



Off-label use of Gore Excluder Iliac Branch Endoprosthesis (IBE) for rescue of aorto-femoral bypass. A novel solution for challenging situations.

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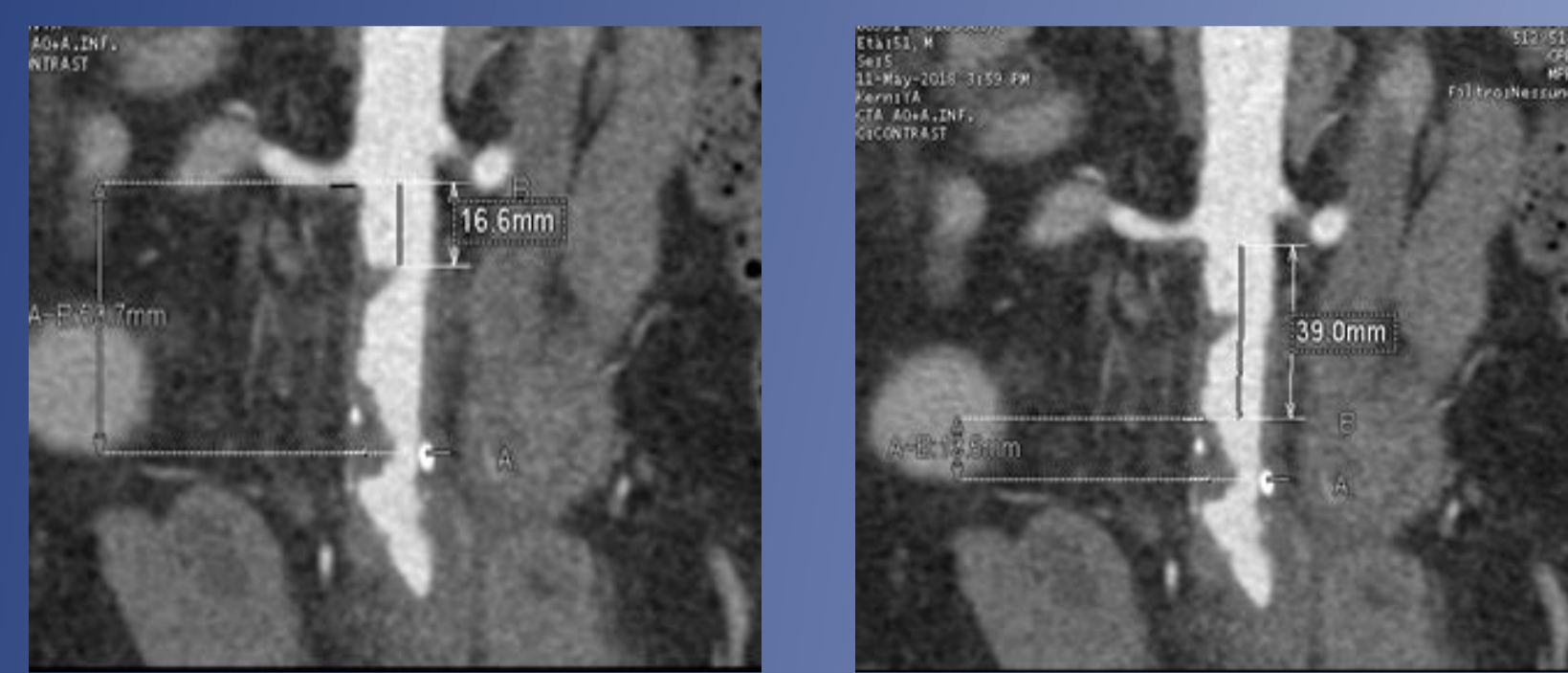


Figure 1. Preoperative CTA. On the left, coronal images showing presence of aortic thrombus at the site of previous clamp placement causing narrowing of the lumen. On the right, CPR reconstructions showing the occlusion of the right aorto-femoral bypass (WHITE ARROW) and right external iliac stent (BLUE ARROW).

