

Clinical Trial Protocol

Iranian Registry of Clinical Trials

15 Jul 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

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Iran (Islamic Republic of)

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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

Experission of IL8 gene
Timepoint
Before and after intervention
Method of measurement
RT-PCR

8

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