Advancing Access and Closure

This first issue of 2013 focuses on the subject that forms the mainstay of every endovascular procedure: gaining access to the arterial system. We aim to provide the readership with practical tips and tricks from experts in the field. The classical common femoral (CFA) approach has a long-standing history and is still widely used (and will continue to be used). The occurrence of puncture site–related complications remains a relatively frequent problem. When analyzing these complications, it appears that the large majority of problems can be attributed to inappropriate puncture technique. Over the years, several approaches have been used to overcome this problem.

Optimizing CFA puncture technique is, of course, of paramount importance, but also alternative approaches such as direct superficial femoral artery (SFA) and radial access can be implemented as a means to reduce access site complications. Direct ultrasound-guided SFA access has been demonstrated to be safe and feasible. Radial access is becoming the route of choice in cardiology, with some centers performing up to 90% of cases through a radial approach. Experience in peripheral vascular procedures performed using a radial approach is still limited, and equipment to perform distal below-the-knee procedures is not available yet. There are indications that there will be a shift toward a radial approach in peripheral endovascular procedures too, mainly because of the benefits demonstrated in interventional cardiology, and we will have a separate feature on this in an upcoming edition.

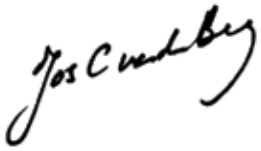
Despite all these developments, CFA access is here to stay because large-bore systems used for EVAR and TEVAR repair, as well as TAVI, will require this approach in most instances. In these cases, puncture technique should be optimal, and special closing techniques are required. Technical developments have also allowed for the development of more "exotic" access techniques, which are mainly used after failed attempts of (antegrade) lower limb recanalization. Tibial and pedal access will be discussed in this issue, as well as the transmetatarsal arterial access technique and a technique that involves retrograde puncture of occluded tibial arterial segments as an adjunct to antegrade recanalization.

A word of caution needs to be expressed here, however, to mitigate any excessive enthusiasm that might develop. Currently, distal access has been proven to be safe in the hands of highly experienced operators and should only be used in patients with critical limb ischemia and after serious consideration of any surgical options. It is not prime time yet to use distal (below-the-knee) access in patients with femoropopliteal occlusions suffering from intermittent claudication.

Another important aspect that is receiving increased attention is radiation exposure for the operator, especially when performing distal access. Many operators therefore resort more and more to the use of ultrasound to perform the arterial puncture (as described in this issue), but specific devices such as needle holders have also been developed to allow the operator to keep more distance from the radiation source when manipulating the needle. As part of the topics dealt with in this month's cover story, in this issue, several experts will share their opinion on a number of aspects related to access and the use of closure devices in a roundtable discussion.

This issue is also a good example of the globalization continually taking place in the endovascular world, with contributions from numerous countries and specialties. Differences in approach remain between the US and Europe, mainly because of differences of regulatory systems. In order to deal with the differentiation that still exists, *Endovascular Today* is expanding its European presence, reaching more readers and involving new voices.

I hope you enjoy this issue. ■



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