ECHOCARDIOGRAM IS ESSENTIAL TO PROMPTLY AND ACCURATELY DIAGNOSE ACUTE FLAIL MITRAL VALVE

ACC Moderated Poster Contributions
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Background: Acute flail mitral valve frequently results in severe mitral regurgitation. However, its clinical presentation can be atypical, potentially leading to misdiagnosis.

Methods: 262 consecutive transthoracic and transesophageal echocardiograms with severe mitral regurgitation performed from February 2005 to October 2010 at Jack D. Weiler Hospital (Bronx, New York, USA) were analyzed retrospectively. Adult patients (age>21 years) with no prior history of flail mitral valve presenting acutely with new onset flail mitral valve found by echocardiography were selected for this study. Patients with chronic flail mitral valve were excluded.

Results: Fifteen patients were found to have acute flail mitral valve. Their ages ranged from 42 to 99 years (average 69 years). The majority were male (13 male vs 2 female). Among them, nine patients had a history of hypertension. Eight of them presented with sudden onset of dyspnea and/or shortness of breath, while seven presented with chest pain. Holosystolic murmur was only appreciated in five patients. In the emergency room chest x-ray of five patients had no acute pulmonary findings. Meanwhile, two were found to have unilateral pulmonary edema. Using echocardiography techniques, the correct diagnosis of flail mitral valve was made within four days. The main cause of acute flail mitral valve was degenerative disease (13 out of 15). Overall, seven patients were managed surgically, four with valve replacement and three repaired. One patient presenting with unilateral pulmonary edema died during hospitalization partially due to initial misdiagnosis.

Conclusion: Our study reveals that echocardiography is an essential tool in diagnosis and management of acute flail mitral valve.