

Lung Protective Strategies in the OR Reviewed



Do the principles of lung protective ventilation for ICU patients with acute respiratory failure apply to otherwise healthy patients in the operating room?

Satoshi Kimura, from the Department of Anesthesiology, The Ohio State University Wexner Medical Center, Columbus provide a review of the perioperative perspective on preventing ventilator-associated lung injury. In their review, published in <u>Frontiers in Medicine</u>, which extends to publications up to May 2015, they conclude that lung protective strategies may be beneficial to patients undergoing general anaesthesia.

Their review covers: studies of lung protective strategies using biomarkers; studies that assess clinical outcomes; meta-analyses as well as lung protective ventilation in anaesthetic practice. They conclude that the data is unclear and therefore it is important to consider variation in anaesthetic practice in the operating room as well as whether practice reflects the latest evidence.

See Also: Perioperative Respiratory Management of Morbidly Obese Patients

They conclude that "it is still unclear how we should combine these "lung protective strategies," including PEEP and recruitment manoeuvres, into a unified best practice for mechanical ventilation (MV) in the operating room.

Next Steps

Kimura and colleagues recommend larger trials of specific lung protective ventilator strategies for different surgical populations in order to clarify harm or benefit. They acknowledge that translating practice in the ICU to the OR can be difficult due to the difference in patient populations. For example, the authors suggest that the short duration of mechanical ventilation likely affects lung compliance less than a prolonged course of ventilation in ICU. ICU patients are more likely to have comorbid illnesses and pro-inflammatory states, such as sepsis, which affect the goals of MV.

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