Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparison of analgesic efficacy between transversus abdominis plane block and epidural following abdominal surgery

Protocol summary

Study aim
The objective of this study is to compare the post-operative analgesic efficacy of ultrasound guided transversus abdominis plane (TAP) block versus intra-thoracic epidural catheter in patients undergoing abdominal laparotomy.

Design
A non blinded, Quasi experimental interventional, single center study with two intervention groups carried out from march 2023 to September 2023.

Settings and conduct
The study was conducted in Anesthesia Department of Combined Military Hospital, Rawalpindi.

Participants/Inclusion and exclusion criteria
Inclusion criteria included all ASA-I and II male and female patients between ages 20-60 years presenting for elective or emergency abdominal laparotomy. Exclusion criteria included patients with cancer, tumors or metastatic disease, low ejection fraction, respiratory compromise, post chemotherapy, allergic to bupivacaine or lignocaine or unwilling to be included in the study, infection at site of block, coagulation disorders, patchy or failed epidural insertion and failure to perform TAP block after three unsuccessful attempts.

Intervention groups
The patients were divided into the TAP block group (Group TAP) (n=60) and the epidural group (Group Epidural) (n=60).

Main outcome variables
Primary variable observed was mean time to first rescue analgesia and objective patient satisfaction in both groups.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20230829059295N1**

Registration date: **2023-09-08, 1402/06/17**

Registration timing: **registered_while_recruiting**

Last update: **2023-09-08, 1402/06/17**

Update count: **0**

Registration date

2023-09-08, 1402/06/17

Registrant information

Name
Haroon Tariq

Name of organization / entity
Combined military hospital Rawalpindi

Country
Pakistan

Phone
+92 323 7399976

Email address
haroontariq299@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-03-30, 1402/01/10

Expected recruitment end date

2023-09-30, 1402/07/08

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of analgesic efficacy between transversus abdominis plane block and epidural following abdominal surgery

Public title

Comparison of trasnversus abdominis plane block and epidural in abdominal surgery

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
All ASA-I and II patients Patients between ages 20-60 years Patients undergoing for elective or emergency abdominal laparotomy.

Exclusion criteria:
Patients with cancer, tumors or metastatic disease, low ejection fraction, respiratory compromise, post chemotherapy and coagulation disorders, Allergic to bupivacaine or lignocaine Unwilling to be included in the study Patchy or failed epidural insertion and failure to perform TAP block after three unsuccessful attempts. Infection at site of block

Age
From **20 years** old to **60 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **120**

Randomization (investigator's opinion)
Randomized

Randomization description
Lottery method was used for randomization of patients in to two groups i.e One group that received TAP block and the other that had epidural anesthesia. Allocation concealment was not done.

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
Ethical committee of combined military hospital

Street address
Tamizudin road , lalkurti rawalpindi

City
Rawalpindi

Postal code
46000

Approval date
2023-03-30, 1402/01/10

Ethics committee reference number
CMH/RWP/402

Health conditions studied

1

Description of health condition studied
Post operative pain relief after abdominal surgeries

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description
Patient satisfaction regarding post operative pain

Timepoint
At 24 hours

Method of measurement
Likert Scale

Secondary outcomes

1

Description
adverse effects of analgesia

Timepoint
Within 24 hours

Method of measurement
Patient's subjective complaints

2

Description
Effect on HDU stay due to pain

Timepoint
24 hrs, 36hrs, 48 hrs

Method of measurement
Duration of admission in HDU

Intervention groups

1

Description
Intervention group: Transversus Abdominis Plane (TAP) Block group. In the TAP block group (n=60), once the surgery was completed, a pain consultant performed the block under ultrasound guidance using standard technique furnished by NYSORA 11 . Bilateral TAP block was performed in all patients that underwent abdominal surgery and 15 ml of 1%lignocaine with adrenaline was injected on each side of the block..

Category
Treatment - Other

2

Description
Intervention group: Epidural analgesia group. An 18 G Smith epidural catheter Touhy needle was inserted in the epidural group (n=60) by a consultant anesthetist pre-operatively under aseptic measures with patient in the sitting position in the T6 thoracic space. Confirmation of correct placement was checked by hanging drop method and further confirmed by test dose of 5 ml 2% lignocaine with adrenaline. Once correct placement was confirmed, the catheter was secured, and surgery was started. No bolus dose of epidural was till the surgery was completed. At the end of surgery, a top-up of 10 ml of0.125% bupivacaine was given in the epidural catheter for post-op analgesia and pain relief.

Category
Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center
Combined Military Hospital
Full name of responsible person
Dr Haroon Tariq
Street address
Tamizzudin road, Lalkurti, Rawalpindi
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Rawalpindi
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+92 51 9273426
Email
haroontariq299@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Combined military hospital
Full name of responsible person
Dr Rashid Iqbal
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tamizudin road, lalkurti rawalpindi
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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
Combined military hospital
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
Combined Military Hospital
Full name of responsible person
Haroon Tariq
Position
Post graduate resident
Latest degree
Medical doctor
Other areas of specialty/work
Anesthesiology
Street address
House No 318, Street 5, Sector B1, DHA Phase 1, Rawalpindi
City
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Person responsible for scientific inquiries

Contact

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Full name of responsible person
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Position
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Medical doctor
Other areas of specialty/work
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Person responsible for updating data

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Resident anesthesiology

Latest degree
Medical doctor

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Anesthesiology

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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
All collected data could be provided

When the data will become available and for how long
Data will be available for 2 years starting from October 2023 to October 2025

To whom data/document is available
Academic institutions

Under which criteria data/document could be used
Interventionaal studies being done on the same topic

From where data/document is obtainable
haroontariq299@gmail.com

What processes are involved for a request to access data/document
Please contact on the email provided to ask for detailed data

Comments