Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

The effect of sumac powder on total antioxidant capacity (TAC), malondialdehyde (MDA), high sensitivity c-reactive protein (hsCRP),glycemic status, apolipoprotein B, apolipoprotein A-I and paraoxonase in type 2 diabetic patients

Protocol summary

Summary
This study examined The effect of sumac on glycemic status, apolipoprotein B, apolipoprotein A-I, total antioxidant capacity (TAC), malondialdehyde (MDA), high sensitivity c-reactive protein (hsCRP), and paraoxonase in type 2 diabetic patians.In this placebo-controlled double-blind randomized clinical trial, 66 patients with diabetes who qualify and are enrolled into the study.Patients in case group are receiving about 3 grams of powdered sumac daily for 3 months and control patients are receiving 3 glactose powder daily for 3 months.After the 3-month intervention period, glycemic status, apolipoprotein B, apolipoprotein A-I, total antioxidant capacity (TAC), malondialdehyde (MDA), high sensitivity c-reactive protein (hsCRP), and paraoxonase 2 groups will be compared.

General information

Acronym

IRCT registration information
IRCT registration number: **IRCT201201172709N24**
Registration date: **2012-03-03, 1390/12/13**
Registration timing: **prospective**

Last update:
Update count: **0**

Registration date
2012-03-03, 1390/12/13

Registrant information

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Farzad Shidfar

Name of organization / entity
Iran University of Medical Sciences

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Iran (Islamic Republic of)

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Recruitment status
Recruitment complete

Funding source
Vice-chancellor for Research, Tehran University of Medical Sciences

Expected recruitment start date
2012-04-20, 1391/02/01

Expected recruitment end date
2012-08-21, 1391/05/31

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
The effect of sumac powder on total antioxidant capacity (TAC), malondialdehyde (MDA), high sensitivity c-reactive protein (hsCRP),glycemic status, apolipoprotein B, apolipoprotein A-I and paraoxonase in type 2 diabetic patients

Public title
The effect of sumac powder in type 2 diabetic patients

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria : Non-insulin dependent diabetic patients with type 2 diabetes that is diagnosed by a physician, Endocrinologist ; Diabetes duration of at least

2 year ; 20-60 ages ; Hb A1c :6-8% ; Lack of antioxidant supplements such as selenium, zinc, beta carotene, and ... At least 3 months before the study ; not smoking and alcohol ; a willingness to cooperate with exclusion criteria : Patient unwillingness to continue with the plan ; changes in type or dose of medication ; Changes in diet or physical activity every day ; taking any antioxidant supplements ; taking less than 80% of supplements given to patients at baseline (the compaliance lower than %80) ; Recent receive insulin ; pregnancy and lactation ; renal , hepatic , thyroid diseases and anemia ; hypersensitivity to the drug

Age
From **20 years** old to **60 years** old
Gender
Both

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **66**
Randomization (investigator's opinion)
Randomized
Randomization description
Blinding (investigator's opinion)
Double blinded
Blinding description
Placebo
Used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Vive-chancellor for Research, Tehran University of Medical Sciences
Street address
Keshavarz Bld - intersection of Qods
City
Tehran
Postal code
Approval date
2011-09-19, 1390/06/28
Ethics committee reference number
ط م/26پ/852

Health conditions studied

1

Description of health condition studied
type 2 diabetese melitus
ICD-10 code
E11
ICD-10 code description
Non-insulin-dependent diabetes mellitus

Primary outcomes

1

Description
fasting blood sugar
Timepoint
before & after intervention (3 months later)
Method of measurement
glucose oxidase method

2

Description
Hb A1C
Timepoint
before & after intervention (3 months later)
Method of measurement
colorimetry

3

Description
insulin
Timepoint
before & after intervention (3 months later)
Method of measurement
IRMA

4

Description
insulin resistance
Timepoint
before & after intervention (3 months later)
Method of measurement
insulin × glucose / 22.5

5

Description
Apo A
Timepoint
before & after intervention (3 months later)
Method of measurement
immunotorbidometry

6

Description
Apo B
Timepoint
before & after intervention (3 months later)
Method of measurement
immunotorbidometry

7

Description
Apo B/Apo A-I
Timepoint
before & after intervention (3 months later)
Method of measurement
ratio

8

Description
high-sensitivity C-Reactive Protein
Timepoint
before & after intervention (3 months later)
Method of measurement
ELISA kitt

9

Description
total antioxidant capacity
Timepoint
before & after intervention (3 months later)
Method of measurement
colorimetry (FRAP)

10

Description
malondealdehyde
Timepoint
before & after intervention (3 months later)
Method of measurement
colorimetry

11

Description
paraoxonase
Timepoint
before & after intervention (3 months later)
Method of measurement
colorimetry

Secondary outcomes

1

Description
-
Timepoint
-
Method of measurement
-

Intervention groups

1

Description
intervention group : sumac supplement, 3 gram per day and during 3 months
Category
Treatment - Drugs

2

Description
control group : lactose supplement, 2 grams per day and during 3 months
Category
Treatment - Drugs

Recruitment centers

1

Recruitment center
Name of recruitment center
Iran Diabetes Association
Full name of responsible person
Dr Asaddollah Rajab
Street address
Number 46, Ramin Malakooti Street, Patris Lomomba Street, Sattar khan Street
City
Tehran

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vive-chancellor for Research, Tehran University of Medical Sciences
Full name of responsible person
Dr Seyyed Abbas Motevalian
Street address
intersection of Qods Street, Keshavarz Bld
City
Tehran
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Vive-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
School of Public Health of Tehran University of Medical Sciences

Full name of responsible person
Dr Farzad Shidfar

Position
Professor Assistant/nutrition PhD

Other areas of specialty/work

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Person responsible for scientific inquiries

Contact

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Full name of responsible person
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Other areas of specialty/work

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Person responsible for updating data

Contact

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