Aortic Stenosis Patients Fail to Get Valve Replaced

BY MITCHEL L. ZOLER

ATLANTA — Many patients with severe aortic stenosis and clear indications for aortic-valve replacement fail to get surgery, according to findings in two independent reports at the annual meeting of the American College of Cardiology.

Physicians "need to tell patients they have symptomatic aortic stenosis, and without surgery their risk is very high," said Dr. Ramdas G. Pai, senior investigator on one of the studies and medical director of the Heart and Imaging Center at Loma Linda (Calif.) University.

"Symptoms are often wrongly ascribed to chronic obstructive pulmonary disease," he noted. In addition, "a major barrier is that patients don't want thoracotomy, and they fear physical and mental debilitation" from surgery. But "the risks from surgery are often overestimated. Even in octogenarians and nonagenarians surgical mortality [for aortic valve replacement] is 1%," Dr Pai said.

The study from his center reviewed 187 consecutive patients diagnosed with severe aortic stenosis based on an echocardiography examination during 2006-2008 that identified an aortic valve with a surface area less than 1.0 cm^2. Their average age was 74, 56% were men, and their average aortic valve area was 0.72 cm^2.

Exertional symptoms secondary to aortic stenosis occurred in 79% of the patients, including chest pain, dyspnea, or dizziness with syncope. Another 13 of the 187 patients lacked aortic stenosis symptoms but had a left ventricular ejection fraction of less than 50%, which meant that a total of 160 patients (86%) had a class 1 indication for aortic valve replacement based on existing guidelines of the American College of Cardiology and the American Heart Association, said Dr. Aman Dua, a physician at Loma Linda University who presented the report.

The physicians who managed the patients referred 128 (68%) for aortic valve-replacement surgery, and 95 of these patients actually underwent replacement surgery. Among the 92 patients who did not undergo valve replacement, 39 refused surgery, physicians decided that 23 had comorbidities that precluded surgery (advanced age, frailty, dementia, chronic kidney disease, or porcelain aorta), and in 22 patients the physicians judged the aortic stenosis not severe even though it met the severity criteria of the ACC/AHA guidelines. (Dr. Dua did not provide a reason for the remaining eight patients who did not have surgery.) The decision not to have surgery originated with the patient in 42% of the 92 cases, with a cardiologist in 36%, and with a cardiac surgeon in 17%. (Dr. Duo did not report the source of the decision in the remaining 5%.)

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The patients who did not undergo surgery were older, with an average age of 77 compared with an average age of 70 in those who underwent surgery; 40% were asymptomatic, compared with a 4% asymptomatic rate in the surgery patients; the patients who did not have valve replacement had larger aortic valves, with an average area of 0.77 cm^2 compared with an average 0.69 cm^2 in the surgery patients; and the patients who had no surgery had more comorbidities with an average Euroscore of 21% compared with 15% in the surgery patients. All of these between-group differences were statistically significant.

"Patient reluctance is the major factor leading to nonsurgical management," Dr Dua said. "The physician's discussion with the patient may have a significant role in this process, he said.

The second report focused on 328 patients aged 75 or older with severe aortic stenosis (valve area less than 1.0 cm^2) managed at Aurora Health Care hospitals in the Milwaukee area during 2006-2008. In this group, 56 (17%) underwent valve-replacement surgery and 272 (83%) did

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Mitral Repair Is Safer Option for Octogenarians

BY MITCHEL L. ZOLER

ATLANTA — Carefully selected octogenarians with mitral regurgitation generally had good outcomes following mitral valve repair in a series of 322 patients at two medical centers.

"Mitral valve surgery can be performed with good mid- and long-term outcomes in carefully selected octogenarian patients in whom mitral repair may confer a survival benefit over replacement," Dr. David H. Adams said at the annual meeting of the American College of Cardiology.

In the series of consecutive octogenarian patients who underwent valve surgery

Elective valve replacement linked with a 60% increased risk of death compared with valve repair.

DR. ADAMS

for mitral regurgitation during 1998-2008 at Mount Sinai and at the Heart Center of the University of Leipzig, Germany, 227 patients (70%) underwent valve repair and 95 (30%) had valve replacement. The operative mortality rates were 11% and 19%, respectively. In a multivariate analysis, elective valve replacement was linked with a 60% increased risk of death versus valve repair, a significant difference, said Dr. Adams, professor and chairman of cardiothoracic surgery at Mount Sinai Medical Center in New York.

The conventional wisdom that replacement is favored in elderly patients "is not valid," commented Dr. Steven F. Bolling, professor of surgery and director of the mitral valve clinic at the University of Michigan in Ann Arbor. He noted results he recently reported from an analysis of more than 28,000 U.S. patients who underwent mitral valve surgery during 2005-2007 and entered into the Society of Thoracic Surgeons database. That analysis showed that age was not an independent predictor for whether patients underwent valve repair or replacement.

In Dr. Adams' analysis, significant predictors of valve replacement included active endocarditis, which boosted the replacement rate by more than 10-fold, and need for coronary artery bypass grafting in degenerative patients, which raised the rate of valve replacement by almost 4-fold. Independent predictors of mortality included emergency surgery, a left ventricular ejection fraction of 30% of less, and renal failure. In octogenarian patients with a left ventricular ejection fraction greater than 30% who underwent valve repair that was not emergency surgery and did not also have coronary artery bypass the operative mortality rate was 4%, Dr. Adams said.

Dr. Adams has served as a consultant to and was an inventor for Edwards Lifesciences. Dr Bolling had no disclosures. ■

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not, even though 166 of those who did not get surgery had symptoms, reported Dr. M. Fuad Jan, of the Milwaukee Heart Institute at Aurora Sinai Medical Center.

The patients who did not undergo surgery had significantly more comorbidities, with an average Euroscore of 35%, compared with an average 15% score in the patients who had their valve replaced. The patients who did not receive valve replacement were also older, with an average age of 85, compared with an average age of 82 in those who had surgery. Advanced age constituted the sole reason for not performing surgery in 43% of the patients, age plus comorbidities explained 50% of the cases that did not have surgery, patient refusal occurred in 4% of the cases, and no reason was identified in the remaining 3%.

The analysis also documented the potential benefit from valve replacement surgery. During 2 years of follow-up, the survival rate in the 56 patients who underwent valve replacement was 88%, significantly better than the 50% survival rate in the 272 patients who did not undergo valve replacement, Dr. Jan said.

Dr. Dua and Dr. Jan said that they had no disclosures. ■