Clinical Trial Protocol
Iranian Registry of Clinical Trials

09 Nov 2026

The effects of aerobic training and response to single session exhaustion exercise on some antioxidant indicators of salivary and serum in young non-active men

Protocol summary

Summary

The purpose of the present study is to investigate effects of aerobic training and response to single session exhaustion exercise on some antioxidant indicators salivary and serum in young non-active men. Thirty healthy men in a randomized design, will allocate equally into two homogeneous group: training group (N = 15) or control group (N = 15). Subjects of training group will participate in 8 week aerobic training (3 session per week). After training period, all subjects (any groups) will participate in single session exhaustion exercise protocol on the treadmill (Bruce test). In both groups, physical fitness index (VO2max), body composition (BMI, body Fat percent), blood lipid profile, oxidative stress (salivary and serum malondialdehyde, total antioxidant capacity, glutathione peroxidase, superoxide dismutase, catalase and uric acid), and inflammatory indicator (salivary and serum C-reactive protein: CRP) will determine in before and after training period and also, after exhaustion exercise protocol.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016042214371N2**
Registration date: **2016-05-14, 1395/02/25**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2016-05-14, 1395/02/25

Registrant information

Name

Vahid Sari-Sarraf

Name of organization / entity

University of Tabriz

Country

Iran (Islamic Republic of)

Phone

+98 41 3339 3254

Email address

sarraf@tabrizu.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Tabriz University

Expected recruitment start date

2016-01-05, 1394/10/15

Expected recruitment end date

2016-03-17, 1394/12/27

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effects of aerobic training and response to single session exhaustion exercise on some antioxidant indicators of salivary and serum in young non-active men

Public title

Exercise-induced oxidative stress

Purpose

Basic scienece

Inclusion/Exclusion criteria

Inclusion criteria: Healthy male؛ Non-athlete؛ Non-Smoker؛Informed consent؛ without any inflammatory or oxidative supplement ingestion during 6 months prior to the study, Exclusion criteria: chronic diseases؛ injuries.

Age

From **18 years** old to **21 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

Randomization: By random numbers

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Tabriz University of Medical Sciences

Street address

Golgasht street, Daneshgah street, Tabriz university of medical sciences Tabriz

City

Tabriz

Postal code

Approval date

2016-01-18, 1394/10/28

Ethics committee reference number

TBZMED.REC.1394.977

Health conditions studied

1

Description of health condition studied

oxidative stress

ICD-10 code

Z10.3

ICD-10 code description

Routine general health check-up of other defined subpopulations

Primary outcomes

1

Description

Total antioxidant capacity (TAC)

Timepoint

Before and after the initiation of the intervention (training), after one session acute aerobic exercise

Method of measurement

by ABTs Method.

2

Description

Malondialdehyde (MDA)

Timepoint

Before and after the initiation of the intervention (training), after one session acute aerobic exercise

Method of measurement

by thiobarbituric acid reactive substance (TBARS) and spectrophotometer

3

Description

Superoxide dismutase

Timepoint

Before and after the initiation of the intervention (training), after one session acute aerobic exercise

Method of measurement

Specific kit

4

Description

Catalse

Timepoint

Before and after the initiation of the intervention (training), after one session acute aerobic exercise

Method of measurement

by spectrophotometeric

5

Description

Glutathione peroxidase

Timepoint

Before and after the initiation of the intervention (training), after one session acute aerobic exercise

Method of measurement

Specific kit

6

Description

Uric cid

Timepoint

Before and after the initiation of the intervention (training), after one session acute aerobic exercise

Method of measurement

Specific kit

Secondary outcomes

1

Description
Lipid profile
Timepoint
Before and after the initiation of the intervention (training), after one session acute aerobic exercise
Method of measurement
by specific kits

Intervention groups

1

Description
Intervention group 1: 8 week aerobic exercise training, 3 session per day and single session exhaustion exercise
Category
Other

2

Description
Control group: single session exhaustion exercise
Category
Other

Recruitment centers

1

Recruitment center
Name of recruitment center
University of Tabriz
Full name of responsible person
Vahid Sari-Sarraf
Street address
Faculty of Physical Education & Sports Sciences,University of Tabriz, 29 Bahman Ave, Tabriz, Iran.
City
Tabriz

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice Chancellor for research of Tabriz University
Full name of responsible person
Dr Mohammad Moghaddam Vahed
Street address
University of Tabriz, 29 Bahman Ave, Tabriz, Iran.
City
Tabriz
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Vice Chancellor for research of Tabriz 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
University of Tabriz
Full name of responsible person
Hamidreza Zolfi
Position
Phd Candidate of Exercise Physiology
Other areas of specialty/work
Street address
Faculty of physical education & sports sciences, University of Tabriz, Tabriz, Iran.
City
Tabriz
Postal code
Phone
+98 41 3339 3394
Fax
Email
hzolfi@tabrizu.ac.ir; hamidreza.zolfi@yahoo.com
Web page address

Person responsible for scientific inquiries

Contact
Name of organization / entity
University of Tabriz
Full name of responsible person
Dr Vahid Sari-Sarraf
Position
PhD in Exercise Physiology
Other areas of specialty/work
Street address
Faculty of physical education & sports sciences, University of Tabriz, Tabriz, Iran.
City
Tabriz
Postal code
Phone
+98 41 3339 3394
Fax
Email
vsarisarraf@yahoo.com; sarraf@tabrizu.ac.ir
Web page address

Person responsible for updating data

Contact

Name of organization / entity
University of Tabriz

Full name of responsible person
Hamid Reza Zolfi

Position
PhD Candidate of Exercise Physiology

Other areas of specialty/work

Street address

City

Postal code

Phone
00

Fax

Email
hzolfi@tabrizu.ac.ir

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