INTERNAL X MEDICINE

□ PICTURES IN CLINICAL MEDICINE □

Epstein-Barr Virus Gastritis

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Picture 1.



Picture 3.

A 20-year-old Japanese woman with a 1-year history of ulcerative colitis presented with a fever, sore throat, diarrhea, and abdominal pain that persisted for 1 week. For 3 months prior to admission, she had received treatment with infliximab and undergone granulocytopheresis. One month prior to admission, the prednisone dose was tapered and was eventually discontinued. However, her abdominal symptoms worsened despite azathioprine maintenance therapy, which



Picture 2.



Picture 4.

she continued to take until admission. Colonoscopy yielded unremarkable findings, but gastroscopy showed multiple ulcerative nodular lesions (Picture 1). Hematoxylin-Eosin staining of a biopsy specimen of the gastric mucosa showed lymphocyte infiltration (Picture 2). *In situ* hybridization for Epstein-Barr virus (EBV)-encoded RNA (Picture 3) revealed signals consistent with those observed for CD20-positive lymphocytes (Picture 4). The peripheral blood EBV load was 4,378 copies/µg DNA on admission; the EBV antibody titers were as follows: EBV capsid antigen (VCA) immunoglobulin G (IgG), 160; EBV-VCA IgM, <10; and EBV nuclear antigen (EBNA) IgG, <10. Therefore, we diagnosed

Division of General Internal Medicine, Department of Medicine, Tokai University School of Medicine, Japan Received for publication June 12, 2016; Accepted for publication July 3, 2016 Correspondence to Dr. Masayuki Oki, okidoki@is.icc.u-tokai.ac.jp the patient with EBV gastritis. After discontinuing azathioprine, her symptoms resolved within 3 weeks. The EBV load decreased to 415 copies/ μ g DNA, but the EBV antibody titers remained largely unchanged: VCA-IgG, 80; VCA-IgM, <10; and EBNA <10. Follow-up gastroscopy performed 2 months later demonstrated complete resolution of the multiple nodular lesions, and the EBV load had normalized to 138 copies/ μ g DNA. However, the previous EBV antibody titers persisted, which was deemed consistent with EBV reactivation in patients with prior infection. EBV gastritis may be underdiagnosed in patients undergoing immunosuppressive therapy (1). Performing a biopsy is therefore necessary to distinguish between benign and malignant disease in such circumstances (2).

The authors state that they have no Conflict of Interest (COI).

References

- 1. Hiejima E, Yasumi T, Kubota H, et al. Gastric ulcer and gastroenteritis caused by Epstein-Barr virus during immunosuppressive therapy for a child with systemic juvenile idiopathic arthritis. Rheumatology **51**: 2107-2109, 2012.
- Chen ZE, Shah R, Zuckerman GR, Wang HL. Epstein-Barr virus gastritis: an underrecognized form of severe gastritis simulating gastric lymphoma. Am J Surg Pathol 31: 1446-1451, 2007.

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