Let's gain

MOGmentum

a collaborative series brought to you by The Sumaira Foundation for NMO and The MOG Project

MYELIN

OLIGODENDROCYTE

GLYCOPROTEIN

ANTIBODY DISEASE

MOG-AD

is a rare neuroimmune condition that targets the MOG protein which is located on the surface of myelin sheaths in the central nervous system

STATISTICS

- Occurs in all decades of life with median age of onset early 30s[2]
- Found in 40% of children and 22% of adults that have non-MS demyelinating disorders[1]
- Only slightly more predominant in females[2]
- No ethnic bias[2]
- Numbers growing as testing becomes more widespread and statistics are collected
- Estimate to reach an occurrence of 1 in 100,000 or even 2 in 100,000[3]

References:

1. Blackburn MD, Kyle. "Session on the Diagnosis and Treatment of MOG Antibody-Associated Disease." SRNA, September 20, 2019, https://wearesrna.org/resources/session-on-the-diagnosis-and-treatment-of-mog-antibody-associated-disease/.
2. Wynford-Thomas, Ray, et al. "Neurological Update: MOG Antibody Disease." Journal of Neurology, vol. 266, 2018, pp. 1280-1286. https://doi.org/10.1007/s00415-018-9122-2
3. Based on observation of numbers coming out of Mayo and UK laboratories.

SYMPTOMS

may include:

Loss or blurring of vision, loss of color vision	Paralysis or weakness of a limb or limbs, loss of sensation, alterations of sensation in bowel and bladder function	Chronic fatigue
Hearing loss	Seizures, behavioral change, memory loss	May be monophasic or relapsing

Some residual symptoms may be permanent

DIAGNOSIS

TESTING

- MOG Antibody Titers Blood Test
- Magnetic Resonance Imaging (MRI)
- Optical Coherence Tomography (OCT)
- Visual Field Test (VFT)
- Neurological exams

*Many tests are to rule out other autoimmune disorders

*MOG-AD has been associated with the following symptoms: ADEM, encephalitis (all ages), transverse myelitis, and optic neuritis

TREATMENTS

ACUTE

(During an attack or flare)

- IV steroids
- Oral steroids
- Plasma exchange (PLEX) aka plasmapheresis
- Intravenous immunoglobulin (IVIG)

PREVENTATIVE

(Long-term)

- Mycophenolate mofetil (CellCept)
- Azathioprine (Imuran)
- Prednisone (steroids)
- IVIG
- Rituximab (Rituxan) (rarely in some cases)

PIPELINE

(In development)

- A new treatment is being developed that will be announced in 2020/2021

This series is brought to you by

Special thanks to:

Michael Levy, MD, PhD

Associate Professor of Neurology, Harvard Medical School
Director, NMO Clinic and Research Laboratory, Massachusetts General Hospital
Research Director, Division of Neuroimmunology & Neuroinfectious Disease