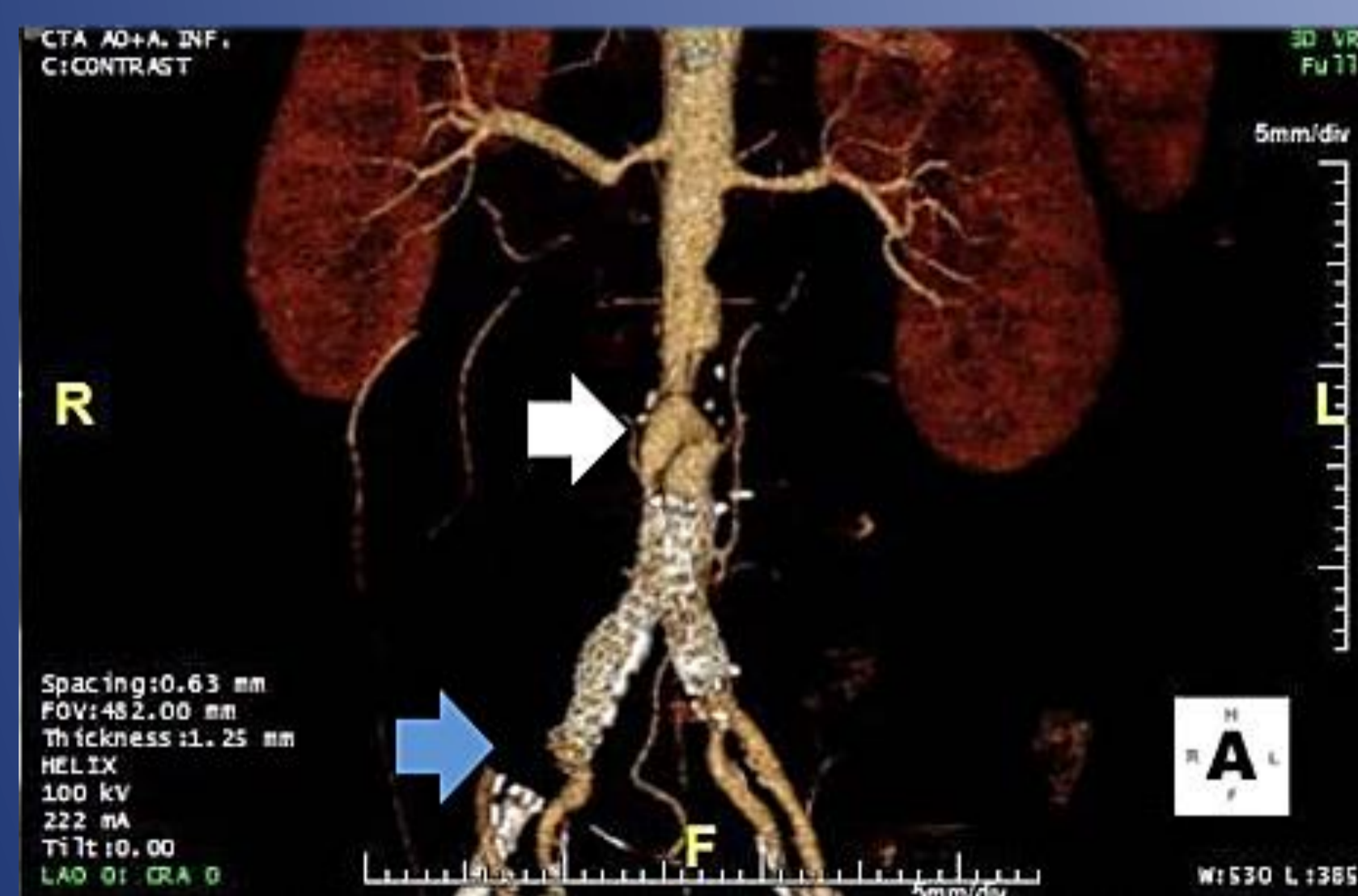


Figure 2. Post-operative CTA (1 year) with 3D volume-rendering (right box). Regular placement of all deployed endografts. The Gore Excluder IBE is placed at the infrarenal position and the Gore Viabahn endoprosthesis is well conformed within the infrarenal aorta. The IIA is patent on both sides.

Purpose

To report an alternative approach for rescue of failed aorto-femoral bypass using the GORE Excluder IBE.

Methods

A 52-year old man presented with acute right limb ischemia because of displaced and occluded iliac stents and was treated with aorto-femoral bypass. On the third postoperative day, there was early bypass failure due to distal embolization from aortic thrombus (Figure 1). After open fluoroscopy-guided thrombectomy of the bypass, an endovascular bailout strategy was used. The Gore Excluder IBE was deployed below the renal arteries (with the external iliac limb opening in the surgical prosthesis and the gate opening within the aortic lumen). After anterograde catheterization of the gate, a Gore Viabahn endoprosthesis was inserted as the bridging endograft and deployed so that it landed just above the pre-implanted aorto-iliac kissing stents without overlapping with them. Completion angiography showed technical success without complications, a result sustained at 1-year follow-up (Figure 2).

Results

Some endovascular alternatives would have been possible, including kissing stents or the CERAB technique. We believe that using a unibody stent-graft may offer several potential advantages when compared with these endovascular alternatives.

One possible shortcoming of using the Gore Excluder IBE without proximal fixation by means of a conventional stent-graft might relate to the risk of late migration. However, we believe that with the $\geq 20\%$ oversize provided within a healthy aortic segment, the device would have sufficient radial force to avoid late failure.

A relevant technical issue in our case was the relatively short distance from the origin of the left renal artery (LRA) to the proximal anastomosis of the bypass, which might have caused an incomplete opening of the internal iliac limb of the device. However, the repositionable delivery system of the Gore Excluder IBE allowed us to partially open the device above the LRA without generating any difficulty for pulling it back to the final infrarenal position.

Conclusions

The Gore Excluder IBE may represent a versatile solution for the rescue of cases requiring when open surgery would be associated with a considerable risk. This off-label application of a well-recognized endovascular device is safe and feasible, and may prove useful as a valuable alternative in properly selected patients.

