Clinical Trial Protocol
Iranian Registry of Clinical Trials

18 Sep 2026

Comparison of anesthesia by Remifentanil with or without Propofol for Transvaginal Ultrasonography Oocyte Retrieval (TUGOR) on pregnancy and anesthesia outcomes in patients candidate for in vitro fertilization

Protocol summary

Summary

In current single center, double-blinded randomized clinical trial, 180 women aged between 18-40, candidate for oocytes collection by vaginal ultrasonography will enroll the study and randomly assigned to study groups. Randomization has been performed using online randomization method and sealed envelope. Patients with sensitivity to anesthesia drugs and chronic diseases will be excluded. After hormonal therapy by gynecologist to induce ovulation, oocyte collection procedure will be performed through vagina with the guide of ultrasonography. All patients will receive 0.3 mg/kg midazolam and 0.1 µg/kg bullous remifentanil. In terms of maintenance anesthesia drugs, patients will be randomly assign to two groups: study group (90 patients) will receive remifentanil infusion during procedure with dose of 0.25 µg/kg/min and control group (90 patients) will receive 1 µg/kg/min remifentanil combined with 50-150 µg/kg/min Propofol infusion. Patients' vital signs will be checked and recorded during operation and after that, with 5 minute intervals. In addition, procedure duration and anesthesia duration will be record. Overall infused remifentanil and propofol dosage and probable side effects will be examined and recorded during recovery phase. Subsequently, retrieved oocytes numbers and successful fertilization and pregnancy rate will be recorded. An anesthesiologist will manage the patients' anesthesia and another anesthesiologist and a medical student, who are blind to patients group, will record different variables indicated in questionnaire.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201611177013N15**

Registration date: **2016-12-24, 1395/10/04**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2016-12-24, 1395/10/04

Registrant information

Name

Simin Atashkhoei

Name of organization / entity

Tabriz University of Medical Siences

Country

Iran (Islamic Republic of)

Phone

+98 41 3333 3806

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atashkhoii@tbzmed.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice Chancellor for research of Tabriz University of Medical Sciences

Expected recruitment start date

2016-12-01, 1395/09/11

Expected recruitment end date

2017-02-01, 1395/11/13

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of anesthesia by Remifentanil with or without Propofol for Transvaginal Ultrasonography

Oocyte Retrieval (TUGOR) on pregnancy and anesthesia outcomes in patients candidate for in vitro fertilization

Public title
Remifentanil infusion effect on oocyte retrieval
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria: Class I and II in American society of anesthesiology classification; aged between 18-40 years old. Exclusion criteria: Body mass index (BMI) more than 30; sensitivity to anesthesia drugs will be used in study; history of cardiac, endocrine, hepatic, renal and pulmonary diseases; chronic use of opioid drugs or alcohol.
Age
From **18 years** old to **40 years** old
Gender
Female

Phase
2-3
Groups that have been masked
No information
Sample size
Target sample size: **180**
Randomization (investigator's opinion)
Randomized
Randomization description
Blinding (investigator's opinion)
Double blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features
Randomization has been performed using online randomization method and sealed envelope.

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Tabriz University of Medical Sciences
Street address
Vice chancellor for research, Tabriz university of medical sceinces, Daneshgah square
City
Tabriz
Postal code
Approval date
2016-09-26, 1395/07/05
Ethics committee reference number
IR.TBZMED.REC.1395.691

Health conditions studied

1

Description of health condition studied
Anethestics complication and efficacy
ICD-10 code
O 29.
ICD-10 code description
Complications of anaesthesia during pregnancy

Primary outcomes

1

Description
clinical pregnancy rate
Timepoint
3 weeks after embryo transfer
Method of measurement
ultrasonography study

2

Description
rate of transferred oocytes
Timepoint
after operation
Method of measurement
will be counted using microscope

3

Description
Number of collected oocytes
Timepoint
during operation
Method of measurement
will be counted using microscope

4

Description
laboratory pregnancy rate
Timepoint
14 days after embryo transfer
Method of measurement
B-hCG measurement

5

Description
rate of fertilized oocytes
Timepoint
after operation
Method of measurement
will be counted using microscope

Secondary outcomes

1

Description
Postoperative vertigo
Timepoint
each 5 minutes during first hour after operation
Method of measurement
physical examination

2

Description
Postoperative hypotension
Timepoint
each 5 minutes during first hour after operation
Method of measurement
physical examination

3

Description
Postoperative nausea and vomiting
Timepoint
each 5 minutes during first hour after operation
Method of measurement
physical examination

4

Description
Postoperative drowsiness
Timepoint
each 5 minutes during first hour after operation
Method of measurement
physical examination

5

Description
perioperative hypotension
Timepoint
each 5 minutes during operation
Method of measurement
physical examination

6

Description
perioperative tachycardia
Timepoint
each 5 minutes during operation
Method of measurement
physical examination

7

Description
perioperative bradycardia
Timepoint
each 5 minutes during operation
Method of measurement
physical examination

8

Description
perioperative respiratory suppression
Timepoint
each 5 minutes during operation
Method of measurement
physical examination

9

Description
perioperative pain
Timepoint
each 5 minutes during operation
Method of measurement
physical examination

Intervention groups

1

Description
Intervention group: 0.25 µg/kg/min remifentanil will be infused during operation.
Category
Treatment - Drugs

2

Description
Control group: 1 µg/kg/min remifentanil combined with 50-150 µg/kg/min propofol will be infused during operation.
Category
Treatment - Drugs

Recruitment centers

1

Recruitment center
Name of recruitment center
Al Zahra Women's Hospital
Full name of responsible person
Dr. Simin Atashkhoyi
Street address
Baghshomal crossroad, North artesh street, Tabriz
City
Tabriz

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice chancellor for research, Tabriz University of medical sceinces
Full name of responsible person
Alireza Ostadrahimi
Street address

Vice chancellor for research, Tabriz University of medical sceinces, Daneshgah square

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 sceinces

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. Simin Atashkhoyi

Position

Associate Professor, Specialist in Anesthesiology

Other areas of specialty/work

Street address

Al Zahra hospital, Baghshomal crossroad

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atashkhoii@tbzmed.ac.ir

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Person responsible for scientific inquiries

Contact

Name of organization / entity

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Full name of responsible person

Dr. Simin Atashkhoyi

Position

Associate Professor, Specialist in anesthesiology

Other areas of specialty/work

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Person responsible for updating data

Contact

Name of organization / entity

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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