

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### The effect of local heat therapy in the posterior of chest on chest pain cardiovascular function in patients with acute coronary syndrome

#### Protocol summary

##### Summary

The aim of this study is to investigate the effects of chest local heat therapy in the posterior of chest on chest pain and cardiovascular function in patients with acute coronary syndrome. Inclusion criteria are the existence of absolute diagnosis of acute coronary syndrome by the specialist physician and having a stable physiological condition for answering to the questions. Exclusion criterion is any type of clinical condition that requires a special diagnosis and treatment that makes local heat therapy impossible for the patient. In this study, we randomly will be allocated 50 patients with acute coronary syndrome to either the placebo or the experimental groups. Patients in the experimental and the placebo groups will be received local heat therapy in the posterior of chest using a hot pack warmed to 50 and 37 °C, respectively. Local heat therapy will be administered for four 23-minute sessions in two subsequent days. We will be assessed chest pain intensity, duration and frequency as well as the need for opioid analgesic therapy both before and after the study.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2015081312878N2**

Registration date: **2015-09-16, 1394/06/25**

Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2015-09-16, 1394/06/25

##### Registrant information

###### Name

Batol Mohammadian

##### Name of organization / entity

Gonabad University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 53 3725 4435

##### Email address

mohammadian.b@gmu.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Gonabad University of Medical Science

##### Expected recruitment start date

2015-08-26, 1394/06/04

##### Expected recruitment end date

2016-02-20, 1394/12/01

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

The effect of local heat therapy in the posterior of chest on chest pain cardiovascular function in patients with acute coronary syndrome

##### Public title

The effect of local heat therapy on chest pain

##### Purpose

Supportive

##### Inclusion/Exclusion criteria

Inclusion criteria: The existence of absolute diagnosis of acute coronary syndrome by the specialist physician, having a stable physiological condition for answering to questions, age range from 18 to 100, non addiction to alcohol and narcotics, having no diabetic or musculoskeletal disease of chest or digestive diseases at the time of the disease, no existence of inflammation,

wound, scratching and redness in the area of chest.  
Exclusion criteria: Lack of tendency to participate in the study, worsening the patients condition and lack of a stable condition for answering the questions and every type of clinical condition that requires a special diagnosis and treatment that local heat therapy for the patient be impossible.

#### **Age**

From **18 years** old to **100 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**

Used

#### **Assignment**

Parallel

#### **Other design features**

## **Secondary Ids**

empty

## **Ethics committees**

### 1

#### **Ethics committee**

##### **Name of ethics committee**

Gonabad University of Medical Sciences

##### **Street address**

Gonabad University of Medical Sciences, Next to the Asian Road, Gonabad, Iran

##### **City**

Gonabad

##### **Postal code**

##### **Approval date**

2014-10-22, 1393/07/30

##### **Ethics committee reference number**

GMU.REC.1393.75

## **Health conditions studied**

### 1

#### **Description of health condition studied**

Acute coronary syndrom

#### **ICD-10 code**

I20-I25

#### **ICD-10 code description**

Ischaemic heart diseases

## **Primary outcomes**

### 1

#### **Description**

Chest pain

#### **Timepoint**

Before and after intervention

#### **Method of measurement**

McGill Pain Questionnaire

## **Secondary outcomes**

### 1

#### **Description**

Heart rate

#### **Timepoint**

Before and after intervention

#### **Method of measurement**

Heart rate (beats/min) will be measured with cardiac monitor

### 2

#### **Description**

Systolic BP

#### **Timepoint**

Before and after intervention

#### **Method of measurement**

Systolic pressure (mmhg) will be measured with cardiac monitor

### 3

#### **Description**

Diastolic BP

#### **Timepoint**

Before and after intervention

#### **Method of measurement**

Diastolic pressure (mmhg) will be measured with cardiac monitor

### 4

#### **Description**

O<sub>2</sub>saturation

#### **Timepoint**

Before and after intervention

#### **Method of measurement**

Pulse oximetry

## **Intervention groups**

### 1

#### **Description**

Patients in the experimental groups will be received local heat therapy in the posterior of chest using a hot pack warmed to 50°C

#### **Category**

Other

## 2

### Description

Patients in the placebo groups will be received local heat therapy in the posterior of chest using a hot pack warmed 37 °C

### Category

Other

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

22 Bahman Hospital in Gonabad

##### Full name of responsible person

D.r Mahmoud Reza Nematollahi

##### Street address

22 Bahman Hospital, Naser Khosro Street, Gonabad, Iran

##### City

Gonabad

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Gonabad University of Medical Science

##### Full name of responsible person

Ali Mohammadpour

##### Street address

Gonabad University of Medical Sciences, Next to the Asian Road, Gonabad, Iran

##### City

Gonabad

#### Grant name

#### Grant code / Reference number

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

Yes

#### Title of funding source

Gonabad University of Medical Science

#### 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

Gonabad University of Medical Science

### Full name of responsible person

Batol Mohammadian

### Position

Master of Nursing Education

### Other areas of specialty/work

### Street address

Gonabad University of Medical Sciences, Next to the Asian Road, Gonabad, Iran

### City

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### Postal code

### Phone

+98 51 5722 3028

### Fax

### Email

mohammadian.b@gmu.ac.ir

### Web page address

## Person responsible for scientific inquiries

### Contact

#### Name of organization / entity

Gonabad University of Medical Science

#### Full name of responsible person

Ali Mohammadpour

#### Position

PhD In Nursing

#### Other areas of specialty/work

#### Street address

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## Person responsible for updating data

### Contact

#### Name of organization / entity

Gonabad University of Medical Science

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#### Other areas of specialty/work

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#### Fax

#### Email

**Web page address**

*empty*

## **Sharing plan**

**Informed Consent Form**

*empty*

**Deidentified Individual Participant Data Set (IPD)**

**Clinical Study Report**

*empty*

*empty*

**Study Protocol**

**Analytic Code**

*empty*

*empty*

**Data Dictionary**

**Statistical Analysis Plan**

*empty*