

Comparative study of CSF neurofilaments in HTLV-1-associated myelopathy/tropical spastic paraparesis and other neurological disorders

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HTLV-1-associated myelopathy/tropical spastic paraparesis (HAM/TSP) is a progressive CNS disease leading to corticospinal tract degeneration. Various degenerative diseases have increased neurofilament subunit concentration in cerebrospinal fluid (CSF), frequently showing hyperphosphorylation in neurofilaments. The aim of this study was to determine if there were elevated concentrations of neurofilament light subunit (NFL) and phosphorylated forms of neurofilament heavy subunit (PNFH) in HAM/TSP CSF. NF concentrations were compared with those of controls and patients with neurodegenerative diseases associated with other retroviruses (HIV-associated dementia, HAD) and a form of prion disease (familial Creutzfeldt-Jakob, FCJD). Western blotting of CSF with antibodies against NFL showed two immunoreactive bands of 66 and 59kDa, the latter probably corresponding to a partially degraded NFL form. The concentration of the 59-kDa form was not different in HAM/TSP compared with controls, but it