

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Sep 2026

Effects of autologous platelet rich plasma on endometrial growth and implantation in intracytoplasmic sperm injection cycles: clinical trial

Protocol summary

Summary

This study was designed to evaluate the effectiveness of intrauterine infusion of platelet-rich plasma (PRP) in improvement of endometrial growth and implantation in in vitro fertilization (IVF) cycles. This clinical trial is performed in Infertility and IVF ward, Taleghani hospital. 30 infertile patients with history of three or more failed implantation or thin endometrium are recruited into the study in two groups according to randomization method. Intrauterine infusion of platelet rich plasma (PRP) or dummy catheter is performed for thin endometrium and this procedure is repeated if necessary after 48 hours and 2 days before embryo transfer in recurrent implantation failure. Endometrial growth, chemical pregnancy and clinical pregnancy rate will be analyzed.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016072229027N1**

Registration date: **2016-09-05, 1395/06/15**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2016-09-05, 1395/06/15

Registrant information

Name

Leila Nazari

Name of organization / entity

Shahid Beheshti University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

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Email address

nazari@sbmu.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, school of medicine, Shahid Beheshti University of Medical Sciences

Expected recruitment start date

2015-12-16, 1394/09/25

Expected recruitment end date

2017-12-16, 1396/09/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of autologous platelet rich plasma on endometrial growth and implantation in intracytoplasmic sperm injection cycles: clinical trial

Public title

Effects of platelet rich plasma on frozen embryo transfer process

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Body mass index (BMI) below 30; unadequate endometrium (endometrial thickness below 7 mm); history of hematologic disease3 failed embryo transfer Exclusion criteria: history of hematologic disorders; uterine abnormality (acquired or congenital); unwillingness to continue

Age

No age limit

Gender

Female

Phase
2

Groups that have been masked
No information

Sample size
Target sample size: 30

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Single blinded

Blinding description

Placebo
Used

Assignment
Parallel

Other design features
Randomization method: table of randomization

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics committee of Shahid Beheshti University of Medical Sciences

Street address
Velenjak, Yaman St, Chamran highway

City
Tehran

Postal code

Approval date
2015-12-15, 1394/09/24

Ethics committee reference number
IR.SBMU.SM.REC.1394.92

Health conditions studied

1

Description of health condition studied
Noninflammatory disorders of female genital tract

ICD-10 code
N98.9

ICD-10 code description
Complication associated with artificial fertilization, unspecified

Primary outcomes

1

Description
Clinical pregnancy

Timepoint
4 weeks after embryo transfer

Method of measurement

Transvaginal ultrasound

2

Description
Chemical pregnancy

Timepoint
2 weeks after embryo transfer

Method of measurement
Serum BHCG

3

Description
Endometrial thickness

Timepoint
48 hours after PRP

Method of measurement
The most endometrial thickening in transvaginal ultrasound

Secondary outcomes

1

Description
Ongoing pregnancy

Timepoint
10 weeks after embryo transfer

Method of measurement
Fetal heart beat in ultrasound

2

Description
Abortion

Timepoint
Before 20 weeks of pregnancy

Method of measurement
Fetal demise before 20 weeks of gestation

Intervention groups

1

Description
Intervention group: Intrauterine infusion of 0.5 ml platelet rich plasma (PRP) that contained platelet 4-5 times more than peripheral blood with uterine catheter is performed if endometrial thickness below 7 mm on day 13-14 of cycle and the procedure is repeated 48 hours later if the endometrial thickness below 7 mm, although the procedure is performed 48 hours before embryo transfer in repeated implantation failure

Category
Treatment - Other

2

Description
Control group: Dummy catheter (sham catheter) is performed if endometrial thickness below 7 mm on day

13-14 of cycle and the procedure is repeated 48 hours later if the endometrial thickness below 7 mm, although the procedure is performed 48 hours before embryo transfer in repeated implantation failure

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Infertility and IVF ward of Taleghani hospital

Full name of responsible person

Leila Nazari

Street address

Yaman St, Velenjak, Chamran highway

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for research of Shahid Beheshti University of Medical Sciences

Full name of responsible person

Afshin Zarghi

Street address

Shahid Beheshti University of Medical Sciences, Yaman st, Velenjak, Chamran highway

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Tehran

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 of Shahid Beheshti University of Medical Sciences

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

Shahid Beheshti University of Medical Sciences

Full name of responsible person

Leila Nazari

Position

Assistant professor

Other areas of specialty/work

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Person responsible for scientific inquiries

Contact

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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