

Clinical Trial Protocol

Iranian Registry of Clinical Trials

28 Jun 2026

Comparison of the effect of 8 weeks resistance and aerobic progressive training program on Irisin and some selected anthropometric parameters in healthy males

Protocol summary

Study aim

Determining the effect of a resistance and aerobic training course on controlling some of the factors affecting obesity

Design

The clinical trial included two groups (resistance N=15, aerobic N=15) and one control group (N=15) who would be randomly assigned to individual, parallel group and by random numbers.

Settings and conduct

A number of young men will have physical activity, based on their practice protocol, for 8 weeks in gymnasium at Islamic Azad University, Aliabad Katoul.

Participants/Inclusion and exclusion criteria

Men between 18 and 30 years old
Body mass index greater than 30
No physical damage in a recent month
No smoking in the last six months
No use of newborns in the last month
Lack of colds in the last two weeks
Lack of chronic illness or pulmonary infections in the last three months

Intervention groups

Each training session starts with 10 minutes of warm-up and ends with 10 minutes of cool down. The training groups practice for 8 weeks and 4 sessions each week. For the strength training protocols, the American College of Exercise Medicine's exercise protocol was used in this study, which is a circular protocol of 10 stations powered by dumbbells and athletic activities that carry body weight. The aerobic exercise protocol will be run on the tape for 45 minutes and the intensity of 65% of the maximum aerobic power in the first session. To comply with the principle of overload, Will be added 5% to intensity in every week. Also, at the fourth and eighth weeks of the training program, 5% of exercise intensity will reduce. The control group does not perform any exercise during the course of the study.

Main outcome variables

If exercise can control the f obesity by some of affecting factors such as irisin hormone, it can be expected that in the future, it can be prevented by reduce negative effects such as metabolic syndrome and may not require medication.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180712040448N1**

Registration date: **2018-07-22, 1397/04/31**

Registration timing: **prospective**

Last update: **2018-07-22, 1397/04/31**

Update count: **0**

Registration date

2018-07-22, 1397/04/31

Registrant information

Name

Reza Rezaeshirazi

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 17 3323 7714

Email address

Dr.rezaee@aliabadiu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-07-23, 1397/05/01

Expected recruitment end date

2018-09-23, 1397/07/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effect of 8 weeks resistance and aerobic progressive training program on Irisin and some selected anthropometric parameters in healthy males

Public title

Effect of physical training on Irisin

Purpose

Supportive

Inclusion/Exclusion criteria**Inclusion criteria:**

Body mass index greater than 30 No physical damage in a recent month No smoking in the last six months No use of newborns in the last month Lack of colds in the last two weeks Lack of chronic illness or pulmonary infections in the last three months

Exclusion criteria:**Age**

From **18 years** old to **30 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **45**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple and individual randomization using random numbers

Blinding (investigator's opinion)

Not blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethics committee of Islamic Azad University, Aliabad Katoul branch

Street address

Islamic Azad University. University Blvd.

City

Aliabad katoul

Province

Golestan

Postal code

49417-93451

Approval date

2018-03-02, 1396/12/11

Ethics committee reference number

IR.IAU.REC.8

Health conditions studied**1****Description of health condition studied**

Obesity

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

Irisin

Timepoint

One day before the start and one day after the end of the training protocol

Method of measurement

Standard Laboratory Kit

2**Description**

Leptin

Timepoint

One day before the start and one day after the end of the training protocol

Method of measurement

Standard Laboratory Kit

3**Description**

Insulin

Timepoint

One day before the start and one day after the end of the training protocol

Method of measurement

Standard Laboratory Kit

4**Description**

Insulin resistance index

Timepoint

One day before the start and one day after the end of the training protocol

Method of measurement

HOMA equation

5

Description

anthropometric parameters

Timepoint

two day before the start and two day after the end of the training protocol

Method of measurement

harpenden caliper

Secondary outcomes

empty

Intervention groups

1

Description

First Intervention group: resistance training- For the strength training protocols, the American College of Exercise Medicine's exercise protocol was used in this study, which is a circular protocol of 10 stations powered by dumbbells and athletic activities that carry body weight.

Category

Lifestyle

2

Description

Second Intervention group: aerobic training- The aerobic protocol will be run on the tape for 45 minutes and the intensity of 65% of the maximum aerobic power in the first session. To comply with the principle of overload, Will be added 5% to intensity in every week. Also, at the fourth and eighth weeks of the training program, 5% of exercise intensity will be reduce.

Category

Lifestyle

3

Description

Control group:They does not perform any exercise during the course of the study.

Category

Lifestyle

Recruitment centers

1

Recruitment center

Name of recruitment center

Islamic Azad University, Aliabad Katoul branch

Full name of responsible person

Dr. Reza Rezaee Shirazi

Street address

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Email

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Islamic Azad University

Full name of responsible person

Rouhollah Samii

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Email

Roohalla.samiee@gmail.com

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Islamic Azad University

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

Reza Rezaee Sherazi

Position

Assistant Professor

Latest degree

Ph.D.

Other areas of specialty/work

Physiology

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Not applicable

Data Dictionary

Not applicable

Title and more details about the data/document

Part of individual participants' data, such as information on the main implications

When the data will become available and for how long

Start the access period 6 months after printing the results

To whom data/document is available

Researchers working in Academic and scientific

Under which criteria data/document could be used

An official application through an Academic and scientific institution

From where data/document is obtainable

Dr. Reza Rezaee Shirazi Dr.rezaee@aliabadiu.ac.ir

What processes are involved for a request to access data/document

After submitting an official application by email, a response will be given at most up to 10 days.

Comments