

Clinical Trial Protocol

Iranian Registry of Clinical Trials

21 Jul 2026

The effect of a cardiac rehabilitation program on systolic, diastolic function, left ventricle mass and functional capacity in patient with myocardial infarction

Protocol summary

Summary

The aim of this study is to evaluate the effect of 8 weeks cardiac rehabilitation on systolic, diastolic function, LV mass and functional capacity in patients with myocardial infarction. Twenty-nine post myocardial patient will be enrolled in experimental and control group. Systolic function and left ventricle mass measured by 2-dimensional echocardiography, diastolic function measured by pulsed wave doppler and functional capacity by symptom limited exercise test based on Naughton protocol on treadmill will be performed at baseline and after 8 weeks of training. The result will be compared in study groups.

General information

Acronym

Cardiac Rehabilitation

IRCT registration information

IRCT registration number: **IRCT201011085136N1**

Registration date: **2011-05-10, 1390/02/20**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2011-05-10, 1390/02/20

Registrant information

Name

Fatemeh Basati

Name of organization / entity

Mohaghigh Ardebili University

Country

Iran (Islamic Republic of)

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+98 21 2298 9007

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Recruitment status

Recruitment complete

Funding source

Isfahan Cardiovascular Research Center

Expected recruitment start date

2010-11-06, 1389/08/15

Expected recruitment end date

2010-11-21, 1389/08/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of a cardiac rehabilitation program on systolic, diastolic function, left ventricle mass and functional capacity in patient with myocardial infarction

Public title

Cardiac Rehabilitation in Heart Disease Patient

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Patients with ST elevation myocardial infarction, history of CABG and PTCA, have ability to present in cardiac rehabilitation program, not having any physical exercise out of cardiac rehabilitation program, cardiac rehabilitation start 2 month after CABG and 1 month after PTCA Exclusion criteria: Absence more than five sessions in rehabilitation programs, re-infarction, extra physical activity.

Age

From **37 years** old to **67 years** old

Gender

Male

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **30**

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
Cardiovascular Research Center ethics Committee

Street address
Cardiovascular Research Center, Khorram av.,
Jomhori Eslami Sq.,

City
Isfahan

Postal code

Approval date
2010-08-20, 1389/05/29

Ethics committee reference number
1/89103

Health conditions studied

1

Description of health condition studied
Myocardial Infarction

ICD-10 code
I23

ICD-10 code description
Myocardial Infarction specified as Acute or with a stated duration of 4 weeks (28 days) or less from onset

Primary outcomes

1

Description
Left Ventricular End Diastolic Dimention

Timepoint
Before Intervention and 2 month After Intervention

Method of measurement
2 Dimentional Echocardiography

2

Description
Left Ventricular End Systolic Dimention

Timepoint
Before Intervention and 2 month After Intervention

Method of measurement
2 Dimentional Echocardiograph

3

Description
Left Ventricular End Systolic Volume

Timepoint
Before Intervention and 2 month After Intervention

Method of measurement
2 Dimentional Echocardiograph

4

Description
Left Ventricular End Diastolic Volume

Timepoint
Before Intervention and 2 month After Intervention

Method of measurement
2 Dimentional Echocardiograph

5

Description
Ejection Fraction

Timepoint
Before Intervention and 2 month After Intervention

Method of measurement
2 Dimentional Echocardiograph

6

Description
Stroke Volume

Timepoint
Before Intervention and 2 month After Intervention

Method of measurement
2 Dimentional Echocardiograph

7

Description
E velocity

Timepoint
Before Intervention and 2 month After Intervention

Method of measurement
Pulsed Wave Doppler Echocardiography

8

Description
A velocity

Timepoint
Before Intervention and 2 month After Intervention

Method of measurement

Pulsed Wave Doppler Echocardiography

9

Description

E/A ratio

Timepoint

Before Intervention and 2 month After Intervention

Method of measurement

Pulsed Wave Doppler Echocardiography

10

Description

Deceleration time

Timepoint

Before Intervention and 2 month After Intervention

Method of measurement

Pulsed Wave Doppler Echocardiography

Secondary outcomes

1

Description

Left ventricle mass

Timepoint

Before Intervention and 2 Month After Intervention

Method of measurement

2 Dimentional Echocardiography

2

Description

Blood Pressure

Timepoint

Before Intervention and 2 Month After Intervention

Method of measurement

Sphyngomanometer

3

Description

Functional Capacity

Timepoint

Before Intervention and 2 Month After Intervention

Method of measurement

Naghoutan Protocol

Intervention groups

1

Description

Rehabilitation program for 8-week course of aerobic exercise (three 60-minute sessions per week). Aerobic exercise including stretching exercises for warm-up, aerobic exercises on treadmill ergo meter, stepper and kayak equipment in 60-85% of maximum heart rate of each patient. Exercises will be prescribed for each participant individually, based on his physiological abilities.

Category

Rehabilitation

2

Description

2 month detraining for control group

Category

Lifestyle

Recruitment centers

1

Recruitment center

Name of recruitment center

Chamran hospital

Full name of responsible person

Dr. mohamad Mehdi Hadavi

Street address

chamran H.Moshtagh2 A. Isfahan ,

City

Isfahan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Isfahan Cardiovascular Research Center

Full name of responsible person

Dr.masoumeh Sadeghi

Street address

Khoram A.Jomhori Eslami S.Isfahan,

City

Isfahan

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Isfahan Cardiovascular Research Center

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

Isfahan Univercity

Full name of responsible person

Fatemeh Basati

Position

MA of physical education

Other areas of specialty/work

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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