Abnormal Enhancement of the Left Putamen on Brain MRI in a Case of Proven Creutzfeldt-Jakob Disease

The patient, a 52-year-old male truck driver, presented with progressive forgetfulness and aphasia over a 6-week period. He then developed dressing and gait apraxia, urinary incontinence, and visual hallucinations. Neurological examination revealed preserved brain stem reflexes and obvious primitive reflexes. There was generalized hyperreflexia with bilateral ankle clonus and Babinski signs. No focal weakness was detected. He had episodic generalized myoclonus, generalized tonic-clonic seizures, and focal seizures, which occurred separately. No focal weakness was detected. In addition, he had startle myoclonus induced by auditory or visual stimulation and spontaneous generalized myoclonus or focal seizure were seen during this period. He became bedridden and detached from others 10 weeks later. On examination 11 weeks after the onset of symptoms, the patient was in a vegetative state with stable vital signs.

Magnetic Resonance Imaging (MRI) studies were performed 3 months after onset, showing cerebral atrophy. Microscopically, diffuse neuronal loss, striking vacuolation, and hypertrophied astrocytes of the gray matter were seen. No known mutation of the prion protein (PrP) gene [7] was found in the DNA analysis of either the patient or his family members. In spite of intensive treatment, the patient died 4.5 months after the onset of symptoms.

In conclusion, our case not only confirmed previous MRI studies, but also showed Gd-DTPA T1WI enhancement in the left putamen, which occurred 3 weeks before his death. These MRI findings might be explained by astrogliosis in an advanced stage of CJD.

References
