Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparison of the metabolic factors in obese patients' pre and post bariatric surgery after 3 months trial of aerobic versus strengthening exercises

Protocol summary

Summary

Study Goal: is comparing the effectiveness of home-based aerobic exercise training versus supervised aerobic or strength exercise training on metabolic factors in post bariatric surgery patients. Study population and methods: study population will include 90 obese patients who are eligible for bariatric surgery. We'll measure each patients' Fasting Blood sugar, High density Lipoprotein, Low Density Lipoprotein, Triglyceride ,HOMAIR, Hemoglobin A1C , physical fitness using 6 minute walk test, as well as muscle strength using dynamometer, before their surgery, 6 weeks post- op, and 3 months after patients participation in either aerobic or strengthening exercise programs. Patients will get randomized to 3 different groups as follow: Group 1: includes 30 patients who will receive conventional therapy, which includes one hour session of training on how to do aerobic exercise, supplemental handbook as a reminder for exercises they are supposed to do as well as a pedometer to keep track of their physical activity . Group 2: includes 30 patients who will receive conventional therapy plus 2 sessions of strength training per week each for an hour under supervision of a Sports Medicine physician Group 3: Includes 30 patients who'll receive 2 hourly sessions of aerobic exercise per week supervised by a sport medicine specialist in addition to conventional therapy. At the end of the 3 months we'll re-measure all the metabolic parameters and compare them to the initial values to find out if our intervention by using supervised training make a difference between the values of 3 different groups.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201111214251N8**

Registration date: **2011-12-05, 1390/09/14**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2011-12-05, 1390/09/14

Registrant information

Name

Haleh Dadgostar

Name of organization / entity

Tehran University of Medical Sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Tehran University of Medical sciences

Expected recruitment start date

2011-08-06, 1390/05/15

Expected recruitment end date

2012-08-05, 1391/05/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the metabolic factors in obese patients' pre and post bariatric surgery after 3 months trial of

aerobic versus strengthening exercises

Public title
Comparison of the metabolic factors in obese patients' pre and post bariatric surgery after 3 months trial of aerobic versus strengthening exercises
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria: bariatric surgery in the 1-3 months ago. Exclusion criteria: 1. Those with heart disease including heart valve disease , ischemic heart disease, uncontrolled symptomatic arrhythmias, cardiovascular hypertrophic myopathy; 2.Patients with high systolic blood pressure ≥200 and high diastolic blood pressure ≥90; 3. Uncontrolled metabolic diseases; 4. neuromuscular, Musculoskeletal and rheumatoid disease that resonance with exercise; 5. Acute pulmonary embolism; 6. Symptomatic chronic heart failure.
Age
From **15 years** old to **65 years** old
Gender
Female

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **90**
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
Tehran University of medical sciences
Street address
Ghods street, Keshavarz Boulevard
City
Tehran
Postal code
1417653761
Approval date
2011-11-19, 1390/08/28
Ethics committee reference number
1762, 130, 90 ,ص

Health conditions studied

1

Description of health condition studied
Morbid obesity
ICD-10 code
E66.8
ICD-10 code description
Morbid obesity

Primary outcomes

1

Description
Fasting Blood sugar
Timepoint
befor surgery-6week after surgery-4.5 month after surgery
Method of measurement
kit in labaratory

2

Description
High density Lipoprotein
Timepoint
befor surgery-6week after surgery-4.5 month after surgery
Method of measurement
kit in labaratory

3

Description
Low Density Lipoprotein
Timepoint
befor surgery-6week after surgery-4.5 month after surgery
Method of measurement
kit in labaratory

4

Description
Triglyceride
Timepoint
befor surgery-6week after surgery-4.5 month after surgery
Method of measurement
kit in labaratory

5

Description
HOMAIR
Timepoint
befor surgery-6week after surgery-4.5 month after surgery
Method of measurement
kit in labaratory

6

Description
Hemoglobin A1C
Timepoint
before surgery, 4-6 weeks after surgery and 4.5 month after surgery and exercise therapy
Method of measurement
kit in labaratory

Secondary outcomes

1

Description
heart rate
Timepoint
before surgery-6week after surgery-4.5 month after surgery
Method of measurement
stethoscope

2

Description
waist circumference
Timepoint
before surgery-6week after surgery-4.5 month after surgery
Method of measurement
in centimeters by Tape

3

Description
Weight
Timepoint
before surgery-6week after surgery-4.5 month after surgery
Method of measurement
in kilograms by Balance

Intervention groups

1

Description
First group: this group will be training aerobic and strength exercise and hand book will be given to all patients for how to do these exercises as well as Pedometer that given for register the amount of physical activity during the week . (conventional therapy)
Category
Lifestyle

2

Description
Group B: In addition to conventional therapy, strength training,two sessions per week for one hour will be doing under the supervision of a sport medicine specialist.
Category
Lifestyle

3

Description
Group III: In addition to conventional therapy, patients of this group will be doing aerobic exercise two one-hour sessions per week under the supervision of a sport medicine specialist.
Category
Lifestyle

Recruitment centers

1

Recruitment center
Name of recruitment center
Obesity clinic of Rasoul Akram Hospital
Full name of responsible person
Sara Kaviani, MD
Street address
Rasoul Akram Hospital, Niaiesh Street, Sattar Khan Ave.
City
Tehran

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice chancellor for research, Tehran University of medical sciences
Full name of responsible person
Dr Akbar Fotoohi
Street address
Ghods street, Keshavarz boulvard
City
Tehran
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Vice chancellor for research, Tehran University of medical sciences
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
Tehran University of Medical Sciences
Full name of responsible person
Haleh Dadgostar, MD
Position
Assistant professor
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