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Rethinking Risk Stratification in Emergency Department Patients with Nonsustained Atrial Fibrillation

LETTER TO THE EDITOR

To the Editor,

In light of the increasing relevance of atrial fibrillation (AF) burden in stroke prevention strategies, the recent study by Yurtseven et al[1] merits further reflection. Their investigation into nonsustained AF (NS-AF) episodes—defined as <30 seconds in duration—recorded by 24-hour Holter monitoring, and their association with long-term thromboembolic events, provides a crucial contribution to a previously ambiguous area of arrhythmia management.

We commend the authors for 3 important contributions. First, their inclusion of a real-world cohort with CHA_2 DS_2-VA risk stratification lends strong clinical applicability to the findings. Second, they focus on NS-AF episodes that are often dismissed as benign or clinically insignificant, especially in fast-paced settings such as emergency departments (EDs). Third, they highlight the high incidence of thromboembolic events in patients with CHA_2 DS_2-VA scores ≥2, reaching 38.5% in those with a score of 4, challenging longstanding assumptions in acute care decision-making.

That said, we believe this study also underscores three critical implications for emergency medicine that warrant emphasis.

First, ED physicians frequently encounter patients presenting with palpitations, near-syncope, or transient neurological symptoms, which are often evaluated with brief ECGs or single-day Holter monitoring.[2,3] In such cases, short, irregularly irregular rhythms under 30 seconds are routinely overlooked or dismissed. This study compels us to reexamine that reflex.

Second, the recent ESC guidelines have removed the minimum duration criterion for AF diagnosis, further blurring the operational definition of AF in acute care.[4] Yurtseven et al's findings give practical weight to this conceptual shift by demonstrating that even brief arrhythmias in high-risk patients may portend thromboembolic events.

Third, their results suggest that CHA_2 DS_2-VA scores retain predictive validity for thromboembolic risk at a threshold of ≥2 even in the absence of sustained AF. This has implications for risk stratification and safe discharge planning in EDs, particularly in resource-limited settings where access to long-term cardiac monitoring may be delayed or unavailable. Of note, the negative predictive value of CHA_2 DS_2-VA <2 reached 95.5%, further supporting this threshold as clinically actionable.

In summary, Yurtseven et al's study provides data-driven justification for a more cautious and proactive approach in ED patients with short AF episodes and high thromboembolic risk. This includes stronger consideration for early cardiology referral, prolonged monitoring, or risk-informed follow-up pathways. We thank the authors for bringing attention to a clinically relevant, yet underrecognized subset of arrhythmia-related risk, and hope their findings inspire further prospective validation in acute care cohorts.

Yalçın Gölcük

Department of Emergency Medicine, Faculty of Medicine, Muğla Sıtkı Koçman University, Muğla, Türkiye

Corresponding author:
Yalçın Gölcük
✉ dryalcingolcuk@gmail.com

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