

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 May 2026

Effects of resveratrol supplementation on serum irisin and adiponectin in patients with type 2 diabetes

Protocol summary

Summary

Objectives: To determine effects of resveratrol on serum irisin and adiponectin in patients with type 2 diabetes.
Design: Randomized double-blind placebo-controlled clinical trial. **Participants:** Patients with type 2 diabetes with BMI more than 25. **Setting and conduct:** Fifty five eligible patients with type 2 diabetes will be referred from Institute of Endocrinology and Metabolism, Firoozgar Hospital. They will be randomly assigned into two groups to receive daily either 240 mg resveratrol or placebo for 8 weeks. 10 cc fasting venous blood samples will be obtained at the beginning and the end of intervention and serum irisin and adiponectin will be measured by ELISA. In order to control confounding factors, height, weight, body fat and muscle percent, food intakes, physical activity, age, sex, FBS, insulin, HbA1c and medications will be assessed before and after intervention. **Intervention:** 240 mg resveratrol or placebo. **Main outcome measures:** serum irisin and adiponectin.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201601022394N19**
Registration date: **2016-07-24, 1395/05/03**
Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2016-07-24, 1395/05/03

Registrant information

Name

Shima Jazayeri

Name of organization / entity

Iran University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Iran University of Medical Sciences

Expected recruitment start date

2015-06-22, 1394/04/01

Expected recruitment end date

2016-09-20, 1395/06/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of resveratrol supplementation on serum irisin and adiponectin in patients with type 2 diabetes

Public title

Effect of resveratrol on serum irisin and adiponectin in patients With type 2 diabetes

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: diagnosis of type 2 Diabetes for at least 2 years; willing to participate; BMI more than 25; age between 45 to 70 years old. Exclusion criteria: Significant diseases including cardiovascular, renal and liver diseases, or cancer; pregnancy; lactation; insulin use; weight and BMI change; consumption of nutritional supplements within the past 8 weeks.

Age

From **45 years** old to **70 years** old

Gender

Both

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: **56**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethic committe of Iran University of Medical Sciences

Street address

Iran University of Medical Sciences, Shahid Hemmet Highway, Tehran, Iran

City

Tehran

Postal code

Approval date

2015-09-25, 1394/07/03

Ethics committee reference number

IR.IUMS.REC.1394.26168

Health conditions studied

1

Description of health condition studied

Type 2 Diabetes Mellitus

ICD-10 code

E11

ICD-10 code description

non-insulin-dependent-diabetes-mellitus

Primary outcomes

1

Description

Irisin

Timepoint

At baseline and after 8 weeks

Method of measurement

ELISA

2

Description

Adiponectin

Timepoint

At beaseline and after 8 weeks

Method of measurement

ELISA

Secondary outcomes

1

Description

Fasting Blood Sugar (FBS)

Timepoint

At baseline and after 8 weeks

Method of measurement

Biochemical assessment

2

Description

HbA1C

Timepoint

At baseline and after 8 weeks

Method of measurement

Biochemical assessment

3

Description

Insulin

Timepoint

At baseline and after 8 weeks

Method of measurement

ELISA

Intervention groups

1

Description

Resveratrol- 240 mg/day with lunch for 8 weeks

Category

Treatment - Other

2

Description

Placebo- 240 mg/day with lunch for 8 weeks

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Institute of Endocrinology and Metabolism, Firouzgar Hospital, Iran University of Medical Sciences

Full name of responsible person

Zahra Khajehpour

Street address

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Iran University of Medical Sciences

Full name of responsible person

Dr. Seyed Ali Javad Moosavi

Street address

Iran University of Medical Sciences, Shahid Hemmat Highway

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, Iran 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

Department of Nutrition, School of Public Health, Iran University of Medical Sciences.

Full name of responsible person

Zahra Khajehpour

Position

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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