MODERATE PULMONARY HYPERTENSION DOES NOT INFLUENCE EARLY OUTCOMES FOLLOWING MITRAL VALVE REPAIR

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Introduction

- Pulmonary hypertension (PHT) in association with valvular dysfunction is:
  - related to early onset of symptoms
  - a marker of advanced disease
  - associated with reduced survival
- Severe PHT is associated with increased mortality and morbidity
- The impact of moderate preoperative PH has not been specifically investigated in patients undergoing mitral repair

Aim

- To investigate the impact of moderate PHT on early clinical outcome in patients with MR undergoing mitral repair

Methods

- Retrospective case note review
- Single surgeon
- Right heart catheterization
- PHT: Mean PAP > 25mmHg
- *Cox proportional hazards regression* to identify independent predictors of 1-year mortality
- *Kaplan-Meier method* to compare actuarial survival at 1-year between patients with and without PH

Results: Preoperative data

Mitral valve repair **Number**	**MPAP** **> 25 mm Hg** **67**	**MPAP** **< 25 mm Hg** **72**	**p value**
Pre-operative characteristics			
Age, yrs (SD)	66 (13)	66 (11)	0.83
Male sex, n (%)	40 (59)	44 (61)	0.71
Average MPAP, mm Hg (SD)	35 (8)	19 (4)	<0.0001
PA systolic pressure, mm Hg (SD)	57 (14)	33 (7)	<0.0001
PA diastolic pressure, mm Hg (SD)	24 (7)	13 (3)	<0.0001
Impaired LV function, n (%)	22 (33)	14 (20)	***0.03***
Pre-op NYHA class, n (SD)	2.4 (0.7)	2.2 (0.7)	0.09
Post-op NYHA class, n (SD)	1.3 (0.7)	1.2 (0.5)	0.07
Pre-op atrial fibrillation,, n (%)	25 (37)	28 (39)	0.39

Results: Postoperative

	MPAP > 25 mm Hg	MPAP < 25 mm Hg	p value
Post-operative outcomes			
Time to extubation, hrs (SD)	7.9 (4.5)	8.0 (4.9)	0.54
ITU stay, hrs (SD)	31 (29)	28 (23)	0.86
Blood loss, mls (SD)	547 (377)	512 (275)	0.53
Inotropic support, n (%)	37 (69)	27 (38)	0.007
Time to discharge, days (SD)	11.5 (6.6)	10.4 (5.9)	0.29
30-day mortality, n (%)	1 (1.5)	0 (0)	0.42

Results

- Pre-operative PH was not an independent predictor of early mortality following mitral valve repair (p=0.76).

	P value	Hazard ratio	95% CI
PHT	0.76	1.26	0.7 – 1.56

- One year actuarial survival was not significantly different between groups (90.4% versus 96.5%, p = 0.44).

Conclusions

- Moderate PH in patients with mitral valve disease is not associated with an increase in morbidity or mortality following mitral valve repair
- No difference in survival at 1 year