Eur J Vasc Endovasc Surg (2018) 56, 740

Carotid Pseudoaneurysm Treated with a Flow Diverting Stent

José N. Allende [a,b,*], **Leandro Barreras Molinelli** [a,b]

[a] Sanatorio Allende, Córdoba, Argentina
[b] Vascular Surgery, Hospital Nacional de Clínicas, Córdoba, Argentina

INTRODUCTION

A 55 year old patient with chronic obstructive pulmonary disease was referred because of a symptomatic mass in her neck. She had undergone neurosurgery for a paraclinoid aneurysm five years previously, with a neck incision used for proximal control. Computed tomography angiography (CTA) showed an internal carotid pseudoaneurysm (ICpsA) measuring 17 × 13 mm (Fig. 1, *). It was decided to exclude the false aneurysm with a flow diverting stent.

TECHNIQUE

Employing a femoral approach under local anaesthesia, a 7F MP guiding catheter (Cordis, Milpitas, USA) was deployed in the left common carotid artery. A 0.014" Transcend Guidewire (Boston Scientific, Hemel Hempstead, UK) was navigated past the ICpsA under roadmap. A 150 cm, 3.2F Marksman 25 microcatheter (Medtronic, Dublin, Ireland) was threaded over the 0.014" guidewire and, through the microcatheter, a 5 × 20 mm closed cell flow diverting stent (Pipeline Flex, Medtronic) was delivered. The stent was deployed centred on the neck of the aneurysm; while unsheathing the stent a telescoping manoeuvre was applied via the stent and wire system so that the cells of the stent were more closely packed. Completion angiography showed reduced filling of the sac with adequate flow in the internal carotid artery (Fig. 2A).

Dual antiplatelet therapy (aspirin and clopidogrel) was prescribed for 6 months. CTA 60 days later showed complete thrombosis of the pseudoaneurysm (Fig. 2B). There are long-term results with high occlusion rates of intracranial saccular aneurysms treated with this device. Pipeline Flex has good navigability and flexibility, higher occlusion rates than a regular stent, and the possibility to re-sheath up to a certain point.

Figure 1. 3D CT scan showing a saccular internal carotid pseudoaneurysm (*).

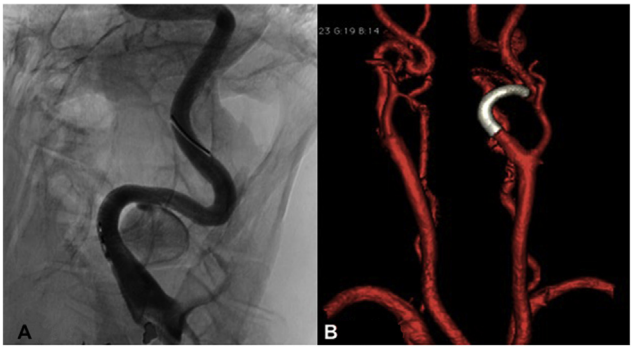

Figure 2. (A) Angiogram. Reduced filling of the sac with adequate flow in the internal carotid artery and correct apposition of the flow diverting stent. (B) 3D CT scan. Complete thrombosis of the pseudoaneurysm.

CONCLUSION

A flow diverting stent may be considered as an endovascular alternative (as opposed to a covered stent) to treat pseudoaneurysm of the extracranial internal carotid artery.

* Corresponding author.
E-mail address: josenorbertoallende@gmail.com (José N. Allende).

https://doi.org/10.1016/j.ejvs.2018.08.012