

Prevalence of delirium in the postoperative period of cardiac surgery

Abstract

In the Intensive Care Unit, delirium is a common yet underdiagnosed form of organ dysfunction, and its contribution to patient outcomes is unclear. Accurate prediction of delirium in the Intensive Care Unit may facilitate efficient use of early preventive strategies and stratification of Intensive Care Unit patients by delirium risk in clinical research, but the optimal delirium prediction model to use is unclear. In this paper the authors start the search for the predictive model by determining the occurrence of the major risk factors and conclude that all of them play a role with different grades of intensity but they all should be considered.

Keywords: delirium, intensive care, risk factors, prevention

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Introduction

Delirium, the most common form of acute brain dysfunction affecting up to 80% of Intensive Care Unit (ICU) patients, has been shown to predict long-term cognitive impairment.

Accurate prediction of delirium in the ICU may facilitate efficient use of early preventive strategies and stratification of ICU patients by delirium risk in clinical research, but the optimal delirium prediction model to use is unclear. In this paper the authors start the search for the predictive model by determining the occurrence of the major risk factors and conclude that all of them play a role with different grades of intensity but they all should be considered.

Method

A total of 670 patients underwent cardiac surgery were evaluated, all of which were older than 18 years and were required to be able to perform delirium evaluation. A form containing the following variables was applied: type of surgery, time of hospitalization, sedation (if any), use of catheters and probes, use and time of mechanical ventilation, vasoactive drugs, history of smoking, alcohol consumption and depression in drug treatment. After that, in patients with suspected delirium, the Delirium CAM-ICU evaluation scale was applied.

Results

Result of this amount of patients, 62% were male (n=402) and 40% female (n=268). The predominant age group was 50 to 65 years and the main type of surgery performed was myocardial revascularization (65%). The presence of delirium was evidenced in 13.2% of the sample (89 patients). It was found that the presence of delirium was higher in patients with: hemoglobin drop greater than 30% (48%, n=43), cardiopulmonary bypass time 120 minutes (19%, n=17), active smoking (17%, n=15), alcohol consumption (11%,

n=10), depression (4%, n=4). Spearman's coefficient concludes that there was a significant statistical correlation between the presence of delirium and hemoglobin loss above 30% of preoperative levels (p =0.02) in this sample. In spite of all our efforts and the recent medical literature so far the discrimination of the main factors in mathematical models still have to be improved.¹⁻⁵

Conclusion

Among all the variables studied, blood loss was a determining factor for delirium with significantly statistical correlation.

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Conflicts of interest

The rest of the authors declare do not have conflicts of interest.

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