

## POSTSTENOTIC DILATION OF THE ASCENDING AORTA AS A RISK FACTOR IN AORTIC VALVE REPLACEMENT.

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### Goal

Evaluation of the effect of poststenotic dilation of the ascending aorta on the results of surgical treatment of patients with aortic valve defect.

Material and methods. In the department of surgery of combined pathology of the heart of the State Institution "RSNMPTSKH" named after. From 2012 to the present, 90 surgical interventions on the ascending aorta in combination with prosthetics of the aortic valve have been performed in Vakhidov. The study group included patients with aortic stenosis who underwent valve replacement during the specified period. The urgency and repeated nature of the operation, the presence of significant mitral valve pathology, the expansion of the ascending aorta over 55mm were the criteria for exclusion from the study. The average age of the patients was  $50.35 \pm 12.78$  years. There were 50 men (55%). The etiology of aortic malformation was represented by a bicuspid aortic valve (52%), degenerative lesion (21.5%) and rheumatism (26.5%). According to EchoCG data: the end-diastolic volume of the left ventricle was  $112.2 \pm 27$  ml, the ejection fraction was  $60.1 \pm 2.4\%$ , the systolic pressure gradient (GSD) on the aortic valve was  $95.3 \pm 26.3$  mmHg.

### Results

Hospital mortality after aortic valve replacement was 4.8%. With concomitant coronary artery bypass grafting, the mortality rate was 8.8%. The causes of deaths were acute heart failure, cardiac arrhythmias, respiratory failure and multiple organ failure. The presence of poststenotic expansion of the ascending aorta up to 50 mm. At the same time, the group of patients with aortic dilation did not differ from other patients by age and the average EuroSCORE value (6.3% and 6%). The presence of a bicuspid aortic valve, as well as the procedure for enveloping the aorta, were not statistically associated with high mortality and risk of complications.

### Conclusions

Prosthetics of the aortic valve in combination with moderate expansion of the ascending aorta, at the present stage is characterized by an acceptable level of operational risk. The risk and complexity of surgery with combined prosthetics of the aortic valve and enveloping of the

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ascending aorta do not differ from those with isolated prosthetics of the aortic valve. The mechanism, as well as the causes of increased mortality in the group of patients with aortic dilation, require further investigation.