

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 May 2026

Effect of vitamin C supplementation on blood pressure levels in patients with type 2 diabetes

Protocol summary

Summary

The current study is a double-blind clinical trial in which 84 patients with type 2 diabetes and hypertension are selected as a sample in Diabetes Research Center of University. According to randomized permuted block method, they are randomly divided into two groups namely, intervention and control. Vitamin C supplement with a dose of 250 mg and the placebo are given to intervention and control group respectively, each of one 4 times a day during 6 weeks. Their blood pressure are recorded at the beginning and the end of study. People who are under treatment regimen or have kidney stone will be excluded from the study. In the end of the study, the blood pressure of two groups will be compared.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014093019342N1**

Registration date: **2014-10-22, 1393/07/30**

Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2014-10-22, 1393/07/30

Registrant information

Name

Zainab Shateri

Name of organization / entity

Tehran University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

Email address

zshateri@razi.tums.ac.ir

Recruitment status

Recruitment complete

Funding source

The cost of this research are supplied by Tehran University of Medical Sciences.

Expected recruitment start date

2014-11-22, 1393/09/01

Expected recruitment end date

2015-12-21, 1394/09/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of vitamin C supplementation on blood pressure levels in patients with type 2 diabetes

Public title

Effect of vitamin C on blood pressure control in diabetic patients

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: patients with diabetes and hypertension; overweight; more than 30 years of age and under 60 years of age; not smoking and alcohol; non kidney stones; non use of oral contraceptives pills in women; fasting blood sugar of 126 to 250. Exclusion criteria: changes in medications; non-use of prescribed supplements; Unwillingness to engage in continuing study; the use of a specific treatment regimen

Age

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

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 98

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

Tehran University of Medical Sciences

Street address

Central Organization of Tehran University of Medical Sciences, corner of Qods Street, Keshavarz Blvd

City

Tehran

Postal code

Approval date

2014-10-04, 1393/07/12

Ethics committee reference number

125918

Health conditions studied

1

Description of health condition studied

Hypertension in diabetes

ICD-10 code

I15

ICD-10 code description

secondary hypertension

Primary outcomes

1

Description

blood pressure

Timepoint

on the first intervention and on the forty-second day

Method of measurement

Mercury Sphygmomanometer

Secondary outcomes

1

Description

fasting blood sugar

Timepoint

At the beginning and the end of study

Method of measurement

Method of Glucose Oxidase

Intervention groups

1

Description

Intervention group: chewable vitamin C supplement at a dose of 250 mg 4 times a day during 6 weeks

Category

Treatment - Drugs

2

Description

Control group: chewable placebo of vitamin C 4 times a day for 6 weeks

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Diabetes Research Center of Tehran University of Medical Sciences

Full name of responsible person

Zainab Shateri

Street address

Diabetes and Metabolic Diseases Clinic, Heyat corner, West Shahrivar Street, below the Heart Center, North Kargar Street

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Tehran University of Medical Sciences

Full name of responsible person

Haniye Rostamabadi

Street address

Central Organization of Tehran University of Medical Sciences, corner of Qods Street, Keshavarz Blvd

City

Tehran

Grant name

Grant code / Reference number
Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source
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
Tehran University of Medical Sciences

Full name of responsible person
Dr. Seyed Ali Keshavarz

Position
PhD in Nutrition Sciences / Master

Other areas of specialty/work

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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