

Clinical Trial Protocol

Iranian Registry of Clinical Trials

06 Jul 2026

Comparison of the effect of 8 weeks aerobic exercise and supplementation of green coffee on serum myonectin, methionine-like and insulin resistance in obese women

Protocol summary

Study aim

Purpose of this research is to compare the effects of aerobic exercises and green coffee consumption as a supplement on METTEORIN - LIKE and Myonectin level and Insulin resistance of obese women in Isfahan.

Design

Clinical work. Simple random Four groups of control /green coffee / intralum / combined with 40 patients were selected for two months

Settings and conduct

Anthropometric indices including height, weight, body fat percentage and body mass index were measured with minimum dress and no shoe. The weight of the subjects was measured with a German scale of 0.1 kg precision and their height was measured by tape measure with accuracy of 0.5 cm. The body mass index (BMI) was calculated by dividing the body weight (kg) by height (square meter). The percentage of subjects' fat was measured using the SAEHAN-SH 5020 calipers made in the UK using subcutaneous fat and using the method Three points (three-headed arm, abdomen, and supra) were calculated on the right side of the body after placement in the general equation of Pollack Jackson and to determine the percentage of fat in women

Participants/Inclusion and exclusion criteria

Requirement to enter healthy participants and not to use coffee and physical activity up to six months ago.

Intervention groups

Intervention group 1: Interval Training Intervention group 2: Green coffee consumption Intervention group 3: Interval training and green coffee consumption Control group: No intervention

Main outcome variables

serum myonectin, methionine-like

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20170510033909N5**

Registration date: **2019-07-30, 1398/05/08**

Registration timing: **retrospective**

Last update: **2019-07-30, 1398/05/08**

Update count: **0**

Registration date

2019-07-30, 1398/05/08

Registrant information

Name

فرزانه تقیان

Name of organization / entity

دانشگاه آزاد اسلامی. واحد اصفهان

Country

Iran (Islamic Republic of)

Phone

+98 913 308 0241

Email address

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-12-22, 1397/10/01

Expected recruitment end date

2019-01-20, 1397/10/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effect of 8 weeks aerobic exercise and supplementation of green coffee on serum myonectin, methionine-like and insulin resistance in obese women

Public title

Investigating the effect of exercise and green coffee on reducing obesity

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

Age range of 30 to 35 years BMI> 30

Exclusion criteria:

Take an intervention to lose weight in the last year
Lack of participation in athletic exercises for at least the last six months
Lack of structural and abnormalities
No history of any Fractures and surgery in the last 1 year
Lack of cardiovascular, renal, hormonal and liver disease
Lack of menopause

Age

From **30 years** old to **35 years** old

Gender

Female

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple randomization , Random number table . To use random numbers, the researcher first predefines the reader for reading table numbers (for example, up, down, left, or right), the second is to consider numbers for different groups (for example, pair numbers for intervention A and individual numbers for Intervention B, another way of taking numbers from 2400 to intervene A, and numbers 25-49 for intervention B, are numbers 74-50 for group C and numbers 99-75 for group D), then put on one of the numbers and In one direction, it has been predefined and recorded numbers and allocated to different groups.

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Factorial

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of najafabad University

Street address

Islamic Azad University-Najaf Abad Branch, Isfahan, Najaf Abad, University Blvd.

City

Isfahan,Najafabad

Province

Isfahan

Postal code

81838-95153

Approval date

2017-12-31, 1396/10/10

Ethics committee reference number

IR.IAU.NAJAFABAD.REC.1396.26

Health conditions studied

1

Description of health condition studied

obesity

ICD-10 code

E66

ICD-10 code description

Overweight and obesity

Primary outcomes

1

Description

Myonectin

Timepoint

At the beginning and end of the study after 8 weeks

Method of measurement

Serum concentration of Mayonectin by ELISA method using the Hangzhou Sbiofarm manufacturing kit in China

2

Description

Methionine-like

Timepoint

At the beginning and end of the study after 8 weeks

Method of measurement

Serum concentration of Mayonectin by ELISA method using the Hangzhou Sbiofarm manufacturing kit in China

Secondary outcomes

1

Description

Serum insulin concentration

Timepoint

Before and after intervention

Method of measurement

Serum insulin concentration by ELISA method and use of special kit, Monobind Inc., USA) (75 µg / ml micro-unit per ml, intra-group variation coefficient of 6.3%),

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Intervention groups

1

Description

Intervention group: First intervention group: Interval exercise, which includes three sessions per week each session for an eight-week session

Category

Treatment - Other

2

Description

Intervention group 2 : Green coffee consumption , Participants in the group received green coffee supplement for 8 weeks and received 400 mg daily as 2 capsules of 200 mg.

Category

Rehabilitation

3

Description

Intervention group 3: Interval exercises and green coffee consumption Interval exercise, which included three sessions per week for one session for 8 weeks and a green tea supplement for 8 weeks and 400 mg daily for 2 capsules of 200 mg

Category

Rehabilitation

4

Description

Control group: Without intervention, they were only tracked

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Clinic of Diet Therapy , Isfahan Clinic Hospital

Full name of responsible person

Hajar Bahador

Street address

Isfahan Hospital ,Ordibehesht Ave SheikhBahaei St

City

Isfahan

Province

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Postal code

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Islamic Azad University, Isfahan Branch (Khorasgan),
Research Deputy

Full name of responsible person

Majid Toghyani

Street address

Khorasgan University, Arghavanie St, Isfahan

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Grant name

Grant code / Reference number

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

Yes

Title of funding source

Islamic Azad University, Isfahan Branch (Khorasgan),
Research Deputy

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Islamic Azad University

Full name of responsible person

Farzaneh taghian

Position

Associate professor

Latest degree

Specialist

Other areas of specialty/work

Sport Medicine

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Person responsible for scientific inquiries

Contact

Name of organization / entity

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Latest degree

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Other areas of specialty/work

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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

No more information

Study Protocol

No - There is not a plan to make this available

Statistical Analysis Plan

No - There is not a plan to make this available

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

No - There is not a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

No - There is not a plan to make this available