

Rare cases of left ventricular aneurysm in children: A single-center experience

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BACKGROUND

LV aneurysms in children are very rare and often resulting from a congenital defect in posterior portion of the mitral valve annulus. We present the two unique cases of children with tuberculosis (TB) and acquired sub-mitral aneurysms.

Case Report

The first case was an afebrile 2 year-old girl with progressive dyspnea, CHF and systolic murmur at apex for 8 days. CXR showed marked cardiomegaly with pulmonary venous congestion.

Echocardiogram revealed a huge LV aneurysm at sub-mitral valve area causing moderate MS, severe MR & TR. EF was 50%. MRI showed a large pseudoaneurysm at posterior wall of LV. Additional non-contrast CT scan revealed multiple calcify mediastinal lymph nodes (caseous nodes). The lung parenchyma was normal. Mitral valve replacement was performed due to complete destruction of posterior leaflet and annulus. LV aneurysmorrhaphy and tricuspid valve repair were also done. The post-operative course was uneventful. Pathological examination suggests necrotizing granulomatous inflammation. AFB from lymph node was negative.

The second case was 2.5 year-old boy, with history of TB contact, presented with prolonged fever and dyspnea. Physical examination revealed no sign of CHF or murmur. CXR showed mild cardiomegaly. He suddenly collapsed after complaining of severe epigastric pain immediate after administration. CPR was unsuccessful. Autopsy revealed a rupture of huge LV aneurysm at the sub-mitral valve area with massive intrapericardial blood clot, generalized lymphadenopathy, pleural effusion and ascites. Even though AFB from myocardial tissue was negative, pathological finding suggested granulomatous inflammation.

TB endocarditis has been reported sporadically. Most cases presented as LV aneurysm at sub-mitral valve area. Patients with LV aneurysm are at potential risk for life-threatening conditions leading to sudden death. Echocardiography and MRI are crucial modalities to define morphology & extent of the aneurysm and surgical planning. Management should be individualized and mainly directed toward early diagnosis to prevent moribund outcomes.

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