

Perceval aortic valve prosthesis – single center experience

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Background: Aortic valve dysfunction is the most frequent valve pathology which needs surgery intervention. Sutureless prosthesis can be an attractive alternative, especially in elderly patients with comorbidities. We would like to present single center results in sutureless aortic valve prosthesis – Perceval implantation.

Methods: Between 2014-2020 in Department of Cardiac Surgery and Transplantology 40 implantation of sutureless aortic valve prosthesis were performed. In our study we assess perioperative course, complications and in hospital mortality.

Results: The maximum age of the patient was 82 years, the minimum was 28 years with median age was 72 years. The average EuroSCORE was 2.02%. In 19 cases they were complex diseases of the aortic valve, 17 had isolated aortic stenosis, and in 4 cases surgery were performed due to infective endocarditis. Surgical procedures were performed in 63% by minimally invasive access (ministernotomy), the rest (n=15) by full sternotomy. In TTE, the mean EF was 58%, in 18 patients the effective fraction was less than 50%. A bicuspid aortic valve was diagnosed in 13 patients. In the perioperative period, 14 patients presented atrial fibrillation, and in a group of 3 patients it was necessary to implant a permanent pacemaker. In 3 cases it was necessary to use haemofiltration. In 18 patients, the perioperative course was uneventful. The mean hospitalization time was 11 days, and the 30-day mortality was 0%.

Conclusions: Implantation of sutureless aortic valve prosthesis due to low mortality and low percent of complication in perioperative course is great solution in elderly patients with high risk of operation, and especially with minimally invasive surgical approach.