Abstract: 1202

The incidence, treatment and mortality of new-onset atrial fibrillation patients at the intensive care unit

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Topic(s):
Atrial Fibrillation - Epidemiology, Prognosis, Outcome

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Background: Critically ill patients admitted to the intensive care unit (ICU) often develop atrial fibrillation (AF), with an incidence of around 5%. Stroke prevention in AF is well described in clinical guidelines. However, the extent to which stroke prevention is prescribed to ICU patients with AF is unknown.

Purpose: We aimed to determine the incidence of new-onset AF and describe the stroke prevention strategies that were initiated on the ICU of our teaching hospital. Also, we compared mortality in patients with new-onset AF to critically ill patients with previously diagnosed AF and patients without any AF.

Methods: This study was a retrospective cohort study including all admissions to the ICU of our hospital in the period 2011-2016. Propensity score matching was used to compare the different patient groups. Survival analyses were performed using these real-world data.

Results: In total, 3334 patients were admitted to the ICU, of whom 213 patients (6.4%) developed new-onset AF. 583 patients (17.5%) had a previous diagnosis of AF, the other patients (76.1%) were in normal sinus rhythm. In-hospital mortality and one-year mortality after hospital discharge were significantly higher for new-onset AF patients compared to patients with no history of AF or previously diagnosed AF. At hospital discharge, only 50.4% of the new-onset AF-patients eligible for stroke prevention received an anticoagulant and anticoagulation was not dependent on CHA2DS2VASc score or other patient characteristics. An effect of anticoagulative status on mortality was not significant.

Conclusion: AF is associated with increased mortality in critically ill patients that were admitted to the ICU. More guidance is needed to optimize anticoagulant treatment in critically ill new-onset AF patients.
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![Survival curve](image-url)

Cumulative Survival

Survival since hospital discharge (days)