Clinical Trial Protocol
Iranian Registry of Clinical Trials

12 Jun 2026

Effects of Autologus Platelet- Rich Plasma on ICSI outcomes and Pregnancy Rate in frozen embryo transfer cycles in Repeated Implantation Failure Patients

Protocol summary

Summary

After injection of a GnRH agonist in previous cycle, tablet of estradiol valerate 2 mg will be started since the third day of menstrual cycle and be increased to 8 mg. When endometrial line becomes triple and its thickness reaches to 7.5 or more (till 12 mm) , the embryos will be transferred. PRP will be done for patents 48 hours before embryo transfer. For PRP, 8.5 cc of peripheral blood was given and the number of platelets was calculated. After 2 times centrifuge, the number of platelets was checked again and if it becomes 4 to 5 times, 0.5 cc of this solution was injected into uterus by embryo transfer catheter. The embryo transfer catheter will be inserted and removed without injection of anything in control group. The serum level of B-hcG will be checked 2 weeks after embryo transfer and positive tests will be mentioned as success implantation. Trans vaginal sonography will be done 3 weeks later for detecting embryo sac and fetal heart rate which considered as clinical pregnancy.

General information

Acronym

PRP in RIF in FET cycles

IRCT registration information

IRCT registration number: **IRCT2017073034422N2**
Registration date: **2017-10-16, 1396/07/24**
Registration timing: **prospective**

Last update:
Update count: **0**

Registration date

2017-10-16, 1396/07/24

Registrant information

Name

Sheyda Jouhari

Name of organization / entity

Avicenna Research Center

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Avicenna Research Institute

Expected recruitment start date

2017-10-23, 1396/08/01

Expected recruitment end date

2018-10-23, 1397/08/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of Autologus Platelet- Rich Plasma on ICSI outcomes and Pregnancy Rate in frozen embryo transfer cycles in Repeated Implantation Failure Patients

Public title

Effects of Autologus Platelet- Rich Plasma on ICSI outcomes and Pregnancy Rate in frozen embryo transfer cycles in Repeated Implantation Failure Patients

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: patient who has at least 2 cycle IVF failure; At least 6 good quality embryos were transferred

in previous cycles; Semen count≥10 millions,normal morphology ≥3% in semen analysis Exclusion criteria: 1-patient without immunologic disorders (abnormality in CD markers, Anti TG, Anti TPO, ds DNA, ANA); hematologic disorder; genetic diseases; uterus disorders; Hb<11 mg/dl and Platelet<150000/mm3; use of corticosteroid during 14 days before of PRP

Age

From **20 years** old to **41 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Avicenna Research Institute

Street address

Avicenna Research Institute; Shahid Beheshti University; Velenjak; Tehran

City

Tehran

Postal code

19615-1177

Approval date

2017-05-02, 1396/02/12

Ethics committee reference number

IR.ACECR.Avicenna.REC.1396.9

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

Chemical pregnancy rate

Timepoint

Two weeks after intervention

Method of measurement

Beta HCG in blood

Secondary outcomes

1

Description

Implantation Rate

Timepoint

Six weeks after intervention

Method of measurement

Calculation (number of embryos transfer /number of pregnancy sacs in sonography 6 weeks after ET)

Intervention groups

1

Description

In intervention group, PRP will be done for patient 48 hours before embryo transfer. For PRP, 8.5 cc of peripheral blood will be given and the number of platelet will be checked. Then the blood will be put in a space which has 2.5 cc special anti coagulant and centrifuged with 1200 rpm for 12 minutes. Then superior part of plasma will be separated and centrifuged with 3500 rpm for 6 minutes again. The platelet number will be checked again and if it becomes 4-5 times, 0.5 cc of this solution will be transferred into uterus cavity 48 hours before embryo transfer.

Category

Treatment - Other

2

Description

In control group, the embryo transfer catheter will be inserted for patient 48 hours before embryo transfer and will be removed without injection of anything.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Avicenna infertility clinic

Full name of responsible person
Sheyda Jouhari
Street address
No 97, Yakhchal st., Shariati st.
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Avicenna Research Institute
Full name of responsible person
Dr. Seyed Ali Azin
Street address
Avicenna Research Institute; Shahid Beheshti University; Velenjak; Tehran
City
Tehran
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Avicenna Research Institute
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
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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