

Liegen zu der geplanten Studie Literatur bzw. Tierversuche bereits vor?

Zu der geplanten Studie liegen Ergebnisse aus folgenden Studien vor:

1. Arozullah, A.M., et al., *Multifactorial risk index for predicting postoperative respiratory failure in men after major noncardiac surgery. The National Veterans Administration Surgical Quality Improvement Program.* Ann Surg, 2000. 232(2): p. 242-53.
2. Smetana, G.W., V.A. Lawrence, and J.E. Cornell, *Preoperative pulmonary risk stratification for noncardiothoracic surgery: systematic review for the American College of Physicians.* Ann Intern Med, 2006. 144(8): p. 581-95.
3. Tremblay, L., et al., *Injurious ventilatory strategies increase cytokines and c-fos mRNA expression in an isolated rat lung model.* J Clin Invest, 1997. 99(5): p. 944-52.
4. Dreyfuss, D. and G. Saumon, *Ventilator-induced lung injury: lessons from experimental studies.* Am J Respir Crit Care Med, 1998. 157(1): p. 294-323.
5. Imai, Y., et al., *Injurious mechanical ventilation and end-organ epithelial cell apoptosis and organ dysfunction in an experimental model of acute respiratory distress syndrome.* JAMA, 2003. 289(16): p. 2104-12.
6. Ranieri, V.M., et al., *Effect of mechanical ventilation on inflammatory mediators in patients with acute respiratory distress syndrome: a randomized controlled trial.* JAMA, 1999. 282(1): p. 54-61.
7. Terragni, P.P., et al., *Tidal hyperinflation during low tidal volume ventilation in acute respiratory distress syndrome.* Am J Respir Crit Care Med, 2007. 175(2): p. 160-6.
8. Terragni, P.P., et al., *Tidal volume lower than 6 ml/kg enhances lung protection: role of extracorporeal carbon dioxide removal.* Anesthesiology, 2009. 111(4): p. 826-35.
9. Dos Santos, C.C. and A.S. Slutsky, *Invited review: mechanisms of ventilator-induced lung injury: a perspective.* J Appl Physiol (1985), 2000. 89(4): p. 1645-55.
10. dos Santos, C.C. and A.S. Slutsky, *The contribution of biophysical lung injury to the development of biotrauma.* Annu Rev Physiol, 2006. 68: p. 585-618.

11. Duggan, M. and B.P. Kavanagh, *Pulmonary atelectasis: a pathogenic perioperative entity*. *Anesthesiology*, 2005. 102(4): p. 838-54.
12. Serpa Neto, A., et al., *Association between use of lung-protective ventilation with lower tidal volumes and clinical outcomes among patients without acute respiratory distress syndrome: a meta-analysis*. *JAMA*, 2012. 308(16): p. 1651-9.
13. Hemmes, S.N., A. Serpa Neto, and M.J. Schultz, *Intraoperative ventilatory strategies to prevent postoperative pulmonary complications: a meta-analysis*. *Curr Opin Anaesthesiol*, 2013. 26(2): p. 126-33.
14. Severgnini, P., et al., *Protective mechanical ventilation during general anesthesia for open abdominal surgery improves postoperative pulmonary function*. *Anesthesiology*, 2013. 118(6): p. 1307-21.
15. Hemmes, S.N., et al., *High versus low positive end-expiratory pressure during general anaesthesia for open abdominal surgery (PROVHILO trial): a multicentre randomised controlled trial*. *Lancet*, 2014. 384(9942): p. 495-503.
16. Gama de Abreu, M., et al., *One-lung ventilation with high tidal volumes and zero positive end-expiratory pressure is injurious in the isolated rabbit lung model*. *Anesth Analg*, 2003. 96(1): p. 220-8, table of contents.
17. Kozian, A., et al., *Increased alveolar damage after mechanical ventilation in a porcine model of thoracic surgery*. *J Cardiothorac Vasc Anesth*, 2010. 24(4): p. 617-23.
18. Kozian, A., et al., *Ventilatory protective strategies during thoracic surgery: effects of alveolar recruitment maneuver and low-tidal volume ventilation on lung density distribution*. *Anesthesiology*, 2011. 114(5): p. 1025-35.
19. Benumof, J., *Conventional and differential lung management of one-lung ventilation*. , in *In: Anesthesia for thoracic surgery*. 1995, W.B. Saunders: Philadelphia. p. xiv, 799 p.
20. Senturk, M., *New concepts of the management of one-lung ventilation*. *Curr Opin Anaesthesiol*, 2006. 19(1): p. 1-4.

Die zitierten Studien bilden die wesentliche Grundlage für Rationale und Design von PROTHOR, unterscheiden sich allerdings von der geplanten Studie bezüglich Studienart, Patientenkollektiv und Fragestellung wesentlich. Die Fragestellung, die PROTHOR beantworten soll, ist in dieser Form bisher noch nicht untersucht worden.