

Sedative prevents delirium in ICU patients



Results of a randomised, placebo-controlled trial showed that a low dose of the sedative dexmedetomidine given at night may prevent delirium in critically ill patients. In this study of 100 ICU patients, half of them were randomly assigned to receive intravenous dexmedetomidine; the other half were given the placebo.

The trial published online in the *American Journal of Respiratory and Critical Care Medicine* is believed to be the first investigation to identify a drug to prevent adults from developing delirium in the ICU.

The study was led by Yoanna Skrobik, MD, FRCP(c) MSc, a clinician-scientist at McGill University Health Centre in Canada who conducted the first studies of delirium in the critically ill and whose research has shown that delirium prolongs hospital stay and increases mortality.

"In other studies, dexmedetomidine has been associated with lower delirium prevalence rates than other sedatives," Dr. Skrobik said. "But whether dexmedetomidine might actually prevent delirium was not clear."

The new study was conducted at two hospitals in Quebec and Boston; all study patients did not have delirium at the time of ICU enrolment. Neither the study patients nor the ICU healthcare team knew which arm of the trial the patients were in. Compared to the placebo arm, those receiving dexmedetomidine during their ICU stay were more likely to remain free of delirium throughout their ICU stay (80 percent vs. 54 percent) and spent more days free of delirium in the ICU (8 vs. 6 days). In addition, those in the sedative group were less likely, if in pain, to experience severe pain: 44 percent vs. 66 percent.

Although the researchers expected that dexmedetomidine would also improve sleep quality – as was the case in a previous study of a select group of critically ill patients – Skrobik et al. found no difference in sleep quality between the two groups, as assessed by a self-reported questionnaire.

Dr. Skrobik said that the sleep findings should be interpreted in light of two caveats: sleep in the ICU is almost always abnormal, and no validated instrument exists to identify when an ICU patient is experiencing normal or abnormal sleep.

There was also no difference in length of ICU stay or hospital stay, or in ICU mortality. However, a reduction in opiate requirements confirmed other studies describing dexmedetomidine's potential to relieve pain.

"We believe this is a practice-altering study and that dexmedetomidine should be used with patients at high risk for delirium," Dr. Skrobik said.

Source: [American Thoracic Society](#)

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