Epstein-Barr virus and Hodgkin Lymphoma
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Abstract
Epstein-Barr virus (EBV) is detected in some Hodgkin lymphoma (HL) tumor cells. Primary infection is associated with infectious mononucleosis and EBV+ HL. Vaccines and antiviral drugs show promise in modulating the clinical course of infectious mononucleosis. Their impact on HL is entirely unknown. T-cell function may be important in the pathogenesis of HL. In HIV patients, higher CD4 counts are associated with an increased incidence of EBV+ HL. One of the roles of the virus in the pathogenesis of HL may be to mimic signals associated with surface immunoglobulin molecules. New approaches to imaging EBV-associated tumors may be on the horizon. Adoptive immunotherapy and virus-specific pharmacologic therapies offer promise for future treatment.

Topics: herpesvirus 4, human, hodgkin's disease, infectious mononucleosis, neoplasms, tumor cells, infections, viruses, diagnostic imaging, hiv, t-lymphocytes

References


Epstein-Barr virus and other candidate viruses in the pathogenesis of Hodgkin's disease. Article. Aug 1999. The Epstein-Barr virus (EBV) is associated with a proportion of cases of Hodgkin disease (HD) and this association is believed to be causal. Epidemiological studies suggest that an infectious agent is involved in the aetiology of young adult HD, however, cases in this age group are less likely to have EBV-associated disease than cases diagnosed in early childhood or older adult years. Classical Hodgkin lymphoma (cHL) is a distinct clinical and pathological entity with heterogeneous genetic and virological features, with regards to Epstein–Barr virus (EBV) infection. The variable association of cHL with EBV infection is probably related to the different levels of patient immunosuppression, both locally in the tumour tissue and at the systemic level. Abstract. Classical Hodgkin lymphoma (cHL) is a distinct clinical and pathological entity with heterogeneous genetic and virological features, with regards to Epstein–Barr virus (EBV) infection. The variable association of cHL with EBV infection is probably related to the different levels of patient immunosuppression, both locally in the tumour tissue and at the systemic level. Epstein-Barr virus-associated Hodgkin's disease: epidemiologic characteristics in international data. Int J Cancer. 1997 Feb 7. 70(4):375-82. Liebowitz D. Epstein-Barr virus and a cellular signaling pathway in lymphomas from immunosuppressed patients. N Engl J Med. 1998 May 14. Epstein-Barr virus, infectious mononucleosis, Burkitt's lymphoma and nasopharyngeal carcinoma. G Klein. Israel J Med Sci 1977 Jul;13(7):716-724. Prevalence and Prognostic Significance of Epstein-Barr Virus Infection in Classical Hodgkin's Lymphoma: A Meta-analysis. JH Lee, Y Kim, JW Choi, YS Kim. Arch Med Res 2014 Jul;45(5):417-431.