

Clinical Trial Protocol

Iranian Registry of Clinical Trials

17 Sep 2026

Effects of 8 weeks resistance training on plasma vaspin, metabolic syndrome factors and physical fitness in elderly patients with type 2 diabetes

Protocol summary

Summary

The aim of this study is to determine the changes in vaspin, metabolic syndrome factors and physical fitness after 8 weeks of Resistance training in elderly men with type 2 diabetes. 18 patients with type II diabetes (40-60 years) referred to razi clinic in ghaemshahr voluntary participated in this study. Inclusion criteria were blood glucose in the range of 150 to 350 milligrams per deciliter and non insulin therapy. The participants were randomly divided into control (N=8) and experimental (N=10) groups based on blood glucose. The experimental group received Resistance training for 8 weeks, 3 sessions per week, 40 to 60 minutes each session and with an intensity of 40 to 80% of One-repetition maximum. The control group did not participate in any physical activity and continued their daily activities. Before and 48 hours after the last training session, the participants' blood samples were taken to determine fasting blood glucose, insulin, cholesterol, triglyceride, high-density lipoprotein (HDL), low density lipoprotein (LDL) and vaspin. Body weight, percent body fat and physical fitness of participants were also measured.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2013060911772N1**
Registration date: **2013-06-20, 1392/03/30**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2013-06-20, 1392/03/30

Registrant information

Name

Hassan Amouzad Mahdirejei

Name of organization / entity

Islamic Azad University-Sari branch

Country

Iran (Islamic Republic of)

Phone

+98 911 356 1385

Email address

hassanamouzad@yahoo.com

Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Islamic Azad University Sari Branch

Expected recruitment start date

2013-05-22, 1392/03/01

Expected recruitment end date

2013-05-31, 1392/03/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of 8 weeks resistance training on plasma vaspin, metabolic syndrome factors and physical fitness in elderly patients with type 2 diabetes

Public title

Effects of resistance training on elderly patients with type 2 diabetes

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:1- men with type 2 diabetes 2-Blood glucose in the range of 150 to 350 milligrams per deciliter 3-Not having Diabetes-related complications 4-The lack of insulin treatment Exclusion criteria: 1- Physician's disapproval of participating in exercises 2- Morbid obesity

Age

From **40 years** old to **60 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **18**

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

Islamic Azad university Sari Branch

Street address

7 km sea Road Sari, Mazandaran Province

City

sari

Postal code

Approval date

2010-09-23, 1389/07/01

Ethics committee reference number

11711

Health conditions studied

1

Description of health condition studied

Type 2 Diabetes

ICD-10 code

E11

ICD-10 code description

Non-insulin-dependent diabetes mellitus

Primary outcomes

1

Description

Blood glucose

Timepoint

Before and 48 hr after intervention

Method of measurement

Enzymatic Method using Pars Azmoon kit

2

Description

Lipid profile including LDL, HDL, Cholesterol, Triglyceride

Timepoint

Before and 48 hr after intervention

Method of measurement

Enzymatic Colorimetric Method using Pars Azmoon kits

3

Description

vaspin

Timepoint

Before and 48 hr after intervention

Method of measurement

Enzymatic Method using Cusabio Biothech, China kit

Secondary outcomes

1

Description

Percent body fat

Timepoint

Before and 24 hr after intervention

Method of measurement

Before and 24 hr after intervention

2

Description

physical fitness

Timepoint

Before and 24 hr after intervention

Method of measurement

Before and 24 hr after intervention

Intervention groups

1

Description

Intervention1:Participating in 8 weeks resistance exercise training, 3 times a week, 40 to 60 minutes each session

Category

Treatment - Other

2

Description

Intervention2: Participating in daily activities

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Razi clinic in Ghaemshahr

Full name of responsible person

Hassan Amouzad Mahdirejai

Street address

City

Ghaemshahr

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, University of Islamic Azad Sari Branchi

Full name of responsible person

mohsen rabbani

Street address

7 km sea Road Sari, Mazandaran Province

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, University of Islamic Azad Sari Branchi

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

Hassan Amouzad Mahdirajei

Position

Master of Science 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