

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

12 Jun 2026

### Effect of autologous platelet rich plasma on endometrial growth in frozen embryo transfer

#### Protocol summary

##### Study aim

Evaluate the effectiveness of intrauterine infusion of platelet-rich plasma (PRP) in improvement of endometrial growth and implantation in in vitro fertilization (IVF) cycles.

##### Design

Clinical trial with control and intervention group, with parallel groups, single blind, randomized

##### Settings and conduct

This clinical trial is performed in Infertility and IVF ward, Tabriz, Alzahra hospital. 20 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) 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.

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: Body mass index below 30; unadequate endometrium (endometrial thickness below 7 mm); history of hematologic disease 3 failed embryo transfer Exclusion criteria: history of hematologic disorders; uterine abnormality (acquired or congenital); unwillingness to continue

##### Intervention groups

Estradiol Valerate at 6 mg per day was given on day 3 of menstruation cycle On the tenth day of the cycle 0.5-1 cc of PRP was obtained. It was infused into the uterus cavity immediately with IUI catheter .endometrial thickness was re-assessed 72 hour later .if the endometrial thickness was satisfied infusion of PRP was performed in 72 hr after first infusion. At last 2 group of case and control will be compared with each other by endometrial thickness before and after PRP infusion ,implantation rate ,pregnancy rate and number of canceling cycles.

##### Main outcome variables

Primary outcomes: Clinical pregnancy; Chemical pregnancy; Endometrial thickness Secondary outcomes: Ongoing pregnancy; Abortion

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20110301005942N7**

Registration date: **2018-12-07, 1397/09/16**

Registration timing: **registered\_while\_recruiting**

Last update: **2018-12-07, 1397/09/16**

Update count: **0**

##### Registration date

2018-12-07, 1397/09/16

##### Registrant information

##### Name

Aliye Ghasemzadeh

##### Name of organization / entity

Tabriz University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 41 3553 9160

##### Email address

gasemzadeha@tbzmed.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2018-11-21, 1397/08/30

##### Expected recruitment end date

2019-09-21, 1398/06/30

##### Actual recruitment start date

empty

**Actual recruitment end date**

empty

**Trial completion date**

empty

**Scientific title**

Effect of autologous platelet rich plasma on endometrial growth in frozen embryo transfer

**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 Inadequate endometrium (endometrial thickness below 7 mm) Failed embryo transfer

**Exclusion criteria:**

History of hematologic disorders Uterine abnormality (acquired or congenital) Unwillingness to continue

**Age**

From **20 years** old to **40 years** old

**Gender**

Female

**Phase**

N/A

**Groups that have been masked**

- Care provider

**Sample size**

Target sample size: **20**

**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. Ultrasound doctor will not be aware of this study.

**Placebo**

Not used

**Assignment**

Parallel

**Other design features****Secondary Ids**

empty

**Ethics committees****1****Ethics committee****Name of ethics committee**

Ethics Committee Of Tabriz University Of Medical Sciences

**Street address**

Third Floor, Central Building of Number2, Golgasht

Street

**City**

Tabriz

**Province**

East Azarbaijan

**Postal code**

33357313

**Approval date**

2018-11-05, 1397/08/14

**Ethics committee reference number**

IR.TBZMED.REC.1397.642

**Health conditions studied****1****Description of health condition studied**

Infertility, recurrent implantation failure

**ICD-10 code**

98.9

**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**

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

Control group:

#### Category

Treatment - Drugs

### 2

#### Description

Control group:

#### Category

Treatment - Drugs

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Alzahra Hospital

##### Full name of responsible person

Aliye Ghasemzadeh

##### Street address

Alzahra Hospital, South Artesh St.

##### City

Tabriz

##### Province

East Azarbaijan

##### Postal code

5138665793

##### Phone

+98 41 3553 9161

##### Email

lahroudin@gmail.com

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Tabriz University of Medical Sciences

##### Full name of responsible person

Abolghasem Jouiban

##### Street address

Third Floor, Central Building of Number2, Golgasht Street

##### City

Tabriz

##### Province

East Azarbaijan

##### Postal code

516615953

##### Phone

+98 41 3335 5921

##### Email

lahroudin@gmail.com

#### Grant name

#### Grant code / Reference number

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

Yes

#### Title of funding source

Tabriz 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

Tabriz University of Medical Sciences

##### Full name of responsible person

Aliye Ghasemzadeh

##### Position

Associate Professor of Obstetrics and Gynecology

##### Latest degree

Subspecialist

##### Other areas of specialty/work

Gynecology and Obstetrics

##### Street address

Tabriz University Of Medical Sciences, Golgasht Street

##### City

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##### Province

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##### Phone

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lahroudin@gmail.com

## Person responsible for scientific inquiries

#### Contact

##### Name of organization / entity

Tabriz University of Medical Sciences

##### Full name of responsible person

Aliye Ghasemzadeh

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Associate Professor of Obstetrics and Gynecology

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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