Lymphotropic Polyomavirus and Progressive Multifocal Leukoencephalopathy

We read with interest the fast-track communication by Delbue et al. on the possible involvement of lymphotropic polyomavirus (LPV) in leukoencephalopathies occurring in human immunodeficiency virus (HIV)-positive individuals (2). We are especially interested in the positive LPV PCR of peripheral blood mononuclear cells (PBMCs) collected from an HIV-positive patient with progressive multifocal leukoencephalopathy (PML). We wonder whether in this patient the diagnosis of PML was histology proven, i.e., supported by positive JC polyomavirus (JCV) PCR or JCV immunohistochemistry on brain biopsy. Although PML lesions are usually positive for JCV DNA only, rare cases exclusively associated (4) or coassociated (3) with the other polyomavirus, BKV, have been reported, and some authors estimate that BKV DNA is found in PML 10-fold less frequently than JCV DNA (6). In PBMCs, the other polyomaviruses have a very high prevalence in HIV-positive patients: e.g., Degener et al. found JCV in PBMCs from 22.8% of cases and BKV in PBMCs from 51.1% of cases, making their association with leukoencephalopathies quite poor (1).

Thus, in our opinion, it would be very helpful to compare the prevalence of LPV DNA in brain biopsies from patients with leukoencephalopathies and healthy controls.

Although Perez-Liz et al. recently questioned the positive predictive value of JCV PCR in brain biopsies for the diagnosis of PML (5), we reason that the demonstration of LPV DNA in brain biopsies would be a prerequisite step for satisfying Koch postulates.

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REFERENCES


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