

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

29 May 2026

### Evaluation of Curcumin anti-inflammatory effects on peripheral blood mononuclear cells in coronary artery disease and plaque stabilization serum level of CD40L

#### Protocol summary

##### Summary

Curcumin (diferuloylmethane) is an active component of the spice turmeric and has been linked with anti-inflammatory and chemopreventive activities. The present hypothesis explained the involvement of anti-inflammatory effects of curcumin in prevention of acute coronary syndromes (ACS) (i.e. unstable angina and myocardial infarction). ACS is the leading cause of death in both developed and developing countries. Coronary events often result from thrombi that form because of physical disruption of the atherosclerotic plaque. However, despite lipid lowering therapy with statins, significant numbers of cardiovascular events continue to occur indicating the need for additional agents for atherosclerosis management. We proposed that curcumin therapy can stabilize vulnerable 'rupture-prone' plaques by normalizing plaque properties. Thus, co-administration of curcumin along with other present options may prove to be a useful and potent natural plaque stabilizing approach in the prevention of ACS. In this interventional study, the patients with less than 50% coronary obstruction and have medical follow up indication will be divided in two two groups and curcumin and placebo.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2013081114330N1**  
Registration date: **2013-08-30, 1392/06/08**  
Registration timing: **prospective**

Last update:

Update count: **0**

##### Registration date

2013-08-30, 1392/06/08

#### Registrant information

##### Name

Hamid Reza Rahimi

##### Name of organization / entity

Mashhad University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 51 1800 2288

##### Email address

rahimih891@mums.ac.ir

#### Recruitment status

##### Recruitment complete

#### Funding source

Mashhad University of Medical Sciences

#### Expected recruitment start date

2013-09-21, 1392/06/30

#### Expected recruitment end date

2014-05-22, 1393/03/01

#### Actual recruitment start date

empty

#### Actual recruitment end date

empty

#### Trial completion date

empty

#### Scientific title

Evaluation of Curcumin anti-inflammatory effects on peripheral blood mononuclear cells in coronary artery disease and plaque stabilization serum level of CD40L

#### Public title

Turmeric extract for the prevention of MI

#### Purpose

Treatment

#### Inclusion/Exclusion criteria

The inclusion criteria: diagnosis of CAD; age above 18-75 years old; giving informed consent. Exclusion criteria:

diabetes (assessed by measuring 126 <FBS); renal failure (with BUN, Cr); liver failure (evaluation of liver enzymes ALT, AST and bilirubin); drugs inhibit the immune system; taking pentoxifylline; taking cilostazol; an underlying infectious or inflammatory diseases (based on history and physical examination); having a history of sensitivity to curcumin (turmeric); high CRP (CRP) and Schiff Lvkstvtz the right (at least two positive CRP test qualitative biochemistry and CBC); taking glucosamine (due to inhibitory effects on the inflammatory NFκB); Egypt barberry extract, berberine (due to inhibitory effects on the inflammatory NFκB) and having a history of abuse syndromes induced absorption (based on history).

**Age**

From **18 years** old to **75 years** old

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **64**

**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**

Mashhad University of Medical Sciences

**Street address**

Faculty of Medicine, Azadi Square, Pardis Campus,  
Mashhad-Iran

**City**

Mashhad

**Postal code****Approval date**

2013-03-02, 1391/12/12

**Ethics committee reference number**

910738

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

CAD

**ICD-10 code**

I25

**ICD-10 code description**

Chronic ischaemic heart disease

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

Effect of curcumin on the expression of cellular markers of inflammation (NFκB)

**Timepoint**

Before and after study

**Method of measurement**

Gene expression and proteomics

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

plaque instability indirect parameters such as MMP9, CD40 concentration, and etc

**Timepoint**

Before the study and after stud

**Method of measurement**

Measurement of CD40L

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

The intervention group received routine treatment of heart disease in accordance with, the administration of curcumin. 1 Soft gel ((SinaCurcumin® (as nano-micelle 80 mg/day)) will be gave to patients for three months.

**Category**

Treatment - Drugs

**2****Description**

control group: in this group, the patients with less than 50% obstruction in coronary artery and have medical follow up will take their medications and placebo.

**Category**

Treatment - Drugs

**Recruitment centers****1****Recruitment center**

**Name of recruitment center**  
Ghaem Hospital in Mashhad

**Full name of responsible person**

dr Mostafa Dastani

**Street address**

Mashhad, Ghaem Hospital, Ahmadabad Street

**City**

Mashhad

**Sponsors / Funding sources**

**1**

**Sponsor**

**Name of organization / entity**

Mashhad University of Medical Sciences, vice  
chancellor for research

**Full name of responsible person**

Dr Mohsen Tafaghodi

**Street address**

Quraish bilding of MUMS, daneshghah St, Mashhad,  
Iran

**City**

Mashhad

**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, vice chancellor  
for research

**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**

Mashhad University of Medical Sciences

**Full name of responsible person**

Hamid Reza Rahimi

**Position**

MD, PhD Student

**Other areas of specialty/work**

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**Full name of responsible person**

Dr Reza Kazemi Oskuee & Dr Amir Houshang  
Mohammadpour

**Position**

Assistant Prof

**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*