

Long stent graft for frozen elephant trunk repair in acute type A aortic dissection

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Abstract

OBJECTIVES: The frozen elephant trunk (FET) technique has become an important tool in the treatment of acute type A aortic dissection. The aim of this study was to evaluate the effect of long FET on spinal cord injury (SCI) and distal aortic remodeling after acute type A aortic dissection based on clinical and radiological outcomes. **METHODS:** From January 2018 to November 2019, 158 patients [mean age 51.8 years (range 32 - 78 years), 88.6% male] with acute type A aortic dissection were treated by FET with 100 mm (n=113) or 150 mm (n=45) open hybrid stent graft prosthesis. Patients were divided into two groups according to the length of FET. The clinical and radiological outcomes of the patients were reviewed retrospectively. **RESULTS:** Postoperative outcomes did not differ significantly: in-hospital mortality (9.7% vs 6.7%, $P=0.758$) and SCI (5.3% vs 2.2%, $P=0.674$). Aortic remodeling, which was evaluated by aortic diameter, true lumen diameter, false lumen diameter and the rate of false lumen complete thrombosis, was more positive in long FET group in the descending thoracic aorta during the follow-up period. At the abdominal level, there was no statistically significant difference between the two groups. **CONCLUSIONS:** The long version of FET does not increase the risk of SCI in patients with acute type A aortic dissection. The application of long FET can achieve better results in terms of remodeling of the thoracic aorta in the short- and medium-term follow-up.

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