Response to Letter Regarding Article, “Prevalence, Clinical Features, and Prognosis of Acute Myocardial Infarction Attributable to Coronary Artery Embolism”

We thank Dr Nadir for his interest in our work. Among 52 patients with coronary artery embolism (CE), 38 had atrial fibrillation (AF) and the remaining 14 had no evidence of AF on admission and during hospitalization. During follow-up, 2 of 14 patients (14.2%) developed AF; they had idiopathic dilated cardiomyopathy and postprosthetic aortic valve replacement, respectively. The time from discharge to the diagnosis of AF was 17 months and 18 months, respectively. One reason for this low rate of AF detection during follow-up may be ECG monitoring for at least 10 days (median, 18 days) during hospitalization at our institution. As Dr Nadir noted, a previous study reported a median of 41 days of ECG monitoring during follow-up may be ECG monitoring for at least 10 days. Another study reported that 30-day ECG monitoring is superior to 24-hour ECG monitoring for the detection of AF. In that study, AF was detected within the first 7 days of monitoring in one-half of the subjects and within 14 days in three-quarters of the patients. In comparison with these previous findings, the duration of ECG monitoring in our study was not so limited. However, we agree with Dr Nadir’s comment that, like cryptogenic stroke, unrecognized AF may be an important contributory factor for CE, and, therefore, the development of monitoring systems for detecting subclinical AF is now emerging.

In the present study, of the 38 AF patients in the CE group, only 15 (39%) were treated with warfarin and their median international normalized ratio was 1.42. In addition, there were 20 patients with nonvalvular AF who did not receive any anticoagulation therapy. The distribution of CHADS2, scores was as follows: score 0 to 1, n=13 (65%); score 2, n=4 (20%); and score 3, n=3 (15%). For CHA2DS2-VASC, there were 6 patients (30%) with score 0 to 1, 5 patients (25%) with score 2, 3 patients (15%) with score 3, and 6 patients (30%) with score 4. Thus, based on the CHADS2, and CHA2DS2-VASC scores, there were 65% and 30% of patients at low risk for stroke, respectively. As Dr Nadir noted, novel oral anticoagulants have the advantage of not requiring dose adjustment and steady-state levels of therapeutic anticoagulation. The efficacy of novel oral anticoagulants in preventing re-CE should be further studied.

In the present study, there were 371 (21%) non–ST-segment-elevation myocardial infarctions (NSTEMIs) in the 1776 patients with de novo acute myocardial infarction. We used an early invasive strategy even in patients with NSTEMI. The prevalence of CE was 2.4% in patients who have ST-segment-elevation myocardial infarctions (STEMIs), which was half of that in NSTEMI patients (4.8%; P=0.023). In comparison with STEMI patients, door-to-balloon time was significantly longer in NSTEMI patients (NSTEMI, 4.6±8.8 versus STEMI, 1.3±1.2 hours, P<0.001). In addition, although available data regarding the use and timing of dual-antiplatelet therapy (aspirin and clopidogrel) between October 2007 and December 2013 were limited, dual-antiplatelet therapy was administered before percutaneous coronary intervention in 48 of 135 (34.7%) NSTEMI patients and in 551 of 652 (84.5%) STEMI patients.

Disclosures
None.

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