

# Real World Experience with Thoracoabdominal Branched Endoprosthesis for Difficult Type IV Thoracoabdominal Aneurysm Repair

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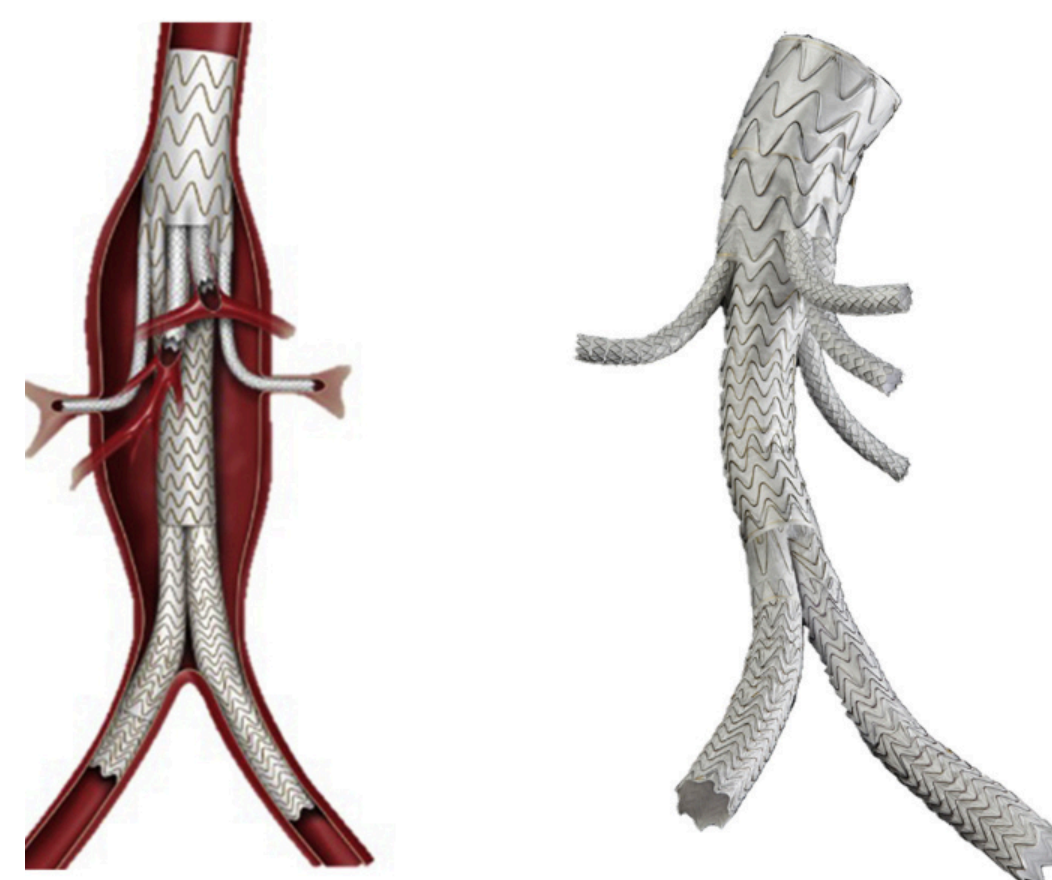
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## BACKGROUND

The GORE EXCLUDER Thoracoabdominal Branch Endoprosthesis (TAMBE; W.L. Gore & Associates, Flagstaff AZ) is a novel aortic stent graft for endovascular repair of complex thoracoabdominal aortic aneurysms (TAAA) with renal and mesenteric artery involvement<sup>1,2</sup>. This device became commercially available June 2024 after Phase II trials. We present two complex, real-world TAAA cases with difficult anatomic constraints treated with the now commercially available TAMBE device.

## METHODS

Patients indicated for TAMBE are not candidates for commercial endovascular grafts due to insufficient proximal landing zone or renal/visceral vessel incorporation. TAMBE requires ≥20mm proximal suprarenal seal zone of 22-34mm diameter, neck angle ≤60°, suprarenal aneurysm extension ≤6.5cm, and iliac seal zone ≥10mm<sup>1</sup>. The four renal/mesenteric arteries must measure 4-12mm diameters<sup>1</sup>.



**Figure 1: TAMBE Stent Graft**  
Cambiaghi, et al. (2021)<sup>4</sup>

## RESULTS

### Case #1

78-year-old female prior smoker with past medical history of hypertension, hyperlipidemia, COPD, BMI 21, and baseline serum creatinine of 1.59 presented initially with dizziness, incidentally found to have 6.3cm type IV TAAA involving the celiac, SMA and bilateral renal arteries. She was deemed a TAMBE candidate despite significant aortic angulation/tortuosity (Figure 2).

### Case #2

69-year-old male with chronic type B aortic dissection, hypertension, coronary artery disease, atrial fibrillation, prior stroke, with baseline creatinine of 1.34. Found to have 5.9cm type IV TAAA with descending thoracic penetrating aortic ulceration.

**Table 1: TAMBE Case Details and Outcomes**

	Case 1	Case 2
<b>Operative</b>		
AAA Size (mm)	63	59
Procedure time (min)	448	325
Estimated blood loss (mL)	200	100
Anesthesia time (min)	596	413
Radiation dose (Gy cm <sup>2</sup> )	442	1370
Contrast load (cc)	90	170
Seal zone (mm)	27	32
Neck angle (degrees)	10	45
Target vessels	4	4
Number of visceral stents	7	4
Endoleak	Late Type 2	No
Length of stay (days)	4	2
<b>Grafts used (mm)</b>		
TAMBE graft	37	37
Celiac stent(s)	9x39 (prox), 8x59 (distal)	9x59
SMA stent(s)	9x39 (prox), 8x59 (distal)	9x79
L renal stent(s)	7x59 (prox), 6x79 (distal)	6x79
R renal stent(s)	6x79	6x79
Distal component	IBE 23x14x10	IBE 23x14x10
L iliac limb	12x140, 16x120	12x140, 16x120
R iliac limb	12x140	20x13.5
<b>30-day outcomes</b>		
Mortality	No	No
Device integrity	Yes	Yes
Re-intervention	No	No
Aortic sac size (change from baseline) (mm)	59 (-4)	54 (-5)
Endoleak	No	Type 2

## REFERENCES

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**Figure 2 (above):**  
3D reconstruction of TAAA from Case 1



**Figure 3 (right):**  
Completion angiogram s/p TAMBE from Case 1, patent branch vessels

## DISCUSSION

The TAMBE device provides an off-the-shelf, modular system to treat complex type IV TAAAs that is very effective in real-world anatomy and configurations. Early outcomes demonstrate high technical success rate (99%), no 30-day related mortality, 100% aortic/SMA/cealic and 95-99% renal graft patency<sup>3</sup>. We present our initial practical experience with this innovative device. At one-month follow-up for our patients, all branch grafts were patent, there was interval sac regression, and no mortalities or reinterventions.

## CLINICAL RELEVANCE

The Gore TAMBE device is an effective off-the-shelf treatment option for complex paravisceral TAAAs in a real-world vascular practice.