Generalized Myasthenia Gravis (gMG)

Generalized myasthenia gravis (gMG) is a chronic, rare autoimmune disorder that is characterized by severe muscle weakness.[1-7]

Signs and Symptoms of gMG Can Include: [1-4]

- Slurred speech
- Choking
- Impaired swallowing
- Double or blurred vision
- Disabling fatigue
- Immobility requiring assistance
- Shortness of breath
- Episodes of respiratory failure
- Complications, exacerbations and myasthenic crises can require hospital and intensive care unit admissions with prolonged stays, and can be life-threatening

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gMG can occur at any age but most commonly begins:
Women: <40 years old
Men: >60 years old.[2]

An estimated 15% of patients with gMG fail to respond adequately to or cannot tolerate multiple therapies for gMG.[8]

What Causes gMG?

In gMG, an autoimmune response leads to progressive inflammation and damage at the neuromuscular junction (NMJ), the area where nerve cells interact with the muscles they control. This damage impairs the communication between nerve and muscle, which in turn, results in a loss of normal muscle function.[1,2,4]

In patients with gMG who are anti-AChR antibody-positive, these anti-antibodies bind to the AChR, a receptor located on muscle cells in the NMJ and used by nerve cells to communicate with the muscle. The binding of these anti-antibodies to the AChR activates the complement cascade, which is another component of the immune system. The continuous complement activation by anti-AChR antibodies results in the localized inflammation and destruction of the muscle membrane at the NMJ.[9,10]

More information about gMG is available at myasthenia.org.

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Generalized Myasthenia Gravis (gMG)

How Is gMG Diagnosed?

- gMG is typically diagnosed with a physical examination to evaluate distinct symptoms of muscle weakness, such as impaired eye movement, droopy eyelids, inability to hold the head straight, speech disturbances and limb weakness.
- Blood tests for anti-AChR or other antibodies are also used, as well as nerve and muscle stimulation and chest computed tomography or magnetic resonance imaging (MRI).[2,11]

> **"This experience has taught me to look at the small things that count."**
>
> **ROBERTA**
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How Is gMG Managed?

- Therapies for gMG include a complement inhibitor, acetylcholinesterase inhibitors, corticosteroids, and other immunosuppressive therapies.[4,12,13]
- Plasma exchange and intravenous administration of immunoglobulin to remove or neutralize abnormal antibodies from the blood, and the infusion of antibodies from donated blood, may be used as "rescue therapy" for severe disease exacerbations.[2,13]
- The surgical removal of the thymus gland, which is often abnormal in patients with gMG, is recommended for patients who develop tumors of the thymus gland and for certain other patients.[2,13]

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