Clinical Trial Protocol
Iranian Registry of Clinical Trials

28 Jun 2026

Comparison of home-based exercise rehabilitation with centre-based cardiac rehabilitation on lipid parameters, hematology and some behavioral indicators with coronary artery disease

Protocol summary

Summary

In this study, the Comparison of home-based exercise rehabilitation with centre-based cardiac rehabilitation on lipid parameters, hematology and some behavioral indicators with coronary artery disease is studied. Forty male and female patients with CABG or PCI (mean age 59 year) were divided into 3 groups: 1- home-based exercise rehabilitation, 2- centre –based CR and 3- control. Subjects of both home and centre based of cardiac rehabilitation started their activity for 8 weeks, 3 sessions per week about 60-90 minutes, while the control group was only followed-up and during this period they did not experience any exercise. Triglycerides, total cholesterol, high-density lipoprotein and low-density Lipoprotein, Fasting blood sugar, white blood cell, red blood cell, Platelets, Aspartate Aminotransferase, alanine aminotransferase, creatine phosphokinase, alkaline phosphatase, lactate dehydrogenase were measured at baseline and after 2 months of cardiac rehabilitation. The type A behavior, anger, pessimism, anxiety, depression and quality of life variables of patients were measured by standard questionnaires in the beginning and end of eight week exercise rehabilitation.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014092319272N1**
Registration date: **2015-03-24, 1394/01/04**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2015-03-24, 1394/01/04

Registrant information

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Name of organization / entity
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Recruitment status

Recruitment complete

Funding source

Faculty of Physical Education & Sport Science, Isfahan University

Expected recruitment start date

2013-11-21, 1392/08/30

Expected recruitment end date

2014-04-19, 1393/01/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of home-based exercise rehabilitation with centre-based cardiac rehabilitation on lipid parameters, hematology and some behavioral indicators with coronary artery disease

Public title

Home-based exercise rehabilitation and centre-based cardiac rehabilitation

Purpose

Health service research

Inclusion/Exclusion criteria
Inclusion criteria: patients with coronary artery disease after coronary artery bypass graft (CABG) and percutaneous coronary intervention (PCI); 3 months after coronary artery bypass surgery or coronary angioplasty; Surgical repair in patients. Exclusion criteria: Any adverse conditions or obstacles that interfere exercise intervention and assess the effectiveness of the training program is difficult; Diseases such as uncontrolled hypertension, arthritis, respiratory diseases, acute orthopedic problems and musculoskeletal pain were included; regular exercise Before entering the study.

Age
From **45 years** old to **68 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **40**

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
Isfahan Cardiovascular Research Institute

Street address
Isfahan Cardiovascular Research Institute, Khoram Avenue

City
Isfahan

Postal code

Approval date
2013-11-22, 1392/09/01

Ethics committee reference number
92117

Health conditions studied

1

Description of health condition studied
coronary artery disease

ICD-10 code
I25.1

ICD-10 code description
Atherosclerotic heart disease

Primary outcomes

1

Description
LDH

Timepoint
The bigining and the end of the intervention

Method of measurement
U/L, Laboratory measurements

2

Description
SGOT

Timepoint
The bigining and the end of the intervention

Method of measurement
U/L, Laboratory measurements

3

Description
SGPT

Timepoint
The bigining and the end of the intervention

Method of measurement
U/L, Laboratory measurements

4

Description
ALK

Timepoint
The bigining and the end of the intervention

Method of measurement
U/L, Laboratory measurements

5

Description
HDL

Timepoint
The bigining and the end of the intervention

Method of measurement
Mg/dl, Laboratory measurements

6

Description
FBS

Timepoint
The bigining and the end of the intervention

Method of measurement
Mg/dl, Laboratory measurements

7

Description
CBC
Timepoint
The bigining and the end of the intervention
Method of measurement
Laboratory measurements

8

Description
LDL
Timepoint
The bigining and the end of the intervention
Method of measurement
Mg/dl, Laboratory measurements

9

Description
Cholesterol
Timepoint
The bigining and the end of the intervention
Method of measurement
Mg/dl, Laboratory measurements

10

Description
triglyceride
Timepoint
The bigining and the end of the intervention
Method of measurement
Mg/dl, Laboratory measurements

11

Description
Quality of life
Timepoint
The bigining and the end of the intervention
Method of measurement
Questionnaire SF36

12

Description
Anxiety
Timepoint
The bigining and the end of the intervention
Method of measurement
Questionnaire S.A.S

13

Description
Depretion
Timepoint
The bigining and the end of the intervention
Method of measurement
Questionnaire Beck

14

Description
Type A behavior
Timepoint
The bigining and the end of the intervention
Method of measurement
Questionnaire TAB

15

Description
Systolic blood pressure
Timepoint
The bigining and the end of the intervention
Method of measurement
Mercury sphygmomanometer, mmHg

16

Description
Diastolic blood pressure
Timepoint
The bigining and the end of the intervention
Method of measurement
Mercury sphygmomanometer, mmHg

Secondary outcomes

empty

Intervention groups

1

Description
Home-based exercise rehabilitation group: The subjects in this group participated in aerobic and resistance exercise at home for 8 weeks, 3 sessions per week about 60-90 minutes. The Home-based exercise program includes 10 min warm up, 5 min aerobic exercise, 5 min resistance exercise, 25–60 min brisk walking or jogging at an intensity of 11–13 on the Borg scale and 10 min cool down.
Category
Rehabilitation

2

Description
Centre-based cardiac rehabilitation group: During the study period of 8 weeks, all the study subjects participated 3 exercise sessions last 60-90 minutes, per week. The subjects in this group followed routine rehabilitation unit protocol that was 20 min warm up, 25–60 min aerobic, resistance and flexibility exercise on machines (e.g., treadmill, stationary bike, stepper, AB King Pro) at an intensity of 11–13 on the Borg scale and 10 min cool down.
Category
Rehabilitation

3

Description
control group: the control group was only followed-up and during this period they did not experience any exercise
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Isfahan Cardiovascular Research Institute
Full name of responsible person
Azam Moosavi Sohroforouzani
Street address
City
Isfahan

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
University of Isfahan, Faculty of Physical Education & Sport Science
Full name of responsible person
Dr. Fahimeh Esfarjani
Street address
Faculty of Physical Education & Sport Science, University of Isfahan
City
Isfahan
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
University of Isfahan, Faculty of Physical Education & Sport Science
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

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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