A complication prevented by the primary aetiology: A case report of LA thrombus in an RVD patient with mitral stenosis

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Introduction
Rheumatic Heart Disease (RHD) is the most common cause of Mitral Stenosis (MS) and remains a cardiovascular health problem in developing countries [1,2]. MS with or without Atrial Fibrillation (AF) increases the risk of Left Atrial (LA) thrombosis [3,4] and HIV infection adds on to the prothrombotic state [5]. We describe an interesting clinical case in a patient with multiple thrombotic risks.

Cardiovascular examination revealed a diastolic thrill in the left lateral position, a loud S1 and a low-pitched mitral rumble. ECG confirmed AF and an erect chest X-ray revealed a straight left heart border with left pleural effusion (Figure 1). Transthoracic echocardiography demonstrated severe MS (diastolic doming of anterior MV leaflet; thickened, calcified and fused chordae; with MVA planimetry of 0.64cm²) with a left ventricular ejection fraction of 32% and a large LA thrombus measuring 2.3cm x 2.5cm (Figure 2). He was initiated on HAART therapy and is currently planned for surgery following adequate viral load suppression.

Discussion & conclusion

Intracardiac thrombosis, a known complication of mitral stenosis, has been shown to independently increase the risk of ischemic cerebral stroke by two-fold [6]. LA thrombus reportedly occurs in about a third of patients with MS and concurrent AF [4]. Even in the absence of AF, thrombosis may still form at a lower incidence rate of 0.01% due to LA stasis [3]. Additionally, HIV-infected patients are at a 2-10 fold increased risk of thrombosis compared to the general population [5].

This patient, having had three independent thrombotic risks (MS, AF and HIV infection) formed a large LA thrombus and heart failure within a year. However, his severe mitral stenosis prevented his LA thrombus from embolising possibly saving him from a fatal cardio-embolic stroke. We therefore stress the importance of close surveillance, adequate multi-disciplinary medical therapy and early surgical intervention in RHD patients with prothrombotic predisposition.

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Ethics

Informed consent has been obtained from the case study and anonymity is preserved in this case report.

References