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MADISON NEUROLOGY LLC

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Neurology Care 7 days a Week. Because Your Brain Matters.

MOG Antibody-Associated Disease (MOGAD)

Patient education guide · Demyelinating & Autoimmune · Madison Neurology LLC

What is it?

MOGAD is an autoimmune demyelinating disease caused by antibodies against myelin oligodendrocyte glycoprotein (MOG), a protein on the surface of myelin-producing cells. It causes attacks of optic neuritis (often both eyes, with prominent swelling), spinal cord inflammation, or brain inflammation. It is distinct from both MS and NMOSD, with its own testing and treatment.

How does it happen?

The trigger is unknown; attacks sometimes follow infections. MOG antibodies directly target the myelin support system in the optic nerves, spinal cord, and brain. It affects adults and children and is not inherited.

Common symptoms

- Optic neuritis: painful vision loss, often severe and sometimes in both eyes; swollen optic discs
- Transverse myelitis: weakness, numbness, bladder/bowel/sexual dysfunction, often involving the lower cord
- Brain/brainstem attacks: encephalitis-like illness or area postrema symptoms (prolonged nausea/hiccups)
- Recovery after attacks is often better than in NMOSD, though deficits can remain
- About half of patients have relapsing disease; half have a single attack

How is it diagnosed?

MOG antibody blood testing (cell-based assay) is definitive. MRI patterns (long optic nerve involvement with swelling, conus-predominant spinal lesions, characteristic brain findings) distinguish MOGAD from MS and NMOSD. Spinal fluid adds supportive evidence.

How is it treated?

Acute attacks are treated with high-dose steroids (with a slow taper — rapid tapers provoke relapse) and plasma exchange for severe or steroid-resistant attacks. For relapsing disease, preventive immunotherapy — IVIG (particularly effective evidence base), rituximab, mycophenolate, azathioprine, or tocilizumab — reduces relapse risk. MS disease-modifying drugs do not work for MOGAD.

What does the future hold?

Recovery from individual attacks is often good, frequently better than in NMOSD, but repeated optic nerve attacks can accumulate vision loss — so preventing relapses is the priority. The roughly 50% with monophasic disease may eventually come off prevention under specialist guidance. Long-term outcomes with modern preventive therapy are encouraging.

Questions patients commonly ask

Q: Is MOGAD a kind of MS?

A: No — it is a separate disease with a different antibody, MRI appearance, treatment response, and prognosis; MS drugs don't help and some may worsen it.

Q: Will I have more attacks?

A: About half of patients relapse; attack prevention with immunotherapy is offered when risk is high or attacks have recurred.

Q: Will my vision recover?

A: Many patients recover substantial vision after optic neuritis, especially with prompt steroids/plasma exchange, but repeated attacks can cause lasting damage — prevention matters.

National support groups & resources

- **Guthy-Jackson Charitable Foundation (NMOSD/MOGAD)** — guthyjacksonfoundation.org
- **National Multiple Sclerosis Society** — nationalmssociety.org — 1-800-344-4867
- **National Organization for Rare Disorders** — rarediseases.org — 1-800-999-6673

(Organization contact details were current at the time of compilation; please verify online.)

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