

Myasthenia gravis – failing neuromuscular response

Myasthenia gravis most commonly affects women under 40 and men over 60

1 Introduction

Myasthenia gravis (MG) is a rare incurable disease that affects the neuromuscular system of voluntary muscle movement. If a patient goes undiagnosed or untreated for MG they could suffer from a life-threatening incidence. Please use this a guide to understanding myasthenia gravis cause, symptoms, diagnosis, and treatment.

2 Cause

The body requires neurotransmitters in order to have proper muscle function and communication between the brain, nervous system, and muscles. Those who have MG have interference between the neurotransmitters and the receptor sites that link to muscle function. Typically in MG antibodies are produced through an autoimmune reaction and these antibodies destroy or block neuro-receptor sites.

3 Symptoms

Overall muscle weakness and fatigue are indications of the disease, however, many symptoms and signs occur from the lack of neuromuscular response. Some of these symptoms include:

- Drooping eyelids
- Failed or involuntary facial movements
- Problems eating and drinking
- Loss of coordination and balance
- Difficulty speaking
- Trouble breathing

4 Diagnosis

MG is a complex disease that involves a very delicate bodily function. However, the prime symptom of muscle weakness is also the symptom of many other conditions. The diagnosis of MG is often missed or delayed from the first onset of symptoms. Diagnosis often requires several tests including:

- Neurological exam
- Physical exam
- Blood tests
- Imaging scans
- Pulmonary function
- Electrodiagnostics

5 Treatment

Typical treatment involves various medications in order to combat the body's autoimmune response. Some studies have shown that surgery to remove the thymus gland has led to significant symptom reduction. Many patients experience improvement with treatment and lead full lives. If you have any questions or concerns regarding your health always consult a physician.

Did you know?

Annual incidence of newly diagnosed cases of myasthenia gravis is 1 in 500,000

For more information on this and other rare diseases, please visit www.rarediseases.org

References:

<https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Fact-Sheets/Myasthenia-Gravis-Fact-Sheet>

<https://rarediseases.org/rare-diseases/myasthenia-gravis/>