

Early vs. Late Awake Prone Positioning in COVID-19



Approximately 25 to 30% of COVID-19 patients develop signs of acute respiratory distress that require higher respiratory support in terms of oxygen therapy, and noninvasive and invasive positive pressure ventilation. Since the beginning of the COVID-19 pandemic, the use of awake prone positioning has increased in the management of patients with COVID-19.

Early prone positioning improves oxygenation and patient outcomes in intubated patients with moderate to severe ARDS. However, despite evidence showing the benefit of prone positioning among non-intubated patients with COVID-19, there is still very little evidence that guides the timing of awake prone positioning in these patients.

A study was conducted to compare the outcome of COVID-19 patients who received early awake prone positioning versus late awake prone positioning. The study included one hundred twenty-five patients with acute hypoxaemic respiratory failure secondary to COVID-19 who received awake prone positioning for at least one hour. The primary outcomes of the study were 28-day mortality and intubation rate.

Early prone positioning was defined as awake prone positioning initiated within 24 hours of high-flow nasal cannula start. All patients received respiratory support via high-flow nasal cannula. 73% of the study patients received early awake prone positioning, while 26.4% received late awake prone positioning. Prone positioning was performed under clinician supervision. Patients maintained prone positioning as long as they could tolerate it.

There was no significant difference in the SpO₂ ratio or ROX index before awake prone positioning in the early vs late groups. After 30 minutes in the first prone session, the early group had a higher SpO₂/FiO₂ ratio and ROX index.

Findings from the study show that the early awake prone positioning group had lower mortality than the late awake prone positioning group. No difference between the two groups was found in intubation rate. Increased mortality was associated with advanced age, intubation, longer time to initiate awake prone positioning and hydrocortisone use. Hospital and ICU length of stay were similar for the two groups. There was no significant difference in intubation rate and invasive mechanical ventilation duration. Noninvasive ventilation use and duration from high-flow nasal cannula initiation to noninvasive ventilation were also similar among the two groups. More patients in the late group received steroids.

Overall, these findings show early initiation of awake prone position in acute hypoxaemic respiratory failure secondary to COVID-19 improves 28-day survival.

Source: [Critical Care](#)

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Published on : Tue, 21 Sep 2021