

Clinical Trial Protocol

Iranian Registry of Clinical Trials

17 Sep 2026

The impacts of the upper limb placement during coronary artery bypass surgery on the postoperative shoulder joint pain

Protocol summary

Summary

Chronic postoperative pain (CPOP) is one of the complications of coronary artery bypass grafting (CABG) surgery. Considering the high incidence of cardiac surgery and the limiting role of the CPOP syndrome, this randomized double blind clinical trial evaluates the results of the arm position during this surgery on postoperative Shoulder pain. A total of 580 candidated patients for heart coronary artery bypass surgery were assigned randomly into two 290 groups; for the first group, patients were placed on the bed so their arms were put along the body and in second group their arms were put in perpendicular. Two weeks after the surgery, postoperative shoulder pain was evaluated. The physician who used visual analog scale and IV opium drug injection was not aware of the intervention the patients had received.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2013113014190N2**

Registration date: **2014-01-11, 1392/10/21**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2014-01-11, 1392/10/21

Registrant information

Name

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Name of organization / entity

Ahvaz Jundishapur University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

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

Expected recruitment start date

2012-03-20, 1391/01/01

Expected recruitment end date

2013-03-21, 1392/01/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The impacts of the upper limb placement during coronary artery bypass surgery on the postoperative shoulder joint pain

Public title

The effect of patients' arm position during surgery on postoperative shoulder pain in patients undergoing cardiac surgery

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: patients candidate for coronary artery bypass graft surgery (CABG) surgery Exclusion criteria: people who mentioned experience of the shoulder joint problems, pain and limit of motion in the left arms, patient whose Left Mammary artery (LIMA) was not used for graft for any reason, or their central venous pressure (CVP) catheter was inserted via inferior Jugular Vein or Left sub-clavian vein, because of the possibility of

damage to the left brachial nerve plexus.

Age

From **40 years** old to **70 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **580**

Randomization (investigator's opinion)

Randomized

Randomization description**Blinding (investigator's opinion)**

Double blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethics committee of Ahvaz Jundishapur University of
Medical Sciences

Street address

Esfand avenue, Ahvaz Jundishapur University of
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City

Ahvaz

Postal code

15794-61357

Approval date

2013-05-10, 1392/02/20

Ethics committee reference number

ajums.REC.1392.128

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

postoperative shoulder joint pain

ICD-10 code

M79.6

ICD-10 code description

Pain in limb

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

shoulder joint pain

Timepoint

Two weeks after surgery

Method of measurement

Two weeks after the surgery, all patients were examined by a specialist. And if pain existed, using the profile, examination and taking ECG, the physician differentiated shoulder pain caused by ischemic heart disease (IHD) from chronic postoperative pain (CPOP) and if the origin of the pain was seen in the IHD, the patient was excluded from the study. It should be noted that the criteria for the presence or absence of pain was the patient's declaration.

Secondary outcomes

empty

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

Patient was placed on the bed so their arms were put along the body.

Category

Prevention

2**Description**

The patient was placed on the bed, and the arms were put in perpendicular.

Category

Prevention

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

Golestan Hospital, Ahvaz

Full name of responsible person

Dr.Ahmad Ebadi

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Esfand avenue, Ahvaz Jundishapur University of
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Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

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Vice Chancellor for Research and technology

Full name of responsible person

Dr.Mostafa Feghi

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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

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

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**

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Associate professor of anesthesiology

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Cardiac anesthesia fellowship

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Web page address**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