

Thrombocytopenia associated with Acute Hepatitis B

Mehmet Suat Yalçın, Adnan Taş, Banu Kara, Şehmus Ölmez, Bunyamin Saritas

Adana Numune Research and Education Hospital, Department of Gastroenterology, Adana, Turkey

To the Editor,

Though hepatitis B virus (HBV) mainly affects hepatocytes, HBV has been shown to cause extrahepatic manifestations including serum sickness-like syndrome, glomerulonephritis, polyarteritis nodosa, dermatologic condition and hematological manifestations (1,2). These hematological manifestations include lymphocytosis, anemia, pancytopenia, pure red cell aplasia and agranulocytosis. Isolated thrombocytopenia associated with acute HBV infection is very rare (2,3,4,5). Here we report a case with thrombocytopenia during the course of acute HBV infection. To our knowledge, this is the fifth case in the literature reporting isolated thrombocytopenia associated with acute HBV infection.

A 74-year-old man was admitted to our hospital with fatigue and anorexia for 15 days. Physical examination was unremarkable. He reported normal values of ALT, AST, total bilirubin, direct bilirubin and platelet count with a negative HbsAg 3 months before. Laboratory studies showed platelet counts 47000 /mm³, prothrombin time 18 seconds (normal 10-14), International normalized Ratio (INR) 1.48, SGOT 1183 IU/L, SGPT 1494 IU/L, total bilirubin 1.8 mg/dl, direct bilirubin 1.5 mg/dl, alkaline phosphatase 350 IU/ml and gamma-glutamyl transferase 250 IU/L. HBsAg, anti-HBc IgM, and HBeAg were all positive. HBV DNA level was positive with a value of 440400608 IU/ml. Anti-HAV IgM, anti-HCV, anti-delta, anti-CMV IgM, EBV-VCA IgM, anti-nuclear, anti-smooth muscle and anti-mitochondrial antibodies were all negative. During follow-up, ALT and AST levels decreased to 985 U/L and 785 U/L, respectively and platelet count was 50000 /mm³ in the 10th day. Total bilirubin level increased to 4.5 mg/dl, and direct bilirubin level increased to 3.5 mg/dl in the 10th day. No abnormalities other than decreased platelet count were noted on his peripheral smear. A bone marrow examination revealed normal findings. On the 30th day, platelet count increased to normal values and ALT level was 150 IU/L. Three months later, ALT level was normal. During follow-up of six months, the biochemical studies and complete blood count were normal.

Although HBV infection is usually a self-limiting disease, it may cause severe complications. These severe complications include pancytopenia, pure red cell aplasia, agranulocytosis and aplastic anemia (6). Isolated thrombocytopenia during acute HBV infection is extremely rare as in our case (2,3,4,5). The mechanisms of

isolated thrombocytopenia associated with acute HBV infection is not known. Some case reports also have been showed thrombocytopenia during acute HBV infection (3,4,5). One study reported a patient with isolated thrombocytopenia during acute HBV infection and platelet count returned to normal after one month with symptomatic treatment as in our case (5).

In conclusion, isolated thrombocytopenia during the course of acute HBV infection is a very rare condition and platelet count returns to normal values with symptomatic treatment.

References

1. KAPPUS M.R., STERLING R.K. Extrahepatic manifestations of acute hepatitis B virus infection. *Gastroenterol. Hepatol.*, 2013, **9** : 123-6.
2. OZARAS R., CELIK A.D., KISACIK B., *et al.* Acute hepatitis B and isolated thrombocytopenia. *J. Clin. Gastroenterol.*, 2003, **37** : 87-8.
3. COPLEY J.B., WATERFIELD W.C. Thrombocytopenia with increased bone marrow megakaryocytes in two patients with viral hepatitis. *South Med. J.*, 1982, **75** : 1146-8.
4. IANELLI S., PETRINI M.T. Acquired pure megakaryocytic aplasia in course of hepatitis in a patient with immune thrombocytopenic purpura. *Acta. Haematol.* 1984, **72** : 355-6.
5. ROMERO R., KLEINMAN R.E. Thrombocytopenia associated with acute hepatitis B infection. *Pediatrics.* 1993, **91** : 150-2.
6. HAGLER L., PASTORE R.A., BERGIN J.J. *et al.* Aplastic anemia following viral hepatitis: report of two fatal cases and literature review. *Medicine.* 1975, **54** : 139-64.

Correspondence to: Adnan Taş, Adana Numune Hastanesi, Adana
E-mail: dradnantas@gmail.com

Submission date :23/03/2016

Acceptance date : 07/05/2016