Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

The Comparison of the Effect of the 8 weeks aerobic and Resistance training on serum concentrations of nsafatin-1, vaspatin, myonectin, omentin and insulin resistance in obese women with diabetes

Protocol summary

Study aim
The purpose of this study was to investigate the effect of aerobic and resistance training on some of the myokines and Adipokines among obese diabetes women .

Design
The study design: pre and post test with control group. Among diabetes women (23 to 50 years old) who referred to Shahid Bahonar Hospital in Kerman, after calculating BMI (BMI), 45 were women (BMI > 25) and thenare divided into 3 groups: resistance training, endurance training and control group.

Settings and conduct
Place of Practice Protocol: Bahonar Hospital in Kerman and Islamic Azad University of Kerman. Place of Blood Collection and Molecular Cell Tests: Bahonar Hospital in Kerman and Razi Lab

Participants/Inclusion and exclusion criteria
Conditions for entering the research: Body mass index > 25 specialist permission to perform the practice protocol performed the practice protocol according to PAR-Q diabetes Conditions for not entering the research: Alcohol consumption Smoking Continuous physical activity Cardiovascular disease High blood pressure

Intervention groups
1- resistance training group 2- endurance training group 3- control group

Main outcome variables
nisfatin-1, visfatin, lipid profile, myonectin, chemrin, omentin and insulin resistance

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20180708040399N1**
Registration date: **2018-10-28, 1397/08/06**
Registration timing: **retrospective**

Last update: **2018-10-28, 1397/08/06**
Update count: **0**

Registration date
2018-10-28, 1397/08/06

Registrant information

Name
Abdolreza Kazemi

Name of organization / entity

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Iran (Islamic Republic of)

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2015-10-23, 1394/08/01

Expected recruitment end date
2016-02-20, 1394/12/01

Actual recruitment start date
2015-10-23, 1394/08/01

Actual recruitment end date
2015-11-22, 1394/09/01

Trial completion date
2016-03-19, 1394/12/29

Scientific title
The Comparison of the Effect of the 8 weeks aerobic and Resistance training on serum concentrations of nsafatin-1, vaspatin, myonectin, omentin and insulin resistance in obese women with diabetes

Public title

The effects of aerobic and resistance training on some serum Adipokines and myokines in obese diabetes women.

Purpose

Health service research

Inclusion/Exclusion criteria

Inclusion criteria:

diabetes Body mass index > 25 Permission to performed the practice protocol by a specialist performed the practice protocol according to PAR-Q

Exclusion criteria:

Cardiovascular disease Negative exercise test High blood pressure Deep scars in the limbs Not having written consent

Age

From **23 years** old to **50 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **45**

Actual sample size reached: **45**

Randomization (investigator's opinion)

Randomized

Randomization description

Among the volunteers, diabetes overweight and obese women, 45 were randomly selected and then t were randomly divided: 15 women in resistance training group, 15 women for endurance training group and 15 diabetes overweight and obese women will be selected as the control group.

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

Kerman University of Medical Sciences

Street address

158257842- Physiology Research Center - Somayeh Crossroads- Shariati Ave.

City

Kerman

Province

Kerman

Postal code

158257842

Approval date

2016-02-20, 1394/12/01

Ethics committee reference number

IR.KMU.REC.1394.407

Health conditions studied

1

Description of health condition studied

diabetes

ICD-10 code

E08

ICD-10 code description

Diabetes mellitus due to underlying condition

Primary outcomes

1

Description

Nisfatin

Timepoint

Before and After 6 Weeks of Exercise training

Method of measurement

ELISA method

2

Description

Visfatin

Timepoint

Before and After 6 Weeks of Exercise training

Method of measurement

ELISA method

3

Description

, profile lipid

Timepoint

Before and After 6 Weeks of Exercise training

Method of measurement

ELISA method

4

Description

Myonectine

Timepoint

Before and After 6 Weeks of Exercise training

Method of measurement

ELISA method

5

Description

chemerin

Timepoint

Before and After 6 Weeks of Exercise training

Method of measurement

ELISA method

6

Description
omentin-1
Timepoint
Before and After 6 Weeks of Exercise training
Method of measurement
ELISA method

7

Description
Insulin Resistance
Timepoint
Before and After 6 Weeks of Exercise training
Method of measurement
ELISA method

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: 6 Weeks endurance training, No drug is consumed. Do not undergo surgery.
Category
Other

2

Description
Intervention group: 6 Weeks resistance training, No drug is consumed. Do not undergo surgery.
Category
Other

3

Description
Control group: An intervention is not considered.
Category
Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Kerman Physiology Research Center
Full name of responsible person
Mohammad Pour ranjbar
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Sponsors / Funding sources

1

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Grant name
abas pardakhti
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Kerman University of Medical Sciences
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
Kerman University of Medical Sciences
Full name of responsible person
Mohammad Pourranjbar

Position
Associate professor
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Other areas of specialty/work
Others
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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available
Study Protocol
Undecided - It is not yet known if there will be a plan to make this available
Statistical Analysis Plan
Undecided - It is not yet known if there will be a plan to make this available
Informed Consent Form
Undecided - It is not yet known if there will be a plan to make this available
Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available
Analytic Code
Undecided - It is not yet known if there will be a plan to make this available
Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available