

Clinical Trial Protocol

Iranian Registry of Clinical Trials

12 Jul 2026

Effect of aerobic training on vascular endothelial growth factor and glucose Levels in hypertensive post-menopausal women

Protocol summary

Summary

The purpose of present study is evaluating influence of 6 weeks of aerobic training on plasma vascular endothelial growth factor and glucose in hypertensive postmenopausal women. Thus, 20 postmenopausal women with borderline to stage one hypertension were randomly assigned into two experimental and control groups. Participants including major eligibility criteria: Inclusion criteria included being postmenopausal, inactivity and lack of cardiovascular disease. Experimental group were performed aerobic training for 6 weeks, 3 times a week . Training program began with 50% of maximal heart rate, 45 min per session in once week and end with 65 % of maximal heart rate, 1 hour per session in sixth weeks. Control group did not participate in any kind of regular exercise during study. 48 hours before the start of the study and also 24 hours after the last training session, 5 cc blood was collected from the subjects' brachial vein in a resting position to measure on plasma vascular endothelial growth factor and glucose. Blood pressure recorded before and after 6 weeks training.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014041317249N1**

Registration date: **2014-07-10, 1393/04/19**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2014-07-10, 1393/04/19

Registrant information

Name

Farzanegi Parvin

Name of organization / entity

Islamic Azad University, Sari Branch

Country

Iran (Islamic Republic of)

Phone

+98 15 1213 3853

Email address

parvin.farzanegi@iausari.ac.ir

Recruitment status

Recruitment complete

Funding source

Private

Expected recruitment start date

2014-04-21, 1393/02/01

Expected recruitment end date

2014-06-22, 1393/04/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of aerobic training on vascular endothelial growth factor and glucose Levels in hypertensive post-menopausal women

Public title

Effect of aerobic training on vascular endothelial growth factor and glucose Levels in hypertensive post-menopausal women

Purpose

Other

Inclusion/Exclusion criteria

Inclusion Criteria: Not participating in regular physical activity during the last 6 months, complete cessation of the menstrual cycle more than a year and hypertension .
Exclusion Criteria: Use of anti-hypertensive drugs and

hormonal therapy, cardiovascular disease.

Age

From **50 years** old to **60 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **20**

Randomization (investigator's opinion)

Randomized

Randomization description**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 sari branch

Street address

7th km of Sea Road, Sari, Mazandaran, Iran

City

Sari

Postal code

48164-194

Approval date

2014-03-11, 1392/12/20

Ethics committee reference number

92-8

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

Hypertension

ICD-10 code

I10

ICD-10 code description

Essential (primary) hypertension

Primary outcomes**1****Description**

Vascular endothelial growth factor and glucose

Timepoint

Before and six weeks after intervention

Method of measurement

Blood sampling

Secondary outcomes**1****Description**

Blood Pressure

Timepoint

Before and 6 weeks after intervention

Method of measurement

Blood pressure manometer (mmHg)

Intervention groups**1****Description**

Intervention 1: 6 week aerobic training program consisting of 50 to 65 percent of maximum heart rate for 45 to 60 minutes per session, 3 sessions per week.

Category

Other

2**Description**

Intervention 2: The control group did not participate in any training program

Category

Other

Recruitment centers**1****Recruitment center****Name of recruitment center**

Iranian Fitness Club

Full name of responsible person

Mahbobeh Farokhpour

Street address**City**

Amol

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Vice Chancellor for Research, Islamic Azad University
Sari Branch

Full name of responsible person

Dr. Alireza Farsi

Street address
7th km of Sea Road, Sari, Mazandaran, Iran

City
Sari

Grant name

Grant code / Reference number

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

Title of funding source
Vice Chancellor for Research, Islamic Azad University
Sari Branch

Proportion provided by this source
100

Public or private sector
empty

Domestic or foreign origin
empty

Category of foreign source of funding
empty

Country of origin

Type of organization providing the funding
empty

Person responsible for general inquiries

Contact

Name of organization / entity
Islamic Azad University, Sari Branch

Full name of responsible person
Mahbobeh Farokhpour

Position
M.Sc

Other areas of specialty/work

Street address
7th km of Sea Road, Sari, Mazandaran, Iran

City
Sari

Postal code

Phone
+98 15 1213 2893

Fax

Email
mah.farokhpour@gmail.com

Web page address

Person responsible for scientific inquiries

Contact

Name of organization / entity
Islamic Azad University, Sari Branch

Full name of responsible person

Parvin Farzanegi

Position
Phd

Other areas of specialty/work

Street address
7th km of Sea Road, Sari, Mazandaran, Iran

City
Sari

Postal code

Phone
+98 15 1213 3853

Fax

Email
parvin.farzanegi@gmail.com

Web page address

Person responsible for updating data

Contact

Name of organization / entity
Islamic Azad University, Sari Branch

Full name of responsible person
Parvin Farzanegi

Position
Phd

Other areas of specialty/work

Street address
7th km of Sea Road, Sari, Mazandaran, Iran

City
Sari

Postal code

Phone
+98 15 1213 3853

Fax

Email
parvin.farzanegi@gmail.com

Web page address

Sharing plan

Deidentified Individual Participant Data Set (IPD)

empty

Study Protocol

empty

Statistical Analysis Plan

empty

Informed Consent Form

empty

Clinical Study Report

empty

Analytic Code

empty

Data Dictionary

empty