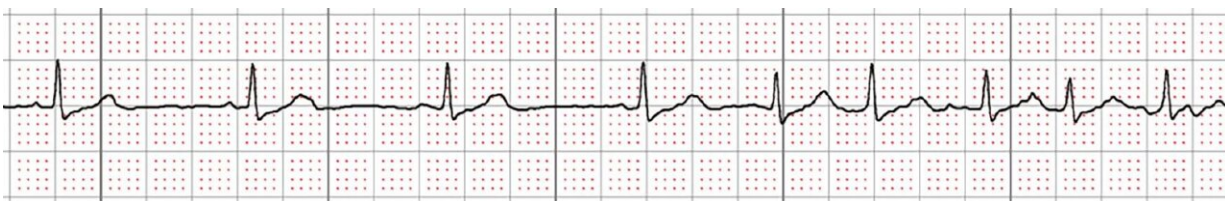


A pragmatic approach for the detection of post-ablation atrial fibrillation recurrence

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Recording of the sinus rhythm and the onset of atrial fibrillation. Credit: *Cardiovascular Innovations and Applications* (2023). DOI: 10.15212/CVIA.2023.0048

Symptom-driven electrocardiogram (ECG) recording plays a significant role in the detection of post-ablation atrial fibrillation recurrence (AFR). However, making timely medical contact whenever symptoms occur may not be practical. The authors of an article published in *Cardiovascular Innovations and Applications* deployed a deep learning (DL)-based handheld device to facilitate symptom-driven monitoring.

A cohort of patients with paroxysmal atrial fibrillation (AF) was trained to use a DL-based [handheld device](#) to record ECG signals whenever symptoms presented after the [ablation](#). Additionally, 24-hour Holter monitoring and 12-lead ECG were scheduled at three, six, nine, and 12 months post-ablation. The detection of AFR by the different modalities was explored.

A total of 22 of 67 patients experienced AFR. The handheld device and 24-hour Holter monitor detected 19 and eight AFR events, respectively, five of which were identified by both modalities.

A larger portion of ECG tracings was recorded for patients with than without AFR [362(330) vs. 132(133), $P=0.01$], and substantial numbers of AFR events were recorded from 18:00 to 24:00. Compared to Holter, more AFR events were detected by the handheld device in earlier stages (HR=1.6, 95% CI 1.2–2.2, P

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