

Study of the influence of a lung recruitment strategy on oxygenation, lung mechanics and dead-space in thoracic surgery

Submission date 30/01/2011	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
Registration date 01/06/2011	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
Last Edited 01/06/2011	Condition category Surgery	<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

Plain English summary of protocol

Not provided at time of registration

Contact information

Type(s)

Scientific

Contact name

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Contact details

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Additional identifiers

Protocol serial number

N/A

Study information

Scientific Title

Alveolar recruitment strategy improves lung function during thoracic surgery: a prospective, randomised study

Study objectives

The aim of the study is to investigate whether an alveolar recruitment strategy applied to both lungs before starting one lung ventilation (OLV) would improve gas exchange, lung mechanics and dead space

Ethics approval required

Old ethics approval format

Ethics approval(s)

Hospital de Sant Pau Research Ethics Committee approved on the 19th December 2007

Study design

Randomised controlled trial

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Thoracic surgery

Interventions

Patients undergoing elective thoracotomy in the lateral position requiring one-lung ventilation and an arterial catheter were randomised to receive:

1. Lung recruitment manoeuvre with an inspiratory plateau pressure of 40cmH₂O and PEEP of 20cmH₂O was performed in this group for 10 consecutive breaths at the beginning of both TLV periods
2. No lung recruitment

Intervention Type

Procedure/Surgery

Phase

Not Specified

Primary outcome(s)

1. Arterial blood gases
2. Volumetric capnography
3. Ventilatory and hemodynamic data

These were recorded at the end of each one of the following study periods:

1. TLVbaseline: 5 min after placing the patient in the lateral position during TLV
2. TLV20: 20 min after placing the patient in the lateral position during TLV
3. OLV20: 20 min after OLV ventilation
4. OLV40: 40 min after OLV ventilation
5. TLVend: 10 min after re-establishing TLV once pulmonary resection was completed

Key secondary outcome(s)

No secondary outcome measures

Completion date

01/04/2011

Eligibility

Key inclusion criteria

Elective adults patients undergoing open thoracic surgery in lateral position requiring one-lung ventilation lasting longer than 40 minutes

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

Previous contralateral lobectomy, uncompensated cardiac disease, arrhythmias with hemodynamic repercussions, severe air trapping (residual volume > 150%) and presence of large bullae

Date of first enrolment

07/01/2009

Date of final enrolment

01/04/2011

Locations

Countries of recruitment

Spain

Study participating centre

Department of Anaesthesia

Barcelona

Spain

08025

Sponsor information

Organisation

Hospital de Sant Pau (Spain)

ROR

<https://ror.org/059n1d175>

Funder(s)**Funder type**

Hospital/treatment centre

Funder Name

Hospital de Sant Pau (Spain)

Results and Publications**Individual participant data (IPD) sharing plan****IPD sharing plan summary**

Not provided at time of registration