CLINICAL SNAPSHOT

Severe Delirium after Combined Pancreas and Kidney Transplantation

A 64-year-old man with type 1 diabetes mellitus underwent combined pancreas and kidney transplantation. His creatinine, blood sugar, and lipase values became normal soon after the operation, but, a few days later, he fell into a severe delirium. When this did not improve, magnetic resonance imaging (MRI) of the brain and a lumbar puncture were performed. No infectious pathogens were found in cultures of the blood and cerebrospinal fluid. The MRI findings were consistent with progressive multifocal leukoencephalopathy (PML) (*Figure*); after exclusion of the main differential diagnoses (infection, stroke, electrolyte and blood sugar disturbances, posterior reversible encephalopathy syndrome due to tacrolimus, postoperative delirium), the immunosuppressive regimen was changed from tacrolimus and mycophenolate mofetil (MMF) to belatacept and MMF. The patient subsequently recovered and has been asymptomatic for two and a half years.

PML is a disease of the central nervous system caused by the JC polyoma virus. No virus-specific treatment is available. The most important therapeutic step is to (partially) restore immunocompetence. Particularly after surgery and under immunosuppressive treatment, the differential diagnosis of delirium can be very challenging; in such cases, brain imaging combined with the clinical findings points the way to the correct diagnosis.

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MRI reveals an asymmetrical, confluent enhanced T2 signal mainly in the periventricular white matter of the right hemisphere, with additional involvement of subcortical U-fibers and of part of the cerebral cortex as well. These findings are typical but not pathognomonic of PML (overlap with the posterior reversible encephalopathy syndrome). Residual gliosis was seen on a follow-up scan one year later.