

Clinical Trial Protocol

Iranian Registry of Clinical Trials

31 May 2026

Effects of Resveratrol on expression of inflammatory factors and progesterone receptors in endometrium of women with endometriosis

Protocol summary

Summary

Summary: Goal: Evaluation of changes in expression of some inflammatory factors and progesterone receptors in endometrium of women with endometriosis after administration of resveratrol. We hypothesized that resveratrol have anti-inflammatory effects and could alter the expression profile of some inflammatory factors in eutopic endometrium of women with endometriosis. If resveratrol can suppress the expression level of some inflammatory cytokines, possibly will be capable to down-regulate the expression level of some matrix metalloproteinases as well as vascular endothelial growth factor and modify the expression pattern of progesterone receptors. Methods: This study is a triple blind intervention procedure, and designed on 18 to 37 year old females who suffers from endometriosis and not receiving any hormones or supplements during the last three months. 28 women with endometriosis will be included in the study as intervention and control groups and will undergo to endometrial biopsy in the mid-luteal phase. Half of them, as intervention group, will receive 1000 mg resveratrol daily for 12 weeks along with routine treatment of endometriosis and the other half will receive placebo along with the routine treatment of endometriosis. All of them will undergo to biopsy of endometrium in the mid-luteal phase before and after treatment. The rate of expression of some genes and proteins related to inflammatory factors and progesterone receptors will evaluate by RT-PCR and Western blot.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015101724569N1**

Registration date: **2016-05-31, 1395/03/11**

Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2016-05-31, 1395/03/11

Registrant information

Name

Mahshad Khodarahmian

Name of organization / entity

Tehran University of Medical Science

Country

Iran (Islamic Republic of)

Phone

+98 21 2243 7096

Email address

m-khodarahmian@razi.tums.ac.ir

Recruitment status

Recruitment complete

Funding source

Tehran University of Medical Sciences

Expected recruitment start date

2016-06-30, 1395/04/10

Expected recruitment end date

2017-07-01, 1396/04/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of Resveratrol on expression of inflammatory factors and progesterone receptors in endometrium of women with endometriosis

Public title

The Effects of Resveratrol on Endometriosis

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: No usage of hormonal drugs; hormonal contraceptives; IUDs and supplements during the last three months before the first biopsy; no contraindication of resveratrol such as allergy to grape and green tea; no current suffering from autoimmune or known intestinal diseases; no history of pregnancy or lactation during the last 3 months; Age 18-37 years old; Body mass index between 18.5 to 30 kilograms per square meter.

Age

From **18 years** old to **37 years** old

Gender

Female

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: **28**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Triple blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Tehran University of Medical Sciences Ethics Committee

Street address

Tehran University of Medical Sciences, Keshavarz blvd.

City

Tehran

Postal code

Approval date

2015-09-23, 1394/07/01

Ethics committee reference number

IR.TUMS.REC.1394.838

Health conditions studied

1

Description of health condition studied

Endometriosis

ICD-10 code

N80

ICD-10 code description

Endometriosis

Primary outcomes

1

Description

Expression of VEGF gene

Timepoint

Before and after intervention

Method of measurement

RT-PCR

2

Description

Expression of MMP9 gene

Timepoint

Before and after intervention

Method of measurement

RT-PCR

3

Description

Expression of MMP2 gene

Timepoint

Before and after intervention

Method of measurement

RT-PCR

4

Description

Expression of the PRb gene and protein

Timepoint

Before and after intervention

Method of measurement

Western Blot and RT-PCR

5

Description

Expression of the PRA gene and protein

Timepoint

Before and after intervention

Method of measurement

Western Blot and RT-PCR

6

Description

Expression of IL1b gene and protein

Timepoint

Before and after intervention

Method of measurement

Western Blot and RT-PCR

7

Description

Expression of IL8 gene

Timepoint

Before and after intervention

Method of measurement

RT-PCR

8

Description

Expression the gene and TNF alpha protein

Timepoint

Before and after intervention

Method of measurement

Western Blot and RT-PCR

Secondary outcomes

empty

Intervention groups

1

Description

Control group: Consist of the endometrium of infertile women with Endometriosis. They will take routine treatment and placebo (12 week)

Category

Placebo

2

Description

Intervention group: Consist of the endometrium of infertile women with Endometriosis. They will take routine treatment and resveratrol capsule 1000 mg/ daily for 12 week.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Arash Hospital

Full name of responsible person

Mahshad Khodarahmian

Street address

V, Baghdarnia st., after Shahid Bagheri st., Resalat st.,Tehran. Iran

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research,Tehran University of

Medical Sciences

Full name of responsible person

Dr. Masud Yunesian

Street address

Tehran University of Medical Sciences, Keshavarz blvd.

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,Tehran 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

Tehran University of Medical Sciences

Full name of responsible person

Mahshad Khodarahmian

Position

PhD student of reproductive biology

Other areas of specialty/work

Street address

Anatomy & Reproductive Biology Department,Tehran University of Medical Sciences, Poursina st., Keshavarz blvd.

City

Tehran

Postal code

1417653791

Phone

+98 21 6641 9072

Fax

Email

m-khodarahmian@razi.tums.ac.ir

Web page address

Person responsible for scientific inquiries

Contact

Name of organization / entity

Tehran University of Medical Sciences

Full name of responsible person

Dr. Aligoli Sobhani

Position

PhD

Other areas of specialty/work

Street address

Anatomy & Reproductive Biology Department, Tehran
University of Medical Sciences, Poursina st.,
Keshavarz blvd.

City

Tehran

Postal code

1417653791

Phone

+98 21 6641 9072

Fax

Email

sobhania@tums.ac.ir

Web page address

Person responsible for updating data

Contact

Name of organization / entity

Tehran University of Medical Sciences

Full name of responsible person

Mahshad khodarahmian

Position

PhD Student of Reproductive Biology

Other areas of specialty/work

Street address

Anatomy & Reproductive Biology Department, Tehran

University of Medical Sciences, Poursina st.,
Keshavarz blvd.

City

Tehran

Postal code

1417653791

Phone

+98 21 6641 9072

Fax

Email

m-khodarahmian@razi.tums.ac.ir

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