

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

Effect of a weight training period and whey protein on gene expression Atrial natriuretic peptide(ANP), Brain natriuretic peptide (BNP) and galactin 3 inactive men 60-65 years old

Protocol summary

Study aim

The effect of weight training and protein whey on heart and brain peptides and galactin 3

Design

Clinical trial with control group, one-way blind, randomized, on 129 people, how to select a sample of Cochran table

Settings and conduct

The present study was quasi-experimental with pre-test and post-test design. The statistical population of the study was all inactive men aged 65-60 years in Kahrizak nursing home, from which 40 people were selected voluntarily according to Cochran's formula. After being fully acquainted with the objectives of the research, the method of implementation of the plan and work process, the approval of the center physician and the completion of the health and medical health questionnaire, a written consent form was also completed. The research sample was randomly divided into 4 groups of 10 people: exercise, protein V, exercise + protein V and control.

Participants/Inclusion and exclusion criteria

Over the past six months, they have not consumed any supplements or medications It does not exclude any history of common chronic health problems and diseases, such as respiratory, metabolic, cardiovascular, renal and hepatic diseases

Intervention groups

Weight training protein whey protein whey+Weight training control

Main outcome variables

weight training and protein whey ,heart and brain peptides and galactin

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20171210037809N7**

Registration date: **2020-12-09, 1399/09/19**

Registration timing: **registered_while_recruiting**

Last update: **2020-12-09, 1399/09/19**

Update count: **0**

Registration date

2020-12-09, 1399/09/19

Registrant information

Name

farah nameni

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 8843 6932

Email address

f.nameni@yahoo.co.uk

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-12-08, 1399/09/18

Expected recruitment end date

2021-01-22, 1399/11/03

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of a weight training period and whey protein on gene expression Atrial natriuretic peptide(ANP), Brain

natriuretic peptide (BNP) and galactin 3 inactive men
60-65 years old

Public title

Effect of weight training and whey protein on gene
expression Atrial natriuretic peptide(ANP), Brain
natriuretic peptide (BNP) and galactin 3

Purpose

Other

Inclusion/Exclusion criteria

Inclusion criteria:

Over the past six months, they have not consumed any
supplements or medications It does not exclude any
history of common chronic health problems and
diseases, such as respiratory, metabolic, cardiovascular,
renal and hepatic diseases

Exclusion criteria:

Over the past six months, they have not consumed any
supplements or medications It does not exclude any
history of common chronic health problems and
diseases, such as respiratory, metabolic, cardiovascular,
renal and hepatic diseases

Age

From **60 years** old to **65 years** old

Gender

Male

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **129**

Randomization (investigator's opinion)

Not randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

None of the subjects know what substance they will
consume

Placebo

Used

Assignment

Parallel

Other design features

This study was designed with emphasis on anabolic,
structural, adaptive, and cardiac damage
effects. Research sample are older men in the age range
of 60-65 years who live in certain conditions. In previous
studies Used of athletes; young bodybuilders, heart
patients and rats. Using free weights (high availability,
lower cost than using gyms, not being with young
people, etc.) and consuming protein whey may improve
and reduce cardiac biomarkers (heart and brain peptides
and Galactin 3) .Also use of supplements (protein Whey)
with resistance training may cause synergistic
physiological effects.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of the Faculty of Medical Sciences
of Islamic Azad University, Varamin Prison

Street address

naghshe- jahan/ IAU VARAMIN

City

varamin/ pishva

Province

Tehran

Postal code

1637876791

Approval date

2020-04-21, 1399/02/02

Ethics committee reference number

IR.IAU.VARAMIN.REC.1399.013

Health conditions studied

1

Description of health condition studied

We have no disease / The effect of his protein is
considered with exercise

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Atrial natriuretic peptide(ANP)

Timepoint

At the beginning of the study (before the intervention)
and after 6 weeks of supplementation and exercise

Method of measurement

Blood collection :changes Atrial natriuretic peptide (ANP):
pg /ml

2

Description

brain natriuretic peptide(BNP)

Timepoint

At the beginning of the study (before the intervention)
and after 6 weeks of supplementation and exercise

Method of measurement

Blood collection :changes Atrial natriuretic peptide(BNP) :
pg /ml

3

Description

Galectin3

Timepoint

At the beginning of the study (before the intervention)
and after 6 weeks

Method of measurement

Blood collection :changes Galectin 3 : pmo /ml

Secondary outcomes

empty

Intervention groups**1****Description**

training group: Exercise is a 6-week exercise protocol (3 sessions per week) with an intensity of 60 to 70% of a variable maximum repetition will perform by exercise groups.

Category

Other

2**Description**

training + Whey Protein group: Exercise is a 6-week exercise protocol (3 sessions per week) with an intensity of 60 to 70% of a variable maximum repetition will perform by exercise groups and Individuals will be requested to bring their daily packages containing 35 grams (30 grams of protein or placebo + 5 grams of syrup powder) daily (one hour before and immediately after exercise or in between Morning and evening meal)

Category

Other

3**Description**

Whey Protein:Individuals will be requested to bring their daily packages containing 35 grams (30 grams of protein or placebo + 5 grams of syrup powder) daily (one hour before and immediately after exercise or in between Morning and evening meal)

Category

Other

4**Description**

No training and supplements

Category

Other

Recruitment centers**1****Recruitment center****Name of recruitment center**

Kahrizak Nursing Home

Full name of responsible person

Siavash Shahdusti

Street address

City of Ray. Kahrizak Nursing Home.Kahrizak, end of Kahrizak, Dr. Hakimzadeh Boulevard

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Email

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Web page address

http://www.kahrizak.com

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Islamic Azad University

Full name of responsible person

Siavash Shahdusti

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Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

No

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
Siavash Shahdusti
Position
Coach
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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

No more information

Study Protocol

No - There is not a plan to make this available

Statistical Analysis Plan

No - There is not a plan to make this available

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

No - There is not a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

No - There is not a plan to make this available