Failure of Natalizumab to Prevent Relapses in Neuromyelitis Optica.

OBJECTIVE: To describe first experiences with the integrin inhibitor natalizumab, given to patients with suspected relapsing-remitting multiple sclerosis (MS) who were later diagnosed with aquaporin 4-positive neuromyelitis optica (NMO). DESIGN: Retrospective case series. SETTING: Neurology departments at tertiary referral centers in Germany. Patients Patients with NMO who tested positive for antibodies to aquaporin 4. Intervention Treatment with natalizumab. MAIN OUTCOME MEASURES: Relapses and accumulation of disability. RESULTS: We identified 5 patients (4 female; median age, 45 years) who were initially diagnosed with MS and treated with natalizumab before diagnosis of NMO was established. Natalizumab was given as escalation therapy after failure of first- or second-line immunomodulatory therapies for MS. During natalizumab therapy (median duration, 8 infusions; range, 2-11 infusions), all 5 patients displayed persisting disease activity; a total of 9 relapses occurred (median duration to relapse, 120 days; range, 45-230 days) after the start of treatment. Four patients had an accumulation of disability and 1 patient died 2 months after cessation of natalizumab treatment. CONCLUSIONS: Our results suggest that natalizumab fails to control disease activity in patients with NMO. Neuromyelitis optica should be considered as a differential diagnosis in patients with suspected...
MS who are unresponsive to natalizumab therapy.