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IMAGES in PAEDIATRIC CARDIOLOGY

Abbas U,¹ Brownlee J,² Adebo D.² Giant coronary sinus aneurysm and multiple coronary artery aneurysms in a pediatric patient. *Images Paediatr Cardiol* 2015;17(1):1-3.

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Introduction

Giant coronary sinus aneurysm is extremely rare in pediatric population. It was first reported in 1983 by Ho SY et al.¹ Cerebrovascular accident, shock, myocarditis and severe myocardial dysfunction requiring extracorporeal membrane oxygenation are also very rare presentations of Kawasaki disease. Such rare cases are often misdiagnosed at first as septic shock.² Kawasaki disease should be considered in all children presenting with toxic shock.³

Here we report a rare case of giant coronary sinus aneurysm that also had unusual presentation of Kawasaki disease with cerebrovascular accident, shock, myocarditis and severe myocardial dysfunction requiring extracorporeal membrane oxygenation. In our patient, Kawasaki disease was initially misdiagnosed. It was retrospectively diagnosed when cardiac magnetic resonance imaging was performed to evaluate coronary sinus aneurysm.

Patient

Cardiac magnetic resonance imaging shows giant coronary sinus aneurysm which creates a big chamber behind the left ventricle (Figure 1). The giant coronary sinus aneurysm measures 27 mm. The coronary sinus drains to right atrium. There is no evidence of any thrombus in the coronary sinus aneurysm or within the heart chambers. There was fusiform aneurysmal dilatation of proximal left anterior descending coronary artery (Figure 2). The largest dimension of the left anterior descending measures 7 mm. There was also aneurysm involving long segment of right coronary artery (Figure 2). There was normal biventricular systolic function. Left ventricular ejection fraction was 62% and right ventricular ejection fraction was 66%. There was no evidence of myocardial scar or fibrosis. There was bilateral superior vena cava with left superior vena cava draining to aneurysmal coronary sinus.

Figure 1: Giant coronary sinus aneurysm behind left ventricle in ventricular short axis view (A) and axial view (B). CS: coronary sinus; LV: left ventricle; RV: right ventricle; RA: right atrium

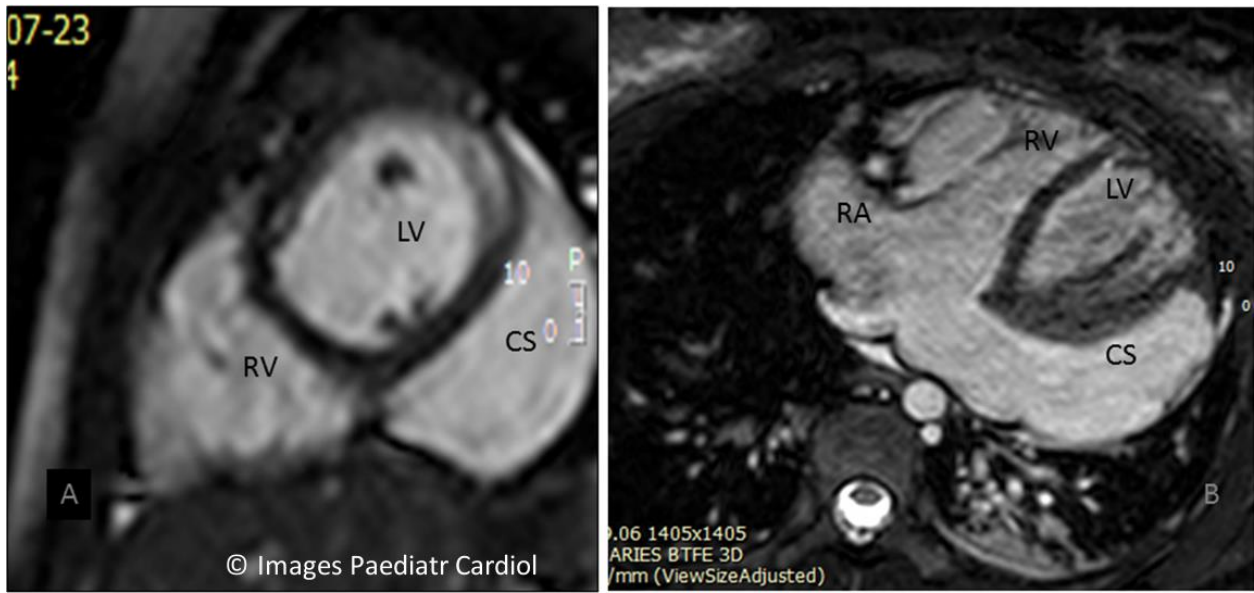
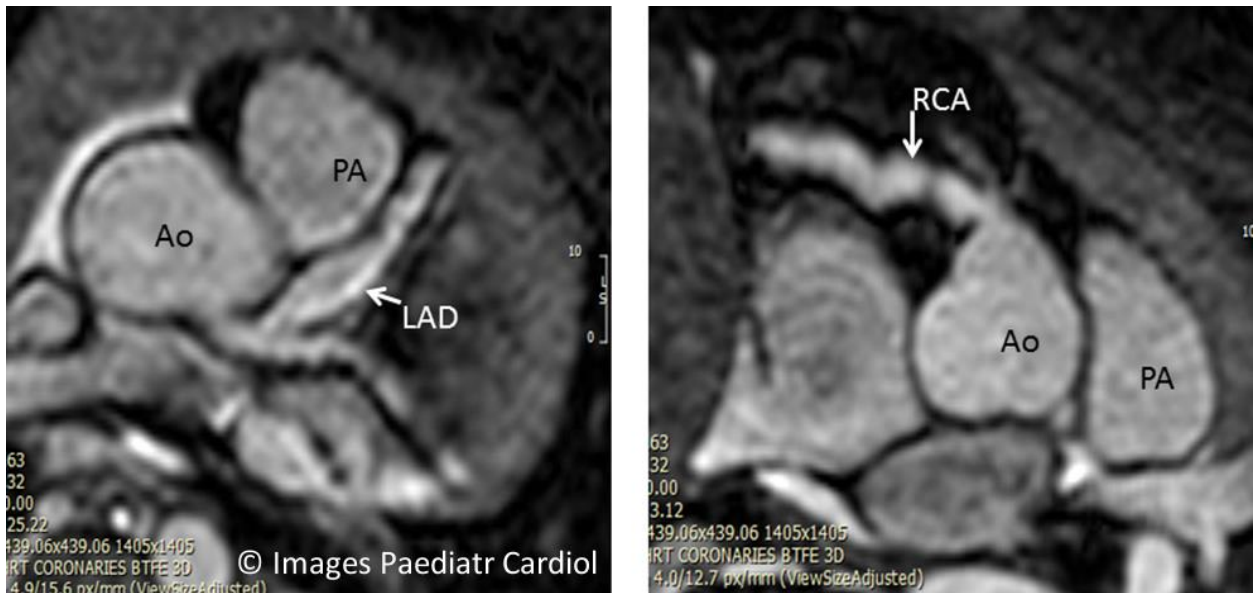


Figure 2: Whole heart T2 prep image showing aneurysmal left anterior descending artery and ectatic right coronary artery. LAD: left anterior descending artery; RCA: right coronary artery; Ao: aorta; PA: pulmonary artery.



Conclusion

Giant coronary sinus aneurysm is extremely rare in children. Cerebrovascular accident, shock, myocarditis and severe myocardial dysfunction requiring extracorporeal membrane oxygenation support are extremely rare presentation in a child with Kawasaki disease. We report such an extremely rare pediatric case.

References

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