Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

Comparison of the effect a period of consumption Allicin and Silybum Marianum supplementation with four weeks wrestling selective training on some of the indicators of muscle damage in trained wrestlers

Protocol summary

Study aim

The effect a period of consumption Allicin and Silybum Marianum supplementation with four weeks wrestling selective training on some of the indicators of muscle damage in trained wrestlers

Design

Initially, The subjects will be selected purposeful and voluntary.Then, they were randomly divided into 3 groups: Exercise + Allicin Supplement (11 subjects), Exercise + Supplementation of silybium maryanum (11 subjects) and Exercise + Placebo Starch(11 subjects). A clinical trial with a control group, with parallel groups, two Blind, randomized

Settings and conduct

33 wrestlers of the Qom province. A clinical trial with a control group, two Blind including participant, researcher.Prior to the commencement of the study, supplementary canisters and placebo can be marked by a person other than the researcher.

Participants/Inclusion and exclusion criteria

Entry requirements:At least one championship title has been gained at the provincial level. Wrestlers who have had a continuous training record of at least five years. Conditions of failure to enter: Use of anti-inflammatory drugs and vitamin supplements.Disorders that increase with supplementation of garlic (such as platelet problems, gastritis, hypotension, inflammation of the oral mucosa)

Intervention groups

Intervention group: First, 24 hours after blood sampling, the subjects will receive 3 tablets 300 mg containing 1/1 mg of allicin each day for one month made in Isfahan Pharmaceutical Company. Intervention group: Second, 24 hours after blood sampling, the subjects will receive 3 tablets containing 140 mg of silybium maryanum each day for one month. Control group:Third, 24 hours after blood sampling, the subjects will receive 3 tablets containing Starch each day for one month.

Main outcome variables

Lactate dehydrogenase, Creatine phosphokinase, Aspartate aminotransferase, Alanine aminotransferase

General information

Reason for update

Acronym

CPK,LDH,AST,ALT

IRCT registration information

IRCT registration number: **IRCT20180618040131N1**
Registration date: **2018-08-13, 1397/05/22**
Registration timing: **retrospective**

Last update: **2018-08-13, 1397/05/22**
Update count: **0**

Registration date

2018-08-13, 1397/05/22

Registrant information

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Mehdi Sharifian

Name of organization / entity

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Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-07-23, 1397/05/01

Expected recruitment end date

2018-08-06, 1397/05/15

Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Comparison of the effect a period of consumption Allicin and Silybum Marianum supplementation with four weeks wrestling selective training on some of the indicators of muscle damage in trained wrestlers

Public title
The effect Allicin and Silybum Marianum on suindicators of muscle damage
Purpose
Prevention
Inclusion/Exclusion criteria
Inclusion criteria:
Wrestlers who have had a continuous training record of at least five years. At least one championship title has been gained at the provincial level.
Exclusion criteria:
Use of anti-inflammatory drugs and vitamin supplements Disorders that increase with supplementation of garlic (such as platelet problems, gastritis, hypotension, inflammation of the oral mucosa)
Age
From **15 years** old to **20 years** old
Gender
Male

Phase
4
Groups that have been masked

- Participant
- Investigator

Sample size
Target sample size: **33**
Randomization (investigator's opinion)
Randomized
Randomization description
First, it is purposeful and selective and then randomly The methodology will be such that one of the members of the research team (other than the researcher and participants) will be present at the Qom Clubs and will provide names, records, and contact details of all athletes who are active. Then, from among these people, those who have 5 years of history of the wrestling and at least one title at the provincial level competitions will be selected and they will be invited by telephone to attend the club. The wrestlers will be assigned a number if they have criteria for entering the study and have a willingness to participate in the study. Then, by a research member (other than the researcher and participants), using the Random allocation rule, a set of numbers to Group A will be assigned to a group B and a set to the C group.The goal is to prevent any anticipation of future allocations from participants and researchers. For example, in this study with a sample size of 33 people, the balls that has the same weight and shape (33 numbers) are drawn into a container, and each of the letters A, B, C has 11 balls (three groups of letters) placed in the other container. Then, randomly, from each container, a number and a letter are left out of the container without replacement, and the resulting sequence is recorded. Akarca et al. Used this method in their random assignment.
Blinding (investigator's opinion)
Double blinded
Blinding description
Prior to the commencement of the study, supplementary canisters and placebo can be marked by a person other than the researcher so that the knowledge of the researcher and the learners about the type of capsules received is not taken into consideration. The supplement and placebo will be administered under the supervision of the same person (he is a doctor). Which also monitors the subjects.
Placebo
Used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Institutional Research Ethics Committee Islamic Azad University Boroujerd-Branch
Street address
Navab Square, Imam Khomeini Complex (Imam Khomeini), Borujerd Town
City
Borujerd
Province
Lorestan
Postal code
6915136335
Approval date
2018-06-08, 1397/03/18
Ethics committee reference number
IR.IAU.B.REC.1397.008

Health conditions studied

1

Description of health condition studied
Serum markers of muscle injury
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Compare differences in the values of CPK change in different groups
Timepoint
At the beginning of the study (before the intervention) and one month after taking supplements and exercise (one hour after training, 24 hours (fasting) and 36 (fasting).
Method of measurement
Autoanalyzer selectra l made in poland, centrifuge(hermel z310- germany), The kits and chemicals required will also be supplied by Iran's Pars Test Company.

