ICU MANAGEMENT & PRACTICE

Volume 18 - Issue 1, 2018 - News

ICU delirium a distinct indicator of acute brain injury

More than half of ICU patients in a new study experienced delirium for long periods during their stay. Sedative-associated delirium was most common, while longer periods of hypoxic delirium and unclassified delirium were associated with worse cognitive function at follow-up one year after hospital discharge.

You might also like: Sedative prevents delirium in ICU patients

Patients were assessed for delirium while in the ICU twice a day using the Confusion-Assessment Method-ICU (CAM-ICU) and the Richmond Agitation-Sedation Scale (RASS) and once a day outside the ICU. The delirium phenotypes were classified according to the presence of hypoxia, sepsis, sedative exposure, or metabolic (eg, renal or hepatic) dysfunction, which were not mutually exclusive.

A total of 1040 patients with respiratory failure or septic or cardiogenic shock were included. Seventy-one percent of participants experienced delirium at least once during their stay, and delirium occurred on 31% of all 13434 participant days. In the 4187 days of delirium, one delirium phenotype was present during 1355 days (32%), two phenotypes present during 1213 days (29%), three during 1231 days (29%), and four were present during 388 days (9%). More than half of participants who experienced delirium had hypoxic, septic, or sedative-associated delirium at some time during the study; metabolic and unclassified delirium occurred less often.

Researchers assessed 564 (80%) patients at 3-month follow-up, and 471 (75%) at 1-year follow-up, to assess executive function. Longer periods of multiple delirium subcategories predicted worse cognitive decline after one year following hospital discharge. Metabolic delirium was the only phenotype that didn't affect long-term cognitive decline, after adjusting for age, severity of illness, doses of sedating medications and other factors.

Lead author Timothy Girard, MD, MSCI, associate professor of critical care medicine, Pitt School of Medicine, said in an email to *ICU Management & Practice*: “Based on this study, intensivists should monitor ICU patients for delirium and view delirium in the setting of sedation, hypoxia, and/or sepsis as red flags indicating high risk for long-term cognitive impairment. When treating a patient with sedative-associated, hypoxic, or septic delirium, they should work to identify and reduce potential risk factors, especially those that are iatrogenic and modifiable, e.g., sedation." He advised that when patients are discharged after a critical illness, those who experienced prolonged periods of sedative-associated, hypoxic, or septic delirium should be scheduled for follow-up in an ICU follow-up clinic or other setting that will facilitate assessment for cognitive impairment.

Published on : Fri, 16 Mar 2018