

Clinical Trial Protocol

Iranian Registry of Clinical Trials

19 Jul 2026

effect of a short-term resistance training course on some inflammatory markers of overweight menopausal women

Protocol summary

Study aim

The purpose of this study is to investigate the effect of 4 weeks of resistance training on some inflammatory markers in sedentary postmenopausal middle-aged women

Design

The study is a randomized clinical trial with control group. 24 obese women (45-55 years, Body mass index 25-35) will be selected through purposive sampling and will randomly be divided into two intervention and control groups

Settings and conduct

The present field study is semi-experimental which will be done in a Islamic azad university gym. A professional coach will train the subjects and a lab technician will take their blood samples. blood sample will be analyzed in the university lab.

Participants/Inclusion and exclusion criteria

Inclusion criteria; 45-55 years old women; Body mass index between 25-35. Exclusion criteria: metabolic disorder

Intervention groups

Intervention group will do resistance training 3 sessions per week for 4 weeks. Control group will not participate in any exercise.

Main outcome variables

CRP-ESR

General information

Reason for update

according to ethnic committee certification the word of "sedentary" in title should be changed to overweight as it is showed in below: effect of a short-term resistance training course on some inflammatory markers of overweight menopausal women

Acronym

IRCT registration information

IRCT registration number: **IRCT20180822040849N13**

Registration date: **2020-08-26, 1399/06/05**

Registration timing: **prospective**

Last update: **2020-09-14, 1399/06/24**

Update count: **1**

Registration date

2020-08-26, 1399/06/05

Registrant information

Name

akram jafari

Name of organization / entity

Islamic azad university shahrekord branch

Country

Iran (Islamic Republic of)

Phone

+98 38 3232 6462

Email address

mrmoradi@sku.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-10-22, 1399/08/01

Expected recruitment end date

2020-12-05, 1399/09/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

effect of a short-term resistance training course on some inflammatory markers of overweight menopausal women

Public title

Resistance Training and Inflammatory Markers in Women

Purpose

Basic science

Inclusion/Exclusion criteria**Inclusion criteria:**

age 45-55 years BMI 25-35 kg/m²

Exclusion criteria:

men age less than 45 and upper than 55 years

Age

From **45 years** old to **55 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **24**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple randomization by tossing a coin

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
Shahrekord Branch

Street address

Rahmatieh, Islamic Azad University

City

Shahrekord

Province

Chahar-Mahal-va-Bakhtiari

Postal code

8813733441

Approval date

2020-07-22, 1399/05/01

Ethics committee reference number

IR.IAU.SHK.REC.1399.024

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

overweight

ICD-10 code

E66.3

ICD-10 code description

Overweight

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

CRP

Timepoint

Before and after 4 weeks resistance training

Method of measurement

By ELISA method

2**Description**

ESR

Timepoint

Before and after 4 weeks resistance training

Method of measurement

By measurement of Erythrocyte sedimentation rate

Secondary outcomes

empty

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

Intervention group: 12 obese women (45-55 years, BMI 25-35) will participate in this research as intervention group. They will do resistance training 3 sessions per week for 4 weeks. Each exercise session includes 3 workout cycles including 12 stations and 8 to 10 repetition of practice in each station. These stations, respectively, include chest press, leg extension, leg flexion, Underhand Cable Pull downs, Barbell Shoulder Press, Barbell Curl, Barbell Triceps, Leg Press, cross with dumbbells, sit-ups, squat, and Barbell incline Bench Press. In the first week, the intensity of the exercise will be 50% of maximum repeat, and in the next weeks, the intensity increase to 85% of maximum repeat. Body mass index measurement and blood sampling will be done in fasting, 24 hours before and 48 hours after the exercise

Category

N/A

2**Description**

Control group: control group will be asked not to participate in any exercise program and keep on their regular diet during research and report any changes in their life like disease, serious stress

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Islamic Azad University Shahrekord Branch

Full name of responsible person

Bahareh Banitalebi

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

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Full name of responsible person

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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

Private

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

Akram Jafari

Position

Assistante Professor

Latest degree

Ph.D.

Other areas of specialty/work

Sport Physiology

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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

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

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

All Data

When the data will become available and for how long

6 months after data publication

To whom data/document is available

Student and academic staff

Under which criteria data/document could be used

every analyses is fine for future research

From where data/document is obtainable

Academic papers

What processes are involved for a request to access data/document

By sending email to researcher

Comments