



## Valvular Heart Disease

### PROGNOSTIC SIGNIFICANCE OF MITRAL STENOSIS INDICES ON OUTCOMES IN PATIENTS FOLLOWING MITRAL VALVE REPAIR FOR DEGENERATIVE MITRAL REGURGITATION

Poster Contributions  
Poster Hall, Hall C  
Friday, March 17, 2017, 3:45 p.m.-4:30 p.m.

Session Title: Valvular Heart Disease: Mitral Valve Disease  
Abstract Category: 36. Valvular Heart Disease: Clinical  
Presentation Number: 1145-029

Authors: *Kwan-Leung Chan, Karen Hay, Buu-Khanh Lam, University of Ottawa Heart Institute, Ottawa, Canada*

**Background:** We have shown that functional mitral stenosis (MS) can occur in patients following mitral valve repair for degenerative mitral regurgitation. In these patients both mitral valve gradient and calculated mitral valve area are associated with exercise capacity, intracardiac hemodynamics and the patient's perception of well being, but their usefulness in predicting clinical outcome events during follow-up has not been defined.

**Methods:** We performed a prospective follow-up study on 110 patients who had mitral valve repair for degenerative MR with no more than mild residual mitral regurgitation. These patients were the original cohort in our previous study on stress echocardiography in these patients. Follow-up was performed by telephone interview and a search of the electronic records. The 3 measures of MS indices were mean diastolic mitral gradient,  $> 3$  mmHg, mean gradient  $> 5$  mmHg and mitral valve area  $\leq 1.5$  cm<sup>2</sup>. The outcome events were all cause mortality, mitral valve replacement (MVR), new heart failure and new atrial fibrillation (AF).

**Results:** The follow-up was  $11.3 \pm 2.3$  years since mitral valve repair. The outcomes were listed in the Table.

**Conclusions:** In patients following mitral valve repair for degenerative mitral regurgitation, MS indices are predictors of outcome events and should be an integral part of the follow-up echocardiograms. Our data suggests that even mild degree of MS with a mean gradient cut-point of 3 mmHg can have functional consequences.

	Mean mitral gradient $\leq 3$ mmHg	Mean mitral gradient $> 3$ mmHg	Mean mitral gradient $\leq 5$ mmHg	Mean mitral gradient $> 5$ mmHg	Mitral valve area $> 1.5$ cm <sup>2</sup>	Mitral valve area $\geq 1.5$ cm <sup>2</sup>
Outcomes Events						
Number of patients	35	75	79	31	88	22
Deaths	0	1	0	1	0	1
MVR	0	3	0	3	1	2
Heart failure	0	6	0	6	0	6
AF	2	10	7	5	8	4
All	2	20	7	15	9	13