Category : **Brain: cerebro-vascular accidents**

A194 - *Outcome predictors of acute stroke patients admitted to intensive care unit*

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Introduction:
An increasing number of acute stroke patients are being admitted to an ICU. Those patients have high hospital mortality and poor functional outcomes. (1) However, limited data regarding the impact of organ support therapies are available. Moreover little is known about the use and the impact of withholding life sustaining treatment (LST).

Methods:
We used the Brest Stroke Registry, a population-based prospective registry, (INSERM) to identify all stroke patients (ischemic and hemorrhagic) admitted to an ICU in between 2008 and 2017 with at least one organ support therapy. This registry regroups all confirmed cases of stroke over the region of Brest city.(2) We retrospectively collected specific data from ICU stay. ICU mortality, 90-days mortality and functional status at hospital discharge were analyzed.

Results:
215 patients were included, 61,4% were men, mean age was 65.66 +/- 12.39 years. Ischemic stroke was diagnosed in 109/215 (50,1%); hemorrhagic stroke occurred in 106/215 (49.3%). Mean NIHSS score at admission was 22.53 +/- 14.74, and mean GCS score was 9.39 +/- 4.78. 112/215 (52%) patients died during ICU stay, 120/199 (60%) patients died before 90-days. 158/178 (88%) had poor outcomes (modified Rankin Score 4-6) at hospital discharge. 79 (36,9%) patients had care limitations. Age, mechanical ventilation at admission and intracranial hypertension were independently associated with hospital mortality and 90-days mortality. Need of vasopressors was associated with hospital mortality. NIHSS score at admission and mechanical ventilation were independent predictors of poor functional outcome. Adjusting on decision to withhold LST did not modify these associations.

Conclusion:
Our study showed that survival and functionnal outcomes remain poor in stroke patients admitted in ICU. Both neurological severity and organ support therapy were independent predictors of poor outcomes.

References:
(1) de Montmollin E et al. Ann Intensive Care 2020;10(1)
(2) Timsit S et al. Neuroepidemiology 2014;42(3):186–95.