Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 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

Mostafa Khoei Torbaqhan

Name of organization / entity

Ferdowsi University

Country

Iran (Islamic Republic of)

Phone

+98 51 1879 2763

Email address

mo_kh21@stu-mail.um.ac.ir

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 of0/01 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
Mostafa Khoei
Position
Bachelor of Physical Education
Other areas of specialty/work
Street address
Ferdowsi University
City
Mashhad
Postal code
9149687313
Phone
+98 51 1879 2763
Fax
Email
khob.mostafa@yahoo.com
Web page address

Person responsible for scientific inquiries

Contact

Name of organization / entity
Ferdowsi University
Full name of responsible person
Mostafa Khoei
Position
Bachelor of Physical Education
Other areas of specialty/work
Street address
Ferdowsi University
City
Mashhad
Postal code
9149687313
Phone
+98 51 1879 2763
Fax
Email
khob.mostafa@yahoo.com
Web page address

Person responsible for updating data

Contact
Name of organization / entity
Ferdowsi University
Full name of responsible person
Mostafa Khoei
Position
Bachelor of Physical Education
Other areas of specialty/work
Street address
Ferdowsi University
City
Mashhad
Postal code
9149687313
Phone
+98 51 1879 2763
Fax
Email
khob.mostafa@yahoo.com
Web page address

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