

5th World Congress on SURGEONS

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AVNeo (Ozaki) - new approach with hope. Six years of experience**Zviad Bakhutashvili***Professor of TSMU, Head of Cardiac surgery Department at Chapidze Emergency Cardiology Center, Georgia.*

Background: In cardiac surgery, intervention on the aortic valve is the most frequently performed operation after CABG. During aortic valve replacement, the main choice is between tissue and mechanical valves. The positive and negative aspects of which are well known to everyone - a lifelong need for warfarin therapy, or a relatively limited functioning time with a risk of PPM (Patient-prosthesis mismatch) even in mechanical prosthesis. To solve this problem, Professor Ozaki proposed a good alternative - aortic valve replacement with autologous pericardium.

Purpose: During the operation, the anterior wall of the pericardium is carefully prepared and treated with a glutaraldehyde-containing solution. After removal of the aortic valve, the distances between each commissure are carefully measured with a special sizer and, using appropriately sized templates, the aortic valve leaflets are cut from the treated pericardium. For good coaptation of the leaflets, the pericardial leaflets should not differ from each other by more than one size. Each leaf is sewn from the midpoint towards the commissures with a continuous seam of 4.0 polypropylene thread.

Materials and methods: In our clinic, 105 patients were operated on almost 6 years, including 59 men. The average age of operated patients was 57.7+9.3; average NYHA - 2.7+0.9; Before surgery, the mean gradient across the aortic valve was 51.9+7.1; ejection fraction 53.9+7.8%. During the operation, 61 patients underwent only aortic valve replacement, 44 cases were combined operations with coronary bypass grafting, mitral annuloplasty or ascending aorta replacement. Mean myocardial ischemia time was 114+15.2 minutes. Hospital mortality was 1.9% (two patients). During the first year, two operated patients needed re-prosthetics with a mechanical valve due to aortic valve insufficiency. The mean follow-up was 34.0 (2-70) months.

The mid-term results are impressive. Hemodynamic parameters of the pericardial aortic valve: average gradient 6.25 mm. rt. Art.; regurgitation is insignificant, EROA (Effective regurgitant orifice area) - 0.06 cm². There is no need for anticoagulant therapy, there is no risk of PRM, and the prognosis of valve life is at least 10-15 years.

Results: Based on the results obtained, autopericardial aortic valve replacement is a good choice, especially for patients: over 60 years old, with a small aortic valve annulus, female of childbearing age; younger patients who cannot or do not want to take anticoagulants and patients with infective endocarditis.

Conclusions: In conclusion, the mid-term results of autopericardial aortic valve replacement showed that this method is reliable and gives good results. For more long-term results, further observations are needed to determine the durability of these valves.

Biography

Prof. Zviad Bakhutashvili completed his education and continuing his excellence as a Professor of TSMU, Head of Cardiac Surgery Department at Chapidze Emergency Cardiology Center, Georgia.

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