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## Early and mid-term results of endovascular treatment of thoracic aorta diseases: a single-center experience



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### ARTICLE INFO

### ABSTRACT

We conducted an analysis to assess early and mid-term outcomes of patients after thoracic endovascular aortic repair (TEVAR) for type B thoracic aorta dissection, descending thoracic aneurysm, or traumatic aortic transection. From January 2016 through December 2018, twenty-seven patients (23 male, 4 female, mean age of 57 years) affected by type B dissection ( $n = 13$  [48.2%]), thoracic aneurysm ( $n = 9$  [33.3%]), and post-traumatic aortic isthmus rupture ( $n = 5$  [18.5%]) were treated using TEVAR with and without left subclavian artery revascularization. All procedures were performed in a hybrid operating room using general ( $n = 12$ ) or regional ( $n = 15$ ) anesthesia. A combined brachial artery and bilateral femoral artery access was used in all patients. To achieve adequate proximal thoracic aorta landing zone length, coverage of the left subclavian artery with proximal endovascular plug occlusion was performed in 17 patients (62.9%); including 4 patients undergoing carotid–subclavian artery bypass before TEVAR stent-graft deployment. Primary procedural success rate was 96.3%; 1 patient had a Type Ib endoleak that was treated by distal stent graft extension. Four adverse outcomes occurred in the immediate postoperative period, including 2 cases of left upper arm acute ischemia (7.4%), ischemic stroke (3.7%), and asymptomatic iliac artery dissection (3.7%). During a mean follow-up of 18 months, no graft-related deaths or endoleak occurred. One patient developed symptomatic subclavian steal syndrome 1 month after operation and underwent a left carotid–subclavian artery bypass with symptom resolution. One patient died 6 months after TEVAR due to neoplasm. Our experience indicates TEVAR is a safe and less invasive alternative to open surgery for a spectrum of thoracic aorta diseases, especially for urgent conditions and in patients with high-risk surgical comorbidities.

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