Fentanyl-Based Analgosedation Strategy for Intubated ICU Patients

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In this retrospective cohort study, an analgosedation strategy using fentanyl was associated with reductions in both ventilator time and the need for sedative infusions.

Complications from long-term deep sedation and the lack of adequate pain control for mechanically ventilated intensive care unit (ICU) patients has resulted in the development of analgosedation protocols emphasizing pain control over sedation. Most approaches utilize remifentanil. These investigators conducted a retrospective cohort study of adult medical ICU patients intubated before and after the implementation of a fentanyl-based analgosedation protocol.

Patients who were intubated for more than 24 hours and qualified for lighter levels of sedation were included. Patients extubated during the immediate postoperative period, transferred on a ventilator, or moribund on arrival were excluded. The preimplementation group was managed with propofol (supplemented by additional sedatives or opiates as needed) to achieve a Richmond Agitation-Sedation Scale (RASS) score between 0 and −2. The postimplementation group was managed with bolus or infusion fentanyl (supplemented with sedative agents if needed) with the same RASS score target. The primary outcome was the duration of mechanical ventilation.

The analysis included 65 patients in the preimplementation group and 79 in the postimplementation group. Unadjusted comparisons showed the postimplementation group, compared with the preimplementation group, had an average 45-hour reduction in ventilator time and a 54% reduction in exposure to sedative infusions. In linear regression analysis, the fentanyl-based strategy remained associated with reduced ventilator time.

Comment: The retrospective unblinded study design and lack of control for confounders detract from these results. Despite these inherent limitations, the differences between the two groups are large and probably real. Randomized controlled trials are needed to confirm these findings. In the meantime, emergency physicians should focus on adequate pain control for intubated patients; after all, a sedated patient in pain is still in pain.

Citation(s):

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