POSTERS

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TCT-878

Historical Trends in Outcomes following Aortic and Mitral Heart Valve Replacement Procedures: A Population-Based Study of 29,582 Medicare Patients from 1997 to 2009

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Background: To serve as comparative data for percutaneous replacement, the purpose of this study was to characterize the historical outcomes for aortic and mitral valve replacements from a large, nationally representative patient population.

Methods: Patients undergoing aortic or mitral valve replacement were identified from the 5% national Medicare data (1997-2009) using ICD-9-CM codes 35.21 to 35.24. The subsequent rates of mortality, mechanical complications, infection, and valve re-implantation/reoperation, and infective endocarditis were evaluated. Hospitalization charges and reimbursements (in Jan 2011 dollars) for the index procedure were also assessed.

Results: The patient cohort included 12,202 aortic bioprosthesis, 9,757 aortic mechanical valves, 3,222 mitral bioprosthesis, and 4,401 mitral mechanical valves. The ten-year Kaplan-Meier mortality, mechanical complication, infection, re-implantation/reoperation, and infective endocarditis rates for aortic bioprosthesis were 64.4%, 4.41%, 4.54%, 1.50%, and 8.34%, respectively, and for aortic mechanical valves were 65.9%, 5.23%, 4.71%, 1.84%, and 9.08%, respectively. The corresponding ten-year Kaplan-Meier rates for mitral bioprosthesis were 74.8%, 8.02%, 6.29%, 2.81%, and 12.90%, respectively, and for mitral mechanical valves were 54.3k, 54.6k, 56.4k, and 56.2k, respectively.

Conclusions: Despite the obvious limitations, this study provides valuable data to support percutaneous valve replacement compared to traditional methods.

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Replacement Procedures: A Population-Based Study of 29,582 Medicare Patients from 1997 to 2009

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Background: Patients undergoing aortic valve replacement (AVR) and aortic stenosis (AS) surgery are likely to have more advanced heart failure (HF) than those undergoing mitral valve replacement surgery (MVR). We aimed to study the differences in patient outcomes following AVR and MVR.

Methods: 29,582 Medicare beneficiaries undergoing AVR (n=18,173) or MVR (n=11,409) were identified from the 5% national Medicare data (1997-2009) using ICD-9-CM codes 35.21 to 35.24. The subsequent rates of mortality, mechanical complications, infection, and valve re-implantation/reoperation, and infective endocarditis were evaluated. Hospitalization charges and reimbursements (in Jan 2011 dollars) for the index procedure were also assessed.

Results: The patient cohort included 12,202 aortic bioprosthesis, 9,757 aortic mechanical valves, 3,222 mitral bioprosthesis, and 4,401 mitral mechanical valves. The ten-year Kaplan-Meier mortality, mechanical complication, infection, re-implantation/reoperation, and infective endocarditis rates for aortic bioprosthesis were 64.4%, 4.41%, 4.54%, 1.50%, and 8.34%, respectively, and for aortic mechanical valves were 65.9%, 5.23%, 4.71%, 1.84%, and 9.08%, respectively. The corresponding ten-year Kaplan-Meier rates for mitral bioprosthesis were 74.8%, 8.02%, 6.29%, 2.81%, and 12.90%, respectively, and for mitral mechanical valves were 54.3k, 54.6k, 56.4k, and 56.2k, respectively.

Conclusions: Despite the obvious limitations, this study provides valuable data to support percutaneous valve replacement compared to traditional methods.