

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Jul 2026

The effects of curcumin supplementation on inflammatory markers , oxidative stress , muscle damage and anthropometric markers in female athletes

Protocol summary

Study aim

The effects of curcumin supplementation on inflammatory markers , oxidative stress , muscle damage and anthropometric markers in female athletes

Design

In this study 80 eligible girls are selected. The participants were randomly divided into two groups of control and intervention. Group allocation was concealed by assignong a unique code to each participants.

Settings and conduct

The present study is a double-blind randomized clinical trial study. Participants and researcher will not be aware of the type of intervention they have been assigned. The target population includes female athletes in the city of Isfahan. The number of participants in this study is 80, the subjects will be divided into two groups and 40 will be in each group. Patients in the intervention and control group receive 500 mg of curcumin or placebo for 8 weeks each day. Participants and researcher will not be aware of assigned interventions.

Participants/Inclusion and exclusion criteria

Inclusion criteria: 1. Willingness to participate in the study 2. Female sex 3. Not using antioxidant supplements and anti-inflammatory drugs 4. History of at least 3 years of continuous exercise 5. Age between 20-30 Exclusion criteria: 1. Following less than 70% 2. Unwillingness to continue 3. Afflicated by a special diseases throught the study 4. smoking

Intervention groups

Persons in the intervention group will receive curcumin (500 mg curcumin from Karen Company) for 8 weeks. Persons in the control group will take placebo (500 mg of corn starch) for 8 weeks.

Main outcome variables

C-reactive protein (CRP) ; malondialdehyde ; lactate dehydrogenase

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20121216011763N33**

Registration date: **2018-04-04, 1397/01/15**

Registration timing: **retrospective**

Last update: **2018-04-04, 1397/01/15**

Update count: **0**

Registration date

2018-04-04, 1397/01/15

Registrant information

Name

Gholamreza Askari

Name of organization / entity

Isfahan University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 31 1792 2110

Email address

askari@mui.ac.ir

Recruitment status

Recruitment complete

Funding source

Isfahan University of Medical Sciences

Expected recruitment start date

2017-12-22, 1396/10/01

Expected recruitment end date

2018-02-19, 1396/11/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effects of curcumin supplementation on inflammatory markers , oxidative stress , muscle damage and anthropometric markers in female athletes

Public title

The effect of curcumin supplementation on athletes

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

willingness to participate in the study Female athletes of Isfahan Not using antioxidant supplements and anti-inflammatory drugs History of at least 3 years of continuous exercise Age between 20-30

Exclusion criteria:

following less than 70% , loss to follow up unwillingness to continue, loss to follow up Afflicated by a special diseases smoking

Age

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

Gender

Female

Phase

N/A

Groups that have been masked

- Participant
- Investigator

Sample size

Target sample size: **80**

Randomization (investigator's opinion)

Randomized

Randomization description

In this study, simple randomization method was used, randomization unit was used individually and we used statistical software. We assigned each participant to study a code and entered the code into SPSS software. The software selected a random number.

Blinding (investigator's opinion)

Double blinded

Blinding description

In order to eliminate the error from the patient's and researcher's awareness of the type of treatment received and its possible effect on the outcome of the study, we will conduct a double-blind study. Due to the fact that placebo and supplementation of curcumin are completely in the capsule, the participants and the researcher are not aware of the type of supplement they received.

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Isfahan University of Medical Sciences

Street address

Isfahan University of Medical Sciences, Hezar Jerib Avenue

City

Isfahan

Province

Isfahan

Postal code

8135798111

Approval date

2017-10-29, 1396/08/07

Ethics committee reference number

IR.MUI.REC.1396.2.045

Health conditions studied

1

Description of health condition studied

athlete

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

C-reactive protein (CRP)

Timepoint

The beginning (before intervention) and the end of the study (60 days after intervention)

Method of measurement

blood sample

2

Description

Total antioxidant capacity

Timepoint

The beginning (before intervention) and the end of the study (60 days after intervention)

Method of measurement

blood sample

3

Description

malondialdehyde

Timepoint

The beginning (before intervention) and the end of the study (60 days after intervention)

Method of measurement

blood sample

4

Description

lactate dehydrogenase

Timepoint

The beginning (before intervention) and the end of the study (60 days after intervention)

Method of measurement

blood sample

Secondary outcomes

1

Description

maximum rate of oxygen consumption (vo2max)

Timepoint

The beginning (before intervention) and the end of the study (60 days after intervention)

Method of measurement

step test

2

Description

body composition

Timepoint

The beginning (before intervention) and the end of the study (60 days after intervention)

Method of measurement

Bioimpedance system

Intervention groups

1

Description

Intervention group: curcumin, 500 mg capsule, once per day, for 8 weeks

Category

Treatment - Drugs

2

Description

control group: placebo of curcumin containing corn starch, 500 mg capsule, once per day, for 8 weeks

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

city of isfahan

Full name of responsible person

Dr.Gholamreza Askari, MD, PhD of Nutrition sciences, Assistant Professor

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Esfahan University of Medical Sciences

Full name of responsible person

Dr Amir mansour alavi

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Grant name

Grant code / Reference number

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

Yes

Title of funding source

Esfahan University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Esfahan University of Medical Sciences

Full name of responsible person

mina salehi

Position

Master student of nutrition

Latest degree

Bachelor

Other areas of specialty/work

Nutrition

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Web page address**Person responsible for scientific inquiries****Contact****Name of organization / entity**

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Full name of responsible person

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Position

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Latest degree

Ph.D.

Other areas of specialty/work

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Latest degree

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Web page address**Sharing plan****Deidentified Individual Participant Data Set (IPD)**

Undecided - It is not yet known if there will be a plan to make this available

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available