Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Effect of cardiac rehabilitation on level of endostatin, SDF1 and PDGF in patients with atherosclerosis after CABG

Protocol summary

Study aim
Effect of cardiac rehabilitation on level of endostatin, SDF1 and PDGF in patients with atherosclerosis after CABG
Design
The clinical task consisted of two groups of practice and control in a simple random method with factorial group
Settings and conduct
Exercises were performed in rehabilitation ward of Mashhad Javad Alaemeh Cardiovascular Specialist Hospital in two simple randomized, non-blinded, aerobic and control groups.
Participants/Inclusion and exclusion criteria
Inclusion criteria: Patients aged 40-60 years who underwent coronary artery bypass graft surgery and had no hypertension, diabetes, and chest pain. Exclusion criteria: Patients with hypertension, diabetes, chest pain.
Intervention groups
Intervention group: Patients aged 40-60 years who underwent coronary artery bypass graft surgery and received resistance aerobic combined exercise intervention. Control group: Patients aged 40-60 years who underwent coronary artery bypass graft surgery and did not receive resistance aerobic combined exercise intervention.
Main outcome variables
Plasma levels of endostatin, SDF1 and PDGF

General information

Reason for update
Acronym
IRCT registration information
IRCT registration number: **IRCT20191228045916N1**
Registration date: **2020-02-04, 1398/11/15**
Registration timing: **retrospective**

Last update: **2020-02-04, 1398/11/15**
Update count: **0**
Registration date
2020-02-04, 1398/11/15

Registrant information
Name
Hadi Seyedi
Name of organization / entity
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Recruitment status
Recruitment complete
Funding source

Expected recruitment start date
2019-09-07, 1398/06/16
Expected recruitment end date
2019-10-12, 1398/07/20
Actual recruitment start date
2019-09-07, 1398/06/16
Actual recruitment end date
2019-10-12, 1398/07/20
Trial completion date
2019-10-12, 1398/07/20

Scientific title
Effect of cardiac rehabilitation on level of endostatin, SDF1 and PDGF in patients with atherosclerosis after CABG

Public title
Effect of cardiac rehabilitation on level of endostatin, SDF1 and PDGF in patients with atherosclerosis after CABG
Purpose
Supportive
Inclusion/Exclusion criteria

Inclusion criteria:
Being a man Aged 40 to 60 years Performing a coronary artery bypass graft in the past two months
Exclusion criteria:
Chest pain Hypertension disorder Diabetes

Age
From **40 years** old to **60 years** old

Gender
Male

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **30**
Actual sample size reached: **24**

Randomization (investigator's opinion)
Randomized

Randomization description
The simple and easy design method is used with the design of the numeric table.

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features
Use of Aerobic-Resistance Combined Exercise Method

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics Committee of Neyshabur University

Street address
Khorasan Razavi Province, Neyshabur, Abbey Road

City
neyshabur

Province
Razavi Khorasan

Postal code
9319975853

Approval date
2019-09-05, 1398/06/14

Ethics committee reference number
IR.IAU.NEYSHABUR.REC.1398.018

Health conditions studied

1

Description of health condition studied
Patients aged 60-40 years who underwent coronary artery bypass graft surgery

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description
endostatin

Timepoint
Blood sampling in the pre-test phase 24 hours before the first training session and 48 hours after the last training session

Method of measurement
Blood sampling from brachial vein and testing by Real-Time-PCR

2

Description
SDF1

Timepoint
Blood sampling in the pre-test phase 24 hours before the first training session and 48 hours after the last training session

Method of measurement
Blood sampling from brachial vein and testing by Real-Time-PCR

3

Description
PDGF

Timepoint
Blood sampling in the pre-test phase 24 hours before the first training session and 48 hours after the last training session

Method of measurement
Blood sampling from brachial vein and testing by Real-Time-PCR

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Patients aged 40-60 years who underwent coronary artery bypass graft surgery and received aerobic-resistance combined exercise intervention.

Category
Rehabilitation

2

Description
Control group: Control group: Patients aged 40-60 years who underwent coronary artery bypass graft surgery and

did not receive aerobic resistance training.

Category
Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center
Mashhad Javad Alameh Hospital

Full name of responsible person
Dr. Emad Alavi Nia

Street address
Vakilabad Boulevard, Conservatory Road

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Razavi Khorasan

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Islamic Azad University

Full name of responsible person
rambod khajee

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Khorasan Razavi Province, Neyshabur, Abbey Road

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Grant name

Grant code / Reference number

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

Title of funding source
Islamic Azad University

Proportion provided by this source
1

Public or private sector
Private

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
Islamic Azad University

Full name of responsible person
seyed hadi seyedi

Position
coach

Latest degree
Master

Other areas of specialty/work
Sport Medicine

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Person responsible for scientific inquiries

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Full name of responsible person
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Person responsible for updating data

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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
Yes - There is a plan to make this available

Statistical Analysis Plan
Yes - There is a plan to make this available

Informed Consent Form
Yes - There is a plan to make this available

Clinical Study Report
Not applicable

Analytic Code
Not applicable

Data Dictionary
Not applicable

Title and more details about the data/document
Only part of the data related to the original outcome is shared

When the data will become available and for how long
1 year after publishing the results

To whom data/document is available
Researchers working in academia and people in the industry

Under which criteria data/document could be used
Certain conditions are not considered

From where data/document is obtainable
Communication with the responsible person

What processes are involved for a request to access data/document
Via email address

Comments