



EARLY OUTCOMES OF THORACIC ENDOVASCULAR AORTIC REPAIR:SINGLE CENTER EXPERIENCE WITH SPINAL CORD ISCHEMIA AND REINTERVENTION RATES



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INTRODUCTION

- TEVAR has emerged as the preferred treatment for many thoracic aortic pathologies.
- Complications include spinal cord ischemia (SCI) and need for reintervention
- Risk factors for SCI: length of aortic coverage, prolonged hypotension, prior AAA repair.

To examine rates of spinal cord ischemia (SCI) and early reintervention after TEVAR, and identify associated factors.

METHODS

- Retrospective single-center study (Feb 2012–Aug 2023)
- 146 consecutive TEVAR patients
- Primary endpoints: SCI and reintervention within 1 year
- Secondary endpoints: stroke, limb ischemia, 30-day mortality

RESULTS

- SCI developed in 11 patients (7.5%)
- 38 patients (26%) required TEVAR-related reinterventions
- Postoperative stroke: 13.7%
- Left arm ischemia: 6.8%
- 30-day mortality: 17.1%

DISCUSSION

- SCI rates (7.5%) are consistent with literature (2-8%)
- Reintervention rates (26%) align with published data (15-32%)
- Risk factors for reintervention: diabetes, smoking, distal zone location

CONCLUSION

- Routine TEVAR yields acceptable early outcomes
- Diabetes, smoking, and distal coverage are risk factors for reintervention
- Further multicenter studies are warranted to validate these observations

Variable	Spinal cord ischemia		Early reintervention	
	OR(95% CI)	p Value	OR(95% CI)	p Value
Age	0,95 (0,89-1,0)	0,96	0,9 (0,94-1,01)	0,248
Sex ,female	0,33 (0,08-1,31)	0,11	1,9 (0,60-6,22)	0,26
Hypertension	0,62 (0,39-9,85)	0,73	2,7 (0,43-17,7)	0,27
COPD	4,3 (0,68-27,7)	0,11	2,57 (0,92-7,1)	0,07
Renal insufficiency	0,11 (0,009-1,38)	0,08	1,08 (0,35-3,30)	0,88
Diabetes	4,9 (0,62-40,0)	0,13	4,4 (1,3-14,9)	0,01
Coronary artery disease	8,85 (0,79-98,8)	0,76	1,68 (0,59-4,8)	0,32
History of smoking	3,8 (0,60-24,3)	0,15	2,61 (0,99-6,83)	0,05
History of cerebrovascular disease	2,36 (0,07-71,4)	0,62	0,59 (0,05-6,0)	0,66
Caroticosubclavian bypass	0,25 (0,01-5,15)	0,37	2,77 (0,91-8,4)	0,07
Proximal zone	1,03 (0,08-12,1)	0,97	2,7 (0,66-10,8)	0,16
Distal zone	13,85 (0,57-364.4)	0,11	3,7 (1,0-13,0)	0,03
Thoracic aorta aneurysm	1,03 (0,04-24,3)	0,98	2,9 (0,46-12,2)	0,23
Dissection	4,06 (0,21-76,5)	0,34	2,3 (0,46-12,2)	0,29
Ulcered aneurysm	0,60 (0,02-18,2)	0,77	1,18 (0,17-8,1)	0,86
Others	1,70 (0,18-15,9)	0,64	0,96 (0,34-2,6)	0,94
Lesion length, centimeters	0,97 (0,89-1,06)	0,61	0,9 (0,91-1.02)	0,29
Total operation times, minutes	0,99 (0,97-1,0)	0,26	0,9 (0,98-1.0)	0,32