

Clinical Trial Protocol

Iranian Registry of Clinical Trials

23 Feb 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

Khuzestan

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 $\mu\text{U/ml}$ by kit

3

Description

Serum Fructosamine

Timepoint

baseline, 8 weeks after intervention period

Method of measurement

Fasting serum Fructosamine concentration in $\mu\text{mol/L}$ 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 $\mu\text{mol/ml}$ 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/m^2)

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

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AHVAZ

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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

Golnaz Amoochi Froushani

Position

Master of Student

Latest degree

Bachelor

Other areas of specialty/work

Nutrition

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Person responsible for scientific inquiries

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Nutrition

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Person responsible for updating data

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Master of student

Latest degree

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Other areas of specialty/work

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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