

Thoracic epidural or paravertebral analgesia after thoracic surgery

Submission date 11/04/2013	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 21/06/2013	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
Last Edited 21/06/2013	Condition category Surgery	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims

We are carrying out a study on patients undergoing thoracic surgery. Inadequate pain treatment after surgery may lead to worsening of lung function because patients may find it difficult to take deep breaths. Standard procedures to reduce pain include thoracic epidural analgesia (TEA) and thoracic paravertebral analgesia (PVB). In principal, TEA can be expected to influence both sides of the thorax, whereas PVB is expected to block only the site of the operation. Our goal is to find out, whether this difference may affect the ability to breathe.

Who can participate?

Patients undergoing thoracic surgery.

What does the study involve?

Patients will be randomly allocated to two groups. One will receive the TEA and the other group PVB. Both procedures are standard pain treatment procedures in our institution. In addition, specialized pain nurses will take care of the appropriate treatment.

The lung function will be assessed by spirometry. The patient is asked to take a deep breath and then exhale into the sensor for as long as possible. The pain levels at rest and during coughing will also be assessed at regular intervals.

What are the possible benefits and risks of participating?

All participants will receive an additional teaching session regarding the pain measures and spirometry. Information obtained from this study may benefit future patient treatment. By taking part in this study there are no extra risks of physical injury or harm.

Where is the study run from?

Saarland University Medical Center and Saarland University Faculty of Medicine, Homburg, Germany

When is the study starting and how long is it expected to run for?

The study runs from May 2010 to September 2013.

Who is funding the study?
Saarland University Faculty of Medicine, Homburg, Germany

Who is the main contact?
Prof. Dr. Thomas Volk
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Contact information

Type(s)
Scientific

Contact name
Prof Thomas Volk

Contact details
Saarland University Medical Center
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Additional identifiers

Protocol serial number
40/10

Study information

Scientific Title
Thoracic Epidural or ParaVerteBral Analgesia after thoracic surgery: a randomised controlled trial

Acronym
TEA vs PVB

Study objectives
Lung function after surgery, as measured by forced expiratory volume in 1 second (FeV1) and peak expiratory flow (PEF) is better when a continuous paravertebral catheter is used compared to a continuous thoracic epidural catheter.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Ethic committee of Auml;rztekammer Saarland, Nr.: 40/10, approved: April 2010

Study design
Randomised unicentric trial

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Thoracic surgery

Interventions

Continuous thoracic epidural catheter or continuous paravertebral catheter for pain treatment

Intervention Type

Procedure/Surgery

Phase

Not Applicable

Primary outcome(s)

FV1 measured in L/sec and PEF measured in L/sec- lung function parameters from spirometry (FeV1=expiratory flow after 1 second, PEF=peak expiratory flow, FVC=forced vital capacity).

The outcome parameters will be measured before the TEA or PVB placement, 15 minutes afterwards and twice daily until day 3 after surgery.

Key secondary outcome(s)

1. Pain levels at rest and with coughing (using the verbal numeric rating scale at rest and during coughing)
2. Aggregated incidence of nausea, vomiting, pneumonia, atelectases
3. Mobilisation (time to stand up, to walk)

The outcome parameters will be measured before the TEA or PVB placement, 15 minutes afterwards and twice daily until day 3 after surgery.

Completion date

30/07/2013

Eligibility**Key inclusion criteria**

1. Aged 18 years old and above
2. American Society of Anesthesiologists (ASA) grade I-III
3. Planned thoracic surgery
4. Accepted procedure

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 years

Sex

All

Key exclusion criteria

1. Relevant liver or renal disease (Kreatinin > 2 mg/dl, Bilirubin > 2 mg/dl)
2. Inability to communicate
3. Relevant cardiac or neurological disease
4. Chronic treatment with opioids or psychiatric drugs
5. Dependencies
6. Body Mass Index > 30
7. ASA > III
8. Contraindication for a neuraxial procedure

Date of first enrolment

01/01/2012

Date of final enrolment

30/07/2013

Locations**Countries of recruitment**

Germany

Study participating centre

Saarland University Medical Center

Homburg

Germany

66421

Sponsor information**Organisation**

Saarland University Medical Center and Saarland University Faculty of Medicine (Germany)

ROR

<https://ror.org/01jdpv68>

Funder(s)

Funder type

Hospital/treatment centre

Funder Name

Saarland University Medical Center and Saarland University Faculty of Medicine (Germany)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration