Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

The effect of eight weeks combined resistance and endurance exercise training on serum estradiol leveland the sleep quality in menopausal women

Protocol summary

Summary

Background: Menopause, an expected event in a woman's life, is associated with multiple symptoms including vasomotor symptoms, vaginal symptoms, urinary incontinence, sexual dysfunction, and trouble sleeping. The aim of this study was to evaluate the effect of eight weeks of combined resistance and endurance training on the serum estradiol level and sleep quality in menopausal women. Materials and Methods :22 healthy postmenopausal women participated in the study and they were randomly classified into tow groups: control group (n=10, age 56.9±4.9 years) and combined training (n=12, age 54.8±4.7 years) . combined training was carried out for 8 weeks, 3 sessions per week. Duration of each session was 90 minutes. weight, body mass index(BMI), percent body fat, cardiorespiratory fitness and serum estradiol level and Pittsburgh Sleep questionnaire was measured at the beginning and end of exercise period.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015122222498N5**
Registration date: **2016-07-21, 1395/04/31**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2016-07-21, 1395/04/31

Registrant information

Name

Ramin Shabani

Name of organization / entity

Islamic Azad University

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Islamic Azad University of Rasht

Expected recruitment start date

2014-07-23, 1393/05/01

Expected recruitment end date

2014-08-23, 1393/06/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of eight weeks combined resistance and endurance exercise training on serum estradiol leveland the sleep quality in menopausal women

Public title

The effect of eight weeks combined resistance and endurance exercise training on serum estradiol leveland the sleep quality in menopausal women

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: history of drug use have been present for at least one year from the last menstrual period, subjects were under 30 minutes of physical activity per week Exclusion criteria: in practice groups, participants

had been missing no more than two sessions, the control group; in did not participate in any exercise program.

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

Gender
Female

Phase
3

Groups that have been masked
No information

Sample size
Target sample size: **22**

Randomization (investigator's opinion)
N/A

Randomization description

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Factorial

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Islamic Azad University of Rasht

Street address
Lakan BVL

City
Rasht

Postal code
3516-41335

Approval date
2014-09-16, 1393/06/25

Ethics committee reference number
11721404922052

Health conditions studied

1

Description of health condition studied
Menopausal

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description
Estradiol

Timepoint
8 weeks after Excercise Training

Method of measurement
Blood in the laboratory

Secondary outcomes

1

Description
Pittsburgh Sleep questionnaire

Timepoint
8 weeks after Excercise Training

Method of measurement
va Pittsburgh Sleep questionnaire

Intervention groups

1

Description
Endurance_Resistance Training in training group

Category
Other

2

Description
The control group had no activity

Category
Other

Recruitment centers

1

Recruitment center

Name of recruitment center
Mosque Moalem Blvd

Full name of responsible person
Malahat Moazzeni

Street address
Faz1, Moalem Blvd

City
Rasht

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Vice chancellor for research, University of Islamic Azad, Rasht Branch

Full name of responsible person
Ramin Shabani

Street address
Lakan BVL

City
Rasht

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, University of Islamic Azad, Rasht 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 of Rasht
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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