

When Mitral Valve Starts Smoking - A Clinical Image

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Abstract

Mitral Stenosis is characterised by thickening of mitral valves followed by decrease in the size of mitral orifice with subsequent stasis of blood in left atrium leading to spontaneous echo contrast (SEC).

Keywords: Mitral Stenosis; Blood Stasis; Spontaneous Echo Contrast

Introduction

A 32 year old female patient got admitted in cardiology ward with chief complaints of history of dyspnoea on exertion grade II-III for 6 months associated with H/O palpitation on and off for the same duration. There was no H/O chest pain and syncopal attacks. On examination patient was conscious, oriented, afebrile. On auscultation S1 variable + and P2 was loud, mid diastolic murmur (MDM) on apical area, best heard in expiration on lateral decubitus. Patient underwent transthoracic echocardiography (TTE) showing thickened rheumatic mitral leaflets with a mitral valve area (MVA)- 0.7 sq.cm on planimetry. Gradient across Mitral valve was 14 mmHg and apical four chamber view showed smoking mitral valve (LA SEC+). TEE showed soft tissue clot (Manjunath classification Ib) [1] i.e. thrombus confined to LAA and protruding into LA cavity. Patient was started on heparin and overlapped with acitrom. In conditions with stasis or slow blood flow, spontaneous

echocardiographic contrast (SEC) is seen, which is a characteristic echocardiographic phenomenon with a very distinct smoke-like swirling pattern [2]. SEC is an indicator of increased thromboembolic risk [3].

Figure 1: Echocardiography (Four chamber and parasternal long axis view) showing thickened rheumatic mitral leaflets with left atrial spontaneous echo contrast (SEC) as "Smoking Mitral Valve".

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