

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Effect of adding long-acting GnRH agonist plus Letrozole to endometrial preparation method with Estradiol on pregnancy outcome in frozen embryo transfer cycles among women with recurrent implantation failure: A clinical trial

Protocol summary

Study aim

Determining the effect of adding long-acting GnRH agonist plus Letrozole to endometrial preparation method with estradiol on pregnancy outcome in frozen embryo transfer cycles among women with recurrent implantation failure.

Design

Phase 3 clinical trial is with two parallel groups and the sample size is 64 people. Randomization will be done using random allocation software. Block randomization method will be done. Blinding will not be done.

Settings and conduct

Clinical trial is random and without blinding. In Yazd Reproductive Research Center, 64 infertile women referred to this center who had a history of at least two repeated implantation failures despite quality A and B embryo transfer, were randomly divided into control group and case group. Blinding was not performed in this study.

Participants/Inclusion and exclusion criteria

Infertile 18 to 42 years old women with a history of at least two implantation failure of good quality embryos (A and B) who are candidate for frozen thawed embryo transfer cycle. Male factors are normal and the patient has no anomalous problems, no adenomyosis, no ectopic endometriosis.

Intervention groups

The control group just receive 6 mg of Estradiol valerate daily from the second day of the menstrual cycle. Patients in the case group will receive a monthly dose of Triptorelin 3.75 for up to two months plus 5 mg of Letrozole daily, and immediately after the end of two months of treatment they will enter the freeze embryo transfer cycle and start taking 6 mg of estradiol daily. In both groups, transvaginal sonography is performed on day 13 of the menstrual cycle, and after reaching an

endometrial thickness of at least 7 mm, 400 mg of vaginal Progesterone twice daily with 6 mg of estradiol daily for three days until the day of embryo transfer will consume.

Main outcome variables

Chemical and clinical pregnancy rate, chemical abortion

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220104053629N1**

Registration date: **2022-02-13, 1400/11/24**

Registration timing: **prospective**

Last update: **2022-02-13, 1400/11/24**

Update count: **0**

Registration date

2022-02-13, 1400/11/24

Registrant information

Name

Sara Naghibzadeh

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 35 3824 7085

Email address

sara_naghib848@yahoo.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-02-19, 1400/11/30
Expected recruitment end date
2022-07-21, 1401/04/30
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Effect of adding long-acting GnRH agonist plus Letrozole to endometrial preparation method with Estradiol on pregnancy outcome in frozen embryo transfer cycles among women with recurrent implantation failure: A clinical trial

Public title
Effect of adding long-acting GnRH agonist plus Letrozole to frozen embryo transfer cycles

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria:
18 to 42 years old infertile women The history of at least two implantation failure of good quality embryos (A and B) Frozen thawed embryo transfer cycle Candidate for embryo transfer with A and B grade
Exclusion criteria:
Severe male factor or sperm retrieval except ejaculation Endometriosis in previous sonography or laparascopy Severe adenomiosis in sonography History of myoma surgery or any interfering myoma with implantatio History of implantation failure because of thin endometrium

Age
From **18 years** old to **42 years** old

Gender
Female

Phase
3

Groups that have been masked
No information

Sample size
Target sample size: **64**

Randomization (investigator's opinion)
Randomized

Randomization description
Randomization of samples in the two groups will be done using permutation block method using Random allocation 1 software. 8 blocks with a size of 8 samples are considered. For allocation concealment, sealed envelopes for each person is used.

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

Ethics committee of Yazd Reproductive Institute, Shahid Sadoughi University of medical sciences

Street address

Bouali Ave, Safaeiyeh

City

Yazd

Province

Yazd

Postal code

8916877391

Approval date

2021-12-19, 1400/09/28

Ethics committee reference number

IR.SSU.RSI.REC.1400.022

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

Rate of chemical pregnancy

Timepoint

2 weeks after embryo transfer

Method of measurement

pregnancy blood test

Secondary outcomes

1

Description

Rate of clinical pregnancy

Timepoint

4 weeks after embryo transfer

Method of measurement

Seeing gestational sac in sonography

2

Description

Rate of chemical abortion

Timepoint

4 weeks after embryo transfer

Method of measurement

Positive pregnancy blood test without gestational sac

Intervention groups

1

Description

Control group: This group just receive 6 mg of Estradiol valerate daily from the second day of the menstrual cycle. Transvaginal sonography is performed on day 13 of the menstrual cycle, and after reaching an endometrial thickness of at least 7 mm, 400 mg of vaginal Progesterone twice daily with 6 mg of estradiol daily for three days until the day of embryo transfer will consume.

Category

Treatment - Drugs

2

Description

Intervention group: Patients in the case group will receive a monthly dose of Triptorelin 3.75 for up to two months plus 5 mg of Letrozole daily, and immediately after the end of two months of treatment they will enter the freeze embryo transfer cycle and start taking 6 mg of estradiol daily. Transvaginal sonography is performed on day 13 of the menstrual cycle, and after reaching an endometrial thickness of at least 7 mm, 400 mg of vaginal Progesterone twice daily with 6 mg of estradiol daily for three days until the day of embryo transfer will consume.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Yazd Research and Clinical Center for Infertility

Full name of responsible person

Behnaz Gandom

Street address

Bouali ave, Safaeiyeh

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Web page address

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Yazd University of Medical Sciences

Full name of responsible person

Amir Houshang Mehrparvar

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Bahonar Square, Central Building of Yazd Shahid Sadoughi University of Medical Sciences

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Email

dvc.research@ssu.ac.ir

Web page address

<http://ssu.ac.ir/cms>

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Yazd 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

Yazd University of Medical Sciences

Full name of responsible person

Razieh Dehghani Firoozabadi

Position

Professor

Latest degree

Subspecialist

Other areas of specialty/work

Gynecology and Obstetrics

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Person responsible for scientific inquiries

Contact

Name of organization / entity
Yazd University of Medical Sciences
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Person responsible for updating data

Contact

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Yes - There is 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

Yes - There is a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available

Title and more details about the data/document

All participant data sets are to be shared.

When the data will become available and for how long

2 months after the result publication.

To whom data/document is available

A journal in which the results are published

Under which criteria data/document could be used

Submission of an official application via the agent that is legally in charge

From where data/document is obtainable

Yazd Reproductive Sciences Institute, Bouali Ave, Yazd, Iran. yazd-rsi@ssu.ac.ir

What processes are involved for a request to access data/document

Request from the Research Deputy, submitted to the Research Council of the Center if the request accepts its referral to the security and after completion of the relevant forms, the request is referred to the research experts and then get the data.

Comments