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. Our patient suggests cranial nerve involvement is possible.

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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manuscript. Dr. Rodallec: drafting/revising the manuscript, analysis or interpretation of data, study supervision. Dr. Zins: drafting/revising the manuscript. Dr. Vermersch: drafting/revising the manuscript, analysis or interpretation of data, acquisition of data. Dr. Leclerc: drafting/revising the manuscript, analysis or interpretation of data.

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Correspondence & reprint requests to Dr. Hodel: jerome.hodel@hmn.aphp.fr


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Jérôme Hodel, Olivier Outteryck, Hélène Zéphir, et al.
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