UNVEILING SEVERE MITRAL REGURGITATION IN HYPERTROPHIC CARDIOMYOPATHY: THE CONCEALED MYXOMATOUS MITRAL VALVE PROLAPSE

Background: Hypertrophic cardiomyopathy (HCM) is a genetic heart condition characterized by left ventricular hypertrophy that can potentially cause complications like mitral regurgitation (MR). MR is often linked to the systolic anterior motion (SAM) of the mitral valve due to left ventricular obstruction. However, exploring other causes like myxomatous degeneration is essential to optimize patient care.

Case Description: A 59-year-old male with HCM presented for further management after a transthoracic echocardiogram (TTE) revealed worsening pulmonary hypertension and tricuspid regurgitation due to severe MR thought to be caused by SAM of the mitral valve. Despite being maximized on medical treatment, subsequent tests confirmed persistent MR and high pulmonary pressures. A subsequent transesophageal echocardiography (TEE) revealed myxomatous degeneration of the mitral valve with posterior mitral leaflet prolapse (P2) and the presence of a flap component. This led to a reevaluation of the patient's treatment, and he ultimately received a mechanical bi-leaflet mitral valve replacement.

Discussion: While HCM-related MR has traditionally been associated with SAM of the mitral valve, myxomatous mitral valve degeneration with prolapse can lead to severe MR in HCM resistant to medical therapy. Myxomatous mitral valve degeneration is characterized by the thickening and elongation of mitral valve leaflets, resulting in leaflet redundancy and reduced coaptation. Our case underscores the importance of a comprehensive evaluation in patients with HCM and MR. The identification of myxomatous mitral valve degeneration as the primary cause of MR led to a mitral valve replacement procedure, resulting in significant clinical improvement. Differentiating the etiology of MR is crucial to enable tailored management and optimal outcomes for patients with this challenging condition.