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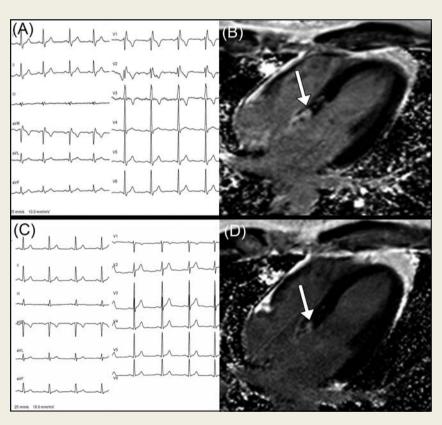
Transient right bundle branch block in a young patient

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A 32-year-old man with a history of hypertension and no prior coronary heart disease was referred to our hospital with suspected acute coronary syndrome. He suffered from chest pain during his work. Except an upper respiratory tract infection, his personal history was unremarkable. The initial electrocardiogram (ECG) demonstrated STelevation in lead V2. The first Troponin T was negative but increased to $0.45 \ \mu g/L$ (normal < 0.01 $\ \mu g/L$) during the next 6 h. The second ECG (Panel A) showed complete right bundle branch block (RBBB). Therefore, coronary angiography was performed, which excluded coronary artery disease and documented preserved left ventricular ejection function (LVEF). For further evaluation, the patient underwent cardiac magnetic resonance (CMR) imaging the next day, which revealed a mid-myocardial delayed enhancement in the basal septal, anteroseptal, and inferolateral walls (Panel B). In addition, there was a septal wall motion abnormality and a slightly



reduced LVEF (45%). Thus, these findings were consistent with (peri-)myocarditis. Therapy with a non-steroidal antiphlogistic drug and ACE-inhibitor was started. Seven days after admission, the RBBB had resolved (*Panel C*) and concomitant follow-up CMR documented significant decrease of delayed enhancement in the septum (*Panel D*) and normalized LVEF. This case demonstrates the good correlation of dynamic ECG changes and transient myocardial involvement as here with myocarditis lesions in the region of the electrical conduction system in the septum.

Panel A. Initial ECG showing complete right bundle branch block.

Panel B. Cardiac magnetic resonance imaging demonstrating mid-myocardial delayed enhancement in the septal wall consistent with a pattern seen in myocarditis patients.

Panel C. ECG 7 days after admission with resolved right bundle branch block.

Panel D. Follow-up cardiac magnetic resonance with decreased delayed enhancement of the septal wall.

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