



LETTER TO THE EDITOR

Reply to the Letter to the Editor: “A peripheral comment”



Resposta à Carta ao Editor «Um comentário periférico»

To the editor:

We have read with great interest the comments by Dr. Henrique Mesquita Gabriel¹ on our paper “Percutaneous closure of iatrogenic femoral arteriovenous fistula using a covered coronary stent” recently published in the Portuguese Journal of Cardiology.² We would like to make some comments:

1. It is well known that vascular access (VA) complications are common and remain an important cause of adverse events following interventional procedures.^{3,4} It is therefore key to identify them as soon as possible. Also, operators should be trained to resolve them in the fastest and most effective way.
2. In the case we presented the maximum diameter of the superficial femoral artery was 4.8 mm, therefore the 26 mm×4.5 mm PK Papyrus covered coronary stent totally sealed the fistula after postdilatation with a 5.0 mm balloon.
3. We agree with Dr. Mesquita Gabriel¹ that stents in peripheral vessels are subject to much more demanding mechanical conditions, however we did not expect there to be problems in the superficial femoral artery at the level we implanted the stent in a 86-year-old woman.
4. Although the use of ultrasound-guided femoral punctures has demonstrated reductions in VA complications,⁵ especially in patients in whom femoral access can be challenging, the availability of this technique in many laboratories is still limited. For this reason, we usually perform a preoperative assessment of the VA site (vessel size, tortuosity, calcification, etc.) by computed tomography to minimize the risk of complications.

5. Open surgery is a very good therapeutic option in the event of vascular complications, but it is associated, among other things, with greater patient discomfort and prolonged hospitalization.^{6,7} A percutaneous technique with rapid and effective repair of the VA injury is desirable, especially in elderly high-risk patients.⁸ The case was discussed with our vascular surgical team.
6. Coronary stents are known to have several limitations when they are used in the peripheral vascular territory (related to size, mechanical deformation, integrity, etc.), however occasionally (especially with small femoral arteries) they can be useful to quickly resolve a serious VA complication. Note that we are indeed more familiar with coronary stent deployment technique, and that they can be delivered through a smaller size sheath (via the contralateral femoral artery). In addition, the availability of peripheral vascular stents in many cardiac laboratories is limited and a learning curve is needed. In the case presented the stent was delivered using a 6 F sheath.

Conflicts of interest

The authors have no conflicts of interest to declare.

References

1. Mesquita Gabriel H. A peripheral comment. Rev Port Cardiol. 2017, <http://dx.doi.org/10.1016/j.repc.2017.03.008>.
2. Rama-Merchan JC, Cruz-Gonzalez I, Martin-Moreiras J, et al. Percutaneous closure of iatrogenic femoral arteriovenous fistula using a covered coronary stent. Rev Port Cardiol. 2017;36:211–9.
3. Leon MB, Smith CR, Mack M, et al. Transcatheter aortic-valve implantation for aortic stenosis in patients who cannot undergo surgery. N Engl J Med. 2010;363:1597–607.
4. Mwipatayi BP, Picardo A, Masilonyane-Jones TV, et al. Incidence and prognosis of vascular complications after transcatheter aortic valve implantation. J Vasc Surg. 2013;58:1028–36.
5. Seto AH, Abu-Fadel MS, Sparling JM, et al. Real-time ultrasound guidance facilitates femoral arterial access and reduces vascular complications: FAUST (Femoral Arterial Access With Ultrasound Trial). JACC Cardiovasc Interv. 2010;3:751–8.
6. Jean-Baptiste E, Hassen-Khodja R, Haudebourg P, et al. Percutaneous closure devices for endovascular repair of infrarenal abdominal aortic aneurysms: a prospective, non-randomized comparative study. Eur J Vasc Endovasc Surg. 2008;35:422–8.

DOI of original article: <http://dx.doi.org/10.1016/j.repc.2017.03.008>

7. Torsello GB, Kasprzak B, Klenk E, et al. Endovascular suture versus cutdown for endovascular aneurysm repair: a prospective randomized pilot study. *J Vasc Surg.* 2003;38:78–82.
8. Stortecky S, Wenaweser P, Diehm N, et al. Percutaneous management of vascular complications in patients undergoing transcatheter aortic valve implantation. *JACC Cardiovasc Interv.* 2012;5:515–24.

^b *Cardiology Department, Hospital Universitario de Salamanca and IBSAL, Spain*

* Corresponding author.

E-mail address: cruzgonzalez.ignacio@gmail.com
(I. Cruz-González).

Juan Carlos Rama-Merchán^a, Ignacio Cruz-González^{b,*}

^a *Cardiology Department, Complejo Hospitalario de Mérida, Badajoz, Spain*