

8 healthy female pigs

ANESTHESIA:

- *medetomidine* 0.025 mg/kg IM
- *tiletamine/zolazepam* 5 mg/kg IM
- *propofol*: 2 mg/kg IV (auricular vein) followed by a continuous infusion of 3-6 mg/kg/h

SURGICAL PREPARATION:

- Surgical **tracheostomy** (local 1% lidocaine)
- **5-F arterial catheter** in the right carotid artery
- **Two 5-F pulmonary artery catheters** into the right internal jugular vein

SETTING:

Mechanical ventilation:

Volume Controlled mode
FiO₂ 0.5, V_T 12 ml/kg
PEEP 0 cm H₂O
I:E = 1:2
RR 20 breaths/min

Intravenous infusion:

medetomidine (2.5-10.0 µg/kg/h)
pancuronium (0.3-0.5 mg/kg/h)
propofol (3-6 mg/kg/h)
lactated Ringer's (100 ml/h during surgery, then 50 ml/h)

Body temperature:

kept constant between 37.5 and 38.5 °C through an external warming pad

PRONE POSITION

1 hour stabilization time

RECRUITMENT MANOEUVRE:

1 minute of ventilation in Pressure Controlled mode
Inspiratory pressure 40 cm H₂O, RR 10 breaths/min,
PEEP 5 cm H₂O, FiO₂ 0.5, I:E = 1:1.

15-20 minutes

Baseline

- **CT scans**
- *Respiratory variables*
- *Hemodynamic variables*
- *Arterial blood sample*

Filling of the balloon of one pulmonary artery catheter

30 minutes

Wedge time

- **CT scans**
- *Respiratory variables*
- *Hemodynamic variables*
- *Arterial blood sample*

Off-line images processing

for *quantitative analysis (qCT)*
and *sub-regional qCT analysis*