

Clinical Trial Protocol

Iranian Registry of Clinical Trials

03 Aug 2026

Comparison of Remifentanil-Propofol vs. Alfentanil-Propofol on fertilization and pregnancy rates in assisted reproductive(IVF-ICSI) patients referred to the Fertility Center of Fatemeh Zahra

Protocol summary

Summary

This study compared the analgesic effect of remifentanil and alfentanil on the results and success rate of assisted reproductive technology (ART) including in vitro fertilization (IVF) or intracytoplasmic sperm injection (ICSI) was performed. 100 cases of women using assisted reproductive techniques for pregnancy, in the age group 18-35 years were enrolled. Patients were divided randomly into two groups. Induction of anesthesia was performed in both groups with propofol 2 mg/ kg. For the first group Alfentanil 20 micrograms /kg and for second group remifentanil 1micrograms/kg was administered. For maintain of anesthesia in both groups was used of infusion of propofol with a dose of 100 micrograms /kg/min. Blood pressure, heart rate and oxygen saturation were measured and recorded every 5 minutes. It also the number of aspirated oocytes, fertilization is done and the number of embryos that were transferred was recorded. The recovery time was measured after discontinuing of drug infusion, based on open eyes on command. The incidence of postoperative nausea and vomiting were also studied. Beta-HCG was evaluated 15-17 days after embryo transfer.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201104096148N1**
Registration date: **2012-06-12, 1391/03/23**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2012-06-12, 1391/03/23

Registrant information

Name

Hakimeh Alreza Amiri

Name of organization / entity

Babol University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 11 1223 8296

Email address

halereza@mubabol.ac.ir

Recruitment status

Recruitment complete

Funding source

vice-chancellor Of Research Babol University Of Medical Sciences

Expected recruitment start date

2010-05-22, 1389/03/01

Expected recruitment end date

2011-06-10, 1390/03/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of Remifentanil-Propofol vs. Alfentanil-Propofol on fertilization and pregnancy rates in assisted reproductive(IVF-ICSI) patients referred to the Fertility Center of Fatemeh Zahra

Public title

Comparison of Remifentanil-Propofol vs Alfentanil-Propofol on fertilization and pregnancy rates in assisted reproductive

Purpose

Treatment
Inclusion/Exclusion criteria
Inclusion criteria: Infertile Women who use assisted reproductive techniques for pregnancy
Exclusion criteria: Women over 40 years, patients with psychological disorders and addiction.

Age
From **18 years** old to **35 years** old

Gender
Female

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **100**

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

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Babol University Of Medical Sciences
Street address
Daneshgah Sq - Ganjafrooz St
City
Babol
Postal code
Approval date
2011-04-27, 1390/02/07
Ethics committee reference number
3546/1/30/پ/ژ

Health conditions studied

1

Description of health condition studied
In Vitro Fertilization
ICD-10 code
Z31.2
ICD-10 code description
In vitro fertilization

Primary outcomes

1

Description
Rate of pregnancy
Timepoint
15-17 days after Embryo transfer
Method of measurement
Pregnancy Test

Secondary outcomes

1

Description
Formation of fetus
Timepoint
3 days after the puncture of ovarian follicle
Method of measurement
The number of formation of fetus

2

Description
Post operative of nausea & Vomiting
Timepoint
After Anesthesia
Method of measurement
Question & observation

3

Description
Recovery time after anesthesia
Timepoint
Waking up after discontinuation of drug infusion
Method of measurement
Discontinuation of the infusion time to open eyes with a call

Intervention groups

1

Description
In the control group, induction of anesthesia with alfentanil 20 microgram/kg and 2 mg /kg propofol for oocyte aspiration of ovarian follicles are prescribed.
Category
Treatment - Drugs

2

Description
The first group, the induction of general anesthesia with 1 microgram/kg for remifentanil and propofol 2 mg/kg body weight for oocyte aspiration of ovarian follicles.
Category
Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Infertility and Reproductive Health Research Center

Full name of responsible person

Dr Hakimeh Alereza

Street address

City

Babol

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice-chancellor Of Research Babol University Of Medical Sciences

Full name of responsible person

Dr Amrolah Mostafazadeh

Street address

Vice-chancellor Of Research, Daneshgah Square, Ganjafrooz Avenue

City

Babol

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Vice-chancellor Of Research Babol 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

Babol University Of Medical Sciences

Full name of responsible person

Dr Hakimeh Alereza

Position

Assistant Professor Of Anesthesiology

Other areas of specialty/work

Street address

Anesthesiology Department, Ruhani Hospital, Daneshgah Square, Ganjafrooz Avenue

City

Babol

Postal code

4717641367

Phone

+98 11 1223 8296

Fax

Email

halereza@yahoo.com , ans_dep@yahoo.com

Web page address

Person responsible for scientific inquiries

Contact

Name of organization / entity

Babol University Of Medical Sciences

Full name of responsible person

Dr Hakimeh Alereza

Position

Assistant Professor Of Anesthesiology

Other areas of specialty/work

Street address

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Person responsible for updating data

Contact

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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