Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 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≥35%. Exclusion criteria are sensivity to cold, peripheral vascular diseases, Connective tissue diseases, the need for intra- aortic pump, bleeding greater than 200cc from chest tube, repaire or exchange vale 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' group. Pain intensity is measured in two group before any intervention. Patient is located in semisitting or sitting position if possible and is wanted him, deep inspiration and then expiration compeletely. In experiment group massage is conducted with ice in sides 2×2 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 administrated 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 secondry outcome variable is sesivity 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

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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≥35%; ability to speaking and report pain. Exclusion criteria: sensivity 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 compeletely. In experiment group massage is conducted with ice in sides 2×2 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 2×2 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
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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
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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

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Person responsible for updating data

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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