Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

The effect of cinnamon supplementation on blood pressure in patients with stage 1 hypertension

Protocol summary

Study aim
Effect of oral cinnamon supplementation on blood pressure in individuals with stage 1 hypertension

Design
A randomized, placebo-controlled, double-blind clinical trial

Settings and conduct
In this double-blind clinical trial study, new hypertensive patients referred to Imam Reza Hospital Clinic, Mashhad, Iran, with systolic pressure between 130-139 mmhg and or diastolic blood pressure 80-89 mmhg without receiving any anti hypertensive drug, are selected and confirmed by 24-hour Holter monitoring of the blood pressure. Patients are randomly divided into two groups of cinnamon and placebo.Patients in the intervention group are given three capsules of 500 mg cinnamon daily. Written informed consent is obtained from these patients. Lipid profile, fasting blood sugar and systolic and diastolic blood pressure are measured at baseline and 90 days after the start of the trial (end of the study). At the end of the study, patients will be re-tested under 24-hour blood pressure monitoring.

Participants/Inclusion and exclusion criteria
Inclusion criteria: Individuals of 40-79 years old, having systolic blood pressure of 139-130 mmhg and or diastolic blood pressure 80-89 mmhg (as measured in the office and confirmed by 24-hour Holter monitoring of the blood pressure).Exclusion criteria: presence of end organ damage during the last 6 months, secondary hypertension, pregnancy and lactation, patients receiving any type of antihypertensive medication.

Intervention groups
Patients with STAGE 1 hypertension

Main outcome variables
Systolic blood pressure Diastolic blood pressure BMI Lepid profile Fasting sugar

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20191204045605N1**
Registration date: **2019-12-27, 1398/10/06**
Registration timing: **registered_while_recruiting**

Last update: **2019-12-27, 1398/10/06**
Update count: **0**

Registration date
2019-12-27, 1398/10/06

Registrant information

Name
Alireza Abdollahimoghadam

Name of organization / entity

Country
Iran (Islamic Republic of)

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+98 51 3802 2000

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abdollahiai@mums.ac.ir

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2019-02-04, 1397/11/15

Expected recruitment end date
2020-02-20, 1398/12/01

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title

The effect of cinnamon supplementation on blood pressure in patients with stage 1 hypertension

Public title
The effect of cinnamon supplementation on blood pressure in patients with stage1 hypertension
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Patients who are a new case of systolic hypertension (139-130 mmhg) and or diastolic hypertension (89-80 mmhg) being 40-79 years old 10-year cardiovascular risk less than 10%
Exclusion criteria:
Symptoms of end organ damage arbitrary discontinuation of medication, secondary causes of hypertension, pregnancy and lactation patients receiving any type of antihypertensive medication failure to cooperate till the end of the study complications of cinnamon diabetes
Age
From **40 years** old to **79 years** old
Gender
Both

Phase
3
Groups that have been masked

- Participant
- Care provider

Sample size
Target sample size: **40**
Randomization (investigator's opinion)
Randomized
Randomization description
Using random number extraction software, a list of number is obtained; based on the random-numbers list, participants are divided into two groups to receive either placebo or cinnamon.
Blinding (investigator's opinion)
Double blinded
Blinding description
Cinnamon and placebo will be purchased and given to the research unit. Both containers of cinnamon and placebo are quite similar in appearance and will be labeled as A or B.
Placebo
Used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Mashhad University of Medical Sciences
Street address
Daneshgah
City
Mashhad
Province
Razavi Khorasan
Postal code
9179943835
Approval date
2018-11-04, 1397/08/13
Ethics committee reference number
IR.MUMS.MEDICAL.REC.1397.577

Health conditions studied

1

Description of health condition studied
HYPERTENSION
ICD-10 code
I10
ICD-10 code description
Essential (primary) hypertension

Primary outcomes

1

Description
HYPERTENSION
Timepoint
At baseline and 90 days later
Method of measurement
24-hour blood pressure monitoring using Holter

Secondary outcomes

1

Description
Fasting blood sugar
Timepoint
The first day of study and 90days after the start
Method of measurement
mg/dl

2

Description
Body max index
Timepoint
The first day of study and 90days after the start
Method of measurement
Kg/m2

3

Description
lipid profile

Timepoint
The first day of study and 90days after the start
Method of measurement
mg/ dl

Intervention groups

1

Description
500 mg Cinnamon Capsule 3 times daily for 90 days
Category
Treatment - Drugs

2

Description
Control group: 500 mg placebo capsule 3 times daily for 90 days
Category
Treatment - Drugs

Recruitment centers

1

Recruitment center
Name of recruitment center
Emam Reza Hospital
Full name of responsible person
Alireza Abdollahi Moghadam
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Emam Reza Hospital ,Emam Reza Squre ,Ebne-Sina Street ,Mashhad ,Iran
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Mashhad University of Medical Sciences
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Cardiology Department ,Imam Reza Hospital ,Imam Reza Square ,Ebne-Sina Street , Mashhad , Iran
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Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Mashhad University of Medical Sciences
Proportion provided by this source
100
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
Mashhad University of Medical Sciences
Full name of responsible person
Fatemeh Shirzad Shahraki
Position
Cardiology Resident
Latest degree
Medical doctor
Other areas of specialty/work
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Person responsible for scientific inquiries

Contact
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Full name of responsible person
Alireza Abdollah Moghadam
Position
Cardiologist
Latest degree

Specialist

Other areas of specialty/work

Cardiology

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Person responsible for updating data

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Full name of responsible person

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Position

Cardiology Resident

Latest degree

Medical doctor

Other areas of specialty/work

Medical Education

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Web page address

Sharing plan

Deidentified Individual Participant Data Set (IPD)

Undecided - It is not yet known if there will be a plan to make this available

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