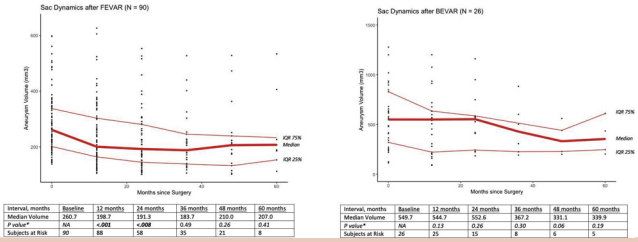
1 year. Secondary outcomes were determined by Kaplan-Meier analyses.

Results: This study included 107 FEVAR patients that were predominantly treated for juxtarenal aneurysm repair (90.7%) and 40 BEVAR patients that were mostly treated for repair of thoracoabdominal aneurysms (90.0%). From these, 90 FEVAR and 26 BEVAR patients were included for imaging analysis (≥2 postoperative computed tomography angiographies [CTAs]). Following FEVAR, aneurysm sac volumes decreased significantly up to 24 months and remained constant thereafter, whereas aneurysm sac volumes after BEVAR did not change significantly over time (Fig 1). At last imaging follow-up, 68.9% of FEVAR treated aneurysms showed >5% shrinkage vs 29.8% after BEVAR ($P < .001$). FEVAR patients had higher freedom from aneurysm-related complications (3-year: FEVAR: 0.65.7%; 95% CI, 55.7%-77.6% vs BEVAR: 51.4%; 95% CI, 32.5%-81.4%; log-rank $P = .035$) and showed higher freedom from secondary interventions (FEVAR: 84.6%; 95% CI, 77.1%-93.0% vs BEVAR: 74.8%; 95% CI, 60.9%-91.9%; log-rank $P = .034$). However, among groups, there was no difference in freedom from endoleaks type I/III (3-year: FEVAR, 89.9%; 95% CI, 83.7%-96.6% vs BEVAR, 80.0%; 95% CI, 64.5%-99.4%; log-rank $P = .13$). Finally, early aneurysm sac shrinkage showed significant higher freedom from the composite outcome (log-rank $P = .022$) (Fig 2).



Interval, months	Baseline	12 months	24 months	36 months	48 months	60 months
Median Volume	260.7	198.7	191.3	183.7	210.0	207.0
P value*	NA	<.001	<.008	0.49	0.26	0.41
Subjects at Risk	90	88	58	35	21	8

Interval, months	Baseline	12 months	24 months	36 months	48 months	60 months
Median Volume	549.7	544.7	552.6	367.2	331.1	339.9
P value*	NA	0.13	0.26	0.30	0.06	0.19
Subjects at Risk	26	25	15	8	6	5

Fig 1. Sac dynamics after fenestrated endovascular repair (*FEVAR*). *IQR,* Interquartile range.

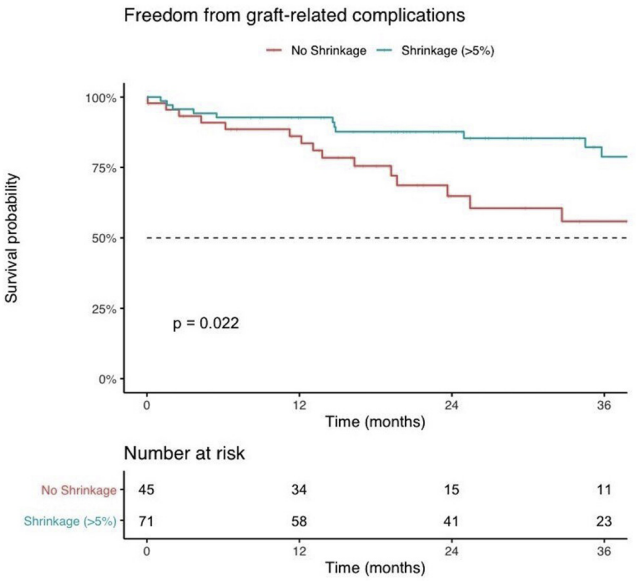


Fig 2. Sac dynamics after branched endovascular repair (*BEVAR*). *IQR,* Interquartile range.

