

Multimodality approach to determine anomalous left coronary artery arising from the pulmonary artery (ALCAPA) diagnosis

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Abstract

Introduction: Anomalous left arteria coronaria arising from arteria pulmonalis (ALCAPA) is a really rare birth defect. The incidence is about 1:300.000 live births and accounts for 0.25%–0.5% of all congenital heart defects. ALCAPA is one among the foremost common causes of myocardial ischemia and infarction in children. If left untreated, up to 90% of patients with ALCAPA syndrome will die within the primary year of life. In patients who live to adulthood, ALCAPA syndrome may cause myocardial infarct, left ventricular dysfunction and mitral regurgitation, or silent myocardial ischemia, which may cause sudden cardiac death. Early diagnosis and prompt surgical intervention with an aim to revive two-coronary-arteries cardiovascular system have shown a superb results and cause gradual myocardial recovery.

Case Report: Here we've 3 babies with ALCAPA came with signs and symptoms of coronary failure. First and third case patients developed symptoms during 2-3 month aged, while second case patient at the 6 month aged. Diagnosis of ALCAPA confirmed by echocardiography within the first case patients. The second case beside echocardiography examination also underwent multi-slice computerized tomography (MSCT) scan examination. The third case patient has to undergo coronary angiography because sinus coronarius wasn't well visualized by echocardiography. First and third case patient undergo ALCAPA repair with LCA implantation into Aortic root technique, showing favorable result, while second case patient scheduled to receive ALCAPA repair.

Conclusion: Diagnosing ALCAPA is challenging, but features like episodes of irritability during feeding that related to sweating or pallor should alert us to suspect ALCAPA. Echocardiography is that the most vital non-invasive diagnostic tool and has replaced coronary angiography because the standard method of diagnosis. However, if it fails to visualize edcoronarysinus, other modalities like MSCT Scan and resonance imaging (MRI) might be useful so as to form an early and accurate diagnosis. ALCAPA repair with left arteria coronaria (LCA) implantation was chosen thanks to favorable results found following re-establishment of the twin coronarysystem.

Keywords: ALCAPA, left arteria coronaria



Biography:

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