ICU
MANAGEMENT & PRACTICE

Outcome After Intubation for Septic Shock

Acute respiratory failure in septic patients is associated with higher in-hospital mortality. Early management and treatment with antibiotics, fluids, vasopressors, and source control, can reduce morbidity and mortality. Sepsis-related acute respiratory failure is also frequent and may require non-invasive or invasive ventilator support.

While intubation can improve outcomes, there are no specific criteria defined and no guidelines on the indication or the timing of intubation. The decision to intubate can be complex, and there is also evidence that intubation in septic patients with respiratory distress and haemodynamic compromise could result in clinical deterioration and precipitate cardiovascular failure.

A recent study was conducted to evaluate the impact of intubation in patients with respiratory distress and predominant haemodynamic instability within 24 hours after admission to the ICU for septic shock. The researchers hypothesised that deferring intubation would result in worse in-hospital mortality and reduced hospital-free days in patients with septic shock.

The study included adult patients with septic shock. Septic shock was defined by persistent lactate > 4 mmol/L, mean arterial pressure < 65 mmHg, or vasopressor use after 30 mL/kg fluid boluses and suspected or confirmed infection. Patients hospitalised in the ICU at 24 hours were separated into two groups - intubated while in the ICU and non-intubated. The primary outcome of the study was hospital mortality.

Findings show that 33% of ICU patients were eventually intubated after ICU admission and 67% were not. Patients who were intubated were found to be younger and were more likely to be transferred from an outside facility. They were also more severely ill, had more lung infection and achieved blood pressure goals more often. Their lactate normalisation within six hours occurred less often.

Among the patients who remained hospitalised in the ICU after 24 hours after a sepsis diagnosis, higher in-hospital mortality was reported in intubated patients than non-intubated patients. ICU mortality and ICU and hospital length of stay were also higher in intubated patients.

Overall, intubation within 24 hours of sepsis did not have any significant effect on mortality but resulted in fewer 28-day free hospital days. Therefore, while intubation remains a high-risk procedure, findings from this study did not identify increased risk in mortality in patients with septic shock and predominant haemodynamic compromise.

Source: BMC Anesthesiology

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