

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jun 2026

Comparison of Manual versus Mechanical Compression methods in Hemostasis of Coronary Angiography via Snuff-Box Access

Protocol summary

Study aim

Comparison of two methods of homeostasis including manual compression and radial TR band in coronary angiography via snuff box method

Design

The clinical trial work consists of two parallel and single blinded non-randomized groups

Settings and conduct

Location: Shahid Chamran Heart Center, Isfahan, Iran. 80 patients under coronary angiography via snuff box method were divided into two equal groups of 40. In the first group hemostasis is performed through manual compression and in the second group using radial TR band.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Candidate for diagnostic coronary angiography, Written consent Exclusion criteria: Need to angioplasty, Unstable hemodynamic, acute myocardial infarction, severe renal failure, the sensory and motor deficits in the hands nerves, fracture of the bones wrist, Raynaud diseases, carpal tunnel syndrome, coagulation disorders

Intervention groups

To perform homeostasis, in first group, local compression is applied by hand and in second group, radial TR band is used.

Main outcome variables

homeostasis time; patient satisfaction; patient pain severity; hospitalization time; neuro-vascular complications.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20181228042155N2**

Registration date: **2020-03-29, 1399/01/10**

Registration timing: **retrospective**

Last update: **2020-03-29, 1399/01/10**

Update count: **0**

Registration date

2020-03-29, 1399/01/10

Registrant information

Name

Mohammad Kermani-Alghoraishi

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 31 3345 9614

Email address

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-07-23, 1397/05/01

Expected recruitment end date

2019-12-22, 1398/10/01

Actual recruitment start date

2018-07-23, 1397/05/01

Actual recruitment end date

2019-12-22, 1398/10/01

Trial completion date

2020-01-21, 1398/11/01

Scientific title

Comparison of Manual versus Mechanical Compression methods in Hemostasis of Coronary Angiography via Snuff-Box Access

Public title

Homeostasis in angiography by snuff box method

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

candidate for diagnostic angiography and no need for angioplasty written consent

Exclusion criteria:

Unstable hemodynamics
Acute myocardial infarction
Severe renal failure (GFR <30)
Fracture of the bones wrist
Sensory and motor deficits in the hands nerves
Raynaud diseases
Capral tunnel syndrom
Coagulation disorders
Need to angioplasty

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **80**

Actual sample size reached: **74**

Randomization (investigator's opinion)

Not randomized

Randomization description

Blinding (investigator's opinion)

Not 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 Isfahan University of Medical Sciences

Street address

Hezar Jerib Street

City

Isgahan

Province

Isfahan

Postal code

8174673461

Approval date

2020-03-04, 1398/12/14

Ethics committee reference number

IR.MUI.MED.REC.1398.658

Health conditions studied

1

Description of health condition studied

Methods of homeostasis in angiography through the snuff box artery

ICD-10 code

I25

ICD-10 code description

Chronic ischemic heart disease

Primary outcomes

1

Description

Determine of hemostasis time in coronary angiography via snuff box method

Timepoint

Just after the angiography

Method of measurement

Time (minute)

Secondary outcomes

1

Description

Mean of pain score

Timepoint

immediately,1 hour and 4 hours after angiography

Method of measurement

Visual Analuage Scale

2

Description

Neuro-vascular complications

Timepoint

During the hospitalization till 1 month after discharge

Method of measurement

Physical exam

Intervention groups

1

Description

Intervention group: In this intervention, hemostais is performed by using of local compression with hand in puncture site of snuff box artery. After passing 10 minute, the puncture site is checked foe hemostasis and the compression is done if needed. The first time of hemostasis is recorded as primary hemostasis time.

Category

Treatment - Other

2

Description

Intervention group: Intervention group: In this intervention, homeostasis is performed by using an inflatable air filled wrist bracelet named as TR band (manufactured by Lepu Medical Technology Co. Beijing, China) at the distal forearm and radial artery site. After passing 20 minute and every ten minute intervals, the

wrist bracelet air was reduced to evaluation of primary hemostasis. If needed, air is injected again inside the wrist bladder. The first time of hemostasis is recorded as primary hemostasis time

Category

Treatment - Devices

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

Shahid Chamran Heart Center

Full name of responsible person

Mohammad Kermani-Alghoraishi

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Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

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Full name of responsible person

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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

Esfahan University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin**Type of organization providing the funding**

Academic

Person responsible for general inquiries**Contact****Name of organization / entity**

Esfahan University of Medical Sciences

Full name of responsible person

Farshad Roghani-Dehkordi

Position

Professor

Latest degree

Subspecialist

Other areas of specialty/work

Cardiology

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Person responsible for scientific inquiries**Contact****Name of organization / entity**

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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available

Title and more details about the data/document

Non-identifiable patient data including patient information and analysis in journal publications or sending to academic researchers

When the data will become available and for how long

After publishing the article according to journal rules

To whom data/document is available

Academic Researchers

Under which criteria data/document could be used

For similar researches

From where data/document is obtainable

Corresponding authors

What processes are involved for a request to access data/document

Request to corresponding author email

Comments