Parvovirus B19 Infection and Acute Myocarditis

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We report the case of a 15-year-old woman who was admitted for acute myocarditis with cardiogenic shock. Physical examination revealed typical cutaneous eruption evocating parvovirus B19 infection: initially pruritic red papular eruption was mainly located on the palms (Picture 1A) and 24 hours later on her face, arms (Picture 1B), and legs. PCR examination of the blood confirmed the diagnosis. Other etiologic examinations were negative: HIV 1-2, HTLV 1-2, HHV6, HBV, HCV, EBV, CMV, toxoplasmosis, toxocara, chlamydiae, mycoplana, rickettsia, coxiella. Initial echocardiography demonstrated acute left ventricular failure; as the ejection fraction was less than 10%, vasopressive drugs were necessary. Troponin I was elevated (until 5 μg/L, normal< 0.04). A few days later, ad integrum recovery was shown. She was clinically asymptomatic, echocardiography was normal, and MR-scan findings were compatible with a minima acute myocarditis (late enhancement). She was discharged with bisoprolol 2.5 mg per day, colchicine 1 mg per day, and aspirin 3 g per day.

This case illustrates PVB19-induced myocarditis leading to severe cardiac dysfunction. Parvovirus B19 infection could lead to direct myocardial injury, and could trigger a severe autoimmune reaction of the myocardium. In this case, we cannot but suppose that parvovirus B19 was likely responsible for this cardiac involvement. It is not certain, as no endomyocardial biopsy was performed. Indeed, this biopsy could be dangerous, and many viruses can be usually identified, so that many could be thought to lead to cardiac damage. Here, the virus in the blood could indicate systemic infection with cardiac involvement.

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