

Clinical Trial Protocol

Iranian Registry of Clinical Trials

26 Jul 2026

Evaluation of the effects of eight weeks pilates exercise on plasma visfatin and insulin resistance index in obese women: a clinical trial

Protocol summary

Summary

The aim of the present study was to investigate the effect of 8 weeks of pilates training on visfatin level and insulin resistance in obese women. Twenty subjects were selected for this semi-experimental study and randomly and not blinded (randomization was performed using sealed envelopes) assigned to two groups including experimental (n=10) and control (n=10) groups. Inclusion criterion was no history of chronic diseases. Exclusion criteria were usage of drugs, Pregnancy, Breastfeeding and Risk of disease. Experimental group participated in a program of pilates exercise (3 days a week for 8 weeks). The control group did not participate in any physical activity and continued their daily activities. Before and 24 hours after the last training session, Body composition, vo2max, glucose, insulin and visfatin levels were measured as main outcomes. First impression: decrease in pro-inflammatory cytokines

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016080124717N2**

Registration date: **2016-08-16, 1395/05/26**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2016-08-16, 1395/05/26

Registrant information

Name

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Name of organization / entity

Ferdowsi University of Mashhad

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Recruitment status

Recruitment complete

Funding source

Vice Chancellor for Research, Ferdowsi University of Mashhad

Expected recruitment start date

2015-04-21, 1394/02/01

Expected recruitment end date

2015-06-22, 1394/04/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of the effects of eight weeks pilates exercise on plasma visfatin and insulin resistance index in obese women: a clinical trial

Public title

Effects of training on visfatin levels

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: Healthy obese women with no previous record of any specific drug use; without experience of regular physical activity during two last years before beginning of the study. Exclusion criteria: Unhealthy; Doing regular exercise during the last two years.

Age

From **40 years** old to **50 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
In this study, randomization was performed using sealed envelopes

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Mashhad University of Medical Sciences

Street address

Mashhad University of Medical Sciences, Azadi Square, Mashhad

City

Mashhad

Postal code

Approval date

2013-02-19, 1391/12/01

Ethics committee reference number

11729

Health conditions studied

1

Description of health condition studied

Cardiovascular risk factor and inflammatory markers

ICD-10 code

I70.0, I70

ICD-10 code description

Atherosclerosis of aorta, Atherosclerosis of renal artery, Atherosclerosis of arteries of extremities, Atherosclerosis of other arteries, Generalized and unspecified atherosclerosis

Primary outcomes

1

Description

plasma visfatin

Timepoint

Before and 24 hr after intervention

Method of measurement

Enzymatic Method

Secondary outcomes

1

Description

Body Mass Index

Timepoint

Before and 24 hr after intervention

Method of measurement

By body composition analyzer machine

Intervention groups

1

Description

Intervention 1: Participating in pilates training in 8 weeks, 3 times a week, 30 to 35 minutes each session

Category

Diagnosis

2

Description

Control group: Control groups were without training over eight weeks

Category

Diagnosis

Recruitment centers

1

Recruitment center

Name of recruitment center

Sezavar Clinic of Mashhad City

Full name of responsible person

Majid Sezavar

Street address

Aref Street, Ahmadabad Street, Mashhad, Khorasan-e-Razavi Province

City

Mashhad

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for research of Ferdowsi University of Mashhad

Full name of responsible person

Mehrdad Fathi

Street address

Faculty of Physical Education and Sport Sciences,
Ferdowsi University of Mashhad, Azadi Square,
Mashhad

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 of 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

Mehrdad Fathi

Position

Assistant Professor in Exercise Physiology

Other areas of specialty/work

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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