2

Description
Compare differences in the values of LDH change in different groups
Timepoint
At the beginning of the study (before the intervention) and one month after taking supplements and exercise (one hour after training, 24 hours (fasting) and 36 (fasting).
Method of measurement
Autoanalyzer selectra l made in poland, centrifuge(hermel z310- germany), The kits and chemicals required will also be supplied by Iran's Pars Test Company.

3

Description
Compare differences in the values of AST change in different groups
Timepoint
At the beginning of the study (before the intervention) and one month after taking supplements and exercise (one hour after training, 24 hours (fasting) and 36 (fasting).
Method of measurement
Autoanalyzer selectra l made in poland, centrifuge(hermel z310- germany), The kits and chemicals required will also be supplied by Iran's Pars Test Company.

4

Description
Compare differences in the values of ALT change in different groups
Timepoint
At the beginning of the study (before the intervention) and one month after taking supplements and exercise (one hour after training, 24 hours (fasting) and 36 (fasting).
Method of measurement
Autoanalyzer selectra l made in poland, centrifuge(hermel z310- germany), The kits and chemicals required will also be supplied by Iran's Pars Test Company.

Secondary outcomes

1

Description
Score Muscle soreness
Timepoint
Measurement of muscular sorness At the beginning of the study (before the intervention) and one month after taking supplements and exercise (one hour after training, 24 hours (fasting) and 36 (fasting).supplementation of allicin and silibium marianum
Method of measurement
Borg Pain Questionnaire

Intervention groups

1

Description
Intervention group: first, 24 hours after blood sampling, the subjects received 3 tablets 300 mg containing 1/1 mg of allicin for one month each day made in Isfahan Pharmaceutical Company. Pills will be put in powder form in the capsule.
Category
Prevention

2

Description
Intervention group: second, 24 hours after blood sampling, the subjects received 3 tablets containing 140 mg of silybium maryanum for one month each day made in Isfahan Pharmaceutical Company. Pills will be put in powder form in the capsule.
Category
Prevention

3

Description
Control group:Third, 24 hours after blood sampling, the subjects received 3 tablets containing Starch. Pills will be put in powder form in the capsule
Category
Placebo

Recruitment centers

1

Recruitment center
Name of recruitment center
Qom Sports Clubs
Full name of responsible person
Mohammad Hasani
Street address
Qom- Pardisan - Islamic Azad University of Qom
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
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Full name of responsible person
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Web page address
http://www.iaub.ac.ir/persian/FaAssistPajohesh.aspx
Grant name
Mohammad Reza Moazami Goodarzi (Research Vice-Presidency -Islamic Azad University of Broujerd)
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Islamic Azad University
Proportion provided by this source
1
Public or private sector
Private
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
Islamic Azad University
Full name of responsible person
Mehdi Sharifian
Position
Sessional instructor
Latest degree
Master
Other areas of specialty/work
Sport physiology
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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Yes - There is 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
Yes - There is 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
Title and more details about the data/document
Comparison of the effect a period of consumption Allicin and Silybum Marianum supplementation with four weeks wrestling selective training on some of the indicators of muscle damage in trained wrestlers. Due to limited and controversial studies, the possible synergistic effect of these two antioxidants and the lack of access to the studied on the effects of silymarin and allicin supplementation and sporting activity necessitate that the effect of Allicin and Silybum Marianum supplementation on some of the serum indicators of injury Muscle (Phosphocreatine kinase-lactate dehydrogenase-alanine Aminotransferase- Aspartate aminotransferase) after one month, selected exercises are carried out in male wrestlers who have been practicing. so that coaches and sports technicians can relate to the results prevent to some extent the occurrence of undesirable signs and symptoms and the cost of double treatment costs.
When the data will become available and for how long
Next 3 months
To whom data/document is available
By giving the resources to all people is allowed.
Under which criteria data/document could be used
By giving the resources
From where data/document is obtainable
Email researcher m-sharifian@iau-arak.ac.ir
What processes are involved for a request to access data/document
Email researcher m-sharifian@iau-arak.ac.ir
Comments
Doctor will also monitor this study, and capsules, supplements will be provided from the pharmacy.