

Clinical Trial Protocol

Iranian Registry of Clinical Trials

21 Jul 2026

Effect of granulocyte colony-stimulating factor on fertility outcomes in infertile women with thin endometrium in frozen-thawed embryo transfer cycles.

Protocol summary

Summary

this is a parallel, non-randomised, not blinded study that is designed for evaluation of granulocyte colony stimulating factor effect on the standard treatment of patients with thin endometrium in the frozen-thawed embryo transfer cycles. The endometrial thickness is measured by vaginal sonography in the 13th day of frozen-thawed embryo transfer cycle. 40 patients with thin endometrium- which is less than 7mm- are taken part in the study. The patients are 20-40 years old and the patients who have uterine disorders, systemic diseases and sever endometriosis are excluded from the study. In the 13th day of treatment cycle, the factor is injected in to the uterus of 20 patients as a case group while the standard treatment is continued in the 20 other patients as a control group. After 2 days, the thickness of endometrium is measured again and if the thickness is at least 7mm, the patient will receive 100 milligram intramuscular progesteron for 3 days. Then embryo transfer is done. The primary outcome is the increase of endometrial thickness 2 days after factor ingestion. The second outcome is chemical pregnancy that is determined by serum B-hcg ,14 days after embryo transfer and clinical pregnancy that is determined by presence of gestational sac in vaginal sonography 28 days after embryo transfer.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201108116420N8**

Registration date: **2013-12-21, 1392/09/30**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2013-12-21, 1392/09/30

Registrant information

Name

Maryam Eftekhari

Name of organization / entity

Yazd Research and Clinical Center for Infertility

Country

Iran (Islamic Republic of)

Phone

+98 35182470856

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eftekhari@ssu.ac.ir

Recruitment status

Recruitment complete

Funding source

Yazd research and clinical center for infertility

Expected recruitment start date

2013-09-25, 1392/07/03

Expected recruitment end date

2014-04-04, 1393/01/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of granulocyte colony-stimulating factor on fertility outcomes in infertile women with thin endometrium in frozen-thawed embryo transfer cycles.

Public title

Granulocyte colony stimulating factor administration in assisted reproductive programs.

Purpose

Treatment

Inclusion/Exclusion criteria
Inclusion criteria: all patients with thin endometrium in spite of receiving standard treatment in 12-13th day of frozen-thawed embryo transfer cycle. Exclusion criteria: all patient with history of hypersensitivity to G-CSF; endocrine or systemic diseases; endometriosis; repeated implantation failure; repeated abortion; patients with any congenital uterine anomaly or aquired uterine diseases with or without operation; age below 20 years; age above 40 years.

Age
From **20 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)
Not randomized

Randomization description

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Yazd reserch and clinical center for infertility

Street address

Bouali Ave, Safaeyeh

City

Yazd

Postal code

Approval date

2013-09-23, 1392/07/01

Ethics committee reference number

216

Health conditions studied

1

Description of health condition studied

Female infertility

ICD-10 code

N97.9

ICD-10 code description

Female infertility, unspecified

Primary outcomes

1

Description

endometrial thickness

Timepoint

13th and 17th day of menstrual cycle

Method of measurement

vaginal sonography

Secondary outcomes

1

Description

chemical pregnancy

Timepoint

14 days after embryo transfer

Method of measurement

serum Bhcg

2

Description

clinical pregnancy

Timepoint

28 days after embryo transfer

Method of measurement

vaginal sonography

Intervention groups

1

Description

Intervention: 300 microgram granulocyte colony stimulating factor is injected into the uterus in the 13th day of menstrual cycle.

Category

Treatment - Drugs

2

Description

Control: In the control group, no drug is injected into the uterus in the 13th day of menstrual cycle.

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Yazd reserch and clinical center for infertility

Full name of responsible person

Abbas aflatoonian

Street address

Bouali Avenue, Safayeh

City

yazd

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

Yazd reaserch and clinical center for infertility

Full name of responsible person

Alimohammad Abdoli

Street address

Bouali Avenue, Safayeh

City

Yazd

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Yazd reaserch and clinical center for infertility

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**

Yazd reaserch and clinical center for infertility

Full name of responsible person

Maryam Eftekhar

Position

assisted proffesor

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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*