Update on biomarkers in neuromyelitis optica.

Abstract:
Neuromyelitis optica (NMO) (and NMO spectrum disorder) is an autoimmune inflammatory disease of the CNS primarily affecting spinal cord and optic nerves. Reliable and sensitive biomarkers for onset, relapse, and progression in NMO are urgently needed because of the heterogeneous clinical presentation, severity of neurologic disability following relapses, and variability of therapeutic response. Detecting aquaporin-4 (AQP4) antibodies (AQP4-IgG or NMO-IgG) in serum supports the diagnosis of seropositive
NMO. However, whether AQP4-IgG levels correlate with disease activity, severity, response to therapy, or long-term outcomes is unclear. Moreover, biomarkers for patients with seronegative NMO have yet to be defined and validated. Collaborative international studies hold great promise for establishing and validating biomarkers that are useful in therapeutic trials and clinical management. In this review, we discuss known and potential biomarkers for NMO.