

*Letter to the Editor***Serum CMV IgM positivity in Acute Hepatitis A: fact or fallacy?**

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Sir,

We would like to briefly report our first experience with serum positivity or cross reaction of cytomegalovirus (CMV) IgM antibodies in acute hepatitis A virus (HAV) infection.

We describe a 74 year-old patient with chronic renal failure due to focal glomerulonephritis who was admitted to our department because of one-week jaundice and fatigue. Medical history was negative for any type of hepatitis or biliary tract lithiasis. Clinical examination revealed an icteric patient with upper right quadrant tenderness, hepatomegaly, dark-colored urine and colorless feces. Laboratory investigation of peripheral blood revealed anemia, lymphocytopenia, elevated serum urea and creatinine, transaminasemia, hyperbilirubinemia with direct bilirubin predominance and γ -GT and alkaline phosphatase elevation. Abdominal ultrasonography was within normal limits. Laboratory investigation for hepatitis A to E and liver related viruses revealed positivity for IgM immunoglobulins of hepatitis A and cytomegalovirus (CMV) virus. IgM CMV antibodies were 6-fold increased above the cut-off value while CMV IgG antibodies existed in titers below the cut-off reference value. IgM HAV antibodies were increased 2-fold above the cut off value and IgG HAV antibodies were not

present. Polymerase chain reaction for CMV in blood and urine was twice negative and hepatitis A ribonucleic acid (HAV RNA) was twice positive, establishing the diagnosis of acute icteric hepatitis A.

In a series of 32 acute hepatitis patients without markers for acute hepatitis A to E, virus IgM CMV antibodies were once detected, suggestive of the possible role of herpesviruses in acute hepatitis¹. Novel enzyme-linked immunoassays (ELISA) which use recombinant antigens to detect CMV-specific IgM antibodies are in continuous evaluation, but a gold standard commercial kit in this case does not exist at the moment. CMV IgM positive sera should be tested with supplementary assays to differentiate primary from non-primary infection². A new, promising microparticle enzyme immunoassay was recently developed using recombinant CMV antigens derived from portions of four structural and nonstructural proteins of CMV. This assay is reported to be very sensitive for the detection of CMV IgM during primary CMV infection. The overall rate of cross-reactivity of 184 specimens with the assay was 3.3% including cross-reactions with Epstein-Barr virus, measles virus, herpes simplex virus or varicella-zoster virus³. CMV IgM serological assays are also reported to probably cross-react in one patient with Henoch-Schonlein purpura⁴ and with human herpes virus (HHV) 6 in 5 out of 50 orthotopic liver transplant recipients⁵. This is, to our knowledge, the first report on cross-reaction of hepatitis A IgM antibodies with CMV IgM antibodies with currently used ELISA methods.

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