

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

12 Jun 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

+98 21 2271 8000

##### 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 disease<sup>3</sup> 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 ndometrial 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 Talghani 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

**City**

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**

**Street address**

Taleghani hospital, Yaman st, Velenjak, Chamran highway

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**Full name of responsible person**

Saghar Salehpour

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**Name of organization / entity**

Shahid Beheshti University of Medical Sciences

**Full name of responsible person**

Leila Nazari

**Position**

Assistant professor

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**Fax**

**Email**

nazari@sbmu.ac.ir

**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*