Plasmablastic cytomorphology in plasma cell neoplasms in immunocompetent patients is significantly associated with EBV

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摘要

Abstract

Multiple myeloma (MM) is rarely associated with Epstein-Barr virus (EBV) irrespective of HIV status, in contrast with its morphologic mimic, plasmablastic lymphoma, which occurs mainly in immunocompromised patients with frequent EBV association. Among 58 consecutive immunocompetent patients, we found plasmablastic cytomorphologic features in 2 of 4 with plasmacytomas and 14 (26%) of 54 with MM. Of the tumors, 4 (7%; 1 plasmacytoma and 3 MMs) were EBV-encoded RNA (EBER)-positive with plasmablastic cytomorphologic features in 3. The patient with plasmacytoma was disease free for 75 months, and the remaining 3 patients with MM died at 15, 74, and 97 months, respectively; the median survival of patients with EBER- MM was 12 months. EBV+ tumors were associated with plasmablastic cytomorphologic features and high labeling indices. Rare EBER+ plasmablastic plasma cell tumors exist in immunocompetent patients. These tumors may have been driven by EBV to gain the plasmablastic cytomorphologic features and high proliferation fraction. A large cohort study is needed to clarify the prognostic impact of EBV on immunocompetent patients with MM.