Neuromyelitis optica is an idiopathic, severe, demyelinating disease of the central nervous system predominantly affecting optic nerves and spinal cord. Clinical, radiologic, and immunologic features distinguish neuromyelitis optica from other severe cases of multiple sclerosis. A serum immunoglobulin G autoantibody (NMO-IgG) serves as a specific marker for Neuromyelitis optica. NMO-IgG is the first specific marker for a central nervous system demyelinating disease. The molecular target of NMO-IgG was identified as aquaporin-4 water channel, is the most abundant water channel in the brain and is concentrated in the astrocyte membranes that border. NMO-IgG seropositivity is now incorporated into new diagnostic criteria for neuromyelitis optica. Clinical onset and course is 80-90% relapsing course, 10-20% monophasic course. Intravenous corticosteroid therapy is commonly the initial treatment for acute attacks of optic neuritis or myelitis. Therapeutic plasmapheresis is an effective rescue treatment for steroid unresponsive NMO attacks. Immunosuppressive agents are used for relapse prevention. Immunosuppressive treatment is indicated in patients with a diagnosis of relapsing neuromyelitis optica.

Keywords
Neuromyelitis optica, NMO-IgG, aquaporin-4, Optic Neuritis, transverse myelitis, multiple sclerosis.