Our experience in hybrid surgical treatment of thoracic aortic aneurysm

PB Bondarenko¹, VV Shliomin¹, ML Gordeev², EA Shloido², DA Zverev¹, ED Zvereva¹, PD Puzdriak², JP Didenko², GA Vereshhako¹
1. Almazov National Medical Research Centre, Saint Petersburg, Russia
2. Saint Petersburg Cit MultiField Hospital No2, Saint Petersburg, Russia

Aims
Rapid development of transcatheter endovascular methods in treatment of the thoracic aorta, as well as hybrid operations, leads to reduction of postoperative complications associated with open surgery.

The purpose of our work was to assess the mid-term results of various types of debranching in hybrid surgery of the thoracic and thoracoabdominal aorta.

Methods
A total of 29 patients with various abnormalities of the arch and descending thoracic aorta, requiring a hybrid operation, were treated: two with type I dissection, three of type IIIa and 14 with IIB by ME De Bakey, as well as eight true descending thoracic aortic aneurysms and one mega aorta. All patients underwent pre- and postoperative multislice CT angiography. To create a fixation zone, the following operations were performed: visceral debranching (1) for zone IV; transposition of left subclavian artery (LSA) in left common carotid artery (LCCA) (7); LSA-LCCA prosthetic bypass for zone II (2); right subclavian artery (RSA)-to-LSA-to-LCCA bypass (8) and RCCA-to-LCCA-to-LSA bypass (5) for zone I; total debranching of the aortic arch (1); supracornary prostheses of the neck (2); prosthesis of the ascending aorta with debranching (2); frozen elephant trunk and visceral debranching (1) for zone 0.

Results
The technical success was 100%. The average time of debranching was 200.4±70.4 minutes, clamping time of the carotid artery during debranching was 8±3.8 minutes and temporary bypass was required in six cases. The interval between operations was 24.9±19.6 days for chronic dissection, and one day for an acute. The mean time of thoracic endovascular aortic repair (TEVAR) is 179.2±60.7 minutes. In eight patients with type B dissection, after TEVAR, the blood flow remained in the distal false lumen. The TEVAR procedure was performed in 19 patients (65%), TEVAR-
Potential of the patient

Hypertensive patients with multiple peripheral arterial disease were ischemic

Conclusion

Methods

Results

Discussion: LV Kyasnao NV Gobshah

bridal disease

Mid-term results of hybrid operations in peripheral arterial disease