



SHORT- AND LONG-TERM RESULTS OF SURGICAL TREATMENT OF NONSPECIFIC AORTOARTERITIS

Bakhritdinov F.S.

Suyumov A.S.

Khaybullina Z.R.

State Institution "Republican Specialized Scientific and Practical Medical Center
for Surgery named after academician V. Vakhidov", Tashkent, Uzbekistan
<https://doi.org/10.5281/zenodo.12217025>

Nonspecific aortoarteritis (NAA) is a rare, chronic granulomatous panarteritis of unknown etiology affecting the aorta and its large branches. The disease usually occurs at the age of less than 40 years. The pathological process may involve the aorta, its branches, coronary arteries and pulmonary artery. The most commonly affected branches are the common carotid and subclavian arteries.

Material and methods. A single-center cohort analytical study of patients with nonspecific aortoarteritis (NAA) with a lesion of the branches of the aortic arch who were examined and treated at the State Institution "Republican Specialized Scientific and Practical Medical Center for Surgery named after academician V. Vakhidov" from 1978 to 2021. 300 patients with NAA with lesions of the branches of the aortic arch were examined, 272 (90.7%) women prevailed, 28 (9.3%) men, the average age was 31.06 ± 0.53 years. Depending on the approach to diagnosis and treatment, all patients with nonspecific aortoarteritis of the branches of the aortic arch were divided into 2 groups. Group I (comparison group) included patients admitted to the department in the period 1978-2004, group II (main group) included patients who received treatment in 2005-2021. There were 159 patients in group I and 141 patients in group II (the main group). In group I, patients with NAA received glucocorticosteroids, in the acute and subacute stages prednisone was used at the rate of 1 mg / kg / day. In group II, during 2005-2021, treatment regimens with pulse therapy with cyclophosphane and methylprednisolone and prolonged administration of cytostatics and antiplatelet agents/anticoagulants were used. Long-term results of surgical treatment were evaluated based on the following parameters: cumulative patency of arteries, patency of shunts, freedom from stroke, freedom from recurrence of upper limb ischemia, survival. The duration of follow-up in the catamnesis was 63.1 ± 3.0 and 57.0 ± 7.2 months ($p > 0.05$) in group I and II, respectively, a number of patients were followed for 16-20 years.



The results and their discussion. Complications of class II-V according to Clavien-Dindo in the immediate postoperative period in patients with NAA were observed in 5.97% of cases, mortality was 2.5% (5 cases). Surgical complications were 3.6 times more common after intrathoracic interventions ($p < 0.05$) than after extrathoracic. Significantly more often surgical complications of class I-V in the early period were observed in patients of group I (22.2% vs. 3.2%, $p < 0.05$), mainly in patients with acute and subacute stage of NAA at initial admission. This indicates the low effectiveness of conservative treatment of glucocorticosteroids. The use of conservative treatment regimens and a personalized approach to choosing surgical tactics made it possible to increase the cumulative patency of shunts: in the long-term period, the cumulative patency of arteries in the first year of follow-up did not significantly differ in both groups, amounting to 94.4% in group I and 98.6% in group II, respectively ($P > 0.05$), after 5 years of follow-up it was significantly better in Group II: 92.5% vs. 69.7% ($P < 0.05$), after 15 years it was also significantly better in group II: 82.7% vs. 52.6% ($P < 0.05$). The use of a treatment strategy with the mandatory appointment of pulse therapy, a personalized approach to the choice of tactics and operational equipment individually proved its effectiveness, since the immediate good result was 78.9% versus 51.8% with the traditional approach, a good and satisfactory immediate result of treatment was 72 (86.7%) in group I versus 75 (98.7%) in group II ($p < 0.05$), it allowed to reduce the number of early postoperative complications from 22.2% to 3.2%, reduce the number of repeated operations from 15.7% (13 out of 83) to 2.6% (2 out of 76), increase freedom from stroke from 82.8 to 97.7%, 10-year survival from 84.9% to 100%.

Conclusion. The implementation of the developed treatment strategy made it possible to reduce the number of early surgical complications and increase the cumulative patency of the arteries after surgery in the long term.