Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Sep 2026

Assessment of the effect of dill powder on gastrointestinal symptoms, glycemic control, lipid profile, serum levels of oxidant and Inflammatory markers in type 2 diabetic patients

Protocol summary

Study aim

Determination of the effect of dill powder on gastrointestinal symptoms, glycemic control, lipid profile, serum levels of oxidant and Inflammatory markers in type 2 diabetic patients

Design

This is a randomized Double-blinded clinical trial with two parallel groups in Phase 3. In this study 48 patients with type 2 diabetes referring to specialized clinic of Golestan Hospital and Then, patients were randomly divided into two control and intervention groups.

Settings and conduct

This study will be conducted at the specialized clinic of Golestan Hospital in ahvaz.In this study patients would be randomly allocated to the supplement or placebo groups using random number tables. neither the patients nor administrator of the treatment know which capsules are being received. All patients will provide 10 ml fasting venous blood samples at the beginning and at the end of the study.At the beginning and the end of the study gastrointestinal symptoms, fasting glucose, insulin, serum fructosamine, lipid profile, and serum levels of total antioxidant capacity, malondialdehyde and hs- CRP will be detected in all patients.

Participants/Inclusion and exclusion criteria

Inclusion criteria:Patients with type 2 diabetic Body mass index between 25-35 Age between 30-60 years;Exclusion criteria: Having other endocrine disorders, cardiovascular diseases and kidney diseases ,consumption vitamin , herbal, mineral or, antioxidants supplements in the last three months

Intervention groups

women with type 2 diabetes who receive 3 capsules of one gram of dill powder daily for 8 weeks

Main outcome variables

gastrointestinal symptoms, fasting glucose, insulin, serum fructosamine, lipid profile, and serum levels of total antioxidant capacity, malondialdehyde and hs- CRP

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20120704010181N12**
Registration date: **2018-05-12, 1397/02/22**
Registration timing: **retrospective**

Last update: **2018-05-12, 1397/02/22**
Update count: **0**

Registration date

2018-05-12, 1397/02/22

Registrant information

Name

Fatemeh Heidari

Name of organization / entity

Ahvaz Jundishapur University of Medical Sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-01-20, 1396/10/30

Expected recruitment end date

2018-02-19, 1396/11/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Assessment of the effect of dill powder on gastrointestinal symptoms, glycemic control, lipid profile, serum levels of oxidant and Inflammatory markers in type 2 diabetic patients

Public title

The effect of dill powder on the treatment of type 2 diabetic patients

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Patients with type 2 diabetic Body mass index between 25-35 Age between 30-60 years Desire to collaborate on the research project

Exclusion criteria:

Having other endocrine diseases, cardiovascular, liver, kidney, thyroid Taking steroids or hormone medications, consumption vitamin , herbal, mineral or, antioxidants supplements in the last three months Having physical activity Weight loss diet pregnancy lactation

Age

From **30 years** old to **60 years** old

Gender

Both

Phase

3

Groups that have been masked

- Participant
- Investigator

Sample size

Target sample size: **48**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple (assigning a person to a particular group completely randomly) using a random number table

Blinding (investigator's opinion)

Double blinded

Blinding description

In this double blind study neither the patients nor researcher the treatment know which capsules are being received. In fact, a third person who knows the contents of the capsules distributes supplements among the participants. The shape, size and color of the capsules are similar in both groups, while their content is different.

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Ahwaz University of Medical Sciences

Street address

Golestan Highway

City

ahvaz

Province

Khouzestan

Postal code

61357-15794

Approval date

2017-11-20, 1396/08/29

Ethics committee reference number

IR.AJUMS.REC.1396.623

Health conditions studied

1

Description of health condition studied

diabetes

ICD-10 code

,E10-E14

ICD-10 code description

Diabetes mellitus

Primary outcomes

1

Description

fasting Glucose

Timepoint

baseline, 8 weeks after intervention period

Method of measurement

Fasting serum Glucose concentration in mg/dl by kit

2

Description

Serum levels of insulin

Timepoint

baseline, 8 weeks after intervention period

Method of measurement

Fasting serum Insulin concentration in µU/ml by kit

3

Description

Serum Fructosamine

Timepoint

baseline, 8 weeks after intervention period

Method of measurement

Fasting serum Fructosamine concentration in µmol/L by kit

4

Description
Serum cholestrol
Timepoint
baseline, 8 weeks after intervention period
Method of measurement
Fasting Serum cholestrol concentration in mg/dl by kit

5

Description
LDL Cholestrol
Timepoint
baseline, 8 weeks after intervention period
Method of measurement
Fasting Serum HDL Cholestrol concentration in mg/dl, calculating by Friedewald formula

6

Description
HDL Cholestrol
Timepoint
baseline, 8 weeks after intervention period
Method of measurement
Fasting Serum HDL Cholestrol concentration in mg/dl by kit

7

Description
Serum Teriglycerid
Timepoint
baseline, 8 weeks after intervention period
Method of measurement
Fasting serum Teriglycerid concentration in mg/dl by kit

8

Description
hs- CRP
Timepoint
baseline, 8 weeks after intervention period
Method of measurement
serum hs- CRP concentration in mg/L by kit

9

Description
Serum malondialdehyde
Timepoint
baseline, 8 weeks after intervention period
Method of measurement
Fasting serum malondialdehyde concentration in µmol/ml by kit

10

Description
Total Antioxidant Capacity
Timepoint
baseline, 8 weeks after intervention period
Method of measurement
Fasting serum Total Antioxidant Capacity in U/ml by kit

11

Description
Gastrointestinal symptoms
Timepoint
baseline, 8 weeks after intervention period
Method of measurement
Using the questionnaire by percentage

Secondary outcomes

1

Description
Body Mass Index
Timepoint
baseline, 8 weeks after intervention period
Method of measurement
body weight / hight square (kg/m2)

Intervention groups

1

Description
Dill powder, 1 gram , three capsule per day for 8 weeks
Category
Treatment - Other

2

Description
placebo, 1 gram , three capsule per day for 8 weeks
Category
Treatment - Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Specialized clinic of Golestan Hospital
Full name of responsible person
Mihammad Ali Sheikhi
Street address
Golestan Highway
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Ahvaz University of Medical Sciences
Full name of responsible person
Mohammad Badavi
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badavi-m@ajums.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Ahvaz University of Medical Sciences
Proportion provided by this source
40
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
Ahvaz University of Medical Sciences
Full name of responsible person
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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

it is not the objective of this study.

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available