The rate of radial artery occlusion, at almost 10%, is also troublesome. Of note, radial artery occlusion rates were increased by use of long sheaths. Because the Rathore et al. (1) data indicates no benefit from the use of long sheaths, experienced operators should move to shorter hydrophilic sheaths. The high rate of radial occlusion may also reflect the fact that heparin was not routinely administered to all patients and the rate of spasm in the trial was unusually high. The use of larger caliber sheaths in smaller arm vessels may have also contributed to the risk of occlusion. Utilizing an initial arm angiogram allows operators to identify anatomical variation and select smaller caliber systems where indicated (5). Additionally, no information was provided on the hemostatic technique employed despite significant reductions in radial occlusion with patent hemostasis in previous studies (6). Combining these optimal techniques may result in lower occlusion rates, well below those reported in the current study.

Finally, Rathore et al. (1) report a 3.4% incidence of late local complications. These occur almost exclusively in the hydrophilic-coated sheath group. It is important to note that this is a finding specific to the type of sheath used in the trial and has not been reported as a frequent complication of other hydrophilic sheaths.

Rathore et al. (1) have made an important contribution to the literature, particularly in relation to the value of hydrophilic coating. Some of their other findings do not reflect optimal contemporary transradial practice.

We would like to thank Dr. Ratib and colleagues for taking interest in our recently published article (1). We completely agree and have also shown that coated sheaths reduce radial artery spasm and the discomfort experienced by the patient during transradial procedures. Procedural success rates are high with accumulated experience and improvement in equipment.

In our study, clinical evidence of radial artery spasm was observed in 19% of the patients in the coated group and 39% in the uncoated group. We have used a liberal clinical definition to diagnose spasm and avoided the routine use of vasodilators to abolish its potential impact on our end points. This is consistent with the clinical practice of the investigators. All procedures were performed by experienced radial operators using 6-F sheaths.

Spasm resulted in procedural failure in only 17 (2.1%) cases, and in the majority of cases, the procedure was completed successfully via the contralateral radial artery. As suggested, Dham et al. (2) has reported spasm as a cause of procedural failure in 4.8% of patients following the use of 6-F coated sheaths and the routine use of spasmolytic drugs, which is much higher than the failure rate reported in our study. Similarly and more recently, De-an et al. (3) has reported spasm in 7.8% of the patients, using a combination of clinical and angiographic definitions following use of 6-F coated sheaths. Among the patients experiencing spasm, one-third resulted in procedural failure (overall procedural failure in 2.9%), which is slightly worse than in our study. The incidence of spasm is very much dependent on the definition used. Spasm leading to procedural failure, a much “harder” end point, is lower in our study than other contemporary studies (2,3).

Slightly higher rates of radial artery occlusion are seen in our study as heparin was not routinely administered during some purely diagnostic procedures. The occlusion rate was 7.2% in patients receiving heparin during transradial procedures, which is similar to that reported in the literature (4,5). We did employ patent hemostasis, using either the TR band (Terumo Interventional Systems, Somerset, New Jersey) or RadiStop (RADI Medical Systems–St. Jude Medical, St. Paul, Minnesota) after removal of the sheath, and did not observe any difference in occlusion rates between the 2 devices (6). We agree that initial arm angiogram could be helpful in some cases (7).

We would also like to thank Dr. Movahed for expressing interest in our article (1). We agree that there was significantly higher occurrence of inflammatory reactions with the use of coated sheaths in our study, similar to the data reported by other investigators (8,9). In an attempt to standardize as much as possible in our sheaths, apart from the investigated qualities of length and hydrophilic coating, we used 4 different types of sheaths from the same manufacturer. We agree that prophylactic use of intra-arterial spasmolytic drugs reduce radial artery spasm in contemporary practice. Although these inflammatory reactions do seem to be related to the hydrophilic coating used by Cook, it should be noted that Cook has, since this trial was performed, changed the composition of their coating and, in our experience, does seem to have overcome this problem.

REFERENCES
In conclusion, some degree of spasm is common during transradial procedures, but procedural failure is only seen in a small number of patients in the hands of experienced operators. Coating of the introducer sheath reduces spasm and the occlusion rates are lower when heparin is administered during transradial procedures.

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