

Role of Adaptive Support Ventilation in Weaning of COPD Patients

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Abstract : Introduction: Adaptive support ventilation (ASV) is an improved closed-loop ventilation mode that provides both pressure-controlled ventilation and PSV according to the patient's needs. Aim of the work: To compare the short-term effects of Adaptive support ventilation (ASV), with conventional Pressure support ventilation (PSV) in weaning of intubated COPD patients. Patients and methods: Fifty patients admitted in the intensive care with acute exacerbation of COPD and needing intubation were included in the study. All patients were initially ventilated with control/assist control mode, in a stepwise manner and were receiving standard medical therapy. Patients were randomized into two groups to receive either ASV or PSV. Results: Out of fifty patients included in the study forty one patients in both studied groups were weaned successfully according to their ABG data and weaning indices. APACHE II score showed no significant difference in both groups. There were statistically significant differences between the groups in term of, duration of mechanical ventilation, weaning hours and length of ICU stay being shorter in (group 1) weaned by ASV. Re-intubation and mortality rate were higher in (group 1) weaned by conventional PSV, however the differences were not significant. Conclusion: ASV can provide automated weaning and achieve shorter weaning time for COPD patients hence leading to reduction in the total duration of MV, length of stay, and hospital costs.

Keywords : COPD patients, ASV, PSV, mechanical ventilation (MV)

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