

Clinical Trial Protocol

Iranian Registry of Clinical Trials

06 Jul 2026

Effect of moderate and high resistant training on the inflammatory markers and cardiovascular risk factors in non-athlete students

Protocol summary

Summary

The present study was designed to see the effect of moderate and high intensity resistant training on the inflammatory markers and cardiovascular risk factors in non-athlete students. For this purpose 30 healthy students (20 to 26 years old) with no previous record of any chronic diseases or using any specific drugs who did not do any regular exercises in the past two years were selected. 24 hours before starting the experiment a sample of venous blood was collected from each individual. Subjects were divided randomly into three equal groups (N=10). First two groups underwent moderate and severe resistance exercises training for six consecutive weeks. The third group was considered as control group. At the end of the study a sample of venous blood was collected from all subjects and was analyzed for inflammatory and other cardiovascular risk factors including HDL, LDL, ApoA, ApoB, Cholesterol, Triglyceride, LPL and fibrinogen. systolic and diastolic blood pressures and body mass index before and after intervention were measured and compared.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT138809042770N1**

Registration date: **2010-10-12, 1389/07/20**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2010-10-12, 1389/07/20

Registrant information

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Slahadin Ahmadi

Name of organization / entity

Kurdistan University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

kurdistan University of Medical Sciences & Kurdistan University

Expected recruitment start date

2008-01-30, 1386/11/10

Expected recruitment end date

2009-01-30, 1387/11/11

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of moderate and high resistant training on the inflammatory markers and cardiovascular risk factors in non-athlete students

Public title

Effect of moderate and high resistant training on the inflammatory markers and cardiovascular risk factors in non-athlete students

Purpose

Health service research

Inclusion/Exclusion criteria

Inclusion Criteria: Healthy young students with no previous record of any specific drug use and routine regular exercises during the last two years. Exclusion: Unhealthy, Doing regular exercise during the last two

years.

Age

From **20 years** old to **26 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Randomized

Randomization description**Blinding (investigator's opinion)**

Not blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Kurdistan University of Medical Sciences

Street address

vice chancellor for research, Kurdistan University of
Medical Sciences

City

sanandaj

Postal code

6617713446

Approval date

2009-03-17, 1387/12/27

Ethics committee reference number

12093پ/14/پ

Health conditions studied**1****Description of health condition studied**

cardiovascular risk factor and inflammatory markers

ICD-10 code

I70

ICD-10 code description

Atherosclerosis

Primary outcomes**1****Description**

Triglyceride, High-density lipoprotein, Low-density lipoprotein, Total cholesterol, ApoA, ApoB

Timepoint

6 weeks

Method of measurement

by collecting venous blood and measuring serum levels of related variables before and at the end of the study.

2**Description**

Lipoprotein Lipase

Timepoint

6 weeks

Method of measurement

by collecting venous blood before and at the end of study and measuring serum levels using LPL kit

3**Description**

Interleukin1 and Interleukin 6

Timepoint

6 weeks

Method of measurement

by collecting venous blood before and at the end of study and measuring serum levels of related factors using Enzyme-linked immunosorbent assay (ELISA)

4**Description**

hs-CRP (high-sensitivity CRP) and fibrinogen

Timepoint

6 weeks

Method of measurement

by collecting venous blood before and at the end of study and measuring serum levels using related kits

5**Description**

Body Mass Index

Timepoint

6 weeks

Method of measurement

by body composition analyzer (Biospace CO, Ltd)

6**Description**

Waist Hip Ratio

Timepoint

6 weeks

Method of measurement

By measuring Hip and Waist circumferences by measuring tape

7**Description**

Systolic and diastolic Blood pressure

Timepoint

6 weeks

Method of measurement

sphygmomanometer

Secondary outcomes

empty

Intervention groups

1

Description

Subjects in high intensity resistance group underwent exercise regime consist of three sessions of resistance training per week for six consecutive weeks. In each session they did three sets of 4-6 repetitions at intensity of 80-90% of 1-RM (one repetition maximum).

Category

Other

2

Description

Subjects in moderate intensity resistance group underwent exercise regime consist of three sessions of resistance training per week for six consecutive weeks. In each session they did three sets of 10-12 repetitions at intensity of 45-55% of 1-RM (one repetition maximum).

Category

Other

3

Description

Subjects of the control group did not do any regular physical activities during the period of study.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Kurdistan university

Full name of responsible person

Slahadin Ahmadi

Street address

Pasdaran street

City

Sanandaj

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Kurdistan University of Medical Sciences, vice chancellor for research

Full name of responsible person

Ataollah Haidari

Street address

Kurdistan University of Medical Sciences

City

Sanandaj

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Kurdistan University of Medical Sciences, vice chancellor for research

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

Kurdistan University of Medical Sciences

Full name of responsible person

Slahadin Ahmadi

Position

Assistant professor, Ph.D

Other areas of specialty/work

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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