

Transient Atrio-ventricular Dissociation in Kawasaki Disease

Coronary artery aneurysm or ectasia is the most common cardiac involvement in Kawasaki disease. Electrical problems of the heart have been rarely reported. We report a child with Kawasaki disease, coronary ectasia and transient atrio-ventricular dissociation which improved with intravenous immunoglobulin.

A 7-year-old male child was admitted with history of fever for 14 days. History of rash and redness of eyes with peeling of skin in periungual areas raised a suspicion of Kawasaki disease. Intravenous immunoglobulin therapy (2g/kg over 24 hours) was initiated in addition to high dose of aspirin. A 12-lead electrocardiogram (ECG) showed normal sinus rhythm. Echocardiogram performed on admission showed ectasia of left main coronary artery. On the 3rd day of admission, bradycardia was noted and an ECG showed atrio-ventricular dissociation with a ventricular rate of 57 bpm (**Fig. 1**). Continuous monitoring in the intensive care unit continued to show intermittent atrioventricular dissociation. On the 4th day of hospitalization, since fever was present beyond 48 hours after 1st dose of IVIG, a second dose of IVIG alongwith methyl prednisolone was started. After the second IVIG dosage was completed the transient atrio-ventricular dissociation improved. At the time of discharge his fever had subsided and a holter monitoring showed normal sinus rhythm. He was discharged on oral aspirin and has remained clinically stable with a normal ECG.

The least common cardiac involvement in Kawasaki disease includes the electrical system of the heart. In a retrospective survey of patients with Kawasaki disease, arrhythmia was a presentation in only 10.8%(1). Ventricular ectopics and tachycardia have been reported(2,3). Ventricular arrhythmia in Kawasaki patients has been reported to be fatal. It may not be related to coronary involvement but to decreased vagal tone. Multifocal premature ventricular contractions along with non-sustained ventricular tachycardia may predispose to sudden death decades later(4).

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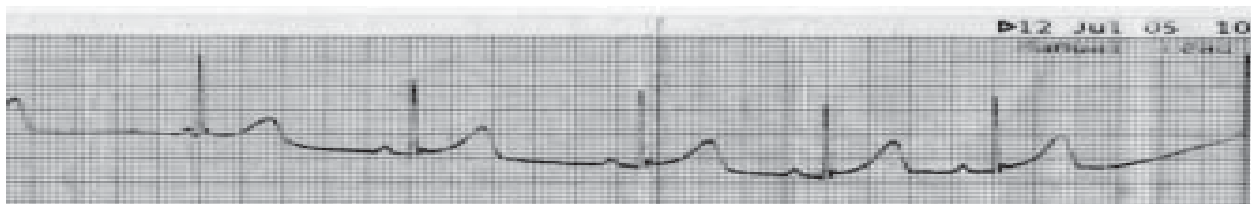


FIG. 1. Surface ECG shows 'P' waves independent of QRS complexes indicating atrio-ventricular dissociation.