

Clinical Trial Protocol

Iranian Registry of Clinical Trials

17 Sep 2026

Effect of tomato juice consumption on the inflammatory biomarkers of male athletes following exhaustive exercise

Protocol summary

Summary

The aim of this study will determine the effect of tomato juice consumption as a rich source of lycopene (a potent antioxidant) on inflammatory biomarkers of male athletes following exhaustive exercise. And study design will be Control Clinical Trial. In this study 30 male university students will enroll and randomly divide into two groups. The experimental group will consume 200 mL tomato juice daily (containing 50 mg of lycopene) for one week, and then performed exercise on treadmill at a speed of 18 km/hour till exhaustion. The control group will consume the same amount of water and will perform the same exercise regimen. Blood samples will collect pre- and immediately post-exercise for analysis of IL-6, CRP and oxidant/antioxidant ratio.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201301166415N5**

Registration date: **2014-12-18, 1393/09/27**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2014-12-18, 1393/09/27

Registrant information

Name

Ahmad Saedi Some Olia

Name of organization / entity

Tehran University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 21 6640 2095

Email address

a_saedi@sina.tums.ac.ir

Recruitment status

Recruitment complete

Funding source

Investigator

Expected recruitment start date

2009-05-10, 1388/02/20

Expected recruitment end date

2009-05-17, 1388/02/27

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of tomato juice consumption on the inflammatory biomarkers of male athletes following exhaustive exercise

Public title

Effect of tomato juice on inflammatory bio-markers in exhaustive exercise

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: Healthy Exercise Student Volunteer of University of Tehran
Exclusion criteria: Unhealthy Exercise Student Volunteer of University of Tehran

Age

From **19 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

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Faculty of Sport Science and Physical Activity,
University of Tehran

Street address

15th- Amirabad Shomali (Kargar)Ave,

City

Tehran

Postal code

Approval date

2009-01-03, 1387/10/14

Ethics committee reference number

11250

Health conditions studied

1

Description of health condition studied

Inflammation

ICD-10 code

D80-D89

ICD-10 code description

Certain disorders involving the immune mechanism

Primary outcomes

1

Description

Supplementation by Tomato Juice (Decreased
Inflammation)

Timepoint

One Week

Method of measurement

Measurement of Inflammation Biomarker (IL-6, CRP,
Oxidant/Antioxidant)

Secondary outcomes

empty

Intervention groups

1

Description

Thirty male sport students will enroll and randomly divide into two groups. The experimental group will consume 200 mL tomato juice daily (containing 50 mg of lycopene) for one week, and then will perform exercise on treadmill at a speed of 18 km/hour till exhaustion. Blood samples will collect pre- and immediately post-exercise for analysis of IL-6, CRP and oxidant/antioxidant ratio.

Category

Other

2

Description

Thirty male sport students will enroll and randomly divide into two groups. The experimental group will consume 200 mL water daily for one week, and then will perform exercise on treadmill at a speed of 18 km/hour till exhaustion. Blood samples will collect pre- and immediately post-exercise for analysis of IL-6, CRP and oxidant/antioxidant ratio.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Student of Sport Science of Faculty of Sport Science,
University of Tehran

Full name of responsible person

Street address

15 th, Amir Abad Ave,

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Investigator

Full name of responsible person

Mohammad Taherireykande

Street address

Clinic of University of Tehran, 16 Azar, Enghelab Ave,

City

Tehran

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Investigator

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**

Department of Cellular & Molecular Nutrition, School of Nutrition and Dietetics, Tehran University o

Full name of responsible person

Dr. Ahmad Saedi Some Olia

Position

Assistant Professor

Other areas of specialty/work**Street address**

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Department of Cellular & Molecular Nutrition, School of Nutrition and Dietetics, Tehran University o

Full name of responsible person

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Fax**Email****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