

Clinical Trial Protocol

Iranian Registry of Clinical Trials

20 Jun 2026

Effect of Anthocyanin supplementation on, performance, inflammatory markers , muscle damage indices and body composition in athletes

Protocol summary

Summary

This double-blind clinical trial was designed to evaluate the effects of anthocyanin supplementation on inflammatory bio markers, exercise performance, muscle damage and body composition in male and female athletes in Isfahan University of Medical Science. In this evaluation fifty four healthy, non-professional athletes who exercised at least for 3 years and didn't use antioxidant supplement in the past month were enrolled. Participants consumed either 100cc of anthocyanosid supplement or placebo for six weeks. C-reactive protein as inflammatory factor, lactate dehydrogenase, creatin kinas, body composition, heart rate, blood pressure and maximum oxygen consumption (Vo2max) were measured before and after intervention. Participants were asked to complete food frequency questionnaire for 1 day before intervention.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2013041311763N6**

Registration date: **2013-06-06, 1392/03/16**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2013-06-06, 1392/03/16

Registrant information

Name

Gholamreza Askari

Name of organization / entity

Isfahan University of Medical Sciences

Country

Iran (Islamic Republic of)

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+98 31 1792 2110

Email address

askari@mui.ac.ir

Recruitment status

Recruitment complete

Funding source

Isfahan University of Medical Science

Expected recruitment start date

2013-01-01, 1391/10/12

Expected recruitment end date

2013-02-01, 1391/11/13

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of Anthocyanin supplementation on, performance, inflammatory markers , muscle damage indices and body composition in athletes

Public title

Effect of anthocyanin supplementation on athletes

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: don't Use of antioxidant supplements in the past month , At least 3 years experience performing continuous exercise, Willingness to participate in the study. Exclusion criteria: less than 70% adherence, tend to leave study, had disease that require special treatment.

Age

From **19 years** old to **45 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 54

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Isfahan University of Medical Sciences

Street address

Isfahan University of Medical Sciences, Hezarjirib street

City

Isfahan

Postal code

Approval date

2012-09-22, 1391/07/01

Ethics committee reference number

392156

Health conditions studied

1

Description of health condition studied

Sports Nutrition

ICD-10 code

Z00.8

ICD-10 code description

Other general examination

Primary outcomes

1

Description

time to exhaustion

Timepoint

before intervention and after 6 week intervention

Method of measurement

treadmill

2

Description

plasma CRP

Timepoint

before intervention and after 6 week intervention

Method of measurement

blood test

3

Description

plasma LDH

Timepoint

before intervention and after 6 week intervention

Method of measurement

blood test

4

Description

plasma CK

Timepoint

before intervention and after 6 week intervention

Method of measurement

blood test

5

Description

Body composition

Timepoint

before intervention and after 6 week intervention

Method of measurement

body analyser

6

Description

vo2max

Timepoint

before intervention and after 6 week intervention

Method of measurement

treadmill

Secondary outcomes

1

Description

blood pressure

Timepoint

before exercise test and after that (before and after intervention)

Method of measurement

pressure indicator

2

Description

pulse rate

Timepoint

before exercise test and after that (before and after

intervention)

Method of measurement

Neck pulse

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

Case group received 100 milligram anthocyanoside tablet per day for six weeks

Category

Prevention

2**Description**

Control group received 100 milligram placebo per day for six weeks

Category

Placebo

Recruitment centers**1****Recruitment center****Name of recruitment center**

Movahedian stadium

Full name of responsible person

Gholamreza Askari

Street address

Isfahan University of Medical Sciences, Hezarjirib street

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Isfahan

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Isfahan University of Medical Sciences

Full name of responsible person

Doctor Peyman Adibi

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Isfahan University of Medical Sciences

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Esfahan

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Isfahan University of Medical Sciences

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**

Isfahan University of Medical Sciences

Full name of responsible person

Masume yarahmadi

Position

MSc of Nutrition

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

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Position

Ph.D of nutrition, Assistant Professor

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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