

ABSTRACTS - 28th EACTS

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RIGHT ANTERIOR MINI-THORACOTOMY FOR ISOLATED AORTIC VALVE REPLACEMENT: TEN-YEAR EXPERIENCE IN 484 PATIENTS

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Objectives: Minimally invasive aortic valve replacement (AVR) has been associated with several better outcomes over the standard full sternotomy approach. We revised our 10-year experience with right anterior mini-thoracotomy (RAMT) for AVR and compared the data to the Society of Thoracic Surgeons (STS) database.

Methods: Between August 2004 and March 2014, 484 patients (males 271 (56%), mean age 70.6 ± 12 years) underwent isolated AVR through RAMT. Eight (1.7%) patients had previous heart surgery. Mean NYHA functional class was 2.3; 136 (28%) patients were in NYHA III-IV advanced congestive heart failure. Forty-four (9%) patients had left ventricle ejection fraction (EF) <50%. In 42 (9%) patients combined valve lesion and in 77 (16%) pure aortic regurgitation were diagnosed preoperatively. Mean logistic EuroSCORE I was 7.8.

Results: In 233 (48%) patients sutureless or rapidly implantable biological prosthesis were used. Eighty-two (17%) patients had small aortic annulus (21 mm or less). Operative times averaged 81 min of cross-clamping time [interquartile range (IR) 57-97 min] and 116 min of CPB time (IR 89-136 min) and were significantly lower ($P=0.0000$ for both) with sutureless prostheses compared with sutured ones. In 9 (1.9%) cases conversion to full sternotomy was necessary. Hospital length of stay averaged 6.2 days (IR 6-7 days). Overall in-hospital mortality was 4 (0.8%). At 27 months median follow-up (IR

15-58 months; cumulated follow-up 1231 patient-years), 95.3% survival is observed.

Complication	n (%)
Revision for bleeding	23 (4.8%)
Myocardial infarction	3 (0.6%)
Wound dehiscence or infection	2 (0.4%)
Stroke	6 (1.2%)
Transient ischaemic attack	5 (1.0%)
Respiratory distress and/or need for prolonged mechanical ventilation	4 (0.8%)
Acute renal failure recovered with continuous renal replacement therapy	1 (0.2%)
Permanent pacemaker implant	7 (1.4%)
New onset atrial fibrillation	91 (19%)
Acute postoperative aortic dissection	1 (0.2%)

Conclusion: Excellent outcomes can be achieved with minimally invasive aortic valve replacement through RAMT. Sutureless prostheses facilitate minimally invasive AVR and are associated with reduced operative times.