Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

A prospective randomized clinical trial on mid-cycle triggering of final oocyte maturation using GnRH versus HCG in Antagonist protocol

Protocol summary

Summary

Objectives: Comparing effects of GnRH agonist versus hCG in final oocyte maturation in antagonist protocol of IVF cycle. Design: In this research a comparison among abovementioned approaches for triggering of final oocyte maturation is performed based on following criteria: (1) quality and number of retrieved oocytes (2) number and quality of embryos obtained (3) clinical and ongoing pregnancy rate (4) the risk of OHSS . Setting and Conduct, Inclusion and Exclusion Criteria: Candidate women for IVF with ages lower than 39 who will refer to private infertility clinic of Madar-O-Koodak hospital affiliated to Shiraz University of Medical sciences will be enrolled. The patients with Ovulatory factor infertility, Endometriosis and uterine anomalies will be excluded from study population. The remaining patients will be randomly allocated in two groups using random table of numbers. Interventions: In control group named as HCG group will receive HCG for mid-cycle triggering of final oocyte maturation as a standard IVF protocol. In intervention group the GnRH agonist will be used for mid-cycle triggering of final oocyte maturation. Main outcome measures: clinical pregnancy, hormonal assay, rate of OHSS, Number and quality of embryos obtained

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015060222541N1**
Registration date: **2016-06-24, 1395/04/04**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2016-06-24, 1395/04/04

Registrant information

Name
Leila Sarikhani
Name of organization / entity
Shiraz Univesity of Medical School
Country
Iran (Islamic Republic of)
Phone
+98 71 3229 8396
Email address
dr.l.sarikhani@gmail.com

Recruitment status

Recruitment complete

Funding source

Vice chancellor for research , Zand street , Shiraz University of Medical Sciences

Expected recruitment start date

2013-02-26, 1391/12/08

Expected recruitment end date

2014-09-24, 1393/07/02

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

A prospective randomized clinical trial on mid-cycle triggering of final oocyte maturation using GnRH versus HCG in Antagonist protocol

Public title

Comparing hormone profile and outcomes of ovulation triggering with GnRH and HGC in IVF

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: All patients who are candidate for IVF/ICSI(Male factor infertility, unexplained infertility,

tubal factor infertility), Age below 39 years old, BMI: 18-29, Regular menstrual cycles.Agreement of patient to enrol the research Exclusion criteria: Ovulatory factor infertility, Endometriosis, Uterine anomalies, Age above 39 years old, Non-agreement of patient to enrol the research

Age
From **24 years** old to **36 years** old

Gender
Female

Phase
2-3

Groups that have been masked
No information

Sample size
Target sample size: **232**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Single blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features
Randomisation will be implemented using table of random numbers.

Secondary Ids

1

Registry name
Shiraz University of Medical Sciences

Secondary trial Id
90-01-01-3979

Registration date
2012-09-10, 1391/06/20

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics Committee of Shiraz University of Medical Science

Street address
Shiraz University of Medical Science , Zand street

City
Shiraz

Postal code

Approval date
2013-02-21, 1391/12/03

Ethics committee reference number
CT-P-91-3979

Health conditions studied

1

Description of health condition studied
Female infertility

ICD-10 code
N97.9

ICD-10 code description
Female infertility

Primary outcomes

1

Description
Number and Quality of oocytes retrieved in each IVF cycle

Timepoint
on day of ovum pick up

Method of measurement
measuring number and quality of oocytes on the day of pick up by pathologist in lab under microscope and scoring.

2

Description
Progesterone level

Timepoint
on the day of injection HCG or GnRH agonist(Final Triggering) and rechecked 7 and 14 days after that

Method of measurement
Serum Level, Lab test

3

Description
Number and Quality of embryos transferred in IVF cycle

Timepoint
on day of embryo transfer

Method of measurement
measuring number and quality of embryos by pathologist in lab under microscope and grading.

4

Description
Comparing FSH, LH, Estradiol and HCG in both groups

Timepoint
on days 2 and 6 of menstrual cycle, final oocyte triggering, oocyte retrieval, 7 and 14 days after that oocyte retrieved

Method of measurement
Serum Level, Lab test

Secondary outcomes

1

Description
Rate of ovarian hyperstimulation syndrome (OHSS)

Timepoint
From day of HCG or GnRH agonist injection up to 2 weeks later
Method of measurement
Clinical management of symptoms, Sonography

2

Description
Clinical Pregnancy
Timepoint
16 days after triggering if menstruation was absent
Method of measurement
Serum BHCG and TVS

Intervention groups

1

Description
Intervention group: In intervention group the patient will receive GnRh agonist (Decapeptyl; Ferring, The Netherlands), 0.2 mg sc for triggering final oocyte maturation
Category
Treatment - Drugs

2

Description
Control group: In control group the patients will receive HCG 10000 IU sc (Institute Biochimique SA (IBSA), The Switzerland) for triggering final oocyte maturation
Category
Treatment - Drugs

Recruitment centers

1

Recruitment center
Name of recruitment center
Madar-Koodak Hospital
Full name of responsible person
Dr. Leila Sarikhani
Street address
Entrance of Gulshan Town, Quran Gate
City
Shiraz

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice Chancellor of Research, Shiraz University of Medical Sciences
Full name of responsible person
Dr. Seyed Basir Hashemi
Street address
Shiraz University of Medical Sciences, Zand Street
City
Shiraz
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, Shiraz 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
OB. & GYN Department, Shiraz Medical School
Full name of responsible person
Dr. leila Sarikhani
Position
Resident of OB. & GYN
Other areas of specialty/work
Street address
OB. & GYN. Office, Shahid Faghihi Hospital, Zand Street
City
Shiraz
Postal code
Phone
+98 71 3229 8396
Fax
Email
sarikhani_l@sums.ac.ir; dr.l.sarikhani@gmail.com
Web page address

Person responsible for scientific inquiries

Contact
Name of organization / entity
OB. & GYN. Department, Shiraz Medical School
Full name of responsible person
Dr. Ebrahim Parsanezhad
Position
Head of OB. & GYN. Department, Proffesor
Other areas of specialty/work
Street address
OB. & GYN. Department, Shahid Faghihi Hospital, Zand Street
City
Shiraz
Postal code

Phone
+98 71 3233 2365
Fax
Email
parsame@rogers.ca; obgynward@sums.ac.ir
Web page address

Person responsible for updating data

Contact
Name of organization / entity
OB. & GYN. Department, Shiraz Medical School
Full name of responsible person
Dr. Leila Sarikhani
Position
Resident of OB. & GYN.
Other areas of specialty/work
Street address
OB. & GYN. Office, Shahid Faghihi Hospital, Zand Street
City
Shiraz
Postal code

Phone
+98 71 3229 8396
Fax
Email
sarikhani_l@sums.ac.ir; dr.l.sarikhani@gmail.com
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