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Valvular Heart Disease

IMPACT OF MITRAL ANNULAR CALCIFICATION ON OUTCOMES OF AORTIC VALVE SURGERY

Poster Contributions

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Session Title: Selected Topics in Valvular Therapy

Abstract Category: 29. Valvular Heart Disease: Therapy

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Background: Mitral annular calcification (MAC) is an independent predictor of cardiovascular events and vascular death. Studies have addressed the impact of MAC on mitral valve surgery but there is no data on the impact of MAC on outcomes of aortic valve (AV) surgery. Our study aimed to determine the impact of MAC on early (<30 days) and late outcomes (1 year) of patients undergoing AV surgery.

Methods: Patients \geq 40 years of age undergoing elective AV replacement between October 2003 and May 2012 were included. Emergent or redo AV surgery patients were excluded. Baseline demographics, surgical, laboratory and echocardiographic data were recorded. Severity of MAC was graded by two blinded investigators: Calcification < 2 mm - mild, 2-4 mm - moderate, \geq 4mm - severe. Early outcomes included: 30 day in hospital death, stroke and permanent pacemaker after index surgery. Late outcomes were: 1 year mortality, congestive heart failure, permanent pacemaker and stroke.

Results: 308 patients were included of whom 67% were males. 108 patients had no MAC, 95 -mild MAC, 74 - moderate MAC, 19 - severe MAC. There was no significant difference in baseline characteristics, severity of mitral regurgitation, duration of hospital stay or immediate and long term outcomes between the two groups. Subgroup analysis excluding mitral valve replacement did not change results.

	NO OR MILD MAC (203)	MODERATE & SEVERE MAC (105)	TOTAL (308)	P - VALUE
AGE AT SURGERY	71.2 +/-11.5	76.1+/-10.5		
DBM- 2	61 (30%)	32 (31%)	93 (30%)	0.93
HTN	150(73.9%)	77(73.3%)	227(73.7%)	0.91
CAD	103(50.7%)	63(60%)	166(53.9%)	0.12
PRIOR STROKE	22(10.8%)	8(7.6%)	30(9.7%)	0.36
BETA- BLOCKERS	143(70.4%)	64(61%)	207(67.2%)	0.09
ACEI/ARB	91(44.8%)	40(38.1%)	131(42.5%)	0.25
COUMADIN	80(39.4%)	39(37.1%)	119(38.6%)	0.69
STATIN	119(58.6%)	55(52.4%)	174(56.5%)	0.29
ASPIRIN	128(63.1%)	58(55.2%)	186(60.4%)	0.18
*ANY 1 MONTH COMPLICATIONS	84(44.4%)	42(42.4%)	126(43.8%)	0.74
DURATION OF HOSPITAL STAY	10.95 days	11 days		0.98
LONG TERM OUTCOMES				
* DEATH WITHIN 12 MONTHS	12(6%)	5(4.9%)	17(5.6%)	0.68
*STROKE F/U	5(2.6%)	3(3.1%)	8(2.8%)	0.93
*PACER LONGTERM	20(10.5%)	16(16%)	36(12.4%)	0.37
*ANY LONG-TERM COMPLICATION	42(22.8%)	24(24.7%)	66(23.5%)	0.71
* indicates 2%-6% missing data				

Conclusion: Presence of MAC did not impact short/long term complications and mortality in patients undergoing AV replacement.