

Clinical Trial Protocol

Iranian Registry of Clinical Trials

02 Aug 2026

The effect of an 8-week aerobic training and weight-loss diet on the level of serum follistatin for inactive middle-aged women

Protocol summary

Summary

Objectives: The main objective of this study is to investigate & survey the impact of aerobic exercises and weight-loss diet on Serum Follistatin level of the women.

Design: A randomized clinical trial. **Setting and Conduct:** 39 women an average age of 39.5 were selected and divided into four experimenal groups : Aerobic (9), stair weight loss (10), Aerobics with stair weight loss diet (10) and Weight loss diet with low calorie(10). During eight weeks the aerobic group exercised three sessions a week (45 minutes work out with 60-80 % of maximum intensity), The stair weight loss group lowered the calorie intake by 20-40% gradually. The third group did aerobic exercise simultaneously keeping stair weight loss diet tree times aweek. The fourth group performed their plan by lowering the calorie intake by 40% in a steady way. The anthropometric indexes, Body compositions and Follistatin serum contents were measured befor and after the exercise plan besides the experimental data were stetistically analyzed utilizing of Anova test. Participants including major eligibility Criteria: Inclusion criteria: 25<BMI<30; 30<age<45; No body consume drugs..; No body sick; No body pregnant; No body have hormone disorder; No body athlet Exclution criteria; 25>BMI>30;30>Age>45; consumhng drugs..; Illness; Pregnancy; hormon disorder; Bing Athlet. Main Outcome Measures: Serum Follistatin, Body weight.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015031121434N1**

Registration date: **2015-06-04, 1394/03/14**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2015-06-04, 1394/03/14

Registrant information

Name

Mahboubeh Tajik

Name of organization / entity

Ferdowsi University of Mashhad

Country

Iran (Islamic Republic of)

Phone

+98 51 3881 7983

Email address

mtjk54@yahoo.com

Recruitment status

Recruitment complete

Funding source

Vice chancellor for research,Ferdowsi University of Mashhad, Dr Ahmad Reza Bahrami

Expected recruitment start date

2013-01-20, 1391/11/01

Expected recruitment end date

2013-03-21, 1392/01/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of an 8-week aerobic training and weight-loss diet on the level of serum follistatin for inactive middle-aged women

Public title

The effect of anaerobic training and weight-loss diet on the level of serum follistatin

Purpose

Health service research

Inclusion/Exclusion criteria

Inclusion criteria: 25<BMI<30; 30<age<45; No body consume drugs.; No body sick; No body pregnant; No body have hormone disorder; No body athlet Exclution criteria; 25>BMI>30; 30>Age>45; consumhng drugs.; Illness; Pregnancy; Hormon disorder; Bing Athlet.

Age

From **35 years** old to **50 years** old

Gender

Female

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: **39**

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

1

Registry name

-

Secondary trial Id

-

Registration date

empty

2

Registry name

-

Secondary trial Id

-

Registration date

empty

3

Registry name

-

Secondary trial Id

-

Registration date

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Ferdowsi University of Mashhad

Street address

Ferdowsi University of Mashhad, Azadi Sq., Mashhad, Khorasan Razavi, Iran.

City

Mashhad

Postal code

9177948974

Approval date

2014-01-27, 1392/11/07

Ethics committee reference number

-

Health conditions studied

1

Description of health condition studied

Obesity

ICD-10 code

E66

ICD-10 code description

Obesity due to excess calories

Primary outcomes

1

Description

Serum Follistatin

Timepoint

Befor & After

Method of measurement

Biocemistry Test

2

Description

Body Weight

Timepoint

Befor & After

Method of measurement

Body Analiser

Secondary outcomes

1

Description

Body Fat percent

Timepoint

Before&After test

Method of measurement

Body Analiser

2

Description

Body Mass Index
Timepoint
Before & After test
Method of measurement
Body Analyser

Intervention groups

1

Description

Aerobic training Group; the aerobics group exercised 3 sessions a week (45 minutes each session with 60-80 % of maximum intensity).

Category

Other

2

Description

Weight-loss diet Group; low calorie group lowered their calorie intake by 40% from first of experiment.

Category

Other

3

Description

Stair weight-loss diet Group; stair diet group lowered their calorie intake by 20-40% gradually.

Category

Other

4

Description

Aerobic training + Stair weight-loss diet Group

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Ferdowsi University of Mashhad

Full name of responsible person

Mahboubeh Tajik

Street address

Ferdowsi University of Mashhad, Azadi Sq., Mashhad, Khorasan Razavi, Iran.

City

Mashhad

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Ferdowsi University of

Mashhad

Full name of responsible person

Ahmad Reza Bahrami

Street address

Ferdowsi University of Mashhad, Azadi Sq., Mashhad, Khorasan Razavi, Iran.

City

Mashhad

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, Ferdowsi University of Mashhad

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

Ferdowsi University of Mashhad

Full name of responsible person

Tajik Mahboubeh

Position

M.Sc. in Sport & Exercise Physiology

Other areas of specialty/work

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Ferdowsi University of Mashhad

Full name of responsible person

Rashidlamir Amir

Position

Assistance Professor in Sport & Exercise Physiology

Other areas of specialty/work**Street address**

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Person responsible for updating data**Contact****Name of organization / entity**

Ferdowsi University of Mashhad

Full name of responsible person

Tajik Mahboubeh

Position

M.Sc. in Sport and Exercise Physiology

Other areas of specialty/work**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