Clinical Trial Protocol
Iranian Registry of Clinical Trials

04 Jul 2026

Correlation between beta Human chorionic gonadotropin (β-Hcg) on day ۱۴ after embryo transfer and pregnancy outcome in IVF cycles

Protocol summary

Study aim

Correlation between beta Human chorionic gonadotropin (β-Hcg) on day ۱۴ after embryo transfer and pregnancy outcome in IVF cycles This study was designed to evaluate the relationship between human placental beta gonadotropin on day 14 after embryo transfer and pregnancy outcome in IVF cycles.

Design

In this prospective cross-sectional study, 177 infertile women referred to Yas Hospital for embryo transfer. All participants entered the study after performing the necessary interventions and in case of the results of the beta hatch test CG above 25, and all the information of the questionnaire was completed during the performed ultrasounds.

Settings and conduct

In this study, 177 infertile women who are candidates for carpet or frozen transfer in Yas Hospital have been selected by convenience sampling. After the necessary interventions, participants are examined for clinical pregnancy certainty and all information is recorded in a questionnaire.

Participants/Inclusion and exclusion criteria

Inclusion criteria: body mass index below 30; Age 20 to 42 years; Above 25 Beta Hatch CG number on day 14 Inclusion criteria: the presence of any uterine anomaly; Existence of chronic diseases (such as cardiovascular); Use of group D and X drugs during pregnancy

Intervention groups

All participants received 6 mg of estradiol daily on the second or third day of their menstrual cycle. Once the endometrium has reached a thickness of 8 mm, a 50 mg progesterone ampoule is given twice daily for three days until embryo transfer.

Main outcome variables

Estradiol levels; Endometrial thickness; Biochemical pregnancy; Number of embryos transferred; Number of pregnancy sacs; Implantation rate; Clinical pregnancy.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20120104008611N13**
Registration date: **2022-04-05, 1401/01/16**
Registration timing: **registered_while_recruiting**

Last update: **2022-04-05, 1401/01/16**
Update count: **0**

Registration date

2022-04-05, 1401/01/16

Registrant information

Name
Hamideh Pakniat
Name of organization / entity
Qazvin University of Medical Sciences
Country
Iran (Islamic Republic of)
Phone
+98 282242452
Email address
hpakniat@qums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-03-16, 1400/12/25

Expected recruitment end date

2022-10-23, 1401/08/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title
Correlation between beta Human chorionic gonadotropin (β-Hcg) on day ۱۴ after embryo transfer and pregnancy outcome in IVF cycles

Public title
Relationship between beta gonadotropin and pregnancy outcome in the in vitro fertilization cycle

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
Body mass index below 30 Age between 20 to 42 years Have at least 3 grade A or B embryos All ladies with fresh or frozen transitions Above 25 Beta Hatch CG number on day 14

Exclusion criteria:
Uterine anomaly Submucosal myoma Endometrial polyps Existence of chronic diseases (such as cardiovascular) Use of group D and X drugs during pregnancy

Age
From **20 years** old to **42 years** old

Gender
Female

Phase
3

Groups that have been masked
No information

Sample size
Target sample size: **177**

Randomization (investigator's opinion)
N/A

Randomization description

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics Committee of the Faculty of Medical Sciences and Health Services, University of Tehran

Street address
Tehran University of Medical Sciences, Central Building, Ghods Ave., Keshavarz Blvd.

City
Tehran

Province
Tehran

Postal code
1417653761

Approval date
2021-10-31, 1400/08/09

Ethics committee reference number
IR.TUMS.MEDICINE.REC.1400.853

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
Assess endometrial thickness

Timepoint
The second or third day of the menstrual cycle

Method of measurement
Using an ultrasound machine

2

Description
The estradiol level

Timepoint
At the beginning of the study until the endometrial thickness reaches 8 mm

Method of measurement
Blood sample

Secondary outcomes

1

Description
Biochemical pregnancy

Timepoint
Once, 14 days after fetus transfer

Method of measurement
Blood sampling

2

Description
Clinical pregnancy

Timepoint
Once, 6 to 8 weeks after embryo transfer

Method of measurement
Observation of pregnancy sac and heart rate on ultrasound

Intervention groups

1

Description
Intervention group: Receiving estradiol 6 mg daily on the second or third day of the menstrual cycle, then after reaching a thickness of 8 mm endometrium, receiving 50 mg progesterone ampoule twice a day for three days until embryo transfer

Category
Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center
Yas hospital

Full name of responsible person
Hamideh Pakniat

Street address
Yas hospital, Next to the sarv street, North Nejatollahi street, karim khan ave

City
Tehran

Province
Tehran

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1597856511

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+98 21 8608 9089

Email
hpakniat@qums.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Tehran University of Medical Sciences

Full name of responsible person
Vice-Dean of Research of Tehran University of Medical Sciences, Dr. Sahraiyan

Street address
Vice-Dean of Research, Tehran University of Medical Sciences, Floor 6, Qods St., Keshavarz Blvd, Tehran, Iran

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1416634793

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+98 21 8163 3689

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vcr@tums.ac.ir

Grant name

Grant code / Reference number

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

Title of funding source
Tehran 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
Qazvin University of Medical Sciences

Full name of responsible person
Hamideh Pakniat

Position
Associate Professor

Latest degree
Subspecialist

Other areas of specialty/work
Gynecology and Obstetrics

Street address
Kosar Hospital, Taleghani St., Qazvin

City
Qazvin

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Qazvin

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13176- 34156

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+98 28 3323 6374

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hpakniat@qums.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity
Qazvin University of Medical Sciences

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Position
Kosar Hospital, Taleghani St., Qazvin

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Person responsible for updating data

Contact

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Qazvin University of Medical Sciences

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

No - There is not a plan to make this available

Informed Consent Form

Yes - There is 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

No - There is not a plan to make this available

Title and more details about the data/document

The collected information is in the form of a questionnaire and is statistically analyzed.

When the data will become available and for how long

The start of the access period is one year after the results are published

To whom data/document is available

For obstetricians and researchers working in academic institutions

Under which criteria data/document could be used

Evaluate the path and process of study and analyze it

From where data/document is obtainable

For information, refer to Dr. Hamideh Pakniat. The communication channels are as follows: By sending an email to the address: hpakniat@qums.ac.ir or refer and contact Kosar Hospital at the address: Taleghani St, Qazvin. Phone: 028-33236374 Postal address: 34156-13176

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

After sending the e-mail, the requested information will be reviewed by the facilitator and the person responsible for the scientific response of the study. At your discretion, the requested information will be sent within 10 days after receiving the email.

Comments