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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	[_] Prospectively registered [_] Protocol [_] Statistical analysis plan [_] Results [_] Individual participant data [_] Record updated in last year
Registration date 01/06/2011	**Overall study status** Completed	
Last Edited 01/06/2011	**Condition category** Surgery	

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

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

Primary study design
Interventional

Study design
Randomised controlled trial

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 begining 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