Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Effect of circuit resistance training and jogging exercise training on of metabolic syndrome of females with diabetes type II

Protocol summary

Summary

Purpose: Comparison the effect of circuit resistance training and jogging exercise training on the metabolic syndrome of females with diabetes type II. Thirty women with type II diabetes and body mass index 29.90±3.98 kg/m2 were randomly divide to circuit resistance training; jogging training and control group. Circuit resistance training is consist of 8 station with 40- 65% 1RM and also leg extensions, lying leg curl; bench press; Cable triceps push down; front arm, leg press; Cable Row and Sit-ups. Jogging training is include; 25-50 min with 45-75% of maximum heart rate. Inclusion criteria are: Lack of training exercises in the past year ; Maximum age 60 years; Fast blood glucose more than of 126 mg/d. exclusion criteria: Patients with Acute cardiovascular disease and Joint and bone diseases. Before and after 12 weak exercise; body composition; blood samples and Blood pressure will be estimated .Body composition is consist of: weight; waist circumference; height; blood glucose . blood samples is consist of: fasting blood glucose; HbA1c and blood lipid indexes.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015111122498N3**
Registration date: **2016-02-06, 1394/11/17**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2016-02-06, 1394/11/17

Registrant information

Name

Ramin Shabani

Name of organization / entity

Islamic Azad University

Country

Iran (Islamic Republic of)

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+98 13 3375 2715

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Recruitment status

Recruitment complete

Funding source

Rasht Branch, Islamic Azad University

Expected recruitment start date

2013-04-21, 1392/02/01

Expected recruitment end date

2013-08-22, 1392/05/31

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of circuit resistance training and jogging exercise training on of metabolic syndrome of females with diabetes type II

Public title

Effect of circuit resistance training and jogging training in diabetes type II

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria are: Lack of exercise training in one year ago; Maximum age of 60 years; Fast blood glucose more than 126 mg/d. exclusion criteria are: Patients with Acute cardiovascular disease and Joint and bone diseases.

Age

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

Gender

Female

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: **30**

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

Ethics Committee, Islamic Azad University

Street address

Lakan gate, Azad University, Rasht Branch, Rasht

City

Rasht

Postal code

Approval date

2013-02-07, 1391/11/19

Ethics committee reference number

11721404912003

Health conditions studied

1

Description of health condition studied

diabetes type II

ICD-10 code

E10-E14

ICD-10 code description

Diabetes mellitus

Primary outcomes

1

Description

Fast blood sugare

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to milligrams per deciliter and by Baseline blood

2

Description

Waist circumference

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to cm and by Tape measure

3

Description

Triglyceride

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to milligrams per deciliter and by Baseline blood

4

Description

High-density lipoprotein

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to milligrams per deciliter and by Baseline blood

5

Description

Systolic Blood pressure

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to mm Hg and by Mercury Barometer

6

Description

Diastolic blood pressure

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to mmHg and by Mercury Barometer

Secondary outcomes

1

Description

Body mass index

Timepoint

Before intervention and Three months after intervention

Method of measurement

According to Kg/m2 and dividing body weight by the square of the height(m2)

2

Description
Glycated Haemoglobin
Timepoint
Before intervention and Three months after intervention
Method of measurement
According to percent and by Baseline blood

3

Description
Total cholstrol
Timepoint
Before intervention and Three months after intervention
Method of measurement
According to percent and by Milligrams per deciliter

4

Description
Low-density lipoprotein
Timepoint
Before intervention and Three months after intervention
Method of measurement
According to Milligrams per deciliter and by Baseline blood

5

Description
Weight
Timepoint
Before intervention and Three months after intervention
Method of measurement
According to kilograms and by balance

Intervention groups

1

Description
This training was with intensity of 60-75% maximum heart rate and duration 25-50 min.This training composed of walking and jogging for 3 days/week.
Category
Lifestyle

2

Description
Circuit resistance training: The Circuit resistance training consisted of leg extensions, lying leg curl, bench press, Cable triceps push down front arm, leg press , Cable Row and Sit-ups with 40-65 % 1RM.This training was to form of circuit with eight station and initiated 3 days/week for 3 month.
Category
Lifestyle

3

Description
No action
Category
Lifestyle

Recruitment centers

1

Recruitment center
Name of recruitment center
Ansari Hospital of Roudsar
Full name of responsible person
Maryam Sazgari
Street address
Enghelab Street, Shahrdari square, Diabetes Unit in Ansari Hospital of Roudsar,Roudsar, Guilan
City
Rodsar

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice chancellor for research, University of Islamic Azad, Rasht Branch
Full name of responsible person
Dr.Ramin Shabani
Street address
Lakan gate, Azad University, Rasht Branch, Rasht
City
Rasht
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, Rasht Branch
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, Rasht Branch
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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