

Clinical Trial Protocol

Iranian Registry of Clinical Trials

26 Jun 2026

The effect of 8 weeks resistance training and 4 weeks no training on left ventricular morphology of the male athletes

Protocol summary

Summary

In the present study, twenty males athletes from endurance sports will participate voluntarily, based on the inclusion criteria for entering the test as a statistical sample. Subjects will be evaluated for echocardiography based on the time and space setting for three months in four stages including baseline measurement and one, two months after the performance of the resistance training protocol and after four weeks of no training individually and by two testers in Cardiology and Cardiology clinic. Also, the anthropometric and body composition (height, weight, body mass index, body surface area, body fat percentage and lipid mass) of the subjects will be evaluated. With the start of the main research phase, the values of the cardiac variables of each subject including: left ventricular mass, diastolic diameter and left ventricular systole, ventricular wall thickness of the end of diastole stage and systole, and posterior wall thickness of the diastole stage and left ventricular systole will be measured by using of point-to-point color Doppler echocardiography, individually, at noon, and after an hour of placement of the subject in resting position in four test cycles (before the beginning of the resistance training program, one and two months after the exercise, and after 4 weeks of no training).

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017071732873N4**
Registration date: **2017-07-28, 1396/05/06**
Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2017-07-28, 1396/05/06

Registrant information

Name

Farzad Zehsaz

Name of organization / entity

Islamic azad University, Tabriz Branch

Country

Iran (Islamic Republic of)

Phone

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Email address

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Recruitment status

Recruitment complete

Funding source

Investigator

Expected recruitment start date

2017-08-23, 1396/06/01

Expected recruitment end date

2017-08-29, 1396/06/07

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of 8 weeks resistance training and 4 weeks no training on left ventricular morphology of the male athletes

Public title

The effect of training and detraining on the left ventricle of male athletes

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: male endurance athletes; at least 2 years of regular exercise experience; from Ardabil City; healthy Exclusion criteria: having any illness; using any

drug

Age

From **18 years** old to **23 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **20**

Randomization (investigator's opinion)

N/A

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Tabriz Islamic Azad University

Street address

Medical Faculty, Tabriz Islamic Azad University
Campus, Pasdaran Highway

City

Tabriz

Postal code

5157944533

Approval date

2017-04-18, 1396/01/29

Ethics committee reference number

IR.IAU.TABRIZ.REC.1395.56

Health conditions studied

1

Description of health condition studied

The left ventricular morphology of the heart

ICD-10 code

Symptoms,

ICD-10 code description

R09.8

Primary outcomes

1

Description

left ventricular mass, diastolic diameter and left ventricular systole, ventricular wall thickness of the end of diastole stage and systole, and posterior wall thickness of the diastole stage and left ventricular systole

Timepoint

Before intervention and after 1 and 2 months of the performing resistance training and after 4 weeks detraining

Method of measurement

By using of point-to-point color Doppler echocardiography (EsaoteMylab)

Secondary outcomes

empty

Intervention groups

1

Description

Each of the resistance training periods includes 3 sessions of 90 minutes upper and lower extremities weight training in 6 repetitions and 3 sets in 40, 60 and 80% intensity of a maximum repetition, and the period of warm up and return to the initial state. So that at the end of the first four weeks of resistance training, a record of a maximum repetition in 8 movement of the leg and chest press, the scout, the long, the lift, the propeller, the press, and the biceps with the barbell were measured again and the intensity of the exercises in the next month program based on the record for a new maximum repeat will be set and administered.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Ardabil Sport Clubs

Full name of responsible person

Farzad Zehsaz

Street address

Physical Education Department, Tabriz Islamic Azad University Campus, Pasdaran Highway

City

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Tabriz Islamic Azad University

Full name of responsible person

Dr. Naser Modir Shahla

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Research Deputy of Islamic Azad University of Tabriz,
Tabriz Islamic Azad Campus, Pasdaran Highway

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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

Tabriz Islamic Azad University

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**

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Full name of responsible person

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Position

M.Sc. student

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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