Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Effect of a Home-Designed Cardiac Rehabilitation program on blood pressure, heart rate, myocardial oxygen consumption indices and cardiovascular function in patients with coronary artery disease

Protocol summary

Study aim

Effect of a Home-Designed Cardiac Rehabilitation program on blood pressure, heart rate, myocardial oxygen consumption indices and cardiovascular function in patients with coronary artery disease, visiting to Shahid Rahimi hospital in Khorramabad

Design

The subjects of this study are clinical trials with interventional and control groups, two blinds, randomized population.

Settings and conduct

All patients with coronary artery disease referred to Shahid Rahimi hospital in khorramabad city. Following percutaneous coronary angioplasty, in phase IV cardiac rehabilitation. sampling method is a randomized categorical method based on inclusion criteria and available criteria. The eligible individuals are divided into subgroups of morning and evening, and subjects under the floor are randomly assigned to four intervention and control groups Will take.

Participants/Inclusion and exclusion criteria

Inclusion criteria: History of angioplasty, coronary artery disease. Exclusion criteria: At least eight weeks of myocardial infarction and two months of percutaneous coronary angioplasty

Intervention groups

The intervention group received a home cardiac rehabilitation, exercise program, and the necessity of continuing the program. The control groups, also performed the usual cardiac rehabilitation program without utilizing designed program.

Main outcome variables

Blood pressure, heart rate, myocardial oxygen consumption indices and cardiovascular function

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20181122041725N2**
Registration date: **2020-10-28, 1399/08/07**
Registration timing: **retrospective**

Last update: **2020-10-28, 1399/08/07**
Update count: **0**

Registration date

2020-10-28, 1399/08/07

Registrant information

Name

Mostafa Dehghani

Name of organization / entity

Country

Iran (Islamic Republic of)

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+98 66 3263 0659

Email address

dehghani.m66@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-10-09, 1399/07/18

Expected recruitment end date

2020-10-21, 1399/07/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title
Effect of a Home-Designed Cardiac Rehabilitation program on blood pressure, heart rate, myocardial oxygen consumption indices and cardiovascular function in patients with coronary artery disease

Public title
The effect of home-designed cardiac rehabilitation in patients with coronary artery disease

Purpose
Prevention

Inclusion/Exclusion criteria

Inclusion criteria:
History of angioplasty and angiography At least eight weeks of myocardial infarction and two months of percutaneous coronary angioplasty

Exclusion criteria:
Intraventricular conduction disturbances Ischemic heart disease

Age
From **45 years** old to **60 years** old

Gender
Both

Phase
N/A

Groups that have been masked

- Participant
- Investigator

Sample size
Target sample size: **80**

Randomization (investigator's opinion)
Randomized

Randomization description
In order to control various factors influencing research outcomes, a set of conditions was considered to include subjects in the research. Eligible patients were assigned to the groups through the stratified randomization method. Then, the subjects were selected from the strata through the block randomization method and divided into the intervention and control groups according to the order of the selected block number and the internal arrangement of blocks. The selected block number by luck. It should be noted that to blind the person who performed the sampling and to prevent the prediction of allocation, the size of the blocks was not written in the protocol.

Blinding (investigator's opinion)
Double blinded

Blinding description
This study is a double-blind clinical trial, which the patients were unaware of their allocation to the various groups Moreover, the researcher who was collecting various consequences of interventions will not be aware of group allocation.

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics committee of Lorestan University of Medical Sciences

Street address
No. 2, Lorestan University of Medical Sciences., Anooshirvan Rezaei Square

City
Korramabad

Province
Lorestan

Postal code
6813833946

Approval date
2020-10-07, 1399/07/16

Ethics committee reference number
IR.LUMS.REC.1397.105

Health conditions studied

1

Description of health condition studied
Effect of program designed cardiac rehabilitation in percutaneous coronary angioplasty

ICD-10 code
I25.7

ICD-10 code description
Atherosclerosis of coronary artery bypass graft(s) and coronary artery of transplanted heart with angina pectoris

Primary outcomes

1

Description
Blood pressure

Timepoint
Before and after 8 weeks of cardiac rehabilitation

Method of measurement
Blood pressure device

2

Description
Heart rate

Timepoint
Before and after 8 weeks of cardiac rehabilitation

Method of measurement
Electrocardiogram

3

Description
Myocardial oxygen consumption
Timepoint
Before and after 8 weeks of cardiac rehabilitation
Method of measurement
Exercise test

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: The intervention group carried out the cardiac rehabilitation walking program using pedometers. The pedometer feedback- based home cardiac rehabilitation program in this research included walking at home for almost 45-60 min (5-min warm-up, 40- min walking, and 5- min cool-down and stretching exercises).
Category
Rehabilitation

2

Description
Control group: The control group also performed the usual cardiac rehabilitation program without utilizing pedometer feedback.The control group had the same cardiac rehabilitation exercise program but did not use the step counter feedback.
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Rahimi hospital city Khorramabad
Full name of responsible person
Mostafa dehghani
Street address
No. 1, Mojahedin Street., Azadi Square
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Khoram-Abad University of Medical Sciences
Full name of responsible person
Ebrahim fallahi
Street address
No. 2, Lorestan University of Medical Sciences., Anooshirvan Rezaei Square
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Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Khoram-Abad 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
Khoram-Abad University of Medical Sciences
Full name of responsible person
Mostafa dehghani
Position
Consultant
Latest degree
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Other areas of specialty/work
Cardiology
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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
Undecided - It is not yet known if there will be 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
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
Title and more details about the data/document
Only part of the data, such as the original outcome information
When the data will become available and for how long
1399
To whom data/document is available
Researchers working in academia and scientific
Under which criteria data/document could be used
researchers
From where data/document is obtainable
Telephone
What processes are involved for a request to access data/document
Phone numbers, or email addresses, along with the names and addresses of individuals
Comments