

# Isolated Left Ventricular Apical Hypoplasia: A Case Report

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## Abstract

We show the images of two cases of this rare pathology from our congenital heart disease unit.

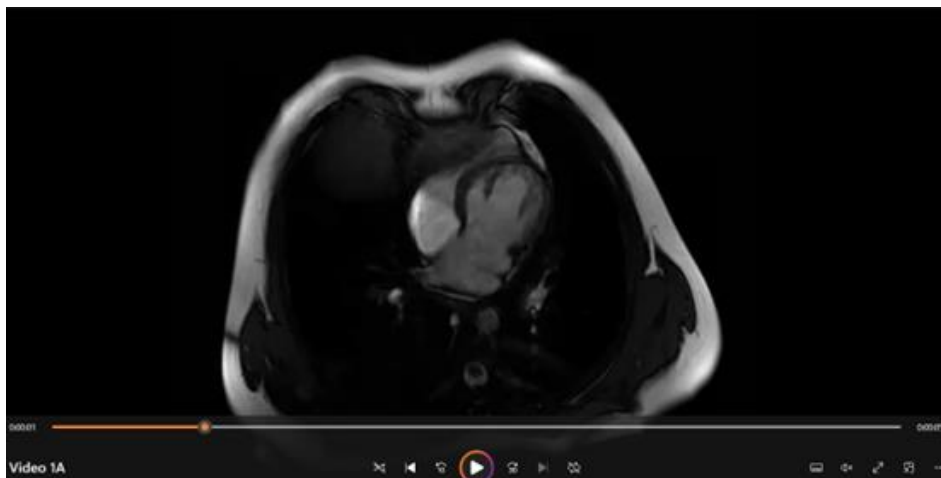
**Keywords:** left ventricle; right ventricle; chest x-ray; cardiac magnetic resonance; patients

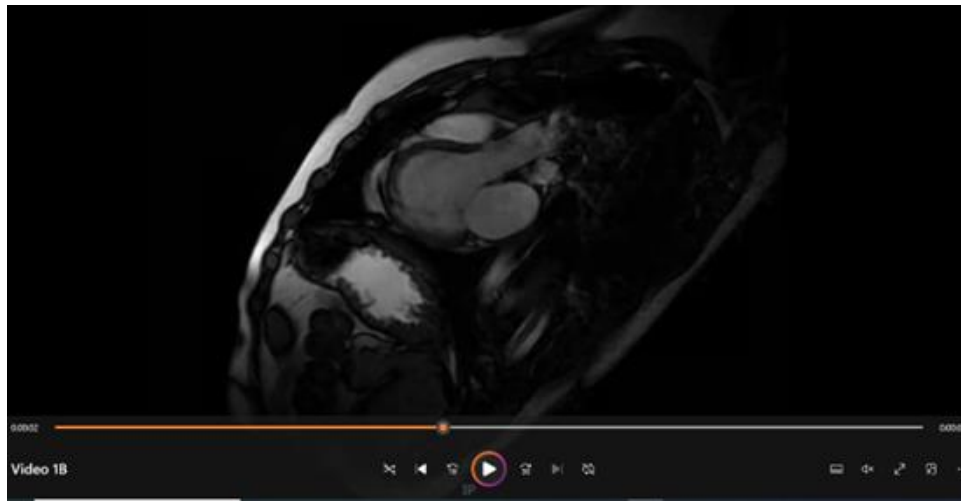
## Case Presentation

The first patient is a 14-year-old, asthmatic male, whose only family history is an ostium secundum atrial septal defect in his mother. During echocardiographic screening performed during pregnancy, a spheroidal left ventricle (LV) and an elongated right ventricle (RV) were observed, confirming these findings at birth.

The second patient is an 8-year-old male, whose diagnostic suspicion also began at fetal screening and was confirmed at birth.

Both remain asymptomatic during follow-up, presenting with a normal physical examination, electrocardiogram, chest x-ray and Holter monitoring, so they do not receive any treatment. In addition, a cardiac magnetic resonance imaging (CMR) was performed that confirmed the suspected diagnosis.

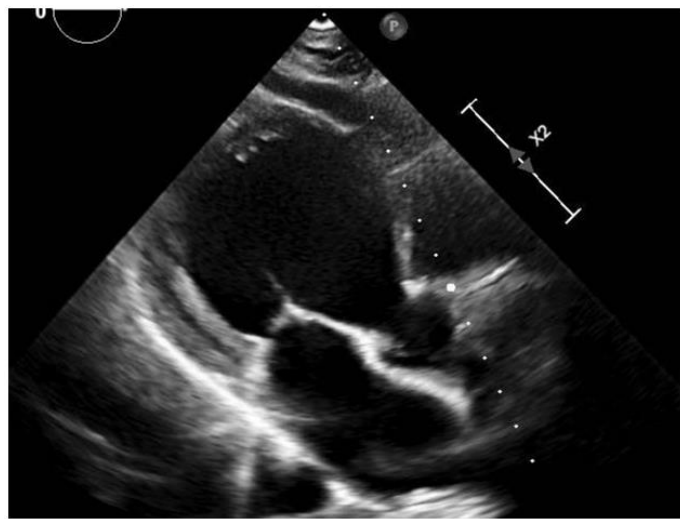
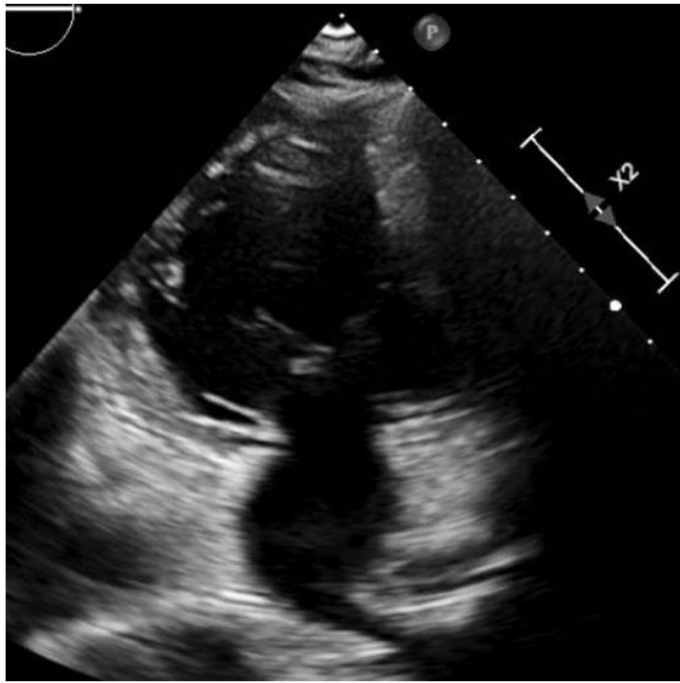




Isolated LV hypoplasia is a rare congenital pathology, characterized by the absence of the LV apex, resulting in a spheroidal ventricle, surrounded by the RV that forms the cardiac apex. It can be associated with an abnormal origin of the papillary muscles and the replacement of the apical myocardium by adipose tissue.

The clinic varies from the absence of symptoms to heart failure, arrhythmias and even sudden death. The differential diagnosis should be made with aneurysms, ventricular diverticulum and hypoplastic LV syndrome. Treatment consists of treat the signs and symptoms of heart failure and arrhythmias if they occur. Its etiology, treatment and prognosis are uncertain since there are few cases published in the literature.







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