

Clinical Trial Protocol

Iranian Registry of Clinical Trials

05 Aug 2026

Evaluation of aerobic exercise effect on serum level and ratio of Apolipoprotein A1 to Apolipoprotein B in patients with chronic obstructive pulmonary disease

Protocol summary

Study aim

To determine the effect of aerobic exercise on serum levels of apolipoprotein A1 and B and their ratio in patients with chronic obstructive pulmonary disease

Design

In this study, a pre-test and post-test design, 22 men with COPD were randomly assigned to aerobic exercise and control groups.

Settings and conduct

This study was not blinded. It was done on the COPD patients of kerman province. The aerobic exercise program was performed for two months and three sessions per week and each session was 30 to 40 minutes. Serum levels were measured and evaluated before and after aerobic exercises

Participants/Inclusion and exclusion criteria

Inclusion criteria: age 40 to 70,,, BMI 19 to 24 Exclusion criteria: cardiovascular and musculoskeletal disease

Intervention groups

We programmed aerobic exercise for 2 months,, 3 sessions weekly for intervention group We had no excess work for control group

Main outcome variables

Serum levels of apolipoprotein A1 and apolipoprotein B and the ratio of apo A1 to Apo B were measured and evaluated before and after aerobic exercises in both groups.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20171224038032N1**

Registration date: **2018-11-04, 1397/08/13**

Registration timing: **retrospective**

Last update: **2018-11-04, 1397/08/13**

Update count: **0**

Registration date

2018-11-04, 1397/08/13

Registrant information

Name

Samira Nakhaei

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 34 3281 1515

Email address

samira.nakhaie@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2016-08-25, 1395/06/04

Expected recruitment end date

2017-02-25, 1395/12/07

Actual recruitment start date

2016-08-25, 1395/06/04

Actual recruitment end date

2017-06-20, 1396/03/30

Trial completion date

2017-08-21, 1396/05/30

Scientific title

Evaluation of aerobic exercise effect on serum level and ratio of Apolipoprotein A1 to Apolipoprotein B in patients with chronic obstructive pulmonary disease

Public title

Aerobic exercise effect on serum level and ratio of Apolipoprotein A1 to Apolipoprotein B in patients with chronic obstructive pulmonary disease

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

Ages 40 to 70 Body mass index 19 to 24

Exclusion criteria:

Cardiovascular disease Musculoskeletal disease

Age

From **40 years** old to **70 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **22**

More than 1 sample in each individual

Number of samples in each individual: **2**

Apolipoprotein A1 and B

Actual sample size reached: **22**

More than 1 sample in each individual

Actual sample size in each individual: **44**

Apolipoprotein A1 and B

Randomization (investigator's opinion)

Randomized

Randomization description

Simple randomization

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 of Kerman University of Medical
Science

Street address

Somaye street

City

Kerman

Province

Kerman

Postal code

۷۶۱۳۴۵۶۷۸۹۰

Approval date

2016-08-15, 1395/05/25

Ethics committee reference number

IR.KMU.REC.1395.677

Health conditions studied

1

Description of health condition studied

Chronic obstructive pulmonary disease

ICD-10 code

J44

ICD-10 code description

Other specified chronic obstructive pulmonary disease

Primary outcomes

1

Description

Serum level of Apolipoprotein A1

Timepoint

Before and 2 months after intervention

Method of measurement

Lab kit

Secondary outcomes

1

Description

Apolipoprotein B

Timepoint

Before and 2 months after intervention

Method of measurement

Lab kit

Intervention groups

1

Description

"Intervention group:" 11 men with COPD assigned to this group. The aerobic exercise program was performed for two months and three sessions per week and each session was 30 to 40 minutes; Blood samples for measuring serum level of apolipoprotein A1 and apolipoprotein B were taken before and after two months.

Category

Rehabilitation

2

Description

"Control group:" 11 men with COPD assigned to this group and they received nothing. Blood samples for measuring serum level of apolipoprotein A1 and apolipoprotein B were taken before and after two months.

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center
Afzalipoor hospital
Full name of responsible person
Rostam Yazdani
Street address
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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Kerman University of Medical Sciences
Full name of responsible person
Dr Ali Asadi
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+98 34 3121 5915
Fax
Email
aliasadipour@kmu.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Kerman University of Medical Sciences
Proportion provided by this source
100
Public or private sector
Public
Domestic or foreign origin
Domestic
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
Academic

Person responsible for general inquiries

Contact

Name of organization / entity
Kerman University of Medical Sciences
Full name of responsible person
Samira Nakhaei
Position
Consultant
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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan

Yes - There is a plan to make this available
Informed Consent Form
Yes - There is a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
Yes - There is a plan to make this available
Data Dictionary
Yes - There is a plan to make this available
Title and more details about the data/document
All data
When the data will become available and for how long
3 months after publication
To whom data/document is available
مراكز آكادميك
Under which criteria data/document could be used
Ethics committe agreement
From where data/document is obtainable
Email address; phone number
What processes are involved for a request to access data/document
Ethics committee agreement ; contact with author
Comments