DETECTION OF HIGH LEVELS OF 14.3.3 BRAIN PROTEIN IN THE CEREBROSPINAL FLUID (CSF) OF PATIENT WITH PARANEOPLASTIC DEMENTIA


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Introduction: finding of the 14.3.3 protein in CSF shows a high predictive value for the in vivo diagnosis of Creutzfeldt-Jakob disease (CJD). False-positive results of the 14.3.3 protein assay are found in patients with extensive damage of the nervous system, however.

Case Report: M.R. male 75 years-old. He was recovered in our hospital for subacute cognitive impairment, personality change, agitation and cerebellar ataxia. There was progressive clinical aggravation with also falls. In his past medical history was: 1) severe vascular pathology and cardiopathy; 2) bladder cancer. He has been smoking 20 or more cigarettes every days for a lot of years. We carried out a massive investigation. The most important date were: a) in MRI there was condition like to carcinomatosis; b) in CSF there was the positivity for protein 14,3,3 and the high levels of TAU protein (> 1300 pg/ml), inflammatory findings and neoplastic cells like to lung adenocarcinoma. There are in course: neoplastic antibodies in CSF. The patient has deceased.

Conclusions: diagnosis was dementia with paraneoplastic encephalomyelitis in lung cancer. The paraneoplastic encephalomyelitis (PEM) is often associated with malignancy, most frequently lung cancer (80%) and can involve multiple areas of the nervous system. Common clinical features are subacute cognitive impairment, in addition to various neurological findings including personality change, depression, anxiety etc, depending on affected brain areas. CSF examination is useful to differentiate sCJD from PEM. Although protein 14.3.3 in CSF can be detected in both PEM and sCJD, inflammatory findings in the CSF are typically seen only in PEM but not in sCJD. Anti-Hu antibodies are frequently seen in PEM. We expect to find them.

Bibliography: