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Low Signals on T2* and SWI Sequences in Patients with MS with Progressive Multifocal Leukoencephalopathy

P. Labauge, C. Carra-Dalliere, X. Aygnac and N. Menjot de Champfleury

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Low Signals on T2* and SWI Sequences in Patients with MS with Progressive Multifocal Leukoencephalopathy

We read with interest the study by Hodel et al¹ concerning the occurrence of cortex, U-fiber, and basal ganglia low signals found on T2* and SWI sequences in 12 patients with MS with progressive multifocal leukoencephalopathy (PML). These low signals were frequent in this series and may occur in presymptomatic patients with PML treated with natalizumab (75% of their 8 asymptomatic patients with PML). We previously published such low intensities in a patient with a PML diagnosis.² We further confirmed the importance of T2* and SWI sequences to detect low signals in a series of 4 patients with PML.³ Pathologic analysis by Hodel et al¹ of a patient with low T2* signal intensities identified astrocytic gliosis associated with abundant microglial and macrophage infiltrates, containing myelin-filled vacuoles. The authors hypothesized that low signal on T2* could be related to accumulation of iron in the macrophages. Although T2* and SWI low signal intensities are not constant in PML, their occurrence may differentiate confluent MS lesions from PML. Consequently, an MR imaging survey of patients at risk for PML (notably patients

with MS treated with natalizumab or those who are immunosuppressed) should include T2* and SWI sequences.

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 **P. Labauge**

 **C. Carra-Dalliere**

 **X. Ayrygnac**

Department of Neurology

 **N. Menjot de Champfleure**

Department Neuroradiology

Montpellier University Hospital

Centre Hospitalo-Universitaire Gui de Chauliac

Montpellier, France

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