

Clinical Trial Protocol

Iranian Registry of Clinical Trials

19 Sep 2026

Comparison between the effect of conventional embryo transfer and embryo transfer based on previously measured uterine length on pregnancy and implantation rates in fresh ART cycles in IVF ward of Taleghani Hospital

Protocol summary

Summary

Objectives: Comparison between the effect of conventional embryo transfer and embryo transfer based on previously measured uterine length on pregnancy and implantation rates in fresh ART cycles. Embryo transfer is one of the most important steps in Assisted Reproductive Technology cycles and is affected by many factors, namely the depth of embryo deposition in uterus. In this study the outcome of Intracytoplasmic Sperm Injection (ICSI) cycles after blind embryo transfer and embryo transfer based on previously measured uterine length using vaginal ultrasound are compared. Design: This study is a prospective single blind randomized (based on the odd even days) clinical trial. Setting and conduct: Infertility & Reproductive Health Research Centre Shahid Beheshti University of Medical Science-Thaleghani hospital Participants: All of the ART cycles including agonist and antagonist from the date of 31.12.2009 to 31.5.2011 One hundred and forty non donor fresh embryo transfers were included. interventions: The embryo transfer in group I (control group) is performed using conventional (blind) method at 5-6cm from the external os based on physician experience and in group II (intervention group) is done at a depth of 1-1.5cm from the end of uterine cavity based on previously measured uterine length, using vaginal sonography at the day of HCG injection Appropriate statistical analysis is performed using Student's t-test and Chi-square or Fisher's exact test.the software that we use is PASW statistics version18. P-value<0.05 is considered statistically significant. Main outcomes: Chemical pregnancy rate; Clinical pregnancy rate; ongoing pregnancy rate implantation rate and abortion rate. those are measured by serum B-HCG and ultrasonography

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014032512494N1**

Registration date: **2014-03-25, 1393/01/05**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2014-03-25, 1393/01/05

Registrant information

Name

Nasrin Saharkhiz

Name of organization / entity

Infertility & Reproductive Health Research Centre of SHahid Beheshti University of Medical Science

Country

Iran (Islamic Republic of)

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+98 21 2243 2558

Email address

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Recruitment status

Recruitment complete

Funding source

Investigator

Expected recruitment start date

2009-12-31, 1388/10/10

Expected recruitment end date

2011-05-31, 1390/03/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date
empty

Scientific title
Comparison between the effect of conventional embryo transfer and embryo transfer based on previously measured uterine length on pregnancy and implantation rates in fresh ART cycles in IVF ward of Taleghani Hospital

Public title
Comparison between conventional blind embryo transfer and embryo transfer based on previously measured uterine length

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria: All the patients who underwent ICSI in this period of time in our center that reached the embryo transfer step, were enrolled in the study. Exclusion criteria : Egg donation cycles; embryo donation cycles; frozen embryo transfers were excluded.

Age
From **18 years** old to **45 years** old

Gender
Female

Phase
2

Groups that have been masked
No information

Sample size
Target sample size: **160**

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

1

Registry name
not have

Secondary trial Id
not have

Registration date
empty

Ethics committees

1

Ethics committee
Name of ethics committee

Infertility & Reproductive Health Research Center
Ethics committee of Shahid Beheshti University of

Street address
Taleghani Hospital 3rd floor-Velenjak-Shahid Chamran highway-Tehran

