

# Neurology and Neurological Disorders

August 23-24, 2018 | Paris, France

## Anti-AQP4 and anti-MOG positive Neuromyelitis Optica: Clinical experience with the novel diagnostic criteria and disease management

Jameelah Saeedi

King Abdullah Bin Abdulaziz University Hospital, Saudi Arabia

**N**euromyelitis optica (NMO), also known as Devic's disease, is an autoimmune disease of central nervous system (CNS), in which immune cells and auto-antibodies primarily attack optic nerves and spinal cord, and also the brain. Autoimmune attack of optic nerves causes swelling and inflammation with recurrent optic neuritis and/or transverse myelitis, pain and loss of vision. Spinal cord damage leads to paralysis, loss of sensation, and other problems. Despite the initial mistaken belief that NMO is a variant of multiple sclerosis (MS), these two are distinct diseases with some similar clinical and radiological features. Autoimmune attack on aquaporin-4 (AQP4) water channels, located in optic nerves and spinal cord, probably causes NMO. NMO was likely misdiagnosed as MS in 30-40% of cases, prior to the availability of diagnostic test for anti-AQP4 antibodies. Since the identification of anti-AQP4 antibodies (NMO-IgG) in NMO patients in 2004, patients without the typical spinal cord and optic nerve manifestations have also been diagnosed with NMO. This led to the new diagnostic criteria defining anti-AQP4 positive and negative disease with a new unified term, NMO spectrum disorder (NMOSD) to describe the disease. Thus approximately 80% of the NMO

patients display circulating NMO-IgG, whereas the others might have antibodies targeting myelin oligodendrocyte glycoprotein (MOG)—a protein expressed on the surface of oligodendrocytes in the CNS. In my presentation, I will discuss the differences between anti-MOG NMO and anti-AQP-4 NMO, the new diagnostic criteria and their radiological features and my experience in the management of NMO patients.

### Speaker Biography

Jameelah Saeedi is a certified Saudi Neurologist who specializes in Multiple Sclerosis and Neuroimmunological Diseases. She received her medical qualification from King Abdulaziz University in Saudi Arabia in 2001 followed by two-boards in Neurology from Saudi Commission for Health Specialties and the Jordanian Medical Council in 2007. Dr. Saeedi is alumni of University of British Columbia where she pursued her fellowship and training in Neuroimmunology and Multiple Sclerosis with Prof. Peter Rieckman in 2009. In 2010 she received two more fellowships in Electromyography and Botulinum Toxin Injection treatment from the University of Toronto. She is one of few leading pioneers who holds vast knowledge, experience, sub-specializes and practices Multiple Sclerosis and Neuroimmunological Diseases in Saudi Arabia. She has been working at King Fahad Medical City as a Subspecialty Consultant and KFMC Comprehensive Neuroimmunology Program Director. She is currently working at King Abdullah Bin Abdulaziz university hospital in Saudi Arabia.

e: jamysa@hotmail.com



Notes: