

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jun 2026

The effect of hegu point massage with ice on intensity of sternotomy pain in patient post Coronary artery bypass graft surgery

Protocol summary

Summary

The purpose of this study is to assess the effect of hegu point massage with ice on intensity of sternotomy pain in patient post coronary artery bypass graft surgery.

Design: This study is double blind, randomized control trial will perform on patients less than 75 years old, hospitalized in heart center of Mazandaran in 2015. 64 patients are chosen in accessible manner and randomly divided in two equal groups as experiment and control. Inclusion criteria in this study are; age lower than 75 years, not to have history of open heart surgery, $ef \geq 35\%$. Exclusion criteria are sensitivity to cold, peripheral vascular diseases, Connective tissue diseases, the need for intra- aortic pump, bleeding greater than 200cc from chest tube, repaired or exchange valve surgery with coronary artery bypass graft, addiction to alcohol and narcotics, Body mass Index greater than 30.

Intervention: Visual analogue scale is used for Measurement of pain intensity. Intervention is conducted by one person and pain measuring is done by another person that don't know patient's group. Pain intensity is measured in two groups before any intervention. Patient is located in semisitting or sitting position if possible and is wanted him, deep inspiration and then expiration completely. In experiment group massage is conducted with ice in sides 2x2 in left hand Hegu point with moderate pressure in total time 10 minute (2 minute massage and 15 second break). Pressure intensity is continued until nail whitening appear. If there is not administered invariable analgesic protocol, we will delay intervention at least 4 hours after the last analgesic medicine. In control group glass ball with same sides and time is put in left hand hegu point without pressure and massage. pain intensity is measured immediately, 30minute, 60 minute and 120 minute by Visual Analogue Scale after intervention. Primary outcome variable is pain after cardiac surgery and secondary outcome variable is sensitivity to cold.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015111424047N2**

Registration date: **2016-01-30, 1394/11/10**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2016-01-30, 1394/11/10

Registrant information

Name

Hedayat Jafari

Name of organization / entity

Mazandaran University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Vice chancellor for research of, mazandaran University of Medical Sciences

Expected recruitment start date

2015-11-22, 1394/09/01

Expected recruitment end date

2016-01-05, 1394/10/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of hegu point massage with ice on intensity of sternotomy pain in patient post Coronary artery bypass graft surgery

Public title

The effect of hegu point massage with ice on pain intensity of patient post coronary artery bypass graft surgery

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria: age lower than 75 years; not to have history of open heart surgery; ef \geq 35%; ability to speaking and report pain. Exclusion criteria: sensitivity to cold; peripheral vascular diseases; Raynaud's phenomenon diseases; fracture or injury in left hand; Connective tissue diseases; Diabetic neuropathy; lack of consciousness; Intubation continued more than 24 hours; pulmonary artery pressure $>$ 50; the need for intra- aortic pump; bleeding greater than 200cc from chest tube; repaire or exchange vale surgery with coronary artery bypass graft; severe visual and hearing impairments; addiction to alcohol and narcotics; Body mass Index greater than 30.

Age

From **10 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

Primary group selected by lottery and then next groups is selected every other.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Mazandaran University of Medical Science

Street address

Moalem Street, Moalem Square, Sari

City

Sari

Postal code

Approval date

2015-11-30, 1394/09/09

Ethics committee reference number

IR.MAZUMS.REC.94-1775

Health conditions studied

1

Description of health condition studied

pain

ICD-10 code

xvlll

ICD-10 code description

Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified

Primary outcomes

1

Description

pain

Timepoint

before intervention, immediately after intervention, 30 minute, 60 minute, 120 minute after intervention

Method of measurement

visual analogue scale

Secondary outcomes

1

Description

Allergy to cryotherapy

Timepoint

3 days after intervention

Method of measurement

observation and question from patient

Intervention groups

1

Description

Intervention group1: Patient is located in semisitting or sitting position if possible and is asked for him, deep inspiration and then expiration completely. In experiment group massage is conducted with ice in sides 2x2 that is wrapped in single layer gauze and placed in plastic glove, in left hand Hegu point with moderate pressure in total time 10 minute (2 minute massage and 15 second break). Pressure intensity is continued until nail whitening appear.

Category

Other

2

Description

control group: Pain intensity is measured by VAS. glass ball with 2x2 sides is put in left hand hegu point without pressure and massage. Time is same intervention group.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Mazandaran Heart Center

Full name of responsible person

Hedayat Jaferi

Street address

Sari, Mazandaran

City

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research of, mazandaran University of Medical Sciences

Full name of responsible person

Dr Ahmad Ali Enayeti

Street address

Vice Chancellor for research Mazandaran University of Medical Sciences, Moalem Street ,Moalem Square,Sari, Iran

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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 of, mazandaran 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

Mazandaran University of Medical Sciences

Full name of responsible person

Tahereh Taherian

Position

Nursing master student

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