

## Images in Congenital Cardiac Disease

# Giant coronary artery aneurysms in Kawasaki disease: the cost of a missed diagnosis

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**Abstract** Giant coronary artery aneurysms secondary to Kawasaki disease are rare, but a very severe complication. Delayed diagnosis and appropriate treatment of the disease is a well-known risk factor for coronary artery aneurysms.

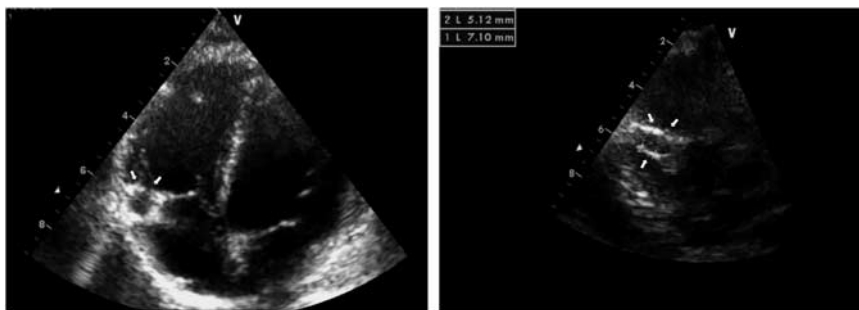
**Keywords:** Kawasaki disease; coronary artery aneurysm; giant coronary artery aneurysm

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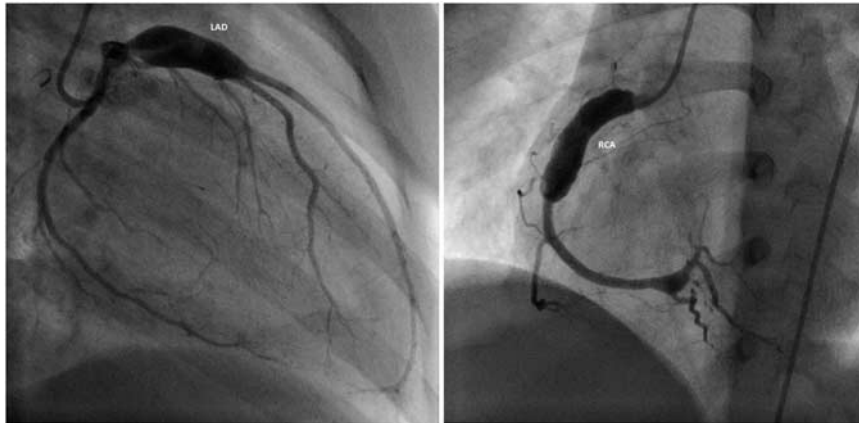
### Case report

We report a case of a 2-year-old boy diagnosed with Kawasaki disease after 14 days of unremitting fever, maculopapular rash, bulbar conjunctivitis, cervical lymphadenopathy, and periungual peeling of fingers. He was seen on the 2nd day of fever by his paediatrician and treated with antibiotics. Diagnosis of Kawasaki disease and treatment with aspirin and immunoglobulin was only started on day 15 of the disease. Echocardiogram showed an aneurysm at the proximal right coronary artery (Fig 1) and left anterior descending artery. At the 9-month follow-up,

cardiac catheterisation showed a giant fusiform aneurysm at the proximal segment of the left anterior descending artery ( $8 \times 22$  mm; Fig 2). The right coronary artery had a large fusiform aneurysm at the proximal segment ( $6 \times 25$  mm) and a saccular aneurysm ( $3.5 \times 6.5$  mm) more distally (Fig 2). There was no evidence of stenosis or thrombus formation. In the face of the very large dimensions of the aneurysms, we decided to treat him with long-term aspirin and warfarin. After 1 year of the initial episode, he is asymptomatic. Imaging follow-up with computed tomography angiography or repeat catheterisation is scheduled in 1–2 years.



**Figure 1.**  
*Echocardiogram showing proximal right coronary artery aneurysm.*



**Figure 2.**

*Coronary angiogram demonstrating a giant aneurysm at the proximal LAD and a large aneurysm at the proximal segment of the RCA and another aneurysm more distally. LAD, left anterior descending; RCA, right coronary artery.*

## Discussion

Kawasaki disease is an acute systemic vasculitis of unknown aetiology that affects mainly small- and medium-sized arteries, particularly the coronary arteries.<sup>1</sup> Giant coronary aneurysms are rare, occurring in 0.5–1% of adequately treated patients. Delayed treatment with intravenous immunoglobulin is a well-known risk factor for the development of coronary aneurysms. This case highlights the consequences of a missed diagnosis and late

treatment, which certainly has contributed to these serious cardiovascular sequelae.

## Reference

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