Clinical Trial Protocol
Iranian Registry of Clinical Trials

03 Jun 2026

Impact of intrauterine injection of G-csf on implantation and clinical pregnancy rate in repeated implantation failure

Protocol summary

Summary

The main of this study is to Impact of intrauterine injection of G-csf on implantation and clinical pregnancy rate in repeated implantation failure. In a randomized unit-central clinical trial, 68 patients with recurrent implantation failure referring to infertility clinic of Alzahra Hospital, Tabriz, Iran, will be randomly assigned to two groups' case and control. The main inclusion criterion is to have a history of two or more implantation failure in in-vitro fertilization and age between 18 to 45 years and the main exclusion criterion is occurrence of intolerable adverse effects. Endometrial preparation starts with the Estradiol valerate 4 mg tablet once a day and after three days to 6 mg per day increases. Endometrial thickness is determined by ultrasound after 7 days. progesterone injections administered at a dose of 100 mg daily in achieving endometrial thickness of 8 mm. 8-cell embryo transfer after 3 days and 5 days after blastocyst transfer is done. Before progesterone injection in study group 100 micrograms G-CSF with IUI catheter as infusion intrauterine. Three days after the injection of progesterone transferred embryo transfer with a special catheter with abdominal ultrasound . 100 mg daily intramuscular progesterone for luteal phase support continues. in the patients who are FRESH embryo injected GCS-F 100 mcg with HCG by IUI catheter. BHCG test two weeks after embryo transfer is requested. Vaginal ultrasound done 3 weeks after embryo transfer, if it is positive BHCG. In this study, the primary outcome of successful implantation and clinical pregnancy is considered to be a secondary consequence.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015042312146N6**
Registration date: **2015-04-28, 1394/02/08**
Registration timing: **prospective**
Last update:
Update count: **0**

Registration date

2015-04-28, 1394/02/08

Registrant information

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Name of organization / entity
Woman's Reproductive Health Research Center of Tabriz
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Recruitment status

Recruitment complete

Funding source

Vice chancellor for Research, Tabriz University of Medical Sciences

Expected recruitment start date

2015-05-05, 1394/02/15

Expected recruitment end date

2016-03-19, 1394/12/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Impact of intrauterine injection of G-csf on implantation and clinical pregnancy rate in repeated implantation failure

Public title

Impact of intrauterine injection of G-csf on implantation

and clinical pregnancy rate in repeated implantation failure

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria: Age 45-18 , and personal satisfaction; Had two or more failures of implantation Exclusion criteria: patients with a history of uterine surgery; hydrosalpinges; endometriosis; Endometrial polyps; Submucosal myoma; Contraindications G-CSF as:Kidney failure; Chronic Neutropenia;anemia; Cancer; Pneumonia.

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

Gender
Female

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **68**

Randomization (investigator's opinion)
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
Tabriz University of Medical Sciences

Street address
Golgasht Street ,Tabriz University Of Medical Sciences

City
Tabriz

Postal code

Approval date
2015-04-21, 1394/02/01

Ethics committee reference number
TBZMED.REC.1394.14

Health conditions studied

1

Description of health condition studied
Female Infertility

ICD-10 code
N97

ICD-10 code description

Primary outcomes

1

Description
Implantation rates

Timepoint
Two weeks after embryo transfer

Method of measurement
Ultrasound

Secondary outcomes

1

Description
Clinical pregnancy

Timepoint
Two weeks after positive BHCG

Method of measurement
Vaginal ultrasound

Intervention groups

1

Description
In the control group: Endometrial preparation starts with the Estradiol valerate 4 mg tablet once a day and after three days to 6 mg per day increases. Endometrial thickness is determined by ultrasound after 7 days. progesterone injections administered at a dose of 100 mg daily in achieving endometrial thickness of 8 mm. 8-cell embryo transfer after 3 days and 5 days after blastocyst transfer is done.

Category
Treatment - Drugs

2

Description
In the case group: Before progesterone injection in study group 100 micrograms G-CSF with IUI catheter as infusion intrauterine. Three days after the injection of progesterone transferred embryo transfer with a special catheter with abdominal ultrasound . 100 mg daily intramuscular progesterone for luteal phase support continues. in the patients who are FRESH embryo injected GCS-F 100 mcg with HCG by IUI catheter

Category
Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Alzahra Hospital

Full name of responsible person

Dr.Farzadi Laya

Street address

Alzahra Hospital, South Artesh Ave

City

Tabriz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for Research,Tabriz University Of Medical Sciences

Full name of responsible person

Dr.Alireza Rashidi

Street address

Third Floor, Central Building of Number2, Golgasht Street

City

Tabriz

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,Tabriz University Of Medical Sciences

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

Tabriz University Of Medical Sciences

Full name of responsible person

Dr.Farzadi Laaya

Position

Fellowship of Infertility

Other areas of specialty/work

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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*