

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Effect of garlic and lemon juice mixture on lipid profile and some cardiovascular risk factors in people 30-60 years old with hyperlipidemia.

Protocol summary

Summary

According to current knowledge, several studies has been conducted separately concerning the relationship between garlic and lemon juice in reducing inflammatory biomarkers and lipid profile in patients with cardiovascular disease. But yet, the effects of garlic and lemon juice mixture over the indices of cardiovascular disease is not analyzed, and regarding the high and increasing prevalence of these diseases in the world and in Iran, the aim of present study is to investigate effect of garlic and lemon juice mixture on lipid profile and some cardiovascular risk factors. people with hyperlipidemia according to the inclusion criteria were selected and randomly divided into 4 groups and control blood samples were taken, height, weight and blood pressure were recorded, first group received 20 grams of garlic daily, plus 1 tablespoon lemon juice, second 20 g garlic daily , third group 1 tablespoon lemon juice daily 2 hours after dinner and forth group did not receive garlic and lemon juice during the intervention. Experiments were repeated after 2 month, the results were analyzed the SPSS softwere.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015020720986N1**

Registration date: **2015-03-07, 1393/12/16**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2015-03-07, 1393/12/16

Registrant information

Name

Negar Aslani

Name of organization / entity

Isfahan Univercity Of Medical Science

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Isfahan University of Medical Science

Expected recruitment start date

2013-10-23, 1392/08/01

Expected recruitment end date

2013-12-22, 1392/10/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of garlic and lemon juice mixture on lipid profile and some cardiovascular risk factors in people 30-60 years old with hyperlipidemia.

Public title

Effect of mixed of garlic and lemon juice on hyperlipidemia

Purpose

Treatment

Inclusion/Exclusion criteria

Subjects were eligible if they have a total cholesterol and LDL levels between 240-200 mmol/l and 160-100 mmol/l respectively. People should not be suffering from any other diseases, including heart problems, kidney, lung,

thyroid disorders, gastrointestinal, rheumatoid arthritis and other liver problems such as hepatitis or fatty liver, pregnancy or lactating, no smoking, their weight may not change fast in the last two months, should not use drugs that affect blood sugar, blood fat, blood pressure and anti-inflammatory and not to have any sensitivity to garlic and lemon juice. Individual with a history of chronic disease, consuming medicine and following special regimen were excluded.

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: **120**

Randomization (investigator's opinion)

Randomized

Randomization description**Blinding (investigator's opinion)**

Not blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethical Committee of Isfahan University of Medical Sciences

Street address

Isfahan University of Medical Sciences, Hezar jarib street

City

Isfahan

Postal code**Approval date**

2013-10-28, 1392/08/06

Ethics committee reference number

392436

Health conditions studied**1****Description of health condition studied**

Hyperlipidemia

ICD-10 code

E78.0

ICD-10 code description

Disorders of lipoprotein metabolism and other lipidaemias

Primary outcomes**1****Description**

total cholesterol

Timepoint

in the first of intervention and end of 8th week

Method of measurement

enzymatic, mg/dl

2**Description**

Serum low-density lipoprotein cholesterol (LDL-C) levels

Timepoint

Before intervention and at the end of 8th week

Method of measurement

Enzymatic, mg/dl

3**Description**

Serum high-density lipoprotein cholesterol (HDL-C) levels

Timepoint

Before intervention and at the end of 8th week

Method of measurement

Enzymatic, mg/dl

4**Description**

triglyceride

Timepoint

in the first of intervention and end of 8th week

Method of measurement

Enzyme colorimetric methods, mg/dl

5**Description**

Fibrinogen

Timepoint

Before intervention and at the end of 8th week

Method of measurement

Clauss method

6**Description**

Systolic blood pressure

Timepoint

Before intervention and at the end of 8th week

Method of measurement

mmHg, Mercurial sphygmomanometer

7

Description

Diastolic blood pressure

Timepoint

Before intervention and at the end of 8th week

Method of measurement

mmHg, Mercurial sphygmomanometer

8

Description

Body mass index

Timepoint

Before intervention and at the end of 8th week

Method of measurement

kg/m², Weight/Height squar

9

Description

Fasting blood sugar

Timepoint

Before intervention and at the end of 8th week

Method of measurement

Enzymatic, mg/dl

10

Description

Weight

Timepoint

Before intervention and at the end of 8th week

Method of measurement

Scale, kilogram

Secondary outcomes

empty

Intervention groups

1

Description

first group received 20 grams of garlic plus 1 tablespoon lemon juice daily

Category

Prevention

2

Description

forth group did not recive garlic and lemon juice during the intervention

Category

Prevention

3

Description

second group recived 20 gram of garlic, daily

Category

Prevention

4

Description

third group recived 1 tablespoon of lemon juice, daily

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Isfahan Cardiovascular Research Center

Full name of responsible person

Street address

City

Isfahan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Isfahan University of Medical Science

Full name of responsible person

Peyman Adibi

Street address

Isfahan University of Medical Science, Hezar Jerib Avenue

City

Isfahan

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Vice chancellor for research, Isfahan University of Medical Science

Proportion provided by this source

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

2

Sponsor

Name of organization / entity

Isfahan University of Medical Sciences, School of Nutrition-School Nutrition Research Center

Full name of responsible person

Miss Samadani

Street address

School Nutrition Research Center, School of Nutrition and Food Sciences, Isfahan university Of Medical Sciences, Hezar Jerib Street, Isfahan

City

Isfahan

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

Yes

Title of funding source

Isfahan University of Medical Sciences, School of Nutrition-School Nutrition Research Center

Proportion provided by this source**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**

Isfahan University of Medical Sciences

Full name of responsible person

Negar Aslani

Position

MSc Student of Nutrition

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Email**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