ALCAPA—A Reversible Cause of Dilated Cardiomyopathy in Infants

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A 2-mo-old infant was referred with feeding difficulty. The infant was clinically in heart failure with tachycardia, tachypnea, gallop rhythm, and hepatomegaly. The electrocardiogram (ECG) was in sinus rhythm with prominent q waves in the lateral leads I and aVL (Fig. 1a). On echocardiogram, there was left ventricular dilatation and systolic dysfunction with an ejection fraction of 17%. The left coronary artery was seen arising from the posterior nonfacing sinus of the pulmonary artery (Fig. 1b) with retrograde flow into the pulmonary artery. A diagnosis of anomalous origin of left coronary artery from the pulmonary artery (ALCAPA) was established.

ALCAPA is one of the reversible causes of dilated cardiomyopathy [1]. The presence of prominent q waves in the anterolateral leads (I, aVL, V5, and V6) in an infant with heart failure and cardiomegaly can be considered diagnostic of ALCAPA even before an echocardiogram is obtained [2].

Corrective surgery can result in normalization of heart function before 1 y of age.

Declarations

Conflict of Interest None.

References

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Fig. 1 **a** Standardized 12 lead electrocardiogram (ECG) of the infant. There is sinus tachycardia and there are prominent q waves in the lateral lead aVL mimicking an old myocardial infarction of the lateral segments. **b** A modified parasternal short axis view on the transthoracic

echocardiogram. The left main coronary artery is seen arising from the pulmonary artery and bifurcating into the left anterior descending and left circumflex arteries. *LAD* Left anterior descending artery; *LCX* Left circumflex artery; *PA* Pulmonary artery

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