Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 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@aliabadiau.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
Islamic Azad University., University Blvd.
City
Aliabad Katoul
Province
Golestan
Postal code
49417-93451
Phone
+98 17 3422 3300
Email
Dr.rezaee@aliabadiau.ac.ir

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Islamic Azad University
Full name of responsible person
Rouhollah Samii
Street address
Islamic Azad University., University Blvd.
City
Aliabad Katoul
Province
Golestan
Postal code
49417-93451
Phone
+98 17 3422 3300
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
Street address

Islamic Azad University., University Blvd.
City
Aliabad Katoul
Province
Golestan
Postal code
49417-93451
Phone
+98 17 3422 3300
Email
rezaii725@yahoo.com

Person responsible for scientific inquiries

Contact
Name of organization / entity
Islamic Azad University
Full name of responsible person
Reza Rezaee Shirazi
Position
Associate professor
Latest degree
Ph.D.
Other areas of specialty/work
Physiology
Street address
Islamic Azad University; University Blvd.
City
Aliabad Katoul
Province
Golestan
Postal code
49417-93451
Phone
+98 17 3300
Email
rezaii725@yahoo.com

Person responsible for updating data

Contact
Name of organization / entity
Islamic Azad University
Full name of responsible person
Reza Rezaee Shirazi
Position
Associate professor
Latest degree
Ph.D.
Other areas of specialty/work
Physiology
Street address
Islamic Azad University; University Blvd.
City
Aliabad Katoul
Province
Golestan
Postal code
49417-93451
Phone
+98 17 3422 3300
Email
rezaii725@yahoo.com

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@aliabadiau.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