

Parvovirus B19와 coxsackievirus의 동시감염에 의한 심근염 1예

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A Case of Myocarditis Caused by Co-infection of Parvovirus B19 and Coxsackievirus

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Background: Viral myocarditis presents with various symptoms, including fatal arrhythmia and cardiogenic shock, and may develop chronic myocarditis and dilated cardiomyopathy in some patients. We report here a case of viral myocarditis with acute kidney injury caused by co-infection of parvovirus B19 and coxsackievirus.

Case presentation: A 50-year-old man with hypertension history presented with fever and odynophagia. At the time of admission, he had fever, tachycardia, leukocytosis and elevated serum creatinine level. Four days after admission, the patient developed dyspnea. Chest radiography showed a cardiomegaly with pulmonary congestion. Echocardiography revealed global hypokinesia of left ventricle wall and a reduced ejection fraction (28%). On Day 12 of hospitalization, cardiovascular magnetic resonance imaging (CMRI) revealed diffuse gadolinium myocardial enhancement in the subepicardium and endocardium of the near whole left ventricle. These findings supported the diagnosis of acute myocarditis. Myocardial damage was suspected based on echocardiography and CMRI, the possibility of an infection was investigated using viral antibodies. Further investigation revealed a high antibody titer against coxsackievirus and positive for parvovirus B19 DNA, suggesting a viral involvement in the disease. The patient recovered gradually over a restful 4-week period with supportive therapy comprised angiotensin-converting-enzyme inhibitors, beta-blockers and diuretics. The patient returned to our outpatient clinic in a good general condition, with no electrocardiographic abnormalities.

Conclusion: Flu-like symptoms, rapid onset of dyspnea and elevation of serum creatinine strongly suggest the involvement of viral infection in the pathogenesis of myocarditis with systemic manifestations. This case demonstrates that a combination of non-invasive techniques, especially echocardiography, CMRI and viral serologic tests, may successfully diagnose myocarditis in patients.

Key Words: 바이러스성 심근염, 파보바이러스, 콕사키바이러스
Viral myocarditis, Parvovirus B19, Coxsackievirus