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CASE REPORT

Cytomegalovirus hepatitis and myopericarditis

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Abstract

Cytomegalovirus (CMV) infection in inmunocompetent hosts generally is asymptomatic or may present as a mononucleosis syndrome but rarely can lead to severe organ complications. We report a case of simultaneous hepatic and pericardic CMV infection in a 36-year old immunocompetent man. He was admitted to coronary unit with fever, chest pain radiated to shoulders, changes on electrocardiogram with diffuse ST elevation and modest laboratory elevations in the MB fraction of creatine kinase (CK-MB) of 33.77 μg/L (0.1-6.73), serum cardiac troponin T of 0.904 ng/mL (0-0.4), creatine kinase of 454 U/L (20-195) and myoglobin of 480.4 μg/L (28-72). Routine laboratory test detected an elevation of aminotransferase level: alanine aminotransferase 1445 U/L, aspartate aminotransferase 601 U/L. We ruled out other causes of hepatitis with normal results except IgM CMV. The patient was diagnosed with myopericarditis and hepatitis caused by cytomegalovirus and started symptomatic treatment with salicylic acid. In few days the laboratory findings became normal and the patient was discharged.

Key words: Cytomegalovirus; Hepatitis; Myopericarditis; Pericarditis

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INTRODUCTION

Cytomegalovirus (CMV) infection in an immunocompetent host, rarely can lead to severe organ specific complications[1,2]. A variety of presentations have been described, ranging from a common form of infectious mononucleosis to systemic disease (gastrointestinal, cardiovascular, hepatic, neurologic manifestations) with significant morbidity. We report a case of simultaneous hepatic and pericardic CMV infection in an immunocompetent host.

CASE REPORT

A 36-year old man was admitted to our hospital with fever and chest pain radiated to shoulders. He had no other relevant medical history and physical examination was normal. Electrocardiogram showed diffuse ST elevation and laboratory test displayed modest elevations in MB fraction of creatine kinase (CK-MB) of 33.77 μg/L (0.1-6.73), serum cardiac troponin T of 0.904 ng/mL (0-0.4), creatine kinase of 454 U/L (20-195) and myoglobin of 480.4 μg/L (28-72). The patient was diagnosed with myopericarditis and admitted to the coronary unit. Routine laboratory tests detected an elevation of aminotransferase level: alanine aminotransferase 1445 U/L (6-41), aspartate aminotransferase 601 U/L (6-38). Other laboratory parameters were normal including gamma glutamyl transpeptidase, alkaline phophatase, bilirubin, cholesterol, electrolytes, complete blood cell count and coagulation test. We ruled out other causes of hepatitis: medications, alcohol abuse, hepatitis B, hepatitis C, hereditary hemochromatosis, hepatic steatosis and steatohepatitis, thyroid disorders, celiac disease, autoimmune hepatitis, Wilson´s disease and alpha 1 antitrypsin deficiency. Finally we looked for a less common infection etiology (Epstein Barr virus, cytomegalovirus and atypical bacteria). The results were normal except for IgM CMV. The patient was diagnosed with myopericarditis and hepatitis caused by cytomegalovirus and started symptomatic treatment with salicylic acid. In few days the laboratory findings became normal and the patient was discharged.

DISCUSSION

CMV infection in immunocompetent patients is common with a substantial morbidity and mortality. It is generally asymptomatic in immunocompetent hosts or may present

as a mononucleosis syndrome. Occasionally primary CMV infection can lead to severe organ specific complications[1,2]. Although these cases are rare, gastrointestinal, cardiovascular, neurologic, hepatic disorders have been reported.

Liver function abnormalities are frequently encountered in patients with symptomatic CMV infection. Subclinical transaminitis is the most common finding in immunocompetent patients, and elevations of alkaline phosphatase and total bilirubin are less typical[1,3,4]. Pericarditis and myocarditis have been described in immunocompetent patients with acute CMV infection[5,6]. We have found only one case reporting simultaneous infection of liver and myopericardia with cytomegalovirus[7].

Since symptomatic CMV infection is generally self-limited with complete recovery over a period of days to weeks, it is difficult to prove whether antiviral therapy has a significant impact on the clinical outcome.

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