standard hormone replacement therapy (HRT) with Estradiol valerate was performed for all patients to endometrial thickness preparation. After sonographic reassessment, embryo transfer process was done through in vitro fertilization (IVF).

Main outcome variables

Embryo implantation Pregnancy maintenance

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180102038182N1**

Registration date: **2018-01-06, 1396/10/16**

Registration timing: **prospective**

Last update: **2018-01-06, 1396/10/16**

Update count: **0**

Registration date

2018-01-06, 1396/10/16

Registrant information

Name

Mahvash Zargar

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 61 3221 6104

Email address

zargar-m@ajums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-01-21, 1396/11/01

Expected recruitment end date

2018-07-21, 1397/04/30
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty
Scientific title
Effects of platelet derived growth factor on Invitro
Fertilization Failure

Public title
Platelet derived growth factor and IVF Failure
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Women less than 40 years old Infertile At least one
failure in the IVF process
Exclusion criteria:
Age
From **20 years** old to **40 years** old
Gender
Female

Phase
2
Groups that have been masked

- Participant
- Data analyser

Sample size
Target sample size: **80**
Randomization (investigator's opinion)
Randomized
Randomization description
Permuted Block Randomization (Fourth block)
Blinding (investigator's opinion)
Single blinded
Blinding description
This is one blinded study. People who are evaluated, and
data analyzer are unaware about the type of groups .
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids
empty

Ethics committees

1
Ethics committee
Name of ethics committee
کمیته اخلاق دانشگاه علوم پزشکی جندی شاپور اهواز
Street address
Ahvaz Jundishapur University of Medical Sciences,
Golestan, Ahvaz

City
Ahvaz
Province
Khouzestan
Postal code
15794-61357
Approval date
2017-11-28, 1396/09/07
Ethics committee reference number
IR.AJUMS.REC.1396.634

Health conditions studied

1
Description of health condition studied
Infertile women
ICD-10 code
N97
ICD-10 code description
Female infertility

Primary outcomes

1
Description
Endometrial thickness
Timepoint
After prescribing estrogen and before administration PRP
Method of measurement
Sonography

Secondary outcomes

1
Description
Embryo implantation
Timepoint
After IVF
Method of measurement
Sonography

2
Description
Pregnancy maintenance
Timepoint
After IVF
Method of measurement
Sonography

Intervention groups

1
Description
Intervention group: Before PRP therapy and embryo
transfer process, standard hormone replacement therapy
(HRT) with Estradiol valerate was performed for all

patients to endometrial thickness preparation. After sonographic assessment of endometrial thickness, PRP was injected to all patients whether they had appropriate endometrial thickness (7-10mm) or not (< 7mm). Intrauterine infusion of PRP was performed 48 h before embryo transfer in those who had appropriate endometrial thickness; while re-injections of PRP are needed for patients who had not an appropriate endometrial thickness. After sonographic reassessment, embryo transfer process was done through in vitro fertilization (IVF). Eventually, consequences of fertility, embryo implantation and pregnancy maintenance were evaluated.

Category

Treatment - Drugs

2**Description**

Control group: Before embryo transfer process, standard hormone replacement therapy (HRT) with Estradiol valerate was performed for all patients to endometrial thickness preparation. After sonographic reassessment, embryo transfer process was done through in vitro fertilization (IVF). Eventually, consequences of fertility, embryo implantation and pregnancy maintenance were evaluated.

Category

Treatment - Other

Recruitment centers**1****Recruitment center****Name of recruitment center**

بیمارستان امام خمینی (ره) اهواز

Full name of responsible person

مهوش زرگر

Street address

بیمارستان امام خمینی (ره)، بلوار آزادگان

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Email

zargar-m@ajums.ac.ir

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Vice Chancellor for Research and Technology of Ahvaz Jundishapur University of Medical Sciences

Full name of responsible person

محمد بدوی

Street address

اهواز، گلستان، دانشگاه علوم پزشکی جندی شاپور اهواز

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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

Vice Chancellor for Research and Technology of Ahvaz Jundishapur 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**

Ahvaz University of Medical Sciences

Full name of responsible person

Razieh Pazhouhan far

Position

رزیدنت

Latest degree

Medical doctor

Other areas of specialty/work

Gynecology and Obstetrics

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Person responsible for scientific inquiries**Contact**

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Associate professor
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Specialist
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Person responsible for updating data

Contact

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Full name of responsible person
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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