Aortic Debris and Coronary Guiding Catheters

I read with interest the recent article by Keeley and Grines regarding scraping of aortic debris by coronary guiding catheters. This has been a problem for all interventional cardiologists, and it is rewarding to see this issue addressed in a quantitative fashion in this publication. We have had experiences similar to those of the authors in identifying atheromatous debris, particularly with the use of left coronary guiding catheters.

There are several issues not addressed in the article that I believe deserve mention. First, it has been our experience that the larger bore guide catheters cause release of more atheromatous debris. There seems to be a noticeable increase when switching from 8 fr to 9 fr guides.

Second, a method of minimizing or avoiding the scraping of aortic debris is the insertion of an obturator inside the guiding catheter. The one that we commonly use is a DVI introducing catheter, which is 110 cm long. For a 9-fr guide, we use a 7-fr obturator. An alternative would be the use of a 110 or 125 cm diagnostic multipurpose catheter to serve as an obturator. With the use of the obturator, there is a smooth transition from the wire to the guiding catheter and thus, the amount of aortic debris is significantly reduced.

In our experience, the most voluminous release of debris is during renal artery stenting procedures. Many of these patients have diffuse aortic atherosclerosis and the shape of the renal artery guide catheters is extremely conducive to scraping of aortic debris. Again, we have found that the use of obturators significantly minimizes this effect.

REFERENCES

ST Elevation Secondary to Microvascular Dysfunction

Murakami and colleagues (1) recently described three cases of spontaneous ST elevation in patients with angiographic normal coronary arteries and implicated microvascular dysfunction as the cause of the transmural ischemia. This hypothesis is valid if large vessel coronary spasm has been adequately excluded. Two aspects of their report require further clarification before this can be satisfied (1). The serial electrocardiograms (ECGs) that reported ST elevation also demonstrated T wave inversion, an early ECG sign of reperfusion. Thus, the angiographic snapshot may have been performed after high-dose intracoronary nitrates, thereby potentially inhibiting the spastic response. If these details have been addressed, the findings of