

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

09 Jun 2026

### The effect of garlic tablets on serum concentrations of Adiponectin , INL6 and TNF alpha in subjects with metabolic syndrome

#### Protocol summary

##### Summary

A total of 40 people with metabolic syndrome will be randomized in two groups: group 1 who will receive garlic tablets 1.8 gram/d (manufactured by Amin institute) and group 2 who will take placebo. 20 normal people matched in sex and age with the cases will enter in the study without any intervention as the second control group. All the subjects will follow for 6 weeks. The personal information and data from physical exam will be collected and blood sampling for measurement of IL6, TNF alpha and Adiponectin will be done at the initiation and also the end of the study.

#### General information

##### Acronym

Garlic in Metabolic syndrome

##### IRCT registration information

IRCT registration number: **IRCT138706121179N1**

Registration date: **2009-01-01, 1387/10/12**

Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2009-01-01, 1387/10/12

##### Registrant information

###### Name

Faranak Sharifi

###### Name of organization / entity

Zanjan University of Medical Sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 24 1727 0815

###### Email address

zmdrc@zums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Zanjan University of Medical Sciences, Metabolic Diseases Research Center

##### Expected recruitment start date

2008-06-21, 1387/04/01

##### Expected recruitment end date

2008-12-21, 1387/10/01

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

The effect of garlic tablets on serum concentrations of Adiponectin , INL6 and TNF alpha in subjects with metabolic syndrome

##### Public title

Effect of garlic on some types of adipokines in metabolic syndrome

##### Purpose

Basic science

##### Inclusion/Exclusion criteria

Inclusion criteria: All people who will be diagnosed to have metabolic syndrome based on ATPIII criteria , more than 18 years old. Exclusion criteria: Presence of acute or chronic inflammatory or infectious diseases, taking anti inflammatory medications or other drugs affecting insulin resistance.

##### Age

From **18 years** old to **90 years** old

##### Gender

Both

##### Phase

N/A

##### Groups that have been masked

No information

**Sample size**

Target sample size: **60**

**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**

Zanjan University of Medical Sciences Ethics Committee

**Street address**

Azadi Boulevard

**City**

Zanjan

**Postal code**

77978-45157

**Approval date**

2007-09-20, 1386/06/29

**Ethics committee reference number**

19/3-3/2632

**2****Ethics committee****Name of ethics committee****Street address****City****Postal code****Approval date**

2011-10-09, 1390/07/17

**Ethics committee reference number**

11-312-11

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

Metabolic Syndrome

**ICD-10 code**

E00-E90

**ICD-10 code description**

E65-E68

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

serum Adiponectin

**Timepoint**

at the beginning of the study and 6weeks after intervention

**Method of measurement**

ELISA

**2****Description**

serum TNF

**Timepoint**

at the beginning of the study and 6weeks after intervention

**Method of measurement**

ELISA

**3****Description**

Serum IL6

**Timepoint**

at the beginning of the study and 6weeks after intervention

**Method of measurement**

ELISA

**Secondary outcomes****1****Description**

serum lipid Concentrations(TG, Cholesterol, HDL-C)

**Timepoint**

at the beginning of the study and 6weeks after intervention

**Method of measurement**

Enzymatic methods

**2****Description**

Fasting Plasma Glucose

**Timepoint**

at the beginning of the study and 6weeks after intervention

**Method of measurement**

Enzymatic methods

**3****Description**

Blood pressure

**Timepoint**

at the beginning of the study and 6weeks after intervention

**Method of measurement**

standard methods for BP

#### 4

**Description**

waist circumference

**Timepoint**

at the beginning of the study and 6 weeks after intervention

**Method of measurement**

standard methods

### Intervention groups

#### 1

**Description**

No intervention

**Category**

N/A

#### 2

**Description**

Placebo

**Category**

empty

#### 3

**Description**

Garlic tablets

**Category**

Treatment - Drugs

### Recruitment centers

#### 1

**Recruitment center****Name of recruitment center**

Endocrine Clinic of Zanjan

**Full name of responsible person**

Faranak Sharifi

**Street address**

Vali-e-asr Hospital, Zanjan , Iran

**City**

Zanjan

### Sponsors / Funding sources

#### 1

**Sponsor****Name of organization / entity**

Zanjan Metabolic Diseases Research Center, Zanjan university of medical sciences

**Full name of responsible person**

Alireza Biglari

**Street address**

Azadi Boulevard

**City**

Zanjan

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

Yes

**Title of funding source**

Zanjan Metabolic Diseases Research Center, Zanjan 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**

Zanjan Metabolic Diseases Research Center

**Full name of responsible person**

Faranak Sharifi

**Position**

Associate Professor

**Other areas of specialty/work****Street address**

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faranaksharifi@hotmail.com

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### Person responsible for scientific inquiries

**Contact****Name of organization / entity**

Zanjan Metabolic Diseases Research Center

**Full name of responsible person**

Faranak Sharifi

**Position**

Subspeciality Board in Endocrinology

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**Web page address****Person responsible for updating data****Contact****Name of organization / entity**

Zanjan Metabolic Diseases Research Center

**Full name of responsible person**

Afagh Anjomshoaa

**Position**

MD

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Vali-e-asr Hospital

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**Postal code**

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**Phone****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*