Cardiology in the Young

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Subvalvular mitral aneurysm a rare pathology

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Abstract

We present a rare and challenging case of left ventricular aneurysm in an African child with no history of previous infection or trauma, admitted for surgical treatment, who presented non reversible cardiorespiratory arrest with cardiorespiratory resuscitation before surgery.

Brief Report

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Four-year-old male, previously healthy, with no trauma report, referred to paediatric cardiology evaluation for retrosternal chest pain and fatigue. Clinically, a systolic murmur grade III/VI was heard at the mitral focus. The chest X-ray showed cardiomegaly with enlarged left-side cavities (Fig 1) and the transthoracic echocardiogram showed a globular appearance of both left chambers with a single subvalvular mitral aneurysm, moderate mitral regurgitation and flow arising from the left ventricle into the aneurysm (Fig 2). Cardiac function was globally preserved and the haemodynamic status was stable. The patient was kept in the intensive care unit for close monitorisation. An urgent cardiac computed tomography was requested for more accurate

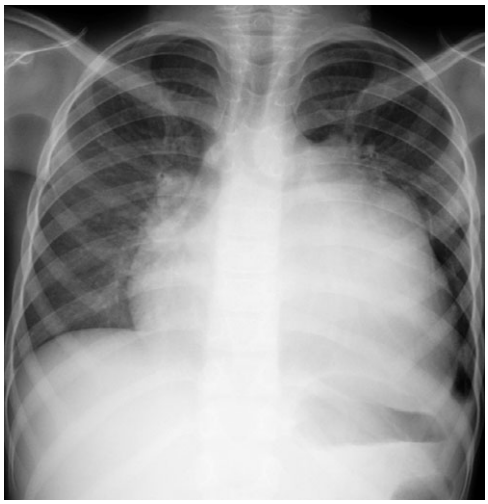


Figure 1. Chest radiograph; anteroposterior projection demonstrating cardiomegaly.

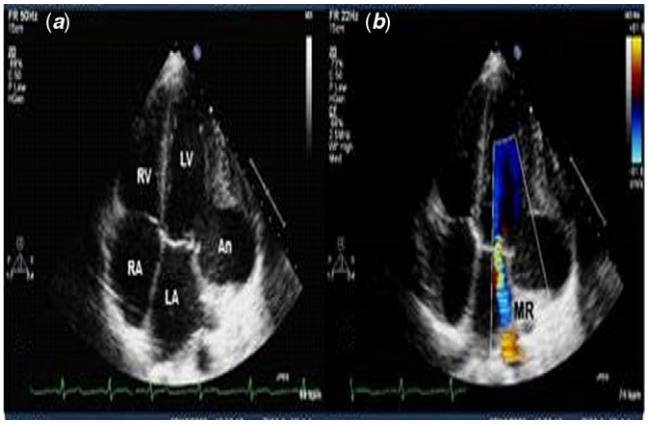


Figure 2. Doppler transthoracic echocardiogram, apical four-chamber view, demonstrating mitral regurgitation jet (MR), left atrium (LA), right atrium (RA), right ventricle (RV), left ventricle (LV), subvalvular mitral aneurysm (AN).

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anatomic documentation and surgical approach planning, but not performed - after 3 hours after admission the patient suffered sudden clinical deterioration with ventricular tachycardia and severe haemodynamic compromise which rapidly progressed to cardiorespiratory arrest, non-reversible with the resuscitation procedures. Subvalvular mitral aneurysm is a potentially fatal and rare condition.[1] Numerous causes are suggested, such as inflammatory, infectious, or traumatic. The occurrence of non-infectious and non-traumatic aneurysms supports that mitral subvalvular aneurysms can result from a congenital defect of the valvular ring.[2] Clinical presentation relates to congestive heart failure signs, chest pain, heart murmur and may be associated with cardiac arrhythmia phenomena. Treatment is surgical, the aneurysm neck is closed with mitral valve repair or prosthesis implantation if associated mitral dysfunction is documented.[2,3]

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Conflicts of interest. None.

Ethical standard. The authors assert that all procedures contributing to this work not involve human and/or animal experimentation.

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