

 VALVULAR HEART DISEASE

## SURVIVAL AND PREDICTORS OF MORTALITY IN ELDERLY UNOPERATED PATIENTS WITH SEVERE AORTIC STENOSIS

ACC Oral Contributions

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**Background:** There is limited data on elderly patients with severe aortic stenosis (AS) who do not undergo aortic valve replacement (AVR). We examined survival and predictors of mortality in unoperated elderly patients denied surgery for any of several reasons.

**Methods:** We reviewed our hospital's echocardiography database and identified all adult patients diagnosed with severe AS (defined as valve area <1.0 cm<sup>2</sup>) documented between Jan. 2006 and Dec. 2008. Demographic and clinical characteristics were reviewed.

**Results:** A total of 448 patients were diagnosed with severe AS based on echocardiography, of whom 115 (26%; median age 74 yrs) underwent AVR. The 333 unoperated patients included 272 (82%) >75 yrs old (median age 84), of whom 166 (61%) had symptomatic AS; 254 (93%) had multiple comorbidities; 73 (27%) had undergone previous CABG; 106 (39%) had heart failure; 30 (11%) had angina pectoris alone; while 18 (7%) had syncope/presyncope. Median logistic EuroSCORE for unoperated patients was significantly lower among asymptomatic than symptomatic elderly patients (31% vs. 74%; p<0.001). At median follow-up of 2 yrs, 143 of the 272 elderly patients were dead compared with 16 of the 61 ≤75 yrs (52% vs. 26%; p<0.001). Independent predictors of mortality were age, history of CAD, diabetes, and poor right ventricular function from pulmonary hypertension.

**Conclusion:** Prognosis of medically managed severe symptomatic AS in elderly patients is dismal, with only half surviving 2 years after being denied surgery.

PATIENT CHARACTERISTICS: OPERATED/UNOPERATED PATIENTS			
Variable	Age >75 years (n=272)		p Value*
	No.	(%)	
<b>Demographics</b>			
Age - years (IQR)	85 (81-89)	68 (63-71)	<0.001
Male Sex	103 (37.9%)	31 (50.8%)	0.062
Previous PCI	112 (41.2%)	39 (63.9%)	<0.001
Previous CABG	73 (26.8%)	18 (29.5%)	0.672
Previous known valve disease	240 (88.2%)	57 (93.4%)	<0.237
<b>Risk Factors</b>			
Smoking	88 (32.4%)	32 (52.5%)	0.003
Hypertension	212 (77.9%)	44 (72.1%)	0.331
Diabetes mellitus	90 (33.1%)	30 (49.2%)	0.018
Dyslipidemia	139 (51.1%)	31 (50.8%)	0.968
Renal failure	67 (24.6%)	17 (27.9%)	0.599
<b>Comorbidity</b>			
Previous MI	81 (29.8%)	16 (26.2%)	0.581
Carotid disease	43 (15.8%)	9 (14.8%)	0.838
Creatinine - mg/dL (IQR)	1.3 (0.9-1.7)	1.3 (1.0-1.7)	0.838
Neurological dysfunction	46 (16.9%)	8 (13.1%)	0.467
COPD	51 (16.9%)	10 (16.4%)	0.922
<b>Symptoms</b>			
<b>NYHA</b>			
Class I	11 (8.1%)	2 (9.1%)	0.795
Class II	36 (26.5%)	8 (36.4%)	0.549
Class III	67 (49.3%)	8 (36.4%)	0.481
Class IV	22 (16.2%)	4 (18.2%)	0.940
Congestive heart failure	114 (42.1%)	18 (29.5%)	0.074
<b>Medications</b>			
Aspirin	150 (55.4%)	24 (39.3%)	0.024
Beta blockers	136 (50.2%)	24 (39.3%)	0.126
ACE inhibitors/ARB	124 (45.8%)	22 (36.1%)	0.168
Statin	114 (42.1%)	32 (52.5%)	0.140

\*P values were calculated with the chi-square test for the medians of age and lipids values, and Z-test or Fisher's exact for two proportions (two-sided) between two groups of patients, with and without medical history of MI, CAD, PAD, diabetes mellitus, stroke, renal failure or dialysis.  
Percentages were calculated without missing data.  
Abbreviations: ACE inhibitor=angiotensin-converting enzyme inhibitor; IQR=interquartile range; NYHA=New York Heart Association; PCI=percutaneous coronary intervention.