

Clinical Trial Protocol

Iranian Registry of Clinical Trials

02 Jun 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

Country

Iran (Islamic Republic of)

Phone

+98 61 4222 4739

Email address

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Recruitment status

Recruitment complete

Funding source

Ahwaz University 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

I20-I25

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 divided 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

Other areas of specialty/work

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Person responsible for scientific inquiries

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Department of Cardiology, Ahwaz Jundi Shapur University of Medical Sciences

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Cardiovascular Fellowship

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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