THE PLASMA ANTIAQUAPORIN ANTIBODIES AND THE OUTCOME OF MYELITIS IN NEUROMYELITIS OPTICA AND NEUROMYELITIS OPTICA SPECTRUM DISORDERS: ANY RELATIONSHIP?

E. Idiman[1], F. Idiman[1], **D. Kaya**[2], S. Çevik[3], Z. Altun[4], Z. Mehdiyev[1]
[1]*Department of Neurology, Dokuz Eylül University Faculty of Medicine, Turkey*
[2]*Division of Geriatrics, Dokuz Eylul University Faculty of Medicine, Turkey*
[3]*Laboratory of Neuroimmunology, Dokuz Eylul University, Turkey*
[4]*Department of Oncology, Dokuz Eylul University Faculty of Medicine, Turkey*
deryakaya29@gmail.com

Some patients with neuromyelitis optica (NMO) and NMO spectrum disorders (NMOSD) have similar clinical features do not have Anti-Aquaporin-4 (AQP4) antibody and may have a different condition with different outcomes with regard to motor disability. In the present study, we aimed to determine whether the AQP4 antibody has a relationship with the prognosis of transverse myelitis in terms of motor disability.

Sera of 34 patients with NMO (n=27) and NMOSD with isolated or recurrent myelitis (n=7) were all investigated for the presence of AQP4 antibody by a cell-based indirect immunofluorescence assay (IIFA). The prognostic values of anti-AQP4 antibody were evaluated in terms of a good motor prognosis (able to walk unaided for at least 100 metres) and a poor motor prognosis (with aid to walk at least 100 metres or a worse condition).

In our study, the anti-AQP4 antibody`s seropositivity in all cases was 61.8% (n=21), was 59.3% in NMO and 71.4% in NMOSD cases. Anti-AQP4 antibody seropositivites had older disease onset (39±13.5 vs 27.9±8.7, p=0.009). And 33.3% of the seropositive patients and 38.5% of the seronegative patients had a poor motor disability, during a follow-up period of 102±79.1 months. There was no significant difference that existed between anti-AQP4 antibody seropositivity and seronegative in terms of motor disability (p=0.770).

To conclude, as compared with anti-AQP4 antibody-negative ones, anti-AQP4 antibody-positive patients show significantly older disease onset. The outcome of myelitis in terms of motor disability was similar in both anti-AQP4 antibody-positive and negative patients.