

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparison study of continuous serratus anterior plane block and thoracic epidural block in post thoracotomy analgesia

Protocol summary

Study aim

Comparison study of continuous serratus anterior plane block and thoracic epidural block in post thoracotomy analgesia

Design

Clinical trial with intervention and control groups, 40 patients sample size, Trial phase 2-3. Simple randomization based on random numbers table.

Settings and conduct

40 participants who meet inclusion criteria among candidates referred to the Masih Daneshvari hospital in 2019 were divided to continuous anterior serratus block or epidural thoracic continuous block.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Patients candidate for continuous anterior serratus block / persistent thoracic epidural block; Age 18 and above; Patients with satisfaction to participate in the study
Exclusion criteria: Contraindication of any continuous anterior / epidural thoracic continuous block; Chronic thoracic pain; Drug and Alcohol Abuse; Coagulopathy; Patients dissatisfied with participation in the study

Intervention groups

Intervention group: The ultrasound probe is placed in the midclavicular region of the chest at the sagittal surface. After determining the fifth midaxillary rib, the needle is inserted to a depth of 1-2 cm. After fixation of the epidural catheter in the anterior of the serratus muscle, first 10 ml of 0.25% marcain is injected and then 5 ml of solution contains 0.1% marcine is infused. Control group: The epidural catheter is fixed in the T7-8 space. The injectable drugs are similar to the intervention group.

Main outcome variables

Pain Level

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20131124015515N9**

Registration date: **2019-10-27, 1398/08/05**

Registration timing: **registered_while_recruiting**

Last update: **2019-10-27, 1398/08/05**

Update count: **0**

Registration date

2019-10-27, 1398/08/05

Registrant information

Name

Masoud Hashemi

Name of organization / entity

Shahid Beheshti University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 21 2261 2252

Email address

dr.hashemi@sbmu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-10-21, 1398/07/29

Expected recruitment end date

2019-12-20, 1398/09/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison study of continuous serratus anterior plane block and thoracic epidural block in post thoracotomy analgesia

Public title

Comparison of postoperative thoracotomy analgesia with continuous serratus block and epidural thoracic block

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

Age 18 and above Patients candidate for continuous anterior serratus block / persistent thoracic epidural block Patients with satisfaction to participate in the study

Exclusion criteria:

Contraindication of any continuous anterior / epidural thoracic continuous block Chronic thoracic pain Drug and Alcohol Abuse Coagulopathy Patients dissatisfied with participation in the study

Age

From **18 years** old

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **40**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple randomization based on random numbers table. In this way, we put a set of numbers in a completely random order without any pattern or order, set the table numbers to read from above. For intervention group we consider even numbers and for control group we consider individual numbers. Then we place one of the numbers up and down, register the number and assign it to one of the intervention or control groups.

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 Shahid Beheshti University of Medical Sciences

Street address

Tabnak St., Tehran, Tehran, Iran, Islamic Republic Of

City

Tehran

Province

Tehran

Postal code

1985717443

Approval date

2017-10-27, 1396/08/05

Ethics committee reference number

IR.SBMU.RETECH.REC.1396.844

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

Post thoracotomy pain

ICD-10 code

G89.12

ICD-10 code description

Acute post-thoracotomy pain

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

Pain level

Timepoint

2, 4, 6, 8, 24 and 48 hours after block

Method of measurement

Visual analog scale (VAS) (0 None; 1-3 Mild; 4-7 Moderate; 8-10 Severe)

Secondary outcomes

empty

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

Intervention group: The ultrasound probe is placed in the midclavicular region of the chest at the sagittal surface. After determining the fifth midaxillary rib, the needle is inserted to a depth of 1-2 cm. After fixation of the epidural catheter in the anterior of the serratus muscle, first 10 ml of 0.25% marcain is injected and then 5 ml of solution contains 0.1% marcine is infused.

Category

Treatment - Devices

2**Description**

Control group: The epidural catheter is placed in the T7-8 space. The injectable drugs are similar to the intervention group.

Category

Treatment - Devices

Recruitment centers

1

Recruitment center

Name of recruitment center

Masih Daneshvari hospital

Full name of responsible person

Masoud Hashemi MD

Street address

Darabad, Shahid Bahonar (Niavaran) Street

City

Tehran

Province

Tehran

Postal code

19556

Phone

+98 21 2712 3000

Email

dr.hashemi@sbmu.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shahid Beheshti University of Medical Sciences

Full name of responsible person

Afshin Zarghi MD.

Street address

Shahid Arabi st., Yaman St., Shahid Chamran Expressway

City

Tehran

Province

Tehran

Postal code

1985717443

Phone

+98 21 2243 9781

Email

zarghi@sbmu.ac.ir

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Shahid Beheshti 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

Shahid Beheshti University of Medical Sciences

Full name of responsible person

Masoud Hashemi MD.

Position

Associate Professor

Latest degree

Subspecialist

Other areas of specialty/work

Anesthesiology

Street address

Akhtar hospital, Sharifi Manesh st.

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Province

Tehran

Postal code

1964714953

Phone

+98 21 2261 2252

Email

dr.hashemi@sbmu.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity

Shahid Beheshti University of Medical Sciences

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Person responsible for updating data

Contact

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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

Yes - There is 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

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

The whole data can be shared after unidentifiable people.

When the data will become available and for how long

Start the access period 6 months after printing the results

To whom data/document is available

Only available to scholars working in academic and academic institutions

Under which criteria data/document could be used

Employed in research centers

From where data/document is obtainable

Person responsible for scientific inquiries

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

Send email to person responsible for scientific inquiries

Comments