Clinical Trial Protocol
Iranian Registry of Clinical Trials

18 Sep 2026

Effect of cardiac rehabilitation on endothelial function in smoker patients with ischemic heart disease

Protocol summary

Summary

Purpose: The effect of exercise-based cardiac rehabilitation on blood pressure, lipid profiles, renal function, blood sugar, BMI, ABI and patient MET'S. Study design: Randomized clinical trial. Study population: Smokers with ischemic heart disease. Inclusion criteria: Patients with a history of ischemic heart disease who currently smoke or quit smoking less than 5 years since the last of them. Exclusion criteria: Patients with Diabetes (type 1,2). The reluctance of patients to participate in the study and not personal consent by the patient. Re infarction during the study. Cardiovascular disorders and complications that require close care specialist such as severe ventricular arrhythmias and other serious complications. Sample volume: 53 Case study: the role of cardiac rehabilitation on vascular endothelial function. Intervention time: One month after cardiac surgery(CABG) and two weeks after stenting(PCI). Primary outcomes of the study: The effect of rehabilitation on the ABI. Secondary outcomes: The effect of rehabilitation on blood pressure, blood sugar, lipid profile, renal function, MET'S and BMI. Rehabilitation for 3 sessions per week, each session of one hour for 8 week.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015092224146N1**
Registration date: **2015-10-20, 1394/07/28**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2015-10-20, 1394/07/28

Registrant information

Name
Mrzieh Jafarpoor
Name of organization / entity
Ahwaz University of Medical Sciences
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Recruitment status

Recruitment complete

Funding source

Ahwaz Univercity of Medical Research Resources

Expected recruitment start date

2015-09-26, 1394/07/04

Expected recruitment end date

2015-11-21, 1394/08/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of cardiac rehabilitation on endothelial function in smoker patients with ischemic heart disease

Public title

Effect of cardiac rehabilitation on endothelial function in smoker patients with athero sclerosis

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria: Patients with a history of ischemic heart disease who currently smoke or have quit less than 5 years. Exclusion criteria: Patients with Diabetes (type 1,2) The reluctance of patients to participate in the study

and not personal consent by the patient. Re infarction during the study. Cardiovascular disorders and complications that require close care specialist such as severe ventricular arrhythmias and other serious complications.

Age
No age limit

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **53**

Randomization (investigator's opinion)
Not 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
Ethics Committee of the University of Medical Sciences Jundi Shapur Ahwaz

Street address
Golestan Blvd., University Town, near the center of Ahwaz Jundi Shapur University of Medical Sciences and Health Services, Department of Research and Technology, PO Box 45. Ahwaz

City
Ahwaz

Postal code
15794 - 61357

Approval date
2015-05-23, 1394/03/02

Ethics committee reference number
IR.AJUMS.REC.1394.81

Health conditions studied

1

Description of health condition studied
Ischemic heart disease

ICD-10 code
120-125

ICD-10 code description
Ischaemic heart diseases

Primary outcomes

1

Description
Measurement of ankle-brachial pressure

Timepoint
Before the start of rehabilitation and completion after 24 sessions

Method of measurement
Ankle blood pressure devided by brachial blood pressure by manometer

Secondary outcomes

1

Description
The effect of rehabilitation on MET'S (metabolic equivalents [of oxygen consumption])

Timepoint
Before the start of rehabilitation and after 24 sessions

Method of measurement
By questionnaire Duke Activity Status Index

2

Description
The effect of rehabilitation on blood suger

Timepoint
Before the start of rehabilitation and after 24 sessions

Method of measurement
By measuring fasting blood glucos

3

Description
The effect of rehabilitation on renal function

Timepoint
Before the start of rehabilitation and after 24 sessions

Method of measurement
By measuring of GFR

4

Description
The effect of rehabilitation on blood pressure

Timepoint
Before the start of rehabilitation and after 24 sessions

Method of measurement
Blood pressure measurement by manometer

5

Description
The effect of rehabilitation on body mass index

Timepoint
Before the start of rehabilitation and after 24 sessions

Method of measurement

Through height and weight (the weight in kilograms by height in meters squared)

6

Description
The effect of rehabilitation on lipid profile
Timepoint
Before the start of rehabilitation and after 24 sessions
Method of measurement
By measuring triglyceride, cholesterol, HDL, LDL

Intervention groups

1

Description
Control group: The control group did not rehabilitation. All tests are intended for groups such as blood sugar, lipid profile, renal function and pressure ratio of ankle to brachial at baseline and then measured after two months .
Category
N/A

2

Description
Intervention Groups: Rehabilitation that patients exercise protocol consists of a one-hour period early on soft, about 10 minutes, and then a treadmill or stationary bike for forty minutes and finally for 10 minutes is the final exercise period.
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Imam Khomeini Hospital Rehabilitation Center in Ahwaz
Full name of responsible person
Marzieh Jafarpoor- Resident of Cardiology
Street address
Azadegan Street,Ahwaz
City
Dezful

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice Chancellor for research of Ahwaz Jondi Shapoor University of Medical Sciences
Full name of responsible person
Dr. Nader saki
Street address
Ahwaz Jondi Shapoor University of Medical Sciences, Vice Chancellor for research ,Golestan Blvd,
City
Ahwaz
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Vice Chancellor for research of Ahwaz Jondi Shapoor University of Medical Sciences
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
Department of Cardiology, Ahwaz Jundi Shapur University of Medical Sciences
Full name of responsible person
Marzieh Jafarpoor
Position
Resident of Cardiology
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Person responsible for scientific inquiries

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Person responsible for updating data

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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