

Clinical Trial Protocol

Iranian Registry of Clinical Trials

01 Jul 2026

Comparison of the Effects of Aerobic Exercise and Resistance on Changes in the Risk Factors of Cardiovascular Diseases in Elderly People with Hypertension in Kermanshah Elderly Houses

Protocol summary

Study aim

Determination of the effects of aerobic and resistive and combination exercises on changes in risk factors of cardiovascular disease in the elderly with hypertension living in elderly homes in Kermanshah

Design

The present study is a randomized controlled clinical trial. The units were divided into three groups: control group, aerobic exercise and resistance exercises, based on simple random sampling. For the first three groups, The risk will be measured by a pre-test (blood test) and will be completed at the end of the project by post-test.

Settings and conduct

Kermanshah nursing home. Before and after the intervention, a blood test is taken from all three groups and the risk criteria are compared.

Participants/Inclusion and exclusion criteria

Entry requirements: Lack of chronic diseases, No surgery, Regular inactivity, Sports inactivity in the last month and.... Exit criteria: The lack of cooperation or the death of the elderly Leave the sanatorium for any reason Blood pressure greater than 136 | 196 mm Hg and

Intervention groups

The present study is a randomized controlled clinical trial that measures the risk factors of cardiovascular disease in elderly people with high blood pressure by measuring subterranean aerobic exercise (slow walking), resistance exercise (independent variable).

Main outcome variables

Sex, Age, Job, Literacy, Cholesterol, Triglyceride, LDL, HDL, Blood glucose, BMI

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20170614034529N2**

Registration date: **2020-05-19, 1399/02/30**

Registration timing: **prospective**

Last update: **2020-05-19, 1399/02/30**

Update count: **0**

Registration date

2020-05-19, 1399/02/30

Registrant information

Name

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 83 3426 7275

Email address

fatemeh.kamosi@kums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-05-21, 1399/03/01

Expected recruitment end date

2021-07-21, 1400/04/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the Effects of Aerobic Exercise and Resistance on Changes in the Risk Factors of Cardiovascular Diseases in Elderly People with Hypertension in Kermanshah Elderly Houses

Public title

Comparison of the Effects of Aerobic Exercise and Resistance on Changes in the Risk Factors of Cardiovascular Diseases in Elderly People with Hypertension

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria:

Lack of chronic diseases No surgery Not having history of acute and chronic kidney failure, Cushing's disease and aortic quorum phaeochromocytoma Regular inactivity Sports inactivity in the last month No smoking Non-use of pharmaceutical supplements No addiction Having ages 90-65 years Catching blood pressure Having mental health Awareness and hearing and speaking to an extent that does not prevent research

Exclusion criteria:

The lack of cooperation or the death of the elderly Leave the sanatorium for any reason Blood pressure greater than 136 | 196 mm Hg Hospitalization in the health sector Failure to implement the sport protocol Unstable angina Cardiac insufficiency not compensated Myocardial infarction over the past 4 weeks Ventricular arrhythmias

Age

From **65 years** old to **90 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **57**

Randomization (investigator's opinion)

Randomized

Randomization description

According to the number of samples examined, from the table of random numbers, single-digit numbers between 0 and 9 will be selected. For studies with two groups, the numbers 0-9 are divided into two equal blocks that the probability of allocating the individual to each block is 0.5. Block 0-4 can be used for the first group and block 5-9 for the second group. Based on the numbers selected from the table of random numbers and the determination of the blocks, it is clear in which group each person entering the study will be placed.

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

National Ethics Committee for Biomedical Research

Street address

Thirteenth floor, Block A, Irn Street - Cenani-Ira Headquarters of the Ministry of Health and Medical Education, Between South Felamak and Zarafshan

City

Kermanshah

Province

Kermanshah

Postal code

148

Approval date

2018-06-12, 1397/03/22

Ethics committee reference number

IR.KUMS.REC.1397.141

Health conditions studied

1

Description of health condition studied

Risk factors for cardiovascular disease

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Cholesterol, triglycerides, LDL, HDL, blood sugar

Timepoint

Before the intervention, after the intervention

Method of measurement

blood test

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group 1: For the aerobic exercise group, a regular exercise program in the form of sub-aerobic aerobic exercise for 12 weeks and 3 sessions per week with a duration of 45 minutes per session will be provided. Exercise will be present and the checklist designed by the researcher will be evaluated with the correct amount of performance. For each group, an explanatory training session will be held in one of the nursing home halls. In all three groups, the risk factors will be measured and recorded first by performing a pre-test (blood test). And at the end of the project, a post-test

is done.

Category

Lifestyle

2

Description

Intervention group2: In the Resistance Sports Group, using a physiotherapy exercise, they are taught how to perform movements that stand one meter away from the wall and connect the Traband to the wall. Kneel on each knee for 4 minutes. And in 12 weeks and 3 sessions per week with a time of 16 minutes in each session (according to the physiotherapist) will be presented. Exercise will be present and the checklist designed by the researcher will be evaluated with the correct amount of performance. For each group, an explanatory training session will be held in one of the nursing home halls. In all three groups, the risk factors will be measured and recorded first by performing a pre-test (blood test). And at the end of the project, a post-test is done.

Category

Lifestyle

3

Description

Control group: There is no intervention for the control group

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Mehrvarzan Elderly Care Center

Full name of responsible person

Fatemeh Kamousi Pak

Street address

Golestan crossroads, Bahram Janjani alley

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fatemeh.kamosi@kums.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Kermanshah University of Medical Sciences

Full name of responsible person

Deputy Research and Technology

Street address

Shahid Beheshti Blvd

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s_fatahi20@yahoo.com

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Kermanshah 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

Kermanshah University of Medical Sciences

Full name of responsible person

Samira Fattahi

Position

Instructor-faculty

Latest degree

Master

Other areas of specialty/work

Nursery

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Person responsible for scientific inquiries

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Full name of responsible person

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Other areas of specialty/work

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Person responsible for updating data

Contact

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Full name of responsible person

Fatemeh Kamousi Pak

Position

University student

Latest degree

Bachelor

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

There is no further information

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available