Cranial nerve involvement in infratentorial progressive multifocal leukoencephalopathy

A 71-year-old man presented with right hypoacusis following immunosuppressive therapy after liver transplantation.

MRI demonstrated T1-hypointense and T2-hyperintense white matter lesions involving the right middle cerebellar peduncle, adjacent pons, and cerebellum, consistent with progressive multifocal leukoencephalopathy (PML), confirmed with PCR in a CSF sample. Fluid-attenuated inversion recovery and double inversion recovery sequences revealed involvement of right cranial nerves V (arrowhead) and VIII (arrow).

CSF revealed normal cell counts, glucose, and protein. PCR for herpesviruses and toxoplasmosis and CSF culture for *Mycobacterium tuberculosis*, *Listeria monocytogenes*, and *Cryptococcus neoformans* were negative.

Chest and abdominal CT were normal.

In PML, infratentorial white matter is a common area of involvement.1,2 Our patient suggests cranial nerve involvement is possible.

**Figure** MRI findings in infratentorial progressive multifocal leukoencephalopathy with cranial nerve involvement

The lesion showed hyperintensity on T2-weighted sequence (A) without mass effect (arrows). Both fluid-attenuated inversion recovery (B, C) and double inversion recovery (D) sequences confirmed the additional involvement of right cranial nerves V (arrowhead) and VIII (arrow).

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