Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Comparison of four types of aerobic, resistance, combined (Aerobic - Resistance) and High-intensity interval exercise on coagulation factors (platelets, PT, PTT, and fibrinogen) and fibrinolysis (D-dimer) in healthy untrained young men

Protocol summary

Summary

The aim of this study was to examine the effect of aerobic training, resistance, concurrent (aerobic-resistance) training and high intensity interval training (HIIT) on coagulation and fibrinolysis in healthy young men non-athletes. Methods: An experimental study and sampling was easy or available.concurrent (aerobic-resistance) training, HIIT control will be divide in 3 groups . Groups training will be exercise for three times in a week for 8 weeks. Blood samples 24 hours before the first training session, 30 minutes after the first and last training session and then 24 hours after the last training session collect for the evaluation clotting index; platelet counts , fibrinogen, PT, PTT and fibrinolysis index; D-dimer. The anthropometric variables and feeding people before the start of the study are recorded.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016021726608N1**
Registration date: **2016-03-14, 1394/12/24**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2016-03-14, 1394/12/24

Registrant information

Name

Amir Amini

Name of organization / entity

Baqiyatallah University of Medical Science

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Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

the financial support of Vice Chancellor for the University of Baqiyatallah Medical Sciences, Iran

Expected recruitment start date

2014-04-21, 1393/02/01

Expected recruitment end date

2014-09-23, 1393/07/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of four types of aerobic, resistance, combined (Aerobic - Resistance) and High-intensity interval exercise on coagulation factors (platelets, PT, PTT, and fibrinogen) and fibrinolysis (D-dimer) in healthy untrained young men

Public title

The effects of different exercises on the prevention of thrombosis

Purpose

Basic scienece

Inclusion/Exclusion criteria

Inclusion criteria: non smoking- Avoiding the use of drugs or alcohol- Lack of physical activity at least six months

before the start of the study exclusion criteria: control group should not exercised

Age

From **20 years** old to **30 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **50**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Random people using sealed envelopes are divided in different groups

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Baqiyatallah University of Medical Sciences

Street address

Mollasadra Street, Sheikh Bahaei Avenue, Nosrati Shahid Alley

City

Tehran

Postal code

6681145196

Approval date

2014-05-25, 1393/03/04

Ethics committee reference number

36 number, 9 clause

Health conditions studied

1

Description of health condition studied

Thrombosis

ICD-10 code

I98*

ICD-10 code description

Other disorders of circulatory system in diseases classified elsewhere

Primary outcomes

1

Description

platelet count, fibrinogen, PT, PTT and D-dimer

Timepoint

24 h Before and 30 min after one session and last of exercise, 24 h after last of exercise blood samples will obtain

Method of measurement

for evaluate fibrinogen (mg/dl), D-dimer (mg/dl), prothrombin time (PT), partial thromboplastin time (PTT) and platelet count (×1000/µl) from ELISA will use.

Secondary outcomes

1

Description

nutrition, anthropometric variables

Timepoint

24 h before and after intervention

Method of measurement

questionnaire and Tools specific to each indicator

Intervention groups

1

Description

Intervention group 3: high intensity interval training for Two months

Category

Prevention

2

Description

Intervention group 1: aerobic training for Two months Two months

Category

Prevention

3

Description

Intervention group 2: resistance training for Two months

Category

Prevention

4

Description

Intervention group 3: concurrent training (combined aerobic with resistance training) for Two months

Category

Prevention

5

Description

control group: lack of physical activity during 2 month study

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Exercise Physiology Research Center, Baqiyatallah University of Medical Science

Full name of responsible person

Amir Amini

Street address

Mollasadra Street, Shaekh Bahaei Avnue, Nosrati Alley

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Exercise Physiology Research Center,Vice chancellor for research Baqiyatallah University of Medical

Full name of responsible person

Dr. vahid sobhani

Street address

Mollasadra Street, Shaekh Bahaei Avenue, Nosrati Alley

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Tehran

Grant name

-

Grant code / Reference number

-

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

Yes

Title of funding source

Exercise Physiology Research Center,Vice chancellor for research Baqiyatallah University of Medical

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

Exercise Physiology Research Center, Baqiyatallah University of Medical Science

Full name of responsible person

amir amini

Position

phd student/ co-authors

Other areas of specialty/work

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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