Conclusions: Initial sac regression at 1 year is significantly associated with improved clinical outcomes; freedom from aneurysm-related complications. Both BEVAR and FEVAR need secondary interventions in the first year to maintain clinical success. The proportion of patients with sac regression after BEVAR is lower compared with FEVAR, and therefore will probably require more intensified surveillance.

Author Disclosures: G. P. Akkersdijk: Nothing to disclose; **A. Alberga:** Nothing to disclose; **F. Bastos Goncalves:** Nothing to disclose; **J. de Bruin:** Nothing to disclose; **B. Fioole:** Nothing to disclose; **S. Hoeks:** Nothing to disclose; **J. Oliveira-Pinto:** Nothing to disclose; **V. Rastogi:** Nothing to disclose; **S. ten Raa:** Nothing to disclose; **M. van Rijn:** Nothing to disclose; **H. Verhagen:** Endologix: Consulting Fees (eg, advisory boards), Medtronic: Consulting Fees (eg, advisory boards), Terumo: Speaker's Bureau, WL Gore: Speaker's Bureau.

IPC30.

Spinal Cord Ischemia Prevention Through Hypogastric and Inferior Mesenteric Artery Preservation During Complex Endovascular Aortic Procedures

Lucia Di Stefano, Lorenzo Antico, Alessandra Zezza, Paola Wiesel, Domenico Angiletta, Raffaele Pulli. University of Bari, Bari, Italy

Objectives: Endovascular procedures have been widely accepted as safe treatment in patients with thoracoabdominal aortic aneurysms (TAAAs). Spinal cord ischemia (SCI) is the most dreaded complication. Its incidence is estimated in 3.9% of patients undergoing thoracoabominal procedures. As reported in American and European guidelines, spinal fluid drainage, mean arterial pressure above 100 mm Hg, hemoglobin above 10 g/dL, transcutaneous oxygen measurement above 95%, staged procedures, and collateral networks preservation are recognized as possible preventive strategies. The aim of the study is to describe the results of distal aortic collateral network preservation (internal iliac artery [IIA], inferior mesenteric artery [IMA]) with different endovascular techniques during elective or urgent endovascular procedures for thoracoabdominal aortic diseases.

Methods: Between December 2016 and January 2021, 50 complex aortic endovascular procedures were performed. The following inclusion criteria were identified: IIA occlusion or patent IMA with minimum diameter of 5 mm combined with compromised IIA patency. Nine patients matched the inclusion criteria. Staged procedures and spinal fluid drainage were employed in all elective settings (seven patients). According to TAAA Crawford classification, 3 were type III, 2 post-dissection type II, 2 type IV, and 2 type V. Early and late mortality, aortic-related mortality, incidence of transient or permanent SCI, and target vessel patency were evaluated during follow-up. Follow-up was performed at 1, 6, and 12 months with computed tomography scan. IMA was preserved in one patient using an iliac branch proximally combined with a branched stent graft. In the second case, a parallel graft technique was employed, whereas in the third patient, a bell bottom graft was deployed above the IMA ostium. In five patients, at least one of the two IIA was recanalized using a parallel grafts technique, whereas in one patient, an iliac branch was implanted.

Results: None of our patients experienced SCI. One of the two patients treated in the urgent setting died from cardiorespiratory complications 1 week after the procedure. Among the patients treated in the elective setting, no complications were observed. At follow-up, 100% target vessel patency was detected.

Conclusions: According to our data, prevention of SCI through distal aortic collateral network preservation is safe and feasible in both the urgent and elective settings. This strategy may be an ulterior tool to prevent SCI.

Author Disclosures: D. Angiletta: Nothing to disclose; **L. Antico:** Nothing to disclose; **L. Di Stefano:** Nothing to disclose; **R. Pulli:** Nothing to disclose; **P. Wiesel:** Nothing to disclose; **A. Zezza:** Nothing to disclose.