

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

Comparison of sonographic right internal jugular vein catheterization with short axis method in natural head position and medial- oblique method in 45 degree head position in open heart surgery

Protocol summary

Summary

Objectives: The aim of this study is to compare sonographic right internal jugular vein catheterization with short axis method in natural head position via medial-oblique technique in 45 degree head position in open heart surgery. **Research Design:** Conduction of a randomized, double-blind, clinical trial. **Inclusion criteria** of the study were as follows: Open-heart surgery patients, age above 18 years, Patients' consent to participate. **Exclusion criteria** of the study were: cannulation site infection/wound/hematoma/emphysema and surgery, intensive coagulopathy, IJV cannulation during the past 72 hours, recent cervical trauma with movement limitations, anatomical changes in the cervical vessels, IJV thrombosis with the short axis technique in open-heart surgery patients. **Intervention:** After induction of anesthesia 80 patients were divided into two groups of 40, Short Axis Group and Medial-Oblique Group. For short-axis technique, the patient's head was positioned at 0-degree angulation with his trunk. For medial-oblique technique, the patient's head was tilted to left to 45 degrees between the head and trunk. **Venous access time, guide wire time, cannulation time, total attempts for catheterization, total successful first attempts, number of arterial puncture, bleeding and hematoma at the puncture site and proper catheter placement were recorded and success rate of each technique, duration of different catheterization steps, primary mechanical complications for comparison of these techniques were determined in the operating room and also 7 hours after CABG in the ICU by chest X-ray .**

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015020819470N15**

Registration date: **2015-03-14, 1393/12/23**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2015-03-14, 1393/12/23

Registrant information

Name

Farzaneh Masihi

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 71 3647 4270

Email address

masihif@sums.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice Chancellor for Research, Shiraz University of Medical Science

Expected recruitment start date

2014-03-21, 1393/01/01

Expected recruitment end date

2014-09-23, 1393/07/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of sonographic right internal jugular vein catheterization with short axis method in natural head

position and medial- oblique method in 45 degree head position in open heart surgery

Public title

Comparison of sonographic right internal jugular vein catheterization with short axis method in natural head position and medial- oblique method in 45 degree head position in open heart surgery

Purpose

Supportive

Inclusion/Exclusion criteria

inclusion criteria :age above 18 years, Open-heart surgery patients. Exclusion criteria : cannulation site infection/wound/hematoma/emphysema and surgery, intensive coagulopathy, IJV cannulation during the past 72 hours, recent cervical trauma with movement limitations, anatomical changes in the cervical vessels, IJV thrombosis with the short axis technique.

Age

From **18 years** old

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **80**

Randomization (investigator's opinion)

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

Ethic Committee of Shiraz University Of Medical Sciences

Street address

Central Building of Shiraz University of Medical Sciences, Zand Street

City

Shiraz

Postal code

Approval date

2014-05-30, 1393/03/09

Ethics committee reference number

cp-p-9371-7071

Health conditions studied

1

Description of health condition studied

Open Heart Surgery

ICD-10 code

197.1

ICD-10 code description

Other functional disturbances following cardiac surgery

Primary outcomes

1

Description

To Determine the success rate of sonographic right internal jugular vein catheterization with short axis method with 0-degree angulation with his trunk

Timepoint

at the time of catheter insertion, in the operating room, 7 hours after catheter insertion in the ICU

Method of measurement

Observation

Secondary outcomes

1

Description

To Determine the success rate of sonographic right internal jugular vein catheterization with medial-oblique method with 45-degree angulation with his trunk

Timepoint

at the time of catheter insertion, in the operating room, 7 hours after catheter insertion in the ICU

Method of measurement

Observation

Intervention groups

1

Description

Intervention group 1: for internal jugular vein catheterization with short-axis technique, the patient's head was positioned at 0-degree angulation with his trunk

Category

Treatment - Surgery

2

Description

Intervention group 2: for internal jugular vein catheterization with medial-oblique technique, the patient's head was tilted to left to 45 degrees between the head and trunk.

Category

Treatment - Surgery

Recruitment centers

1

Recruitment center

Name of recruitment center

Namazi Hospital

Full name of responsible person

Mohammad Mehdi Derakhshan

Street address

Zand Street, Namazee Hospital

City

Shiraz

Anesthesiologist, Cardioanesthetic fellowship

Other areas of specialty/work

Street address

Anesthesiology Department, Shahid Faghihi Hospital,
Zand street

City

Shiraz

Postal code

Phone

+98 71 3647 4270

Fax

Email

mmderrakh@gmail.com

Web page address

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for Research, Shiraz University of
Medical Sciences

Full name of responsible person

Dr Seed Basir Hashemi

Street address

Vice Chancellor for Research, Shiraz University of
Medical Sciences, 7th floor, Central Building of Shiraz
University of Medical Sciences, Zand Street

City

Shiraz

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, Shiraz 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

Shiraz University of Medical Sciences

Full name of responsible person

Mohammad Mehdi Derakhshan

Position

Person responsible for scientific inquiries

Contact

Name of organization / entity

Shiraz University of Medical Sciences

Full name of responsible person

Hamid Kamalipour

Position

Cardioanesthesiologist

Other areas of specialty/work

Street address

Anesthesiology Office, Namazi Hospital

City

Shiraz

Postal code

Phone

+98 917 701 2654

Fax

Email

kamalipour <kamalih@yahoo.com>

Web page address

Person responsible for updating data

Contact

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