City
Tehran

Postal code
1985711151

Approval date
2012-09-26, 1391/07/05

Ethics committee reference number
91/345

Health conditions studied

1

Description of health condition studied
Infertility

ICD-10 code
Not have

ICD-10 code description
Not have

Primary outcomes

1

Description
Chemical pregnancy

Timepoint
2wks after embryo transfer

Method of measurement
Serum B-HCG

2

Description
Clinical pregnancy

Timepoint
4 weeks after embryo transfer

Method of measurement
Vaginal sonography

3

Description
Ongoing pregnancy

Timepoint
10 weeks after embryo transfer

Method of measurement
Vaginal sonography

4

Description
Implantation rate

Timepoint
End of the study

Method of measurement
Number of gestational sacs at vaginal sonography

divided by total number of transferred embryos

Secondary outcomes

1

Description

Abortion rate

Timepoint

First trimester

Method of measurement

Clinical sign and vaginal ultrasound

2

Description

Ectopic pregnancy rate

Timepoint

First trimester

Method of measurement

Clinical sign and vaginal ultrasound

Intervention groups

1

Description

In intervention group: The type of stimulatory cycle (Agonist or Antagonist) were selected based on the age of woman and other factors. (agonist;Superfact: mination Hoechst, Frankfurt, Germany)antagonist;cetrotide,EMDSerono,inc).Ovarian stimulation was done using r-FSH (GonalF;Serono,Laboratories.Ltd,Geneva,Switzerland),Merional or Fostimon (IBSA,Switzerland), single or in combination. When the leading follicles reached 17-18mm in diameter HCG 10,000 unit (IBSA,Switzerland) was administered. The uterine length was measured, on the day of HCG administration, by recording the distance from the external os to the uterine fundus using vaginal sonography. Oocyte retrieval was performed 34-36 hours later. The day of embryo transfer is determined by convenience after 48-72 h. Procedure: All women are placed in the lithotomy position (with an empty bladder) and a sterile metal speculum is placed to expose the cervix. The cervical mucus is cleaned using ringer solution and then the external os is washed with media (ham's F 10 liquid).In all cases a Cook catheter (COOK medical USA) are used. First the outer catheter and then the inner catheter that load the embryos is placed. The site of embryo deposition in the uterus is determined based on uterine length measurement by vaginal ultrasound at the day of HCG and embryo deposition is done in depth of 1-1.5 cm from the end of uterine cavity .

Category

Other

2

Description

In control group: The type of stimulatory cycle (Agonist or Antagonist) are selected based on the age of woman

and other factors. (agonist;Superfact: mination Hoechst, Frankfurt, Germany)antagonist;cetrotide,EMDSerono,inc).Ovarian stimulation is done using r-FSH (GonalF;Serono,Laboratories.Ltd,Geneva,Switzerland),Merional or Fostimon (IBSA,Switzerland), single or in combination. When the leading follicles reached 17-18mm in diameter HCG 10,000 unit (IBSA,Switzerland) is administered. The uterine length is measured, on the day of HCG administration, by recording the distance from the external os to the uterine fundus using vaginal sonography. Oocyte retrieval is performed 34-36 hours later. The day of embryo transfer is determined by convenience ,after 48 or 72h. Procedure: All women are placed in the lithotomy position (with an empty bladder) and a sterile metal speculum is placed to expose the cervix. The cervical mucus is cleaned using ringer solution and then the external os is washed with media (ham's F 10 liquid).In all cases a Cook catheter (COOK medical USA) are used. First the outer catheter and then the inner catheter that loaded the embryos is placed. In this group embryos are blindly deposited at the middle portion of the uterine cavity approximately at 5-6cm distance from the external os and based on physician experience.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Infertility & Reproductive Health Research Center
Shahid Beheshti University of Medical Science

Full name of responsible person

Zahra Sadeghzadeh

Street address

Taleghani hospital , Velenjak, Shahid Chamran
highway,Tehran

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Shahid Beheshti
University of Medical Science

Full name of responsible person

Zahra Sadeghzadeh

Street address

Taleghani hospital , IVF ward , Velenjak , Shahid
Chamran highway, Tehran

City

Tehran

Grant name

Grant code / Reference number

Is the source of funding the same sponsor

organization/entity?

Yes

Title of funding source

Vice chancellor for research, Shahid Beheshti University of Medical Science

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

Taleghani Hospital, IVF ward, Velenjak, Shahid Chamran highway, Tehran

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Full name of responsible person

Dr.Nasrin Saharkhiz

Position

Assistant professor of gynecology group

Other areas of specialty/work**Street address**

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Position

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Full name of responsible person

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Position

Assistant professor of gynecology group

Other areas of specialty/work**Street 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