Clinical Trial Protocol
Iranian Registry of Clinical Trials

18 Sep 2026

Effeect 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

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Tabriz University of Medical Sciences
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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
Effeect 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.
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Tabriz University of Medical Sciences
Full name of responsible person
Abolghasem Jouiban
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Third Floor, Central Building of Number2, Golgasht Street
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516615953
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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
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Person responsible for updating data

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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