Multiple sclerosis treatment strategy after natalizumab-associated progressive multifocal leukoencephalopathy
Rasha Waheed¹, Fabian Sierra Morales¹, Igor Koralnik², Dusan Stefoski², Michael Ko², Ouyang Bichum ², Lakshmi warrior³
¹Neurological Sciences, Rush University Medical Center, ²Rush University Medical Center, ³John H. Stroger Jr. Hospital of Cook County

Objective: To determine optimal management for MS after Nz-associated PML

Background: Progressive multifocal leukoencephalopathy (PML) is a known serious complication associated with natalizumab (Nz) and JC virus seropositivity in patients treated for multiple sclerosis (MS) and Crohn’s disease. PML-related discontinuation of Nz requires re-establishing maintenance MS therapy, for which there is no recognized standard of care

Design/Methods: We retrospectively analyzed clinical symptoms, diagnostic methods; survival outcome and MS therapy in 17 patients post Nz-PML at a tertiary care center from 2010–2017

Results: Mean age of Nz-PML onset was 43.6 years and occurred on average after 44.5 infusions. 16 of 17 patients (94.1%) were alive and 1 suicide took place after 2 years of PML onset. 8 (47%) patients had at least 1 relapse 2 years post PML. 3 relapsed within the first year and 5 beyond 1 year post PML. Reactivation of MS after Nz discontinuation was lower than expected in this previously highly active cohort. 1 of 3 patients treated with maintenance monthly IV corticoids relapsed. Eight patients started other MS therapies post PML on average 26 months after Nz withdrawal, including 3 with dimethyl fumarate (DMF), 3 with glatiramer acetate (GA) and 2 with mycophenolate mofetil (MMF). One relapse occurred on MMF. No relapses were reported with GA and DMF. No recrudescence of PML occurred with these therapies

Conclusions: Our findings suggest that treating MS post-Nz PML carries no risk of PML reactivation. PML may play a role in ameliorating the clinical course of MS. DMF and GA appears to be effective MS therapies after Nz-PML. Prospective studies, including larger number of patients are needed to confirm these findings