Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

Effect of sesame seeds consumption on metabolic syndrome components, serum level of Angiotensin II and Adiponectin in women with metabolic syndrome

Protocol summary

Summary

The aim of this randomized clinical trial is to determine the effects of sesame seed consumption on metabolic syndrome components, serum level of Angiotensin II and Adiponectin in women with metabolic syndrome. Fifty patients aged between 30 to 65 years old are assigned randomly into two groups. All participants have healthy diet during 6-weeks duration of study. Subjects in intervention group consume 50 gram sesame seed powder for 6 weeks. Anthropometric and blood pressure measurements, 3 day 24h dietary recalls and fasting blood samples are collected at the beginning and at the end of study. Fasting blood sugar, lipid profile, Angiotensin II and Adiponectin are measured. The participants are asked not to change their medicine and activity during the study and refrain from sesame and their products while on the study

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014051814680N2**
Registration date: **2014-06-10, 1393/03/20**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2014-06-10, 1393/03/20

Registrant information

Name

Farideh Shishehbor

Name of organization / entity

Ahvaz Jundishapur University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 61 3373 8430

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Recruitment status

Recruitment complete

Funding source

Ahvaz Joundishapour University of Medical Science

Expected recruitment start date

2014-02-15, 1392/11/26

Expected recruitment end date

2014-03-11, 1392/12/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of sesame seeds consumption on metabolic syndrome components, serum level of Angiotensin II and Adiponectin in women with metabolic syndrome

Public title

Effect of sesame on metabolic syndrome

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: adult woman over 30 years old, subjects having 3 or more of the criteria for diagnosis of metabolic syndrome (waist circumference 80cm and more, triglycerides 150 mg/dl and more, High Density Lipoprotein Cholesterol 50mg/dl and more, fasting blood sugar 100 mg/dl and more , blood pressure 130/85mmHg and more.Exclusion criteria: history of alcohol abuse and drug dependence; hormonal therapy; acute or chronic

inflammatory; history of cancer; use of multivitamin-mineral and antioxidant supplements 6 months prior to the study; a restrictive diet or weight change 5 kg and more during 3 months prior to study; pregnancy and lactating; and sesame allergy.

Age
From **30 years** old to **65 years** old

Gender
Female

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **50**

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
Ethics committee of Ahvaz Joundishapour University of Medical Science

Street address
Ahvaz Joundishapour University of Medical Science

City
ahvaz

Postal code

Approval date
2014-02-24, 1392/12/05

Ethics committee reference number
NRC-9214

Health conditions studied

1

Description of health condition studied
Metabolic Syndrome

ICD-10 code
E88

ICD-10 code description
Other metabolic disorders

Primary outcomes

1

Description
Systolic and diastolic blood pressure

Timepoint
baseline and after 6 weeks

Method of measurement
Aneroid sphygmomanometer

2

Description
Fasting blood sugar

Timepoint
baseline and after 6 weeks

Method of measurement
Spectrophotometry

3

Description
Total Cholesterol

Timepoint
baseline and after 6 weeks

Method of measurement
Spectrophotometry

4

Description
Triglyceride

Timepoint
baseline and after 6 weeks

Method of measurement
Spectrophotometry

5

Description
Low Density Lipoprotein Cholesterol

Timepoint
baseline and after 6 weeks

Method of measurement
Friedewald Formula

6

Description
High Density Lipoprotein Cholesterol

Timepoint
baseline and after 6 weeks

Method of measurement
Spectrophotometry

7

Description
Waist circumference

Timepoint
baseline and after 6 weeks

Method of measurement

Midway between the lower rib margin and the iliac crest

8

Description
Angiotensin II
Timepoint
baseline and after 6 weeks
Method of measurement
ELIZA

9

Description
Adiponectin
Timepoint
baseline and after 6 weeks
Method of measurement
ELIZA

Secondary outcomes

1

Description
Dietary Factors
Timepoint
during duration of study
Method of measurement
3-day 24h dietary recalls

2

Description
Body Mass Index
Timepoint
Baseline and after 6 weeks
Method of measurement
Formula

3

Description
Insuline
Timepoint
Baseline and after 6 weeks
Method of measurement
ELIZA

Intervention groups

1

Description
Intervention Group: having healthy diet and daily 50 g sesame seed powder consumption for 6 weeks
Category
Lifestyle

2

Description
Control Group: having healthy diet
Category
Lifestyle

Recruitment centers

1

Recruitment center
Name of recruitment center
Golestan Hospital
Full name of responsible person
Street address
golestan Avn
City
ahvaz

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice Chancellor for research of Ahvaz Joundishapour University of Medical Science
Full name of responsible person
Dr Farideh Shishehbor
Street address
Ahvaz Joundishapour University of Medical Science
City
ahvaz
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 of Ahvaz Joundishapour University of Medical Science
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
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Para medicine Faculty, Ahvaz Joundishapour University of Medical Science
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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