

**C98. Mitral Valve Surgery Using Port Access Technique: The Updated Dallas Experience**

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**OBJECTIVES:** During the past 30 years conventional mitral valve surgery with sternotomy has improved with declining morbidity and mortality. In the past decade, minimally invasive approaches have enhanced cosmesis, reduced recovery time and improved patient satisfaction. We reviewed our data to determine if the use of Port Access techniques has improved hospital morbidity and mortality, compared with conventional surgery.

**METHODS:** Data was extracted from our STS certified, audited database on 287 patients who had either an MV Repair (242 patients) or MV Replacement (45 patients) between Jan 1996 and Nov 2008 using femoral cannulation, percutaneous retrograde cardioplegia and endoballoon aortic occlusion with a 4 -5 cm thoracotomy approach. These patients were matched 1:1, for the same time frame, by age, NYHA class, smoking status, prior CABG or valve surgery and ejection fraction to a control group having surgery using a standard sternotomy approach. Categorical variables were analyzed with chi-squared statistics; highly skewed continuous variables (LOS, ventilator time) were analyzed using a non-parametric test (Kruskal-Wallis).

Operative and 30 day outcomes were measured.

**RESULTS:** Table 1 compares the matched Sternotomy and Port Access groups for repairs and replacements. No other morbidities were significantly different between groups.

**CONCLUSIONS:** In this analysis of matched patients, repairs done using the Port Access system had shorter lengths of stay, fewer re-operations for bleeding, fewer were on prolonged ventilation and mean ventilator time was less. Also Mitral replacement patients had a reduced mortality and length of stay. Ventilator use and time was reduced although they did not reach statistical significance.

	Mitral Valve Repairs (N=170)			Mitral Valve Replacements (N=39)		
	Sternotomy	Port Access	p Value	Sternotomy	Port Access	p Value
LOS (days)	7.4 ± 6.7	5.8 ± 7.1	<0.001	10.0 ± 7.6	8.4 ± 8.3	0.013
Operative Mortality	0.6% (1)	0.6% (1)	1.00	10.3% (4)	0.0% (0)	0.04
Return to OR for Re-op Bleed	7.7% (12)	1.8% (3)	0.01	14.3% (5)	2.6% (1)	0.10
Vent Prolonged (> 24 hours)	11.2% (18)	4.8% (8)	0.03	22.2% (8)	13.5% (5)	0.33
Mean Vent Hours	23 ± 80	18 ± 127	<0.001	21 ± 41	16 ± 42	0.074
Readmit within 30 days	6.5% (10)	3.3% (5)	0.19	2.8% (1)	6.1% (2)	0.60