Clinical Trial Protocol
Iranian Registry of Clinical Trials

19 Sep 2026

The effect of 4 weeks of continuous training with abdominal massage on the levels of lipolytic enzymes and VEGF in the subcutaneous fat tissue of the abdominal region of obese men.

Protocol summary

Study aim

1) Determining the activity levels of HSL and ATGL enzymes before and after 4 weeks of endurance training with and without massage in the subcutaneous fat tissue of the abdominal area in obese men. 2) Determining the levels of angiogenic proteins VEGF and VEGF-R2 before and after 4 weeks of endurance training with and without massage in the subcutaneous fat tissue of the abdominal area in obese men. 3) Determination of anthropometric changes, subcutaneous fat, and fat percentage after 4 weeks of endurance training with and without massage in obese men. 4) Investigating changes in fat oxidation through respiratory gases before and after endurance training with and without massage in obese men.

Design

According to the number and type of groups, this project will be done in parallel.

Settings and conduct

Shahid Beheshti University, Faculty of Sports Sciences and Health, Tehran Faculty of Medicine, Shahid Beheshti University, Tehran

Participants/Inclusion and exclusion criteria

The statistical sample of this research will be 45 obese men (BMI<29.9) with a range of the age 20-30 years who have no history of metabolic diseases, surgery, drug use, etc. Subjects will be randomly selected based on the conditions of the research and completion of the satisfaction questionnaire and will be divided into three groups: endurance training (N=15), endurance training + massage (N=15), and massage (N=15).

Intervention groups

control group (without any intervention) Endurance training group (4 weeks of endurance training) Exercise group and massage before sports activity

Main outcome variables

Recommending a non-invasive method to increase general and local fat burning in the abdominal area for obese people

General information

Reason for update

Acronym

CTML

IRCT registration information

IRCT registration number: **IRCT20231122060134N1**
Registration date: **2023-11-25, 1402/09/04**
Registration timing: **registered_while_recruiting**

Last update: **2023-11-25, 1402/09/04**
Update count: **0**

Registration date

2023-11-25, 1402/09/04

Registrant information

Name

MOEIN FASIHIYAN

Name of organization / entity

Shahid Beheshti University

Country

Iran (Islamic Republic of)

Phone

+98 71 3624 8291

Email address

m_fasihiyan@sbu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-11-23, 1402/09/02

Expected recruitment end date

2023-12-06, 1402/09/15

Actual recruitment start date

empty

Actual recruitment end date
empty
Trial completion date
empty

Scientific title
The effect of 4 weeks of continuous training with abdominal massage on the levels of lipolytic enzymes and VEGF in the subcutaneous fat tissue of the abdominal region of obese men.

Public title
The effect of continuous training with abdominal massage on the subcutaneous fat tissue of obese men.
Purpose
Basic scienece
Inclusion/Exclusion criteria
Inclusion criteria:
Absence of metabolic diseases such as: blood pressure, diabetes, metabolic syndrome, etc. No orthopedic problems Body mass index higher than 29.9 No smoking or stimulant drugs Not taking sports supplements Sign the health consent form Age range 20 to 30 years
Exclusion criteria:
Having metabolic diseases Age less than 20 years or more than 30 years Having a body mass index less than 30 Smoking and stimulants Having joint and bone injuries Taking sports supplements Having eating disorders
Age
From **20 years** old to **30 years** old
Gender
Both

Phase
N/A
Groups that have been masked

- Participant
- Outcome assessor
- Data analyser

Sample size
Target sample size: **36**
More than 1 sample in each individual
Number of samples in each individual: **4**
Sampling of the participants will be before and after the first session as well as before and after the last session after 4 weeks of research interventions.
Randomization (investigator's opinion)
Randomized
Randomization description
In order to randomize the groups, a systematic random method will be used, in which the researcher will not have any role in assigning people to specific groups.
Blinding (investigator's opinion)
Double blinded
Blinding description
After the initial evaluation, the subjects will be randomly placed in one of the 3 control groups, exercise training, and exercise-massage, and the training and intervention sessions will be in such a way that the participants will not be informed about the other groups, and also for sample analysis. laboratory tests, an expert who does not know about the type of intervention and groups will be helped, so it is necessary to mention that all the samples will be coded with an abbreviation to ensure that the person who evaluates the samples is not informed.
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
research ethics committee of shahid beheshti university
Street address
Shahriari Square, Evin, Tehran, Iran Postal Code: 1983969411
City
Tehran
Province
Tehran
Postal code
کدپستی: 1983969411
Approval date
2023-09-30, 1402/07/08
Ethics committee reference number
IR.SBU.REC.1402.131

Health conditions studied

1

Description of health condition studied
obesity
ICD-10 code
E66
ICD-10 code description
Overweight and obesity

Primary outcomes

1

Description
Body fat percentage values
Timepoint
Before and after the first session, before and after the last session
Method of measurement
Using ultrasound machine

2

Description
Proteins associated with angiogenesis in adipose tissue
Timepoint
Before and after the first session, before and after the last session
Method of measurement
Immunoblotting test

3

Description
Enzymes related to fat burning
Timepoint
Before and after the first session, before and after the last session
Method of measurement
Immunoblotting test

Secondary outcomes

empty

Intervention groups

1

Description
First Intervention group: Endurance Training
Category
Other

2

Description
Second Intervention group: Endurance exercises + abdominal fat tissue massage
Category
Other

3

Description
Control group: No exercise or massage
Category
Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Shahid Beheshti University
Full name of responsible person
Moein Fasihiyan
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Shahriari Square, Evin, Tehran, Iran Postal Code: 1983969411
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Shahid Beheshti University of Medical Sciences
Full name of responsible person
Dr. Afshin Zarghi
Street address
5th floor, Building No 2, Shahid Arabi St, Yamen St, Shahid Cahmran Highway, Tehran
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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
Shahid Beheshti University of Medical Sciences
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
Shahid Beheshti University
Full name of responsible person
Moein Fasihiyan
Position
Ph.D. Student
Latest degree
Master
Other areas of specialty/work
Physiology

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Person responsible for updating data

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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
Confidentiality of personal information
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
No - There is not a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
No - There is not 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
Due to the confidentiality without some information such as personal and private details of the participants, this information will not be published in any way and instead all the information obtained from the research will be shared in some way that will contribute to the future research.
When the data will become available and for how long
The access period starts immediately after the results are printed
To whom data/document is available
All researchers and students in scientific centers
Under which criteria data/document could be used
Students and active people in prestigious institutions to conduct research projects and in medical centers to use the executive protocol
From where data/document is obtainable
To the main researcher (Moin Fasihian) Email: moein.fashihiyan@gmail.com Contact number: 00989178933109
What processes are involved for a request to access data/document
At first, the applicant must send the basic information such as first and last name along with the name of the field and level of education in the form of a message, and then give a complete explanation regarding the purpose of the request, and finally, after a day The data file will be sent to that person by email.
Comments