

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

23 Jun 2026

### clinical trial : The effect of concurrent training on telomere length in patients with myocardial infarction

#### Protocol summary

##### Summary

Objectives: Telomeres are structures at the ends of DNA and protect chromosome ends. this study will investigate the effect of concurrent training on telomere length in Patients with Myocardial infarction. Design: this study is a Quasi-experimental pre-post intervention study. Setting and conduct: twenty male patients from Taleghani Hospital selected and randomly will assigned to training group (n=10) or control group (n=10). Training protocol will be eight weeks of concurrent training, 3 time pre week. Blood samples will be taken half hour before first training session and 24 hours after last training session. Inclusion criteria : stable of patient's condition; quitting smoking and alcohol during the study. Exclusion criteria : unstable pectoral angina; decompensated heart failure. Intervention: rehabilitation training (concurrent training). main outcome measures (variables): Telomere length; Telomerase activity; TRF1; TRF2.

#### General information

##### Acronym

-

##### IRCT registration information

IRCT registration number: **IRCT2015112225188N1**  
Registration date: **2016-03-21, 1395/01/02**  
Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2016-03-21, 1395/01/02

##### Registrant information

###### Name

Behzad Saki

###### Name of organization / entity

Shahid Beheshti University of Medical Sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 916 361 7803

###### Email address

b\_saki@sbu.ac.ir

###### Recruitment status

**Recruitment complete**

###### Funding source

Investigator

###### Expected recruitment start date

2014-12-21, 1393/09/30

###### Expected recruitment end date

2015-03-20, 1393/12/29

###### Actual recruitment start date

empty

###### Actual recruitment end date

empty

###### Trial completion date

empty

###### Scientific title

clinical trial : The effect of concurrent training on telomere length in patients with myocardial infarction

###### Public title

Concurrent training and telomere length in patients with myocardial infarction

###### Purpose

Treatment

###### Inclusion/Exclusion criteria

Inclusion criteria : passing four to eight weeks since occurrence of myocardial infarction; stable of patient's condition; quitting smoking and alcohol during the study. Exclusion criteria : unstable pectoral angina; decompensated heart failure; ventricular arrhythmia; orthopedic problems.

###### Age

From **50 years** old to **60 years** old

**Gender**

Male

**Phase**

2

**Groups that have been masked***No information***Sample size**

Target sample size: 20

**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**

Ethics committee of Shahid Beheshti University of Medical Sciences

**Street address**

Shahid Beheshti University of Medical Sciences, Daneshjoo Boulevard, Velenjak, Tehran

**City**

Tehran

**Postal code****Approval date**

2016-01-24, 1394/11/04

**Ethics committee reference number**

IR.SBMU.RAM.REC.1394.485

**Health conditions studied****1****Description of health condition studied**

myocardial infarction

**ICD-10 code**

I21.0

**ICD-10 code description**

Acute transmural myocardial infarction of anterior wall Transmural infarction (acute)(of): anterior (wall) NOS anteroapical anterolateral anteroseptal

**Primary outcomes****1****Description**

telomere length

**Timepoint**

pre-post test

**Method of measurement**

telomere length- quantitative polymerase chain reaction (qPCR)- t/s

**2****Description**

Telomerase activity

**Timepoint**

pre-post test

**Method of measurement**

Telomerase activity- quantitative polymerase chain reaction (qPCR)- t/s

**3****Description**

trf1

**Timepoint**

pre-post test

**Method of measurement**

trf1-Immunsorbent Assay (ELISA) -pg/ml

**4****Description**

trf2

**Timepoint**

pre-post test

**Method of measurement**

trf1-Immunsorbent Assay (ELISA) -pg/ml

**Secondary outcomes****1****Description**

-

**Timepoint**

-

**Method of measurement**

-

**Intervention groups****1****Description**

Intervention group: The training group will perform an 8-week exercise training protocol in three sessions per week.

**Category**

Rehabilitation

**2****Description**

Control group: The subjects in the control group will continue their daily lives during this period and wont

carry out any exercise training.

**Category**

N/A

**Recruitment centers**

**1**

**Recruitment center**

**Name of recruitment center**

Tehran's Taleghani hospital

**Full name of responsible person**

Amirhossein Abedi Yekta

**Street address**

Tehran's Taleghani hospital, Daneshjoo Boulevard,  
Velenjak, Tehran

**City**

Tehran

**Sponsors / Funding sources**

**1**

**Sponsor**

**Name of organization / entity**

Shahid Beheshti University

**Full name of responsible person**

Behzad Saki

**Street address**

Tehran's Taleghani hospital, Daneshjoo Boulevard,  
Velenjak, Tehran

**City**

Tehran

**Grant name**

**Grant code / Reference number**

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

Yes

**Title of funding source**

Shahid Beheshti 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**

Shahid Beheshti University

**Full name of responsible person**

Behzad Saki

**Position**

phD

**Other areas of specialty/work**

**Street address**

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**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*