

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

09 Jul 2026

### Assessing the effects of pomegranate juice consumption on clinical signs, matrix metalloproteinase 13 & glutathione peroxidase in patients with osteoarthritis of the knee.

#### Protocol summary

##### Summary

Assessing the effects of pomegranate juice consumption on clinical signs, matrix metalloproteinase 13 & glutathione peroxidase in patients with osteoarthritis of the knee. Objectives: The aim of this study is Effects of pomegranate juice consumption on clinical signs, matrix metalloproteinase 13 & glutathione peroxidase in patients with osteoarthritis of the knee. Design: Thirty eight patients with knee osteoarthritis participate in this study. The patients randomly divide into two groups of pomegranate juice and control. Pomegranate juice group consume 200 ml pomegranate juice daily for 6 weeks. No intervention do on the control group. Inclusion criteria: age: 30-80 yrs; diagnosis of osteoarthritis of the knee by a rheumatologist according to ACR criteria ( based on pain history, physical examination, laboratory and radiological findings); Willingness and ability to drink pomegranate juice and no allergy to this. Exclusion criteria: patients with inflammatory diseases; rheumatoid arthritis; diabetes mellitus; cardiovascular diseases; liver diseases; renal diseases; cancer; who treated with oral corticosteroids in the last 4 weeks; who injected corticosteroids in the last 6 months; antioxidants consumption and pregnancy. Main outcome variables: patients clinical signs included pain, stiffness and physical function ask from patients at baseline and after intervention according to WOMAC questionnaire. Anthropometric assessment and nutritional status of patients will evaluate. Matrix metalloproteinase 13 & glutathione peroxidase in patients evaluate in two times.

#### General information

##### Acronym

-

##### IRCT registration information

IRCT registration number: **IRCT2014031517017N1**

Registration date: **2014-11-21, 1393/08/30**  
Registration timing: **registered\_while\_recruiting**

Last update:  
Update count: **0**

**Registration date**  
2014-11-21, 1393/08/30

##### Registrant information

**Name**  
Nasrin Ghoochani  
**Name of organization / entity**  
Ahvaz Jundishapur University of Medical Sciences  
**Country**  
Iran (Islamic Republic of)  
**Phone**  
+98 61 3336 7543  
**Email address**  
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##### Recruitment status

**Recruitment complete**

##### Funding source

Vice Chancellor for Research and Technology Ahvaz Jundishapur University of Medical Sciences

##### Expected recruitment start date

2014-03-21, 1393/01/01

##### Expected recruitment end date

2015-03-20, 1393/12/29

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Assessing the effects of pomegranate juice consumption

on clinical signs, matrix metalloproteinase 13 & glutathione peroxidase in patients with osteoarthritis of the knee.

#### Public title

Effects of pomegranate juice on osteoarthritis of the knee

#### Purpose

Supportive

#### Inclusion/Exclusion criteria

Inclusion criteria: age:30-80 yrs; diagnosis of osteoarthritis of the knee by a rheumatologist according to ACR criteria ( based on pain history, physical examination, laboratory and radiological findings); ability to drink pomegranate juice and no allergy to this.

Exclusion criteria: patients with inflammatory diseases; rheumatoid arthritis; diabetes mellitus; cardiovascular diseases; liver diseases; renal diseases; cancer; who treated with oral corticosteroids in the last 4 weeks; who injected corticosteroids in the last 6 months; antioxidants consumption and pregnancy.

#### Age

From **30 years** old to **80 years** old

#### Gender

Both

#### Phase

N/A

#### Groups that have been masked

*No information*

#### Sample size

Target sample size: **50**

#### Randomization (investigator's opinion)

Randomized

#### Randomization description

#### Blinding (investigator's opinion)

Not blinded

#### Blinding description

#### Placebo

Not used

#### Assignment

Parallel

#### Other design features

Randomization between the two groups do by Block randomization method.

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics committee of Ahvaz Jundishapur University of Medical Sciences

##### Street address

Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

##### City

Ahvaz

#### Postal code

15794-61357

#### Approval date

2013-12-28, 1392/10/07

#### Ethics committee reference number

ajums.REC.1392.211

## Health conditions studied

### 1

#### Description of health condition studied

knee osteoarthritis

#### ICD-10 code

M17

#### ICD-10 code description

Gonarthrosis [arthrosis of knee]

## Primary outcomes

### 1

#### Description

pain

#### Timepoint

before and after the intervention

#### Method of measurement

WOMAC questionnaire

### 2

#### Description

stiffness

#### Timepoint

before and after the intervention

#### Method of measurement

WOMAC questionnaire

### 3

#### Description

physical function

#### Timepoint

before and after the intervention

#### Method of measurement

WOMAC questionnaire

## Secondary outcomes

### 1

#### Description

sreum mmp13

#### Timepoint

before and after the intervention

#### Method of measurement

before and after the intervention

### 2

#### Description

serum glutathione peroxidase

**Timepoint**

before and after the intervention

**Method of measurement**

before and after the intervention

**Intervention groups****1****Description**

Intervention group: Daily consumption of 200 ml pomegranate juice produced by Takdaneh company for 6 weeks in intervention group

**Category**

Treatment - Other

**2****Description**

Control group: No intervention will do in control group.

**Category**

N/A

**Recruitment centers****1****Recruitment center****Name of recruitment center**

Ahvaz Golestan hospital, clinic of rheumatology

**Full name of responsible person**

Dr Karim mowla

**Street address**

Golestan university hospital, Farvardin street, Golestan, Ahvaz

**City**

Ahvaz

**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

Vice Chancellor for Research and Technology Ahvaz Jundishapur University of Medical Sciences

**Full name of responsible person**

dr Nader Saki

**Street address**

Ahvaz, Ahvaz Jundishapur University of Medical Sciences-Vice Chancellor for Research and Technology

**City**

Ahvaz

**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 and Technology Ahvaz Jundishapur 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**

Nutrition & Metabolic Diseases Research Center , Ahvaz Jundishapur University of Medical Sciences

**Full name of responsible person**

Nasrin Ghoochani

**Position**

MSc student of nutrition science

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

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**Full name of responsible person**

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## Person responsible for updating data

### Contact

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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*