

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

The effect of aerobic exercise on insulin resistance in Type 2 Diabetes

Protocol summary

Summary

This study will be conducted as clinical randomized trial in Razi hospital Mazandaran Iran. The purpose of this study is determination the effect of aerobic exercise on insulin resistance in Type 2 Diabetes. The trial will be performed on 50 Patients. The participant are divided to two groups: case (25) and control (25) by random allocation. The including criteria are 30-65 years old diabetic type 2 patients, who are agree with participating and treated with oral drugs. The excluding criteria were inflammatory disease, heart disease, pregnancy, musculoskeletal disorders, athletic and consumption of opium and alcohol. Individual patient data and blood parameters including FBS, Insulin are collected in cheek list. The training program is moderate to severe aerobic exercises 50 minutes daily 3 weeks for 8 weeks. The insulin resistance is assessed by Homa-IR scale for every 4 weeks. All of measuring are performed in control group without any intervention. Descriptive statistic, Chi-square and t-test are used for data analysis. Insulin is compared between groups.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201201258822N1**
Registration date: **2012-03-03, 1390/12/13**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2012-03-03, 1390/12/13

Registrant information

Name

Narges Motahari

Name of organization / entity

Mazandaran University of medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 15 1226 7345

Email address

n.motahari@mazums.ac.ir

Recruitment status

Recruitment complete

Funding source

Mazandaran University of Medical Sciences

Expected recruitment start date

2011-10-23, 1390/08/01

Expected recruitment end date

2012-02-19, 1390/11/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of aerobic exercise on insulin resistance in Type 2 Diabetes

Public title

The effect of aerobic exercise on insulin resistance in Type 2 Diabetes

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria : The including criteria were patient with Type 2 Diabetes without assumption of insulin.

Exclusion criteria : The excluding criteria were inflammatory disease; heart disease; pregnancy ; consumption of opium and alcohol.

Age

From **30 years** old to **65 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 50

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**

Mazandaran University of Medical Sciences

Street address

Building No. 2 Mazandaran University of Medical Sciences ,Moallem Square

City

Sari

Postal code**Approval date**

2011-12-21, 1390/09/30

Ethics committee reference number

14-90-H

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**

Insulin resistance

Timepoint

In First of Study and every 4 weeks for two months

Method of measurement

Measurement of Blood parameters

Secondary outcomes**1****Description**

decrease BMI

Timepoint

In First of Study and every 4 weeks for two months

Method of measurement

measuring the weight and centimeters

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

The training program is moderate to sever aerobic exercise 50 minutes daily 3/weekly for 8 weeks.

Category

Treatment - Other

Recruitment centers**1****Recruitment center****Name of recruitment center**

Razi hospital diabetes clinic and Vali-Asr

Full name of responsible person

narges motahari

Street address

Razi hospital diabetes clinic and Vali-Asr ,sari sreet

City

ghaemshahr

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Mazandaran University of Medical Sciences

Full name of responsible person

Dr Ahmadali Enayati

Street address

Building No. 2 Mazandaran University of Medical Sciences ,Moallem Square

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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

Mazandaran University of Medical Sciences

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
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Person responsible for scientific inquiries

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Person responsible for updating data

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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