

## A case of chronic active Epstein-Barr virus infection misdiagnosed with atypical hepatitis

한림대학교 성심병원 내과<sup>1</sup>, 한림대학교 성심병원 혈액종양내과<sup>2</sup>

장진하<sup>1</sup>, 한보람<sup>1,2</sup>, 김범준<sup>1,2</sup>, 김호영<sup>1,2</sup>, 김효정<sup>1,2</sup>, 장대영<sup>1,2</sup>

**Introduction:** Chronic active Epstein-Barr virus (CAEBV) is a rare disease, developing a more chronic course with persistent infectious mononucleosis-like symptoms after primary EBV infection. Clinically at first CAEBV shows asymptomatic course, then presents as recurrent fever, hepatic dysfunction, organomegaly and tissue infiltration by EBV infected lymphocytes, leading to fatal multi-organ failure. These characteristics define CAEBV as a lymphoid neoplasm. We hereby present a case of CAEBV, initially misdiagnosed with atypical hepatitis.

**Case report:** A 24-year-old woman previously healthy presented with persistent fever for a month. Abnormal laboratory findings on admission included; AST/ALT 808/960 IU/L, ALP/GGT 368/105, LDH 571 U/L, and lymphocytosis. Liver computed tomography scan showed hepatosplenomegaly with periportal edema consistent with acute hepatitis. She was diagnosed as acute viral hepatitis and several viral serologic tests such as hepatitis A, B, C, E were checked. However there were no results consistent with acute viral hepatitis and she had already achieved antibodies to EBV capsid and early antigens. Furthermore she showed progressing pancytopenia without any clinical improvement and was transferred to hematology for ruling out malignancy. Bone marrow revealed some atypical lymphoid aggregation immunochemically negative to CD3/20 but marrow EBV titer was as high as 963,500 copies/mL and serum EBV titer was also high (1,701,000). Liver biopsy showed many EBV + lymphocytic infiltration. Finally she was diagnosed with CAEBV and started taking prednisolone of 1 mg/kg for symptom relief. Two weeks after treatment her clinical course was recovered and serum EBV titer decreased to 147,200. She maintains tapered dose of steroid with favorable clinical course. Because despite transient response to steroid, the only curative treatment proved in CAEBV is hematopoietic stem cell transplantation, she is now planned to undergo transplantation in near future.

**Discussion:** This case demonstrates a rare but potentially fatal CAEBV, initially misdiagnosed with non-specific atypical hepatitis, showing a favorable clinical course with steroid therapy.

