

Clinical Trial Protocol

Iranian Registry of Clinical Trials

23 Sep 2026

The effect of 2 ,4 and 6 month periods of resistance training and detraining on appetite-regulating hormones in obese men

Protocol summary

Study aim

Reviews of weight loss and appetite changes resulting from regular sports exercises

Design

The present study is a randomized clinical trial and the subjects are assigned in the pretest-posttest design with the control group. Subjects randomly are divided into two groups including resistance training group (n=15, perform 7 resistance exercises, 4 sets, 8 repetitions with 80% of one repetition maximum) and the control group (n=15, without any regular exercise training). experimental (training) group will perform 6- months exercise training protocol, 3 sessions per week, each session 1 hour.

Settings and conduct

This study is the semi- experimental and will be conducted in the city of Javanrud. The experimental group will perform training in Imam Khomeini Club and blood sampling from each of the two groups will perform in the Hazrat Rasoul hospital laboratories in Javanrud city.

Participants/Inclusion and exclusion criteria

Entry requirements include: 18 < Age < 50- Obesity (a body mass index above 30 kg/m²)-Having an informed consent for participation in the study Conditions of non-entry: Gender (Women can not be selected as an example) - having illness and taking drugs and supplements - drug and alcohol addiction - having regular exercise in past 6 months

Intervention groups

In this study, resistance training group (n=15, perform 7 resistance exercises, 4 sets, 8 repetitions with 80% of one repetition maximum and the control group (n=15, without any regular exercise training). training group will perform 6- month exercise training protocol, 3 sessions per week, each session 1 hour.

Main outcome variables

Dependent variable :Weight, BMI ,appetite related hormones change includes: Acylated Ghrelin , PYY, Orexin

and Insulin

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180708040392N1**

Registration date: **2018-08-07, 1397/05/16**

Registration timing: **prospective**

Last update: **2018-08-07, 1397/05/16**

Update count: **0**

Registration date

2018-08-07, 1397/05/16

Registrant information

Name

Naser Rostamzadeh

Name of organization / entity

The University of Kurdistan

Country

Iran (Islamic Republic of)

Phone

+98 87 3371 1530

Email address

n.rostamzadeh@hum.uok.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-08-23, 1397/06/01

Expected recruitment end date

2019-03-06, 1397/12/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of 2 ,4 and 6 month periods of resistance training and detraining on appetite-regulating hormones in obese men

Public title

The effect of resistance training and detraining on appetite-regulating hormones

Purpose

Basic science

Inclusion/Exclusion criteria**Inclusion criteria:**

18<Age<50 BMI>30 kg/m² Having an informed consent for participation in the study

Exclusion criteria:

Gender (Women can not be selected as an example)
People who have a certain disease and take medication
Having a regular sports activity during past 6 months
Having drug addiction and smoking

Age

From **18 years** old to **50 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

A simple method to draw an accident: The researcher assigns a number to each of the samples, then they are selected using the random number table or the computer model and randomly assigned to one of the groups

Blinding (investigator's opinion)

Not blinded

Blinding description**Placebo**

Not used

Assignment

Other

Other design features**Secondary Ids**

empty

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

Ethics committee of Kermanshah University of Medical Sciences

Street address

Kermanshah University of Medical Sciences, Shahid

Beheshti Street, Central Room of Kermanshah University of Medical Sciences

City

Kermanshah

Province

Kermanshah

Postal code

6791653379

Approval date

2018-07-03, 1397/04/12

Ethics committee reference number

IR.KUMS.REC.1397.204

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

obesity

ICD-10 code

E66.9

ICD-10 code description

Obesity, unspecified

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

obesity

Timepoint

Before starting the protocol and again after one session training , 2 months training, 4 months training, 6 months training and 2 week subsequent detraining

Method of measurement

measure of Body Mass Index (BMI)

2**Description**

Acylated Ghrelin

Timepoint

Before starting the protocol and again after one session training , 2 months training, 4 months training, 6 months training and 2 week subsequent detraining

Method of measurement

Serum ELISA Kit

3**Description**

PYY

Timepoint

Before starting the protocol and again after one session training , 2 months training, 4 months training, 6 months training and 2 week subsequent detraining

Method of measurement

Serum ELISA Kit

4**Description**

Orexin
Timepoint
Before starting the protocol and again after one session training , 2 months training, 4 months training, 6 months training and 2 week subsequent detraining
Method of measurement
Serum ELISA Kit

5

Description

Insulin

Timepoint

Before starting the protocol and again after one session training , 2 months training, 4 months training, 6 months training and 2 week subsequent detraining

Method of measurement

Serum ELISA Kit

Secondary outcomes

1

Description

The amount of calorie intake

Timepoint

In six steps include: a pre - test (before starting the intervention) and then a five step post -test (after a one session and 2, 4, 6 months training , and after 2 weeks of detraining

Method of measurement

by remember food intake form

Intervention groups

1

Description

Intervention group: do resistance training for 6 months and 2 weeks subsequenet detraining

Category

Lifestyle

2

Description

Control group: This group does not receive any intervention and only participates in measurements

Category

Lifestyle

Recruitment centers

1

Recruitment center

Name of recruitment center

University of Kurdistan

Full name of responsible person

Naser Rostamzadeh

Street address

No.1, Zibashahr Ave., Baharan Town

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Email

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

The University of Kurdistan

Full name of responsible person

Shamseddin Ahmadi

Street address

University of Kurdistan, Pasdaran, Sanandaj

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sh.ahmadi@uok.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

The University of Kurdistan

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

The University of Kurdistan

Full name of responsible person

Naser Rostamzadeh

Position

Student

Latest degree

Ph.D.

Other areas of specialty/work

Sport physiology

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

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Person responsible for updating data**Contact****Name of organization / entity**

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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

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

Part of the data, such as average age, gender, the average of the body mass index and results of the outcome have the possibility of sharing

When the data will become available and for how long

6 months after the print results

To whom data/document is available

Researcher people in Academic and scientific institutions

Under which criteria data/document could be used

Just to compare with similar research using the documentation permitted

From where data/document is obtainable

By email

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

After you send the request via e-mail, lasts for 2 months

Comments