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Abstracts

Articles appearing in the January 2020 issue

Anti-NMDAR encephalitis: A single-center, longitudinal study in China

Objective To describe the detailed clinical characteristics, immunotherapy, and long-term outcomes of patients with anti-NMDA receptor (NMDAR) encephalitis in China.

Methods A single-center, prospective study. Patients who met the diagnostic criteria were enrolled from 2011 to 2017 and followed up. The clinical features, treatment, and long-term outcomes were collected prospectively. Factors affecting the long-term prognosis were analyzed.

Results The study included 220 patients. The most common clinical presentations were psychosis (82.7%) and seizures (80.9%). Of the patients, 19.5% had an underlying neoplasm; of which ovarian teratoma was 100% of tumors in females and only one male had lung cancer. Most patients (99.5%) received first-line therapy (glucocorticoids, IV immunoglobulin, or plasmapheresis alone or combined), and only 7.3% received second-line immunotherapy (rituximab, cyclophosphamide alone, or combined). Long-term immunotherapy (mycophenolate mofetil or azathioprine >1 year) was administered to 53.2% of patients. During the first 12 months, 207 (94.1%) patients experienced improvement, and 5 (2.3%) died, whereas 38 (17.3%) experienced relapses. At 12-month follow-up, 92.7% had favorable clinical outcomes (modified Rankin Scale score ≤2).

Conclusions Patients in China present with psychosis and seizure frequently but have a low percentage of underlying neoplasms. Re-enforced first-line immunotherapy is effective in managing anti-NMDAR encephalitis in the acute phase. Although relapse is relatively common, with combined first-line and long-term immunotherapy, most patients reached favorable outcomes.

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Black African and Latino/a identity correlates with increased plasmablasts in MS

Objective To determine the influence of self-reported Black African and Latin American identity on peripheral blood antibody-secreting cell (ASC) frequency in the context of relapsing-remitting MS.

Methods In this cross-sectional study, we recruited 74 subjects with relapsing-remitting MS and 24 age-, and self-reported ethno-ancestral identity-matched healthy donors (HDs) to provide peripheral blood study samples. Subjects with MS were either off therapy at the time of study draw or on monthly natalizumab therapy infusions. Using flow cytometry, we assessed peripheral blood mononuclear cells for antibody-secreting B-cell subsets.

Results When stratified by self-reported ethno-ancestry, we identified significantly elevated frequencies of circulating plasmablasts among individuals with MS identifying as Black African or Latin American relative to those of Caucasian ancestry. Ethno-ancestry–specific differences in ASC frequency were observed only among individuals with MS. By contrast, this differential was not observed among HDs. ASCs linked with poorer MS prognosis and active disease, including IgM^+- and class-switched $CD138^+$ subsets, were among those significantly increased.

Conclusion The enhanced peripheral blood plasmablast signature revealed among Black African or Latin American subjects with MS points to distinct underlying mechanisms associated with MS immunopathogenesis. This dysregulation may contribute to the disease disparity experienced by patient populations of Black African or Latin American ethno-ancestry.

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