INVITED COMMENTARY

The Safari for Adequate Landing Zones in EVAR Continues: Bilateral Use of Cook Zenith Iliac Branch Devices

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The ultimate and durable exclusion of an abdominal aortic aneurysm requires adequate proximal and distal sealing zones. Fenestrated devices offer a solution for proximal extension. However, distal targetting into the external iliac arteries (EIA) denies direct perfusion to the internal iliac arteries and leads to a non-negligible rate of buttock claudication, or even more serious complications, such as bowel ischaemia, plexopathy, or erectile dysfunction. Preserving internal iliac artery (IIA) blood flow was initially achieved with oversized bell bottom components, although deploying these inside unhealthy common iliac arteries has been shown to compromise the durability of the repair. Chimney/parallel grafts were also considered, but currently no long-term experience is available. Lately, several branched devices especially tailored to preserve IIAs have been gaining both popularity and CE/US Food and Drug Administration approval. In Europe, the Gore Excluder Iliac branch component, Cook Zenith iliac branch, and Jotec E-iliac systems are available as of September 2018, all with excellent patency results in the pivotal trials.

In the current issue of *European Journal of Vascular and Endovascular Surgery*, Pablo Marqués and the team of Dr. Eric L.G. Verhoeven present an interesting single centre experience on the use of Cook Zenith's iliac branch device (IBD) for preserving both hypogastric arteries.[1] Over an eight year period, 66 patients received an unilateral and 29 a bilateral IBD at this German institution, although no comparison between the two groups was presented. The study included both single stage procedures (83%) and patients with a previous aortic repair who required subsequent extension into the EIA. The authors claim good results, with a 95% technical success, no adverse events at 30 days, and an estimated three year patency of 88.5%. In 52/58 of the implanted branch devices, an Advanta V12 bridging stent was used.

Interestingly, the Cook Zenith's IBD instructions for use (IFU) of requiring $\geq$50 mm of common iliac artery were overcome in 44.8% of the patients by using an axillary access. Cook Zenith's IBD is intended for contralateral IIA cannulation, but this series reports a good alternative: the deployment of the bridging stent from above allows shortening the required CIA length, enhancing applicability. A future version of the device's IFU will probably include this option.

The authors conclude that bilateral use of IBDs can be achieved with similar technical success and patency rates to unilateral implantation. This assertion comes from balancing the results against previous large reports of unilateral IBDs,[2] as no disadvantage compared with unilateral use is presented in this work. Also, by comparison with other previous reports on bilateral IBD deployment,[3,4] which share common limitations of sample size and length of follow up, the procedure does not seem to be device dependent. However, the key point in this affair is whether the use of two IBDs in the same patient is justified and offers benefits over preserving just one hypogastric artery. This has not yet been addressed.

Before deciding whether the safari for adequate distal landing zones is over, large endovascular centres should be encouraged to conduct prospective, controlled studies involving the two conflicting therapeutic alternatives. Publication itch should not drive away the opportunity to produce high quality evidence. Besides, in a global context of uncertain sustainability of healthcare policies, technical advances can lead to undoubted benefits but also to unjustified cost increases. Decision making should be guided by long-term patency and re-intervention rates, especially given the age of the reported examples. Some other concepts, like the number needed to treat to prevent buttock claudication or other adverse outcomes, should be assessed to better define the subset of patients who may benefit from bilateral hypogastric preservation. In conclusion, good short-term results can draw the attention of some, but developing solid justifications for use is still a road to travel before this, or whichever, safari comes to an end.

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