Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

The effect of tomato juice on concentration of antioxidant enzymes and total antioxidant capacity of blood in over-weight and obese female student

Protocol summary

Summary

This study is clinical trial to determine effect of tomato juice on concentration of antioxidant enzymes and total antioxidant capacity of blood in over-weight and obese female. In this study 80 female with BMI>27 and Inclusion criteria divided into intervention and control groups with40 people Randomly.Participants for a period of twenty days daily, respectively, will receive 500 ml of tomato juice and water. For all participants after determine the body mass index, food records was 24 hours (two working days and a holiday) and food frequency questionnaire to assess dietary habits can be filled. Then bled and targeted intervention is performed. At the end of intervention is re-sampling. Determine The blood concentrations of antioxidant enzymes (superoxid dismutas, catalase, glutathione peroxidase) and total antioxidant capacity of blood, measured at the beginning and end of the study are compared. Thus the effect of tomato juice consumption on antioxidant enzymes and total antioxidant capacity of blood concentrations in overweight and obese women will be determined

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2012062610114N1**
Registration date: **2012-07-23, 1391/05/02**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2012-07-23, 1391/05/02

Registrant information

Name

Dr.Soltanali Mahboob

Name of organization / entity

Tabriz University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 41 1335 2292

Email address

mahbooba@tbzmed.ac.ir

Recruitment status

Recruitment complete

Funding source

Center of Nutrition Research, Tabriz University of Medical Sciences

Expected recruitment start date

2012-07-01, 1391/04/11

Expected recruitment end date

2012-10-02, 1391/07/11

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of tomato juice on concentration of antioxidant enzymes and total antioxidant capacity of blood in over-weight and obese female student

Public title

The effect of tomato juice on concentration of antioxidant enzymes and total antioxidant capacity of blood in over-weight and obese female student

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: female student with overweight or

obese (BMI> 27 kg/m2) at age 20 to 30; absence of inflammatory diseases such as diabetes, cardiovascular disease, multiple sclerosis, rheumatoid arthritis, cancer , inflammatory diseases, gastrointestinal and respiratory (eg asthma, allergies) and hypertension; non-smoking; not taking any special medication (especially anti-inflammatory drugs like aspirin); lack of vitamin and mineral supplements and tend to daily consumption of tomato juice. Exclusion criteria: not regular daily consumption of tomato juice and fail using recommended daily consumption size.

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

Gender
Female

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **80**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics Committee of Tabriz University of Medical Sciences

Street address
St. Tabriz, Attar Street Golgasht

City
Tabrize

Postal code

Approval date
2012-05-21, 1391/03/01

Ethics committee reference number
9136

Health conditions studied

1

Description of health condition studied
Obesity

ICD-10 code
E66.0

ICD-10 code description
Obesity due to excess calories

Primary outcomes

1

Description
Determine of blood antioxidant enzymes (superoxide dismutase, catalase, Glvtatyvnpraksydaz) in both groups

Timepoint
Beginning and end of intervention in both groups

Method of measurement
Spectrophotometry and ELISA

Secondary outcomes

1

Description
Determination of total caoacity antioxidant of blood

Timepoint
Beginning and end of intervention in both groups

Method of measurement
Spectrophotometry and ELISA

Intervention groups

1

Description
Daily consumption of 500 ml of tomato juice 20 days at the Intervention group

Category
Prevention

2

Description
Daily consumption of 500 ml of water 20 days at the Control group

Category
Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center
Tehran University and their dormitories

Full name of responsible person
Zohreh pourahmadi

Street address

City
tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Center of Nutrition Research, Tabriz University of Medical Sciences

Full name of responsible person
Dr. AR ostadrahimi

Street address
St. Tabriz, Attar Street Golgasht Health and Nutrition Building,Center of Nutritional Science Research

City
Tabrize

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?
Yes

Title of funding source
Center of Nutrition Research, 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

Name of organization / entity
Tabriz University of Medical Sciences

Full name of responsible person
Dr.Soltanali Mahboob

Position
PhD Nutrition / Executive

Other areas of specialty/work

Street address
St. Attar, St. Golgasht, Tabriz University of Medical Sciences, Health and Nutrition Building

City
Tabriz

Postal code

Phone
+98 41 1334 1113

Fax

Email
Dr_mahboob@hotmail.com

Web page address

Person responsible for scientific inquiries

Contact

Name of organization / entity
Tabriz University of Medical , Health and Nutrition Building

Full name of responsible person
Dr.Soltanali Mahboob

Position
PhD Nutrition / Executive

Other areas of specialty/work

Street address
St. Attar, St. Golgasht, Tabriz University of Medical Sciences, Health and Nutrition Building

City
Tabriz

Postal code

Phone
+98 41 1333 4078

Fax

Email
Dr_mahboob@hotmail.com

Web page address

Person responsible for updating data

Contact

Name of organization / entity
Tabriz University of Medical , Health and Nutrition Building

Full name of responsible person
Zohreh pourahmadi

Position
MS.student of Health Sciences in Nutrition

Other areas of specialty/work

Street address
St. Attar, St. Golgasht, Tabriz University of Medical Sciences, Health and Nutrition Building

City
Tabriz

Postal code

Phone
0

Fax

Email
pourahmadiz@yahoo.com

Web page address

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