Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Jul 2026

The effect of 8 weeks of progressive aerobic exercises with curcumin supplementation on inflammatory indices, lipid indices and cardio-pulmonary function in obese girls recovered from corona

Protocol summary

Study aim

The purpose of this study is to evaluate eight weeks of progressive aerobic exercises with curcumin supplementation on inflammatory indices, lipid indices and cardio-pulmonary function in obese girls who have recovered from corona after being discharged from the hospital.

Design

This research is a semi-experimental method and a clinical trial in the form of a pre-test and a post-test, which will be conducted after ethical approval with an ethics ID from the secretariat of the national ethics committee based in Ilam University and registration in the clinical trial center. The statistical population will include inactive obese girls with an age range of 25-35 years with a body mass index of 35 ± 5 referring to sports clubs in Kermanshah city in 1402.

Settings and conduct

With the presence of a nursing expert from the Kermanshah health center, they will be present at the central (reference) laboratory of Kermanshah

Participants/Inclusion and exclusion criteria

. None of the subjects had a history of chronic diseases such as cardiovascular diseases, diabetes, various cancers, kidney and digestive disorders, or any type of injury or problem that prevents them from participating in physical activities.

Intervention groups

Four experimental groups: experimental group 1 (progressive aerobic exercise + curcumin supplement 10 people), experimental group 2 (progressive aerobic exercise + placebo 10 people), experimental group 3 (curcumin supplement 10 people) and experimental group 4 (control / no intervention 10 people) will be placed.

Main outcome variables

Inflammatory indices (IL-6, TNF-a), lipid indices (TG, TC, LDL, HDL) and cardio-respiratory function

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20221213056809N2**
Registration date: **2023-05-26, 1402/03/05**
Registration timing: **prospective**

Last update: **2023-05-26, 1402/03/05**
Update count: **0**

Registration date

2023-05-26, 1402/03/05

Registrant information

Name

Vahid Kazemizadeh

Name of organization / entity

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-05-31, 1402/03/10

Expected recruitment end date

2023-08-01, 1402/05/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date
empty

Scientific title
The effect of 8 weeks of progressive aerobic exercises with curcumin supplementation on inflammatory indices, lipid indices and cardio-pulmonary function in obese girls recovered from corona

Public title
The effect of progressive aerobic exercises along with curcumin supplementation on physiological indicators in obese girls recovered from corona

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
Age range 25-35 Recovered from corona disease 8 months of recovery after contracting the corona disease Body mass index greater than 25 Being female

Exclusion criteria:
History of chronic diseases such as cardiovascular diseases, diabetes, various cancers, kidney, and digestive disorders Smoking history Having any type of injury or problem that prevents participation in physical activities

Age
From **25 years** old to **35 years** old

Gender
Female

Phase
3

Groups that have been masked

- Participant
- Investigator
- Data analyser

Sample size
Target sample size: **40**

Randomization (investigator's opinion)
Randomized

Randomization description
Subjects will be examined by simple random selection in four groups. In relation to randomization, the names of 40 subjects are written on special cards and placed in a bag, and the cards are selected one after the other. After choosing each card from the bag, the card was placed in the bag again.

Blinding (investigator's opinion)
Triple blinded

Blinding description
Supplementation will be distributed based on the randomization results announced by the laboratory supervisor among the intervention group and placebo in the control group by the laboratory officials, and the researchers will not know about the randomization results and the type of packaging they have delivered. subjects. The researcher only needs to prepare the necessary supplement for the intervention and deliver it to the laboratory supervisor.

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics Committee of Ilam University

Street address
Ilam Province, Ilam, Research Blvd

City
Ilam

Province
Ilam

Postal code
6939177111

Approval date
2023-04-24, 1402/02/04

Ethics committee reference number
IR.ILAM.REC.1402.003

Health conditions studied

1

Description of health condition studied
Covid 19

ICD-10 code
UO8

ICD-10 code description
Personal history of COVID-19

Primary outcomes

1

Description
Inflammatory indices (IL-6, TNF-a)

Timepoint
In the pre-test stage and after 8 weeks in the post-test stage, after 12 hours of fasting, the subjects will be present at the Kermanshah Central Laboratory (Reference) in the presence of a nursing expert from the Kermanshah Health Center.

Method of measurement
Inflammatory indices (IL-6, TNF-a) will be measured using the ELISA kit of Carmania Parsgene Company, made in Iran, by the sandwich method.

2

Description
Lipid indices (TG, TC, LDL, HDL)

Timepoint
In the pre-test stage and after 8 weeks in the post-test

stage, after 12 hours of fasting, the subjects will be present at the Kermanshah Central Laboratory (Reference) in the presence of a nursing expert from the Kermanshah Health Center.

Method of measurement

Lipid profile will be measured using bionic kit and enzymatic method.

3

Description

Cardiorespiratory function

Timepoint

In the pre-test stage and after 8 weeks in the post-test stage, after 12 hours of fasting, the subjects will be present at the Kermanshah Central Laboratory (Reference) in the presence of a nursing expert from the Kermanshah Health Center.

Method of measurement

In relation to pulmonary function evaluation, the spirometer test will be used using the spirometer (Spirolab New) brand (MIR) made in Italy to record the pulmonary function index.

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: experimental group 1 (progressive aerobic exercise + curcumin supplement, 10 people), eight weeks of aerobic activity with a frequency of three times a week for one hour and consumption of two to three capsules of curcumin according to the individual's body mass index.

Category

Treatment - Drugs

2

Description

Intervention group: experimental group 2 (progressive aerobic exercise + placebo 10 people), eight weeks of aerobic activity with a frequency of three times a week for one hour and placebo consumption of capsules containing starch

Category

Treatment - Drugs

3

Description

Intervention group: experimental group 3 (curcumin supplement 10 people), taking two to three capsules of curcumin according to the body mass index of the person and not prescribing aerobic exercise

Category

Treatment - Drugs

4

Description

Control group: experimental group 4 (control/no intervention 10 people), no intervention group without supplement prescription and exercise

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Ilam University

Full name of responsible person

Nabi Shamsaei

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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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Grant name

Grant code / Reference number

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

Yes

Title of funding source

Ilam University

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

Razi University

Full name of responsible person

Vahid Kazemizadeh

Position

Visiting Professor

Latest degree

Ph.D.

Other areas of specialty/work

Physiology

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Email

vahid13k17@gmail.com

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

Yes - There is 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

Title and more details about the data/document

If you need more information about the research, the required information will be shared through an official email to the person in charge.

When the data will become available and for how long

6 months

To whom data/document is available

Professors, students

Under which criteria data/document could be used

If you need more information about the research

From where data/document is obtainable

Through an official email to the responsible person

What processes are involved for a request to access data/document

3 months

Comments