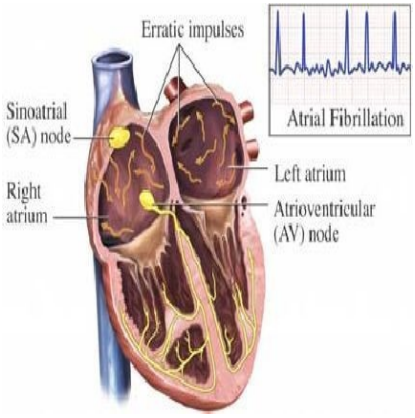
ICU
MANAGEMENT & PRACTICE

High Incidence of New-Onset AF in the ICU



A new study shows that new-onset atrial fibrillation (AF), a common arrhythmia in the ICU, occurred in approximately 5 to 15 percent of all non-cardiac critically ill patients — a figure exceeding previous estimates. Also, hospital mortality in new-onset AF patients was higher than that of patients without AF, according to the study published in the *Journal of Intensive Care* .

Researchers in Japan conducted a systematic review of relevant studies describing the epidemiology, prevention, and treatment of new-onset AF and atrial flutter during ICU stay in non-cardiac adult patients. Data revealed the common risk factors of AF, including advanced age, the white race, severity of illness, organ failures, and sepsis.

"The incidence range of AF in our review (5 to 15 percent) is higher than previously thought (4 to 9 percent), possibly due to the ageing population and development of more complex surgical procedures," said Takuo Yoshida, Intensive Care Unit, Department of Anaesthesiology, The Jikei University School of Medicine (Tokyo), and co-authors.

In addition, their review revealed that a subgroup of septic shock patients also had a markedly high incidence of new-onset AF (46 percent).

These findings suggest that systematic inflammation might have a role in triggering AF in critically ill patients, according to the research team. Previous studies in cardiac surgery and the general population have also reported that systemic inflammation could trigger AF, and there have been clinical trials using anti-inflammatory agents, such as colchicine and corticosteroid, to prevent or treat AF.

However, the effect of anti-inflammatory agents for AF in critically ill patients is unknown and further studies are needed, Yoshida and colleagues noted.

Although current guidelines recommend anticoagulation for new-onset AF of more than 48 hours of duration in the general population, it remains unclear whether non-cardiac critically ill patients with new-onset AF should be anticoagulated to prevent arterial thromboembolic events.

"Intensive care physicians should carefully weigh the risks and benefits of anticoagulation when a critically ill patient develops new-onset AF," said the research team.

Despite the high incidence of new-onset AF in the general ICU population, Yoshida and colleagues note that currently available information for AF — especially for management (prevention, treatment, and anticoagulation) — is quite limited.

They add: "Further research is needed to improve our understanding of new-onset AF in critically ill patients."

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