**Online-only Supplement. Diagnostic work-up performed in December 2017**

CSF culture for bacteria yielded no growth. Gram stain of CSF was negative. Polymerase chain reaction (PCR) analyses for listeria monocytogenes as well as 16S-rDNA-PCR, 18s-rDNA-PCR, JCV, HSV, VZV, adenovirus, EBV, enterovirus, CMV were negative. In addition, protein 14-3-3 was negative in CSF.

Serologic tests for treponema pallidum and borrelia burgdorferia were negative as were tests for HIV, HBV and HCV.

Due to the presence of intrathecal IgA synthesis we also performed Ziehl-Neelsen stain of CSF, quantiferon-test and mycobacterium PCR of CSF; all were negative thus ruling out tuberculosis.

Serum analysis revealed elevated levels of soluble IL-2 receptor whereas tests for ANA, ds-DNA, pANCA, cANCA antibodies were negative. Furthermore, a paraneoplastic antibody blot including Hu, Ri, Yo, CV2/CRMP5, PNMA2, amphiphysin and NMDA receptor antibodies was negative.

Immunofluorescence tests (IFT) for mGluR1 IgG, glutamate receptor (AMPA) IgG and GABA-b-receptor IgG were negative in serum as well as in CSF. Additional serum tests could not detect antibodies against LGI1 or CASPR2.