recommended by Lee et al. (5), the SAFARI-STEMI (SAfety and efficacy of Femoral Access versus RadIal access in ST-Elevation Myocardial Infarction) trial is designed to support liberal use of VCDs and contemporary oral antiplatelet medication without GPIs; in response to researchers and granting agencies, the sample size for the SAFARI-STEMI trial has been substantially increased in order to evaluate the seminal outcome of mortality.

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http://dx.doi.org/10.1016/j.jcin.2016.03.001

Please note: All authors have reported that they have no relationships relevant to the contents of this paper to disclose.

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Digital Gangrene Following Transradial Coronary Angiogram

We enjoyed reading the case report by Singh et al. (1) reporting on a vascular complication following transradial access (TRA) in a middle-age woman requiring percutaneous coronary intervention after thrombolysis.

Notably, the transradial procedure was successfully completed and no site-access crossover was needed, thus minimizing the well-known access-site bleeding liability shortly after fibrinolytic administration, as previously shown in the context of the ASSENT-4 PCI (Assessment of the Safety and Efficacy of a New Treatment Strategy with Percutaneous Coronary Intervention) trial (2). This case emphasizes once more that evaluating ulnar patency prior to percutaneous coronary intervention with Allen's test (AT) neither prevents nor reduces the risk of ischemic hand events, which, while extremely rare, can occur irrespective of whether ulnar collateral circulation is patent before the procedure.

In the RADAR (Should Intervention Through Radial Approach be Denied to Patients With Negative Allen's Test Results) study we evaluated the safety and feasibility of TRA in patients with abnormal or intermediate AT results compared with those with normal AT results, measuring lactate levels, plethysmographic readings, and angiographic frame count to assess ulnar flow (3). No hand ischemic complication occurred in the 2 groups; likewise, lactate level, handgrip strength, and discomfort level reported by the patients were similar, with a decrease in post-test ulnar frame count among those with abnormal AT, indicating an enhanced ulnar flow.

We therefore believe that the assessment of ulnar circulation patency should not be evaluated prior to TRA as this may lead to avoid TRA in patients who could safely receive it. The MATRIX (Minimizing Adverse haemorrhagic events by TRansradial access site and systemic Implementation of AngioX) trial was the only randomized controlled study so far performed not mandating the performance of AT prior to TRA: importantly, no ischemic complication has been observed due to TRA catheterization in 8,404 patients (4).

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http://dx.doi.org/10.1016/j.jcin.2016.02.034

Please note: The authors have reported that they have no relationships relevant to the contents of this paper to disclose.

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REPLY: Digital Gangrene Following Transradial Coronary Angiogram

We would like to thank Dr. Santucci and colleagues for their interest in our case report (1) and for raising an important issue regarding the use of Allen's test before cardiac catheterization using the transradial approach (TRA). The importance of the TRA for patient comfort and same-day discharge post-coronary intervention cannot be overemphasized.

Increasingly, the TRA is the default approach, and Allen's test is performed variably to assess the patency of the ulnar artery before the TRA. Importantly, this practice varies among centers and is not commonly performed everywhere. One reason for this variability is that the sensitivity and specificity of Allen's test to assess artery patency are minuscule (2). A variety of noninvasive options, including plethysmography, pulse oximetry, and duplex ultrasonography, are available to supplement Allen's test. Still, there is no consensus on the best test for assessing collateral circulation of the hand, and the choice of test depends on the preference of cardiologist or the availability of equipment. Given the high false positive rate of Allen's test, many patients are wrongly excluded from the TRA for coronary angiography (3). Furthermore, hand ischemia is usually caused by either digital embolization of radial artery thrombus or in situ thrombosis of collateral vessels because of severe vasospasm, which usually occurs in the setting of normal radial, ulnar, and superficial palmar arteries.

There are many strategies for reducing radial artery occlusion, such as patent hemostasis (4), the use of a 5-F system for diagnostic angiography, proper administration of antispasm medications, and the use of at least 50 U/kg unfractionated heparin, all of which are backed by scientific evidence. We agree with Santucci et al. that the presence of a normal result on Allen's test may not reduce ischemic complications, as illustrated by our case presentation. We believe that the TRA should be the default in the majority of patients, especially post-thrombolysis; nonetheless, occasional devastating complications occur, and we as interventional cardiologists need to be cognizant of their existence.

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http://dx.doi.org/10.1016/j.jcin.2016.02.043

Please note: The authors have reported that they have no relationships relevant to the contents of this paper to disclose.

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Biodegradable-Polymer Sirolimus-Eluting Stents Versus Durable-Polymer Everolimus-Eluting Stents in Patients With Acute ST-Segment Elevation Myocardial Infarction

Insights From the 2-Year Follow-Up of the BIOSCIENCE Trial

Among patients with acute ST-segment elevation myocardial infarction (STEMI), early-generation drug-eluting stents (DES) have been associated with a reduction in target-vessel revascularization compared with bare-metal stents after primary percutaneous coronary intervention. However, this early benefit was offset by an increased risk for very late stent thrombosis (1–3). The development of new-generation DES resulted in improved vascular healing and clinical outcomes. To date, there is a lack