Clinical Trial Protocol
Iranian Registry of Clinical Trials

10 Jun 2026

Comparison of thoracic epidural block versus erector spinae plane block for post operative pain relief in thoracotomies

Protocol summary

Study aim
The main aim of this study is to compare the post-operative analgesic efficacy of thoracic epidural block when compared with erector spinae plane block in patients post-thoracotomies

Design
Randomized controlled trial. Method of randomization was non-probability consecutive by lottery method.

Settings and conduct
Patients were randomized into two groups thoracic epidural block (Group T) and erector spinae group (Group E) an informed written consent was taken .Standard monitoring was attached in both groups . After securing IV line and preparing patient patient in Group T were placed in sitting position and 18G tuohy needle was passed for catheter in T3-6 epidural space .In Erector Spinae Group patoent were placed in semi lateral position and block was performed as per NYSORA guidelines and 20G catheter placed in situ for infusion in next 24 person ours.

Participants/Inclusion and exclusion criteria
Inclusion Criteria included all male and female patients between ages 25-75 years presenting in the operating room for elective thoracotomies. Exclusion Criteria included patients with metastatic disease, major cardiac or respiratory disease, low ejection fraction, post chemotherapy, allergy to lignocaine or bupivacaine, patients with advanced polytrauma causing hemodynamic instability, patients with oxygen saturation less than 92 percent after supplemental oxygen or patients unwilling to be included in the trial.

Intervention groups
Patients were divided into two interventional groups thoracic epidural block group (Group T) (n=20) and erector spinae block group (Group E) (n=20).

Main outcome variables
Mean time to first dose analgesia Total dose of intravenous analgesia needed in 24 hours Median pain scores at 1,3,6,12 and 24 hours Patient satisfaction Score for pain relief in 24 hours

General information

Reason for update

Acronym
ESP (Erector Spinae Block)

IRCT registration information
IRCT registration number: **IRCT20231113060036N1**
Registration date: **2024-02-07, 1402/11/18**
Registration timing: **registered_while_recruiting**

Last update: **2024-02-07, 1402/11/18**
Update count: **0**

Registration date
2024-02-07, 1402/11/18

Registrant information

Name
Sikander Hayat

Name of organization / entity
National university of medical sciences rawalpindi

Country
Pakistan

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+92 346 6582936

Email address
sikanderhayat94@gmail.com

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-07-01, 1402/04/10

Expected recruitment end date
2024-02-10, 1402/11/21

Actual recruitment start date
empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of thoracic epidural block versus erector spinae plane block for post operative pain relief in thoracotomies

Public title

Comparison of Thoracic Epidural Block versus Erector Spinae Plane Block for post operative pain relief in thoracotomies

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

All male and Female patients between ages 25-75 years Presenting in operating room for thoracotomies

Exclusion criteria:

Patients with metastatic disease Major cardiac or respiratory disease Low ejection fraction Post chemotherapy Allergy to lignocaine or bupivacaine Patients with advanced polytrauma causing haemodynamic instability Patients with oxygen saturation less than 92 percent Patients unwilling to be included in trial

Age

From **25 years** old to **75 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **55**

Randomization (investigator's opinion)

Randomized

Randomization description

The method of randomization was non probability consecutive by lottery method

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

N/A

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethical Committee of Combined Military Hospital Rawalpindi

Street address

CMH Road Rawalpindi

City

Rawalpindi

Postal code

46000

Approval date

2023-07-01, 1402/04/10

Ethics committee reference number

494

Health conditions studied

1

Description of health condition studied

Comparison of Pain relief in patients with thoractimies post operatively using erector spinae and epidural block

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Median pain scores, Mean time to first rescue analgesia, total dose of intravenous analgesia needed in 24 hours, patient satisfaction for pain relief

Timepoint

Median pain scores at 1, 3,6, 12 and 24 hours, total intravenous analgesia needed in 24 hours after intervention, patient satifaction score 24 hours after intervention

Method of measurement

Visual analogue Score, patient satisfaction score on a 7 point likert scale. Total dose of analgesia in milligram

Secondary outcomes

1

Description

Nausea/Vomiting, hypotension and sedation

Timepoint

24 hours after intervention

Method of measurement

Number of episodes of vomiting,Manometry, GCS

Intervention groups

1

Description

Intervention group:

Category

Treatment - Other

2

Description
Intervention group:
Category
Treatment - Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Combined Military Hospital Rawalpindi Punjab Pakistan
Full name of responsible person
Sikander Hayat
Street address
House No. 6054/18-B Rose lane 09 New Lalazaar
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Rawalpindi
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Combined Military Hospital Rawalpindi
Full name of responsible person
Kamran Ahmed
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kahmed72462@gmail.com
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Combined Military Hospital Rawalpindi
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
National University of Medical Sciences
Full name of responsible person
Ali Raza
Position
Registrar
Latest degree
Medical doctor
Other areas of specialty/work
Anesthesiology
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Person responsible for updating data

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National university of Medical Sciences

Full name of responsible person

Sikander Hayat

Position

Registrar

Latest degree

Medical doctor

Other areas of specialty/work

Anesthesiology

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

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

Study Protocol

Undecided - It is not yet known if there will be 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

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

Clinical Study Report

Undecided - It is not yet known if there will be 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