

Clinical Trial Protocol

Iranian Registry of Clinical Trials

17 Sep 2026

The role of Heparin in embryo implantation of women with recurrent implantation failure in ART cycles

Protocol summary

Summary

Our aim in this study is to evaluate the role of heparin in embryo implantation of women with recurrent implantation failure in ART cycles. In a randomized unicentral clinical trial, 40 infertile 18 to 40 year-old females with a history of at least two failures in ART cycles who are referring to infertility clinic of Alzahra hospital will be involved. After stimulation of ovulation and initiation of therapeutic cycle patients who have received the oocyte will be divided into two equal-sized case or control groups to receive subcutaneous heparin 5000 units daily for 15 days in case group or not to receive any anti-coagulant therapy in control group. In day 15th a pregnancy test (serum Beta-HCG) will be checked for each patient to evaluate the status. Key inclusion criteria would be to have a history of at least two well-grade embryo implantation failures; to be under 40 years old; not to have coagulopathy or any hormonal, immunologic disorder of any kind and the key exclusion criteria would be clear evidence of implantation failure such as hydrosalpinx, submucosal myomas, lack of well-graded embryos to be transferred.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201203146868N2**
Registration date: **2012-04-18, 1391/01/30**
Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2012-04-18, 1391/01/30

Registrant information

Name

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Name of organization / entity

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Recruitment status

Recruitment complete

Funding source

Tabriz University of Medical Sciences

Expected recruitment start date

2012-02-29, 1390/12/10

Expected recruitment end date

2012-08-31, 1391/06/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The role of Heparin in embryo implantation of women with recurrent implantation failure in ART cycles

Public title

Does heparin affect embryo implantation?

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: (to have a history of at least two well-grade embryo implantation failures; to be under 40 years old; not to have coagulopathy or any hormonal, immunologic disorder of any kind; to have normal uterine lumen) Exclusion criteria: (women who have a medical condition which needs to be treated with anti-coagulants; clear evidence of implantation failure such as

hydrosalpinx, submucosal myomas, lack of well-graded, A and B, embryos to be transferred)

Age

From **18 years** old to **40 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **40**

Randomization (investigator's opinion)

N/A

Randomization description**Blinding (investigator's opinion)**

Not blinded

Blinding description**Placebo**

Used

Assignment

Parallel

Other design features**Secondary Ids**

empty

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

Ethics committee of Tabriz Medical University

Street address

Vice chancellor for research, Tabriz University of Medical Sciences, Daneshgah square

City

Tabriz

Postal code**Approval date**

2012-01-28, 1390/11/08

Ethics committee reference number

5/4/8672

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

female infertility

ICD-10 code

N97

ICD-10 code description

female infertility

Primary outcomes**1****Description**

Implantation rate

Timepoint

15 days after receiving the ovula

Method of measurement

Blood beta-HCG level

Secondary outcomes

empty

Intervention groups**1****Description**

for case group: Subcutaneous heparin 5000 units daily

for 15 days from the day of receiving ovula

Category

Treatment - Drugs

2**Description**

For control group: no anticoagulants.

Category

Treatment - Drugs

Recruitment centers**1****Recruitment center****Name of recruitment center**

Infertility clinic of Alzahra hospital

Full name of responsible person**Street address****City**

Tabriz

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Tabriz University of Medical Sciences

Full name of responsible person

Alireza Ostad Rahimi

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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
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