Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Investigating relationship between dietary intake of frequently consumed dried fruits in Iran with urinary excretion of 5-Hydroxymethylfurfuraldehyde, 5-hydroxymethyl-2-furoic acid, 8-Oxo-2'-deoxyguanosine

Protocol summary

Summary

Aim of the current study is to investigate relationship between dietary intake of frequently consumed dried fruits in Iran with urinary excretion of 5-Hydroxymethylfurfuraldehyde (HMF), 5-hydroxymethyl-2-furoic acid(HMFA) and 8-Oxo-2'-deoxyguanosine(8-OHdG) among healthy volunteers. The dried fruits selected are currant, apricot, plum, date and fruit bread. The study will be continued for five consecutive weeks. Total of 75 healthy male and female adults aging between 20 and 30 will be invited to participate in the study. Those with any metabolic disorders, autoimmune, chronic renal failure, cancer, neurologic disorders and smokers will be excluded. After an overnight fasting, the participants will be requested to consume100 grams of each dried fruits for five weeks. Two urine samples will be collected from each participant before and 5 five hours after consumption of the dried fruits and will be subjected for HPLC analysis of HMF and HMFA. Also levels of 8-OHdG will be determined using ELISA.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014090311288N8**
Registration date: **2014-10-04, 1393/07/12**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2014-10-04, 1393/07/12

Registrant information

Name

Mohammad Alizadeh

Name of organization / entity

Tabriz University of Medical Sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Deputy for research affairs, Tabriz University of Medical Sciences

Expected recruitment start date

2014-02-20, 1392/12/01

Expected recruitment end date

2014-05-22, 1393/03/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Investigating relationship between dietary intake of frequently consumed dried fruits in Iran with urinary excretion of 5- Hydroxymethylfurfuraldehyde, 5-hydroxymethyl-2-furoic acid, 8-Oxo-2'-deoxyguanosine

Public title

Food safety issues in dried fruits

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion Criteria: agreement to participate in the study;subjects with 20-30 years old,No history of food allergies,BMI equal 18.5-25 kg/m2. Exclusion Criteria:any metabolic disorder,autoimmune,chronic,renal failure,cancer ,neurologic disorders,smoking,alcoholics.

Age

From **20 years** old to **30 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **75**

Randomization (investigator's opinion)

N/A

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Commitee of Tabriz University of Medical Sciences

Street address

Vice – Chancellor for Research No 2 Central Building, Tabriz University of Medical Sciences,University Daneshgah St, PO Box :51664,

City

Tabriz

Postal code

5166614711

Approval date

2014-01-25, 1392/11/05

Ethics committee reference number

9390

Health conditions studied

1

Description of health condition studied

Cancer

ICD-10 code

C15-C26

ICD-10 code description

Malignant neoplasms of digestive organs

Primary outcomes

1

Description

5- Hydroxymethylfurfuraldehyde

Timepoint

before and 5 hours after consumption of dried fruits

Method of measurement

HPLC

2

Description

5-hydroxymethyl-2-furoic acid

Timepoint

five hours after consuption of dried fruits

Method of measurement

HPLC

3

Description

8-Oxo-2'-deoxyguanosine

Timepoint

before and 5 hours after consumption of dried fruits

Method of measurement

special kits

Secondary outcomes

empty

Intervention groups

1

Description

consumption of 100 g date in the breakfast

Category

Other

2

Description

consumption of 100 g apricot in the breakfast

Category

Other

3

Description

consumption of 100 g currant in the breakfast

Category

Other

4

Description

consumption of 100 g plum in the breakfast

Category

Other

5

Description
consumption of 100 g fruit bread in the breakfast
Category
Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Faculty of Nutrition,Tabriz University of Medical Sciences
Full name of responsible person
Mohammad Alizadeh
Street address
Department Of Nutrition,Faculty of Nutrition , Tabriz University of Medical Sciences,Ghol-Ghasht st.
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Deputy for research affairs,Tabriz University of Medical Sciences
Full name of responsible person
Mohammad-Reza Rashidi
Street address
Med Chem Dept, School of Pharmacy, Tabriz University of Medical Sciences.
City
Tabriz
Grant name
بودجه دانشگاه
Grant code / Reference number
Not Applicable
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Deputy for research affairs,Tabriz 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

Person responsible for scientific inquiries

Contact
Name of organization / entity
Faculty of Nutrition
Full name of responsible person
Mohammad Alizadeh
Position
Assistant Professor of Nutrition, Ph.D., M.D
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