Response to Letter Regarding Article “Temporal Relationship Between Subclinical Atrial Fibrillation and Embolic Events”

We agree with Professor Haft, in response to our article, that the prognostic significance of atrial arrhythmias lasting <6 minutes is an open question in the field of subclinical atrial fibrillation (AF). Unfortunately, this is not an issue we can resolve with data from the Asymptomatic Atrial Fibrillation and Stroke Evaluation in Pacemaker Patients and the Atrial Fibrillation Reduction Atrial Pacing Trial (ASSERT). The 6-minute threshold in ASSERT was chosen during the design phase of the study to be consistent with earlier reports and to coincide with a threshold duration in the arrhythmia logs of the St. Jude devices used in this study. The ASSERT protocol dictated adjudication of >17,000 electrograms for AF episodes lasting ≥6 minutes, of which 82.7% were found to be true AF. Because shorter episodes of AF were even more common, the review of all episodes <6 minutes was impractical. Of episodes <6 minutes in duration that were reviewed, <50% represented true AF; thus, we do not feel that analyses using unadjudicated events is appropriate.

To add further interest to this debate, long-term follow-up in the Copenhagen Holter study suggests that atrial tachycardia as short as 20 beats or even 30 premature atrial contractions per hour may be associated with an increased risk of stroke. This is far shorter than the 2 to 3 minutes that Professor Haft proposes as the minimum for clot formation, and to suggest a direct link between subclinical AF and stroke.

From a practical perspective, most ASSERT patients with short episodes of subclinical AF developed longer episodes. Because implanted pacemakers and defibrillators provide continuous, long-term monitoring, clinicians might target these patients for more intensive follow-up (possibly using remote monitoring) for the development of longer episodes. However, we still lack evidence that treating subclinical AF with oral anticoagulation is beneficial. The only completed randomized trial in this population has recently been presented and showed no benefit, whereas further randomized trials, including Apixaban for the Reduction of Thrombo-Embolism in Patients With Device-Detected Sub-Clinical Atrial Fibrillation (ARTESiA) (NCT01938248), are underway. The results of these trials will help guide clinical practice and improve our understanding of the association between subclinical AF and stroke.

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Disclosures
None.

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References


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