

EDITOR'S PAGE



The Religious Fervor for the Radial Approach

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Many of the tightly held beliefs about percutaneous coronary intervention (PCI) have faded into the remote corner of our memory. “The balloon needs to be inflated slowly and deflated slowly.” “GP IIb/IIIa inhibitors need to be used in all patients with acute coronary syndromes.” “Directional atherectomy must remove a large amount of plaque.” “Brachytherapy is the treatment for restenosis.” There are many other beliefs that have faded, some because of accumulated evidence and some without any evidence at all.

Practice of the radial approach to coronary interventions has, in many quarters, risen to the level of a belief system. Operators are sometimes divided into “old school,” “antique,” “stuck-in-the-mud,” and “out-of-date” femoral operators versus the “moderate,” “cutting-edge,” and “forward-looking” radial operators. I recently observed a committed radialist lecturing on the joys of the radial approach. Most of the examples were appropriately difficult anatomic approaches to the coronary arteries. Solutions to a complicated catheter passage included switching arms or using ulnar arteries, but rarely did he resort to the old, 20th-century femoral technique. When pressed about a particularly challenging radial case, he said that some consideration as to whether catheterization was actually needed might precede capitulation to the femoral approach. The disclaimer that he was joking did not seem completely genuine.

This drove me to interview several interventionists who I consider competent. I asked them, “How do you select patients for the radial or femoral approach?” Some true believers said that they almost never performed PCI from the femoral approach. Others, admittedly more senior, had not adopted the radial approach except in rare cases because of occlusive peripheral vascular disease. Still others were switch-hitters, doing 30% to 70% radial cases with the remainder from the femoral approach. I will

not recount the extensive published data that compares the 2 techniques, much of it previously published in this journal. However, bleeding avoidance is the main distinguishing clinical feature of the 2 techniques, with acute coronary syndromes and, especially, ST-segment elevation myocardial infarction cases receiving the greatest benefit from radial interventions largely because of aggressive anticoagulation. The case for other clinical presentations is much less compelling. The main comfort feature distinguishing the techniques is the avoidance of the supine position post-procedure and the earlier ambulation, and sometimes earlier discharge, following the radial approach. There is no doubt that most patients prefer to have their wrist exposed to minor trauma than to be violated in their nether regions.

So, it is not surprising that the major shift to the radial approach, which is well established outside of the United States, has begun gaining traction in the United States as well. But, does the evidence justify the divided commitment to tribal loyalty that is reminiscent of the American government?

I heard 2 arguments today. One, which is attractive to sports enthusiasts, is to use the approach and equipment that you are used to. Do everything the same way to master the technique. If you are a golfer, get a matched set of clubs and make the same swing every time. If you are to be a radialist, do all of the procedures with that approach so that you will master the difficult arterial loops and tricky subclavian and innominate to aorta angles. The way to cope with spasm is to see a lot of it and master ways to solve it. The same single approach could be said of the femoralists (i.e., Neanderthals).

The other argument is that operators should be facile with both radial and femoral approaches. The “switch-hitters” that I talked to said that they selected the approach to fit the patient. Prior bypass

surgery or dialysis shunt definitely favored the femoral approach. Although the strongest safety evidence for the radial approach is in ST-segment elevation myocardial infarction, some operators still prefer large-bore guide catheters from the femoral approach to enable larger thrombus aspiration devices in patients with acute myocardial infarction. These operators feel that they can optimize the outcome by tailoring the approach. I guess this is the Bubba Watson (still thinking golf) school of PCI.

Patients will have to realize that the main driver of whether they have a radial versus femoral approach is

the operator to whom they are referred. As with most things in medicine, what we really want is clear thinking about indications and excellent results regardless of how it is done. The radial revolution is well on its way, I am just not sure that it is the only way. As to my allegiance to a belief in 1 approach or another, I will remain agnostic.

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