

ABSTRACT

Mechanical ventilation is associated with numerous organ-system complications. **The Aim of the study** was to investigate the effect of positive pressure ventilation on renin–aldosterone system and to investigate their prognostic value in relation to ICU course and outcome. **Results:** Mechanical ventilation caused elevation of renin and aldosterone levels especially with higher levels of PEEP. Renin and aldosterone levels in mechanically ventilated patients were significantly correlated with kidney function test (urea and Creatinine), length of mechanical ventilation, need for hemodynamic support, APACHE IV score and mortality.

Keywords: mechanical ventilation, lung –kidney crosstalk, renin-aldosterone system