

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Jun 2026

The effect of periodic and continuous exercise on hemodynamic status left ventricular function, lipid profiles, oxidative stress indices, knee proprioception, pain and quality of life after coronary artery bypass graft surgery

Protocol summary

Study aim

The effect of periodic and continuous exercise on hemodynamic status, left ventricular function, lipid profiles, oxidative stress indices, knee proprioception, pain and quality of life after coronary artery bypass graft surgery

Design

Randomized clinical trial, parallel, controlled and double blinded

Settings and conduct

Continuing exercise group: this group will do sports less than 3 times a week. The amount of sport in each session will increase compared to the previous session. There will be a variety of sports in this group and the duration of the course will be at least six months per person. Periodic exercise group: this group will use treadmills and fixed bikes every day from half an hour to one hour. It will be three times a week and every half an hour to one hour. Control group: This group will not do any kind of sports. The location of the study will be in Shahid Madani Hospital in Tabriz. Physician, researcher and data analyst will be blind to the study.

Participants/Inclusion and exclusion criteria

Entry requirements: coronary artery graft surgery; ability to do sports. Exit conditions: defects in the organs.

Intervention groups

Continuing exercise group: this group will do sports less than 3 times a week. The amount of sport in each session will increase compared to the previous session. There will be a variety of sports in this group and the duration of the course will be at least six months per person. Periodic exercise group: this group will use treadmills and fixed bikes every day from half an hour to one hour. It will be three times a week and every half an hour to one hour. Control group: this group will not do any kind of sports.

Main outcome variables

Hemodynamic status: Heart rate; ejection fraction; blood pressure; pain; stress; depression; quality of life; lipid profile; oxidative stress indices

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20190325043107N2**

Registration date: **2019-04-19, 1398/01/30**

Registration timing: **prospective**

Last update: **2019-09-25, 1398/07/03**

Update count: **1**

Registration date

2019-04-19, 1398/01/30

Registrant information

Name

Mehdi Khanbabayi Gol

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 41 3334 7054

Email address

khanbabayimehdi69@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-05-05, 1398/02/15

Expected recruitment end date

2020-03-05, 1398/12/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of periodic and continuous exercise on hemodynamic status left ventricular function, lipid profiles, oxidative stress indices, knee proprioception, pain and quality of life after coronary artery bypass graft surgery

Public title

The effect of periodic and continuous exercise on general performance of patients after coronary artery bypass graft surgery

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria:

Perform coronary artery bypass surgery Ability to do sports

Exclusion criteria:

Organ defects

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

- Care provider
- Investigator
- Data analyser

Sample size

Target sample size: 300

Randomization (investigator's opinion)

Randomized

Randomization description

Patients will be divided into two groups using random numbers

Blinding (investigator's opinion)

Double blinded

Blinding description

Patients will be in different groups. The researcher's assistance will intervene. During the intervention, the investigator, physician and data analyst will not be present and will not be aware of the type of grouping. By doing so, these people will be blind to the study.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Tabriz University of Medical Sciences

Street address

Imam Reza Hospital, Azadi Ave

City

Tabriz

Province

East Azarbaijan

Postal code

5165665631

Approval date

2019-03-11, 1397/12/20

Ethics committee reference number

IR.TBZMED.REC.1397.1059

Health conditions studied

1

Description of health condition studied

Quality of Life

ICD-10 code

ICD-10 code description

2

Description of health condition studied

Pain

ICD-10 code

R52.1

ICD-10 code description

Chronic intractable pain

Primary outcomes

1

Description

Ejection fraction

Timepoint

Weekly for to two months

Method of measurement

Ecocardiography

2

Description

Pain

Timepoint

Weekly for to two months

Method of measurement

VAS checklist

3

Description

Quality of Life
Timepoint
Monthly for to six months
Method of measurement
Quality of life questionnaire sf_36

4

Description
Oxidative stress indices
Timepoint
Daily for to two months
Method of measurement
Serum level of OHdG-8

5

Description
Heart reat
Timepoint
Daily
Method of measurement
Examination

6

Description
Blood pressure
Timepoint
Daily
Method of measurement
With the help of digital barometer

7

Description
Stress
Timepoint
Monthly
Method of measurement
Beck questionnaire

8

Description
Depression
Timepoint
Monthly
Method of measurement
Beck questionnaire

9

Description
Lipid profile
Timepoint
Monthly
Method of measurement
Blood test

10

Description
Indicators of oxidative stress

Timepoint
Monthly
Method of measurement
Blood test

Secondary outcomes

empty

Intervention groups

1

Description
First Intervention group: continuing exercise group: This group will do sports less than 3 times a week. The amount of sport in each session will increase compared to the previous session. There will be a variety of sports in this group and the duration of the course will be at least six months per person.

Category
Prevention

2

Description
Second Intervention group: Periodic exercise group: This group will use treadmills and fixed bikes every day from half an hour to one hour. It will be three times a week and every half an hour to one hour.

Category
Prevention

3

Description
Control group: This group will not do any kind of sports.

Category
N/A

Recruitment centers

1

Recruitment center
Name of recruitment center
Shahid Madani Hospital
Full name of responsible person
Mehdi Khanbabayi Gol
Street address
Azadi Ave, Shahid Madani Hospital
City
Tabriz
Province
East Azarbaijan
Postal code
5981764863
Phone
+98 41 3535 3696
Email
mkhanbabayi@yahoo.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Tabriz University of Medical Sciences

Full name of responsible person

Abolghasem Jouyban

Street address

Shahid Madani Hospital, Azadi Ave

City

Tabriz

Province

East Azarbaijan

Postal code

5165665631

Phone

+98 41 3335 7310

Email

Ajouyban@hotmail.com

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Tabriz University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Tabriz University of Medical Sciences

Full name of responsible person

Mehdi Khanbabayi Gol

Position

MSc in Nursing Education

Latest degree

Master

Other areas of specialty/work

Nursery

Street address

Imam Reza Hospital, Azadi Ave

City

Tabriz

Province

East Azarbaijan

Postal code

5981764863

Phone

+98 41 3334 7054

Fax

Email

Khanbabayimehdi69@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity

Tabriz University of Medical Sciences

Full name of responsible person

Mehdi Khanbabayi Gol

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Person responsible for updating data

Contact

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Undecided - It is not yet known if there will be a plan to make this available

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available