Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Comparison of the effect of 8 weeks High intensity interval training and Moderate-intensity aerobic continuous training on prevention of cardiovascular diseases in postmenopausal women

Protocol summary

Study aim

The purpose of this study was to compare the effects of 8 weeks high-intensity-interval-training versus moderate-intensity-aerobic-continuous-training on a predictive factor of heart-failure in sedentary postmenopausal women.

Design

randomized trail, one control group with two exercise groups with sample size of 30 individual with simple randomisation, enrolled between 2016 and 2017.

Settings and conduct

In this study, 30 healthy sedentary postmenopausal women were selected in Isfahan and the subjects were randomly divided into three groups high intensity interval training, moderate-intensity aerobic continuous training and control. The high intensity interval training group participated in an exercise program at 60–90% of heart rate reserve and the moderate-intensity aerobic continuous training group participated in an exercise program at 50–65% of heart rate reserve but the control group did not participate in any regular physical activity program during this period.

Participants/Inclusion and exclusion criteria

Inclusion criteria: participants were 46 ≥age≤ 65 years; with regular eating patterns; healthy; living in Isfahan
Exclusion criteria: history of Heart Failure; hypertension; kidney disease; diabetes (type 2); history of cancer ; history of hyperlipidemia

Intervention groups

Intervention group 1:High Intensity Interval Training
Intervention group 2: Moderate Intensity Aerobic Continuous Training Control group: Without training

Main outcome variables

some cardiovascular factors and lipid profiles were compared before and after 8 weeks in three groups.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20190618043929N1**
Registration date: **2019-09-15, 1398/06/24**
Registration timing: **retrospective**

Last update: **2019-09-15, 1398/06/24**
Update count: **0**

Registration date

2019-09-15, 1398/06/24

Registrant information

Name
Diana keyhani

Name of organization / entity
The University of Urmia

Country
Iran (Islamic Republic of)

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Email address
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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2016-09-22, 1395/07/01

Expected recruitment end date

2016-11-20, 1395/08/30

Actual recruitment start date

2016-12-22, 1395/10/02

Actual recruitment end date

2017-02-20, 1395/12/02

Trial completion date

2017-04-05, 1396/01/16

Scientific title
Comparison of the effect of 8 weeks High intensity interval training and Moderate-intensity aerobic continuous training on prevention of cardiovascular diseases in postmenopausal women

Public title
Effect of exercise in cardiovascular diseases
Purpose
Prevention
Inclusion/Exclusion criteria
Inclusion criteria:
participants were 46 ≥age≤ 65 years; with regular eating patterns; healthy; living in Isfahan
Exclusion criteria:
history of Heart Failure; hypertension; kidney disease; diabetes (type 2); history of cancer; history of hyperlipidemia
Age
From **45 years** old to **60 years** old
Gender
Female

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **45**
Actual sample size reached: **30**
Randomization (investigator's opinion)
Randomized
Randomization description
Simple Random Sampling
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 Sport Sciences Research Institute of Iran
Street address
No. 3.5 St., MirEmad St., Motahari Ave., Tehran., Iran.
City
Tehran
Province
Tehran
Postal code
1587958711
Approval date
2016-10-31, 1395/08/10
Ethics committee reference number
IR.SSRI.REC.1395.113

Health conditions studied

1

Description of health condition studied
Heart Failure
ICD-10 code
I50
ICD-10 code description
Heart failure

Primary outcomes

1

Description
cardiovascular biomarkers
Timepoint
before and after intervention
Method of measurement
blood sample

Secondary outcomes

1

Description
lipid profile
Timepoint
before and after intervention
Method of measurement
blood sample

Intervention groups

1

Description
First intervention group: 8 weeks intensity interval training
Category
N/A

2

Description
Second intervention group: 8 weeks moderate-intensity aerobic continuous training
Category
N/A

3

Description

Control group: any regular physical activity program

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Isfahan University

Full name of responsible person

Navid sedri

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Hezarjrib St., Isfahan University

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8176755133

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

The University of Urmia

Full name of responsible person

Bakhtyar Tartibian

Street address

Urmia University,. Nazloo Ave, Urmia University

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West Azarbaijan

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+98 44 3275 2840

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info@urmia.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

The University of Urmia

Proportion provided by this source

100

Public or private sector

Private

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Persons

Person responsible for general inquiries

Contact

Name of organization / entity

The University of Urmia

Full name of responsible person

Diana Keyhani

Position

PhD

Latest degree

Ph.D.

Other areas of specialty/work

Physiology

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Position

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Latest degree

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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
Undecided - It is not yet known if there will be 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
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
Title and more details about the data/document
The main results of the study
When the data will become available and for how long
One year after the publication of the results
To whom data/document is available
All researchers
Under which criteria data/document could be used
More detailed studies in this field
From where data/document is obtainable
Diana Keyhani keyhanid1368@gmail.com
What processes are involved for a request to access data/document
8 weeks
Comments