Hepatitis B Reactivation with Fulminant Hepatitis During Rituximab Chemotherapy in a Patient with Follicular Lymphoma

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ABSTRACT

A 52-year-old man was diagnosed Follicular lymphoma with autoimmune hemolytic anemia. At time of diagnosis his HBs Ag was (+), Anti-HBs (-), and HBV DNA was negative. Chemotherapy was interrupted after tree cycles of R-CVP due to elevated liver enzyme. At that time HBV DNA became positive. Lamivudine therapy was started, whereas patient died due to fulminant hepatic failure. The high morbidity and mortality of this complication is one of the major obstacles to completing the standard treatment for lymphoma in HBV carriers. Thus, preventive therapy with nucleoside or nucleotide analogs should be started before the chemotherapy to prevent HBV reactivation.

***Keyword**: Hepatitis B reactivation, lymphoma, lamuvudine, rituximab*

INTRODUCTION

Reactivation of hepatitis B virus (HBV) infection is a well-known complication in HBV infected patients who undergo cytotoxic or immunosuppressive therapy for a cancer. Several chemotherapeutics have been associated with HBV reactivation, particularly corticosteroids and anthracycline containing regimens (1,2). Hepatitis B reactivation and fulminant hepatic failure have been rarely reported with the use of rituximab, previously (3,4). Nucleotid or nucleoside analogues such as lamuvudine can prevent HBV reactivation in these patients with HBV positive and undergoing chemotherapy (5-7).

CASE

A 52 years-old man was presented with fatigue in hematology clinic. His physical examination revealed pallor, jaundice, left axillary (3x3cm) and right inguinal (4x4cm) lympadenopathies, and enlarged spleen with a diameter of 15 cm. The laboratory data revealed: Hb:4.8 g/dl, Hct:14.6%, MCV:106 fl, RDW: 24%, platelets count 196 x109/L

WBC:4x109/L with 79% neutrophils, 15% lymphocytes, 3% monocytes and 3% eosinophil. Peripheral blood smear displayed macrocytosis and polychromasia. Corrected reticulocyte count was 5.6% and antiglobulin test was positive. LDH was 567 IU/L (normal, 98-192 IU/L). Computed tomography (CT) scan of thorax was normal and abdomen CT revealed moderate splenomegaly (18.5 cm). The histopathologic examination of axillary lymph node biopsy revealed follicular lymphoma. Bone marrow biopsy was normal. His HBV serology were obtained: HBs Ag: (+), Anti-HBs:(-), HBe Ag:(-), Anti-HBe:(-), Anti-HBc IgM:(-), Anti-HBc IgG:(+) and HBV DNA was negative. Follicular lymphoma with autoimmune hemolytic anemia diagnosis was made. He was treated with R-CVP (rituximab, cyclophosphamide, vincristine and prednisone). Complete remission was achieved after 3 cycles. Before 4th cycle of chemotherapy, HBV reactivation occurred with elevated ALT and his HBsAg:(+), AntiHBs:(-), HBeAg:(-), AntiHBe:(-), AntiHBcIgM:(-), AntiHBcTotal:(+), and HBV DNA > 1000000 IU/ml. Chemotherapy was stopped and lamivudine (100mg/day) was started. Unfortunately, the patient passed away due to hepatic failure.

DISCUSSION

Reactivation of HBV is a problem in the management of the underlying hematological malignancies as it may interfere with the success of chemotherapy. Early lamuvidin application is an advantage for reducing mortality and morbidity of hepatitis B reactivation (8). There are two different management strategies to prevent HBV reactivation in HBV carriers in the clinical practice. First one is to measure serum HBV DNA and if positive, starting therapy (9). Second, initiating lamuvidin therapy without waiting for the elevation of HBV DNA (5,6). In cases in which it is not possible to make a strict HBV DNA follow up, as it was in our case, HBV prophylaxis with nucleoside or nucleotid analogs should be started before or at least together with chemotherapy to prevent HBV reactivation. This approach may reduce hepatitis reactivation in high risk patients.

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