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LETTER TO THE EDITOR

A peripheral comment

Um comentário periférico

To the editor:

We read with interest the case reported by Juan Carlos Rama-Merchan and colleagues on the use of a Papyrus coronary stent for closure of a proximal femoral superficial arteriovenous fistula.[1]

The use of a coronary setup for the treatment of peripheral vessels is very attractive and familiar for the interventional cardiologist, as pointed by the authors. In an age of increasing use of structural cardiac interventions, with large bore and multiple accesses, the proficient management of vascular complications is an important safety requirement (e.g. about half of acute serious complications are vascular access-related[2]).

Peripheral vessels are a different beast.

Several key points are relevant to the case reported:

1. Peripheral vessel caliber is usually much larger than coronary arteries. The caliber of the superficial femoral artery is usually in the range of 5-7 mm, which is considerably larger than most coronary stents. The Papyrus stent used as a manufacturer-reported post-dilatation size limit of 5.6 mm.
2. Stents in peripheral vessels are subject to much more demanding mechanical solicitations, with repetitive twisting, shortening and compression, in particular in flexion areas such as the groin. Self-expanding stents are recognized to be best at tolerating this environment. The risk of coronary stent crush with leg flexion or even a simple femoral palpation must be taken seriously. This will be intuitive to anyone who has ever held such a stent between their fingers.
3. Covered self-expanding stents in this size range are deliverable through a marginally larger sheath (i.e. 7 Fr).[3,4]
4. Surgical closure is a simple procedure when the patient is already under general anaesthesia, but also feasible under loco-regional anaesthesia, particularly if the procedure is not emergent. This avoids stent implantation in a flexion zone and the associated risks of stent fracture and restenosis.
5. Finally, on the use of fluoroscopy- or echocardiography-assisted femoral puncture to identify the femoral head is important for prevention of vascular complications.[5,6]

Conflicts of interest

The author has no conflicts of interest to declare.

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