

Clinical Trial Protocol

Iranian Registry of Clinical Trials

22 Jun 2026

Effect of eight weeks high intensity interval and common continuous training on quality of life, heart rate recovery and lipid profile in cardiac patients with post-coronary artery bypass graft

Protocol summary

Summary

The aim of this study was to compare the eight weeks of interval with continuous training on quality of life, heart rate recovery, lipid profile and exercise test physiological variables in cardiac patients with post-coronary artery bypass graft. In this clinical trial, 30 cardiac patients (with age range 20 to 60 years and traverse one month of postoperative) in Tehran Heart Center had coronary artery bypass graft surgery were randomly divided into two groups, high-intensity interval and continuous moderate-intensity training (program common). The program of interval group included 4 rep × 4 min at 90-95% heart rate peak and continuous group 60-80 minute at 70-85% heart rate peak, three sessions per week for eight weeks. Quality of life based on the SF-36 questionnaire, lipid profile, functional capacity, distance traveled, time to exhaustion, heart rate maximum and recovery in 1, 2 and 3 minutes and test physiological variables during the Bruce exercise stress test were assessed before and after the training program.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201311227255N5**

Registration date: **2013-12-25, 1392/10/04**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2013-12-25, 1392/10/04

Registrant information

Name

Sadegh Satarifard

Name of organization / entity

Tehran University

Country

Iran (Islamic Republic of)

Phone

+98 21 8863 3866

Email address

satarifard@ut.ac.ir

Recruitment status

Recruitment complete

Funding source

Tehran University

Expected recruitment start date

2012-05-21, 1391/03/01

Expected recruitment end date

2012-06-21, 1391/04/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of eight weeks high intensity interval and common continuous training on quality of life, heart rate recovery and lipid profile in cardiac patients with post-coronary artery bypass graft

Public title

Exercise and heart disease

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: one month after operation; the age range 20 to 60 years; no articular and muscular disease; Exclusion criteria: unstable angina; uncompensated heart failure; myocardial infarction during the past 4

weeks; complicated ventricular arrhythmias.

Age

From **20 years** old to **60 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

Faculty of Physical Education, Tehran University

Street address

Faculty of Physical Education, Kargrshmary Street

City

Tehran

Postal code

Approval date

2012-03-05, 1390/12/15

Ethics committee reference number

24/91

Health conditions studied

1

Description of health condition studied

The effect of exercise in improvement of cardiac patients post-coronary artery bypass graft

ICD-10 code

Z50.0

ICD-10 code description

Cardiac Rehabilitation

Primary outcomes

1

Description

Health-related quality of life

Timepoint

Before and after intervention

Method of measurement

SF-36 questionnaire

2

Description

Functional capacity

Timepoint

Before and after intervention

Method of measurement

VO2max was assessed during performance of exercise test

3

Description

Heart rate maximum and recovery in 1,2 and 3 minutes

Timepoint

Before and after intervention

Method of measurement

During performance of exercise test by heart rate monitoring

Secondary outcomes

1

Description

The levels of plasma lipid

Timepoint

Before and after intervention

Method of measurement

By enzymatic method

Intervention groups

1

Description

Eight weeks of high intensity interval training

Category

Rehabilitation

2

Description

Eight weeks of moderate intensity continuous training

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Tehran Heart Center

Full name of responsible person

Street address

City
Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Teharn University

Full name of responsible person

Satarifard Sadegh

Street address

Tehran University School of Physical Education,
Kargrshmary Street

City

Tehran

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Teharn University

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

Faculty of Physical Education, Tehran University

Full name of responsible person

Satarifard Sadegh

Position

PhD student

Other areas of specialty/work

Street address

Tehran University School of Physical Education,
Kargrshmary Street

City

Tehran

Postal code

Phone

+98 21 8863 3866

Fax

Email

satarifard@ut.ac.ir satarifard@yahoo.com

Web page address

Person responsible for scientific

inquiries

Contact

Name of organization / entity

Faculty of Physical Education

Full name of responsible person

Satarifard Sadegh

Position

PhD student

Other areas of specialty/work

Street address

Faculty of Physical Education, Kargrshmary Street,
Tehran

City

Tehran

Postal code

Phone

+98 21 8863 3866

Fax

Email

satarifard@ut.ac.ir satarifard@yahoo.com

Web page address

Person responsible for updating data

Contact

Name of organization / entity

Faculty of Physical Education, Tehran University

Full name of responsible person

Satarifard Sadegh

Position

PhD student

Other areas of specialty/work

Street address

Tehran University School of Physical Education,
Kargrshmary Street

City

Tehran

Postal code

Phone

+98 21 8863 3866

Fax

Email

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