Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

The Effect of 8 Weeks Interval Exercises and Vitamin D Supplementation on Plasma Levels of Dipeptidyl peptidase-4 and retinol binding protein 4 in Overweight Women

Protocol summary

Study aim
The Effect of 8 Weeks Interval Exercises and Vitamin D Supplementation on Plasma Levels of Dipeptidyl peptidase-4 and retinol binding protein 4 in Overweight Women

Design
Clinical work. Simple random Four groups of control / vitamin D supplements / intralum / combined with 40 patients were selected for two months

Settings and conduct
. Anthropometric indices including height, weight, body fat percentage and body mass index were measured with minimum dress and no shoe. The weight of the subjects was measured with a German scale of 0.1 kg precision and their height was measured by tape measure with accuracy of 0.5 cm. The body mass index (BMI) was calculated by dividing the body weight (kg) by height (square meter). The percentage of subjects' fat was measured using the SAEHAN-SH 5020 calipers made in the UK using subcutaneous fat and using the method Three points (three-headed arm, abdomen, and supra) were calculated on the right side of the body after placement in the general equation of Pollack Jackson and to determine the percentage of fat in women.

Participants/Inclusion and exclusion criteria
Requirement to enter healthy participants and not to use vitamin D and physical activity up to six months ago.

Intervention groups
Vitamin D and Tetraethane supplement supplementation

Main outcome variables
dpp4-rbp4

General information

Reason for update

Acronym
Dpp4-Rbp4

IRCT registration information
IRCT registration number: **IRCT20170510033909N3**
Registration date: **2019-05-21, 1398/02/31**
Registration timing: **retrospective**

Last update: **2019-05-21, 1398/02/31**
Update count: **0**

Registration date
2019-05-21, 1398/02/31

Registrant information

Name
فرزانه تقیان

Name of organization / entity
دانشگاه آزاد اسلامی.واحد اصفهان

Country
Iran (Islamic Republic of)

Phone
+98 913 308 0241

Email address
f.taghian@khuisf.ac.ir

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2019-02-28, 1397/12/09

Expected recruitment end date
2019-03-06, 1397/12/15

Actual recruitment start date
2019-03-09, 1397/12/18

Actual recruitment end date
2019-03-15, 1397/12/24

Trial completion date
2019-05-16, 1398/02/26

Scientific title
The Effect of 8 Weeks Interval Exercises and Vitamin D

Supplementation on Plasma Levels of Dipeptidyl peptidase-4 and retinol binding protein 4 in Overweight Women

Public title
The Effect of 8 Weeks Interval Exercises and Vitamin D Supplementation on Plasma Levels of Dipeptidyl peptidase-4 and retinol binding protein 4 in Overweight Women
Purpose
Health service research
Inclusion/Exclusion criteria
Inclusion criteria:
The criteria for entering the study include the absence of any ischemic heart disease, kidney, , non-use of lipid lowering drugs the inability of people to participate in a specific weight loss program the inability of people to participate in a specific physical program woman with over weight 35-45 year old
Exclusion criteria:
Interrupting or not participating in exercises Do not take vitamin D supplements Participant withdrawal
Age
From **35 years** old to **45 years** old
Gender
Female

Phase
3
Groups that have been masked
No information
Sample size
Target sample size: **50**
Actual sample size reached: **36**
Randomization (investigator's opinion)
Not 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
National Ethics Committee for Biomedical Research
Street address
No.3 Baharan ave.Ostad shahriar jonobi st .Robat
City
Esfahan
Province
Isfehan
Postal code
81838-95153
Approval date
2019-02-26, 1397/12/07
Ethics committee reference number
ir.iau.khuisf.rec.1397.259

Health conditions studied

1

Description of health condition studied
over weaight woman
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Dpp4
Timepoint
At the beginning and end of the study
Method of measurement
DPP4 using the biometric group of Australian group kit by ELISA method

2

Description
Rbp4
Timepoint
At the beginning and end of the study
Method of measurement
Rbp4 using the biometric group of Australian group kit by ELISA method

Secondary outcomes

1

Description
Serum insulin concentration
Timepoint
Before the intervention and after eight weeks of study
Method of measurement
, Serum insulin concentration by ELISA method and use of special kit, Monobind Inc., USA) (75 µg / ml micro-unit per ml, intra-group variation coefficient of 6.3%),

2

Description
Serum glucose concentration
Timepoint
Before the intervention and after eight weeks of study
Method of measurement
, Serum glucose concentration was measured by enzymatic calorimetric method (sensitivity of 5 ml / dl and internal variation coefficient of 2.5%)

3

Description
Insulin resistance
Timepoint
Before the intervention and after eight weeks of study
Method of measurement
Insulin resistance was used to evaluate the HOMA-IR homeostasis model by measuring insulin and fasting glucose according to the following formula.Serum glucose level in fasting state (MI / L). Serum insulin level in fasting state (MIU / L). Insulin resistance.5/22

Intervention groups

1

Description
First intervention group: Interval exercise, which includes three sessions per week each session for an eight-week session
Category
Rehabilitation

2

Description
'Intervention Group 2: Vitamin D was consumed with vitamin D capsules with a dose of 50,000 units (manufactured by Zahrawi Company) with lunch for 8 weeks each week.
Category
Treatment - Drugs

3

Description
Intervention group: Interval exercise, which includes three sessions per week each session for an eight-week session Vitamin D was consumed with vitamin D capsules with a dose of 50,000 units (manufactured by Zahrawi Company) with lunch for 8 weeks each week.
Category
Treatment - Other

4

Description
Control group: Control group: did not take supplements and did not exercise, but they knew the necessary explanation for the study
Category
Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Several Clinic OF Diet Therapy in Isfahan
Full name of responsible person
Hajar Bahador
Street address
Esfahan Hospital ,Ordibehesht Ave SheikhBahaei St
City
Esfahan
Province
Isfehan
Postal code
8183895183
Phone
+98 31 3233 0018
Email
A.h.bahador2017@gmail.com

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
The University of Khorasgan Esfahan
Full name of responsible person
Dr .Farzaneh Thaghian
Street address
Khorasgan University .Arghavanie St. Esfahan
City
Esfahan
Province
Isfehan
Postal code
81551-39998
Phone
+98 31 3500 2352
Email
f_taghian@yahoo.com
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
The University of Khorasgan Esfahan
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
Islamic Azad University
Full name of responsible person
Hajar Bahador
Position
Clerk

Latest degree
Bachelor
Other areas of specialty/work
Nutrition
Street address
NO3.Baharan Ave,Ostad Shahriar St, Robat St.
City
Esfahan
Province
Isfehan
Postal code
8183895153
Phone
+98 31 3345 7663
Email
A.h.bahador2017@gmail.com

Person responsible for scientific inquiries

Contact
Name of organization / entity
Islamic Azad University
Full name of responsible person
Hajar Bahador
Position
Student
Latest degree
Master
Other areas of specialty/work
Nutrition
Street address
No.3 Baharan Ave.Ostad Shahriar Jonobi St .Robat
City
Esfahan
Province
Isfehan
Postal code
8183895183
Phone
+98 31 3345 7663
Email
A.h.bahador2017@gmail.com

Person responsible for updating data

Contact
Name of organization / entity
Islamic Azad University
Full name of responsible person
Hajar Bahador
Position
Student
Latest degree
Master
Other areas of specialty/work
Nutrition
Street address
NO3.Baharan Ave,Ostad Shahriar St, Robat St.
City
Esfahan
Province
Isfehan
Postal code
81838-95153
Phone
+98 31 3345 7663
Email
A.h.bahador2017@gmail.com

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