

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

28 May 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)

##### Phone

+98 21 2243 2558

##### Email address

saharkhiz.n@sbmu.ac.ir

##### 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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**Email**

saharkhiz1377@yahoo.com

**Web page address**

www.irhrc.sbmu.ac.ir

**Person responsible for general inquiries****Contact****Name of organization / entity**

Infertility &amp; Reproductive Health Research Centre - Shahid Beheshti of Medical Science

**Full name of responsible person**

Dr.Nasrin Saharkhiz

**Position**

Assistant professor of gynecology group

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

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

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Infertility &amp; Reproductive Health Research Centre - Shahid Beheshti of Medical Science

**Full name of responsible person**

Dr. Nasrin Saharkhiz

**Position**

Assistant professor of gynecology group

**Other areas of specialty/work****Street address****Person responsible for updating data****Contact****Name of organization / entity**

Infertility &amp; Reproductive Health Research Centre - Shahid Beheshti of Medical Science

**Full name of responsible person**

Dr. Nasrin Saharkhiz

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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*