

Clinical Trial Protocol

Iranian Registry of Clinical Trials

13 Jun 2026

8 weeks of aerobic exercise on the impact of changes in the balance, walking speed and some blood parameters in diabetic neuropathy patients

Protocol summary

Summary

Semi-empirical methods applied to two groups (one experimental and one control) is. Thus the 22 diabetic patients with mild neuropathy severity voluntarily announced that they were selected and randomly divided into two groups . experimental group and control group, 12 patients were 10 people who participated in the briefing sessions, nutritional education (control diet) and specified times for control and measurements were made of sugar. After the experimental group (12 patients), 3 sessions a week in the gym or open field, light-intensity exercise at 45 to 55 minutes per day (50% of aerobic power) for 8 weeks and finally did the control group. (without exercise) were compared. Independent variable: moderate-intensity aerobic exercise (60 to 75% and heart Hdaksrzrban) for 45 to 55 minutes a day, three days a week for 8 weeks. Dependent variable: - dynamic equilibrium - dynamic equilibrium - walking speed - Blood Lipids - blood sugar - glycosylated hemoglobin Hb A1c, insulin resistance (IR)

General information

Acronym

DPN

IRCT registration information

IRCT registration number: **IRCT2012120811696N1**

Registration date: **2013-01-18, 1391/10/29**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2013-01-18, 1391/10/29

Registrant information

Name

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Name of organization / entity

Ferdowsi University

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Recruitment status

Recruitment complete

Funding source

Ferdowsi University

Expected recruitment start date

2012-06-30, 1391/04/10

Expected recruitment end date

2012-09-10, 1391/06/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

8 weeks of aerobic exercise on the impact of changes in the balance, walking speed and some blood parameters in diabetic neuropathy patients

Public title

8 weeks of aerobic exercise on the impact of changes in the balance, walking speed and some blood parameters in diabetic neuropathy patients

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria for this study were: aged 43-63 years with a body mass index 20 to 30 kg per square meter;

the lack of and failure to report a history of foot ulcers, dizziness, inner ear infection, dislocation, ankle fractures, neurology and rheumatology deformity or disease in the lower extremities. Exclusion criteria: neurology and rheumatology at the lower extremity of illness, or lack of ability to perform activities such as walking was minimal.

Age

From **43 years** old to **63 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **22**

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

Ferdowsi University of Mashhad

Street address

Mashhad

City

Mashhad

Postal code

iran

Approval date

2012-12-10, 1391/09/20

Ethics committee reference number

238

Health conditions studied

1

Description of health condition studied

diabet-Diabetic Neuropathy

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Static balance

Timepoint

2 months aerobic training

Method of measurement

measuring device for measuring the balance of the Balance System, Balance SD, 100 VAC (Company: BIODEX made in America) was used.

2

Description

Dynamic equilibrium

Timepoint

Pre-test and post-test 2 months of aerobic exercise

Method of measurement

measuring device for measuring the balance of the Balance System, Balance SD, 100 VAC (Company: BIODEX made in America) was used.

3

Description

Walking speed

Timepoint

Pre-test and post-test 2 months of aerobic exercise

Method of measurement

measure walking speed of 10 m with an accuracy of 0/01 meters per sec (Q & Q models made in China) was used.

4

Description

insulin resistance

Timepoint

Pre-test and post-test 2 months of aerobic exercise

Method of measurement

To measure insulin resistance, IR, fasting glucose measurements (FBS) (Pars test kits) Vansvlyn fasting laboratory kits METRA Dia (DIAMETRA) Made in Italy made a number DK 0076 ... Ratio of two to Ykdykr software, Homa (HOMA) version 1/2 was used to build America.

Secondary outcomes

1

Description

quality of life

Timepoint

Pre-test and post-test 2 months of aerobic exercise

Method of measurement

To measure changes in quality of life questionnaire, 28-item WHOQOL-BRef American Society was used.

2

Description

fasting blood sugar (FBS).

Timepoint

Pre-Test - 2 months training - posttest

Method of measurement

To measure fasting glucose measurements (FBS) (Pars test kits) fasting laboratory kits (DIAMETRA) was used.

3

Description

insulin

Timepoint

Pre-test and post-test 2 months of aerobic exercise

Method of measurement

measure insulin assay kit (DIAMETRA) Made in Italy were used to build number DK 0076. Laboratory using ELISA (ELISA) was performed.

4

Description

anxiety and depression

Timepoint

Pre-test and post-test 2 months of aerobic exercise

Method of measurement

To measure the changes in HADS anxiety and depression 14-item questionnaire was used.

Intervention groups

1

Description

After the experimental group (n = 12) weeks of 3 sessions in the gym or open field, took 45 to 55 minutes a day of exercise of moderate intensity (60 to 75% HRmax) 8-week exercise conducted at the end of the control group. (without exercise) were compared.

Category

Behavior

2

Description

did not exercise regularly.

Category

Behavior

Recruitment centers

1

Recruitment center

Name of recruitment center

Clinic of Diabetes

Full name of responsible person

Street address

Beginning Dehkhoda, Corner of Victory 15, Mashhad - R. City

City

Mashhad

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Faculty of Physical Education

Full name of responsible person

Mahtab Moazami

Street address

Mashhad

City

Mashhad

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Faculty of Physical Education

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

Full name of responsible person

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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