

Does Mitral Regurgitant Flow Affect Left Atrial Thrombus Formation in Patients with or without Atrial Fibrillation ?

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Abstract : The aim of this study was to examine whether the presence of mitral regurgitation (MR) affects left atrial thrombus (LAT) formation in patients with or without atrial fibrillation (AF). The frequency of LAT formation detected with transesophageal echocardiography was significantly lower in the subjects with sinus rhythm (18/447) in comparison to that of AF patients (82/150). A single factor analysis for whole subjects revealed that higher age, the existence of AF, greater left atrial and left ventricular systolic diameters, and a lower ejection fraction were all associated with LAT formation, whereas a stepwise multiple regression analysis revealed that a low ejection fraction alone was an independent contributor for LAT formation. Among the patients with AF, none of the echocardiographic parameters showed any significant influence on LAT formation, however, the existence, but not the severity, of MR slightly decreased the incidence of LAT formation, whereas, in patients with sinus rhythm, a left ventricular dysfunction appeared to be a contributing factor to LAT formation.

Key words : transesophageal echocardiography, cardiac function, sinus rhythm, atrial fibrillation