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AN ADULT CASE OF SEVERE CORONARY ARTERY LESIONS CAUSED BY KAWASAKI DISEASE DIAGNOSED BY CORONARY ANGIOGRAPHY

Wei You-quan, Yang Hao, Ke Yong-sheng *Department of Cardiology, Wannan Medical College, Yijishan Hospital, Wuhu, Anhui, China*

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We report the case of an adult male patient with severe coronary artery lesions secondary to Kawasaki disease (KD) diagnosed by coronary angiography (CAG). These severe lesions include serious coronary stenosis and dilation with aneurysms. The long-term complications related to the persistence of these lesions have the strongest association with myocardial infarction (MI) and sudden cardiac death (SCD). CAG is one of the most important methods for the accurate diagnosis of coronary artery anomalies of KD.

Case report A 23-year-old man presented with a 3-month history of chest pain. Symptoms were particularly noted during exertion. He gave no history of hypertension and diabetes mellitus, and had a negative family history of coronary disease. However, it was noted that he had a previous history of KD diagnosed when he was 6 years old; there was no available history suggestive of subsequent complications and no previous follow-up. Blood pressure was 116/72 mm Hg with a regular pulse rate of 68 beats/min. An electrocardiogram (ECG) demonstrated sinus rhythm with ST segment depression throughout the precordial leads and the cholesterol level was normal. We screened this patient for coronary artery disease using CAG. Coronary angiogram revealed triple-vessel disease. The distal left main stem (LM) was 80% stenosis and the ostial left anterior descending (LAD) was completely occluded (figure 1). Angiogram also showed severe diffusely narrowing of left circumflex (LCX) (figure 2). The right coronary artery (RCA) was dominant and dilated with aneurysms (figure 3).

Discussion Kawasaki disease (KD), also called mucocutaneous lymph node syndrome, is an acute, self-limiting, generalised vasculitis of unknown aetiology that affects children between the ages of 6 months and 5 years.[1]It is the most common cause of acquired coronary artery disease in children.[2] Acute myocardial infarction (AMI) and coronary artery aneurysm are major complications. In a study, 1% of patients who recover from acute KD developing giant coronary artery aneurysms or coronary artery obstruction due to thrombosis or stenosis.[3] Giant coronary aneurysms have the lowest regression rate, the highest risk of stenosis and strongest association with MI.[4] Children with suspected KD should have coronary artery disease diagnosed as soon as possible with echocardiography or CAG. In the chronic phase, the long-term complications relate to the persistence of these aneurysms, the development of thrombotic occlusion, the risk of ischemic heart disease and premature atherosclerosis.[4] If non-invasive studies or clinical symptoms suggest myocardial ischemia, then CAG is indicated. CAG not only allows for detection of distal coronary aneurysms not seen by echocardiogram and coronary artery obstruction with either a thrombus or stenosis, but also allows for therapeutic options such as intraluminal thrombolytic therapy for a thrombus or percutaneous transluminal coronary angioplasty (PTCA) for stenosis.[2 5] This case illustrates CAG is more accurate for coronary arterial imaging and is therefore an ideal imaging modality for the diagnosis of the coronary arterial complications of KD. CABG is recommended for patients with reversible ischemia in association with long-segment stenosis, ostial stenosis, multiple stenosis, severe occlusion of LM or LAD, severe occlusion of the greater than one major coronary artery, collateral coronary arteries in jeopardy, recurrent MI or severe left ventricular dysfunction.[6]