Optimal mechanical ventilation strategy identified for obese

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(HealthDay)—For obese patients, the optimal mechanical ventilation strategy may be volume-controlled ventilation (VCV) with higher positive end-expiratory pressure (PEEP) and single recruitment maneuvers (RMs), according to a meta-analysis published in the June issue of *Obesity Reviews*.

Changsong Wang, M.D., from the First Affiliated Hospital of Harbin Medical University in China, and colleagues conducted a network meta-analysis to identify the optimal mechanical ventilation strategy for obese patients. Data were included from 13 randomized controlled trials, including 476 patients who received one of 12 ventilation strategies.

The researchers found that VCV with higher PEEP and single RMs

correlated with the highest ratio of partial pressure of oxygen to fraction of inspired oxygen. This was associated with improved intraoperative pulmonary compliance and decreased incidence of intraoperative atelectasis.

"The results of this meta-analysis show that strategy J (VCV + higher PEEP + single RM) was superior to other strategies in improving oxygenation, intraoperative pulmonary compliance, and preventing atelectasis in obese patients under anesthesia, whereas strategy D (pressure controlled ventilation + lower PEEP) was the lowest in improving oxygenation for obese patients," the authors write.

More information: Abstract
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