Myasthenia Gravis: A closer look

Erin L. Ricker
Otterbein University, erin.ricker@otterbein.edu

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Recommended Citation
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Erin L. Ricker, BSN, RN
Otterbein University, Westerville, Ohio

Introduction
Myasthenia gravis (MG) is a rare, chronic autoimmune disease that affects the neuromuscular junction by causing acetylcholine receptors at the muscle end-plate to become more sensitive to acetylcholine. The daily fluctuations of the MJO were normal. The patient was referred for a neurologist for additional testing. After an ophthalmologic consultation to rule out routine ophthalmologic examinations, results were inconclusive. A thorough review of systems led to new suspicions of MG. Following the positive testing results, the patient was checked for acetylcholine receptor antibodies (ACHR-Ab) which were present in the patient’s serum. ACHR-Ab are detected in approximately 50% of patients with MG. ACHR-Ab are detected in over 90% of patients with MGFA, 2010).

Epidemiology
MG occurs in all races and affects both males and females (MGFA, 2010). Asians, compared to other ethnic groups, have a slightly more common onset of MG at a younger age (Weeks, 2012). MG can occur at any age although most affected are those over or near fifty years of age (Abbott, 2010). Women are affected more than men during the first five decades, and the ratio of males to females is often affected at the seventh and eighth decades (Cufi et al., 2012). The thymus gland, which is believed to develop in developing thymus that localize receptor sites for acetylcholine (ACh), stores T cells and is a common target organ for infectious diseases (Cuff et al., 2012). MG is an autoimmune disease caused by autoantibodies that target skeletal muscle. (Cali et al., 2012). Researchers believe a virus or bacteria is responsible for MG. As an Advanced Practice Nurse (APN), it is important to understand the variable clinical presentations that can occur with MG. The purpose of this presentation is to discuss an individual patient case study that was recently encountered in the inpatient setting. In the context of MG, in order to assess the AChR in patients with myasthenia gravis (MG). The nurse needs to be familiar with the signs and symptoms of myasthenia gravis (MG) in order to be able to confirm a diagnosis of MG, the patient was treated properly and overall outcomes were improved.

Case Study
A 59-year-old Caucasian man was seen by his primary care physician (PCP) with complaints of blurred vision and increased difficulty raising his eyelids. Upon further questioning, the PCP learned the patient had recently returned home from a one-week work trip to Vietnam. While the patient stated he developed a bad cold with symptoms of extremely sensitive, watery eyes and fatigue, symptoms progressed throughout the week with complaints of constant double vision and weakness in raising bilateral eyelids. The patient was diagnosed with both, although the patient stated his right eye was worse than the left eye. Upon returning home, the patient was first seen by his ophthalmologist who recommended further evaluation by his primary care provider (PCP).

Case Study Cont’d
The patient was seen for an immediate magnetic resonance image (MRI) with suspicion of raised intracranial pressure due to meningitis. Initial findings of the MRI were normal. The patient was referred for a neurologist for additional testing. After an ophthalmologic consultation to rule out routine ophthalmologic examinations, results were inconclusive. A thorough review of systems led to new suspicions of MG. Following the positive testing results, the patient was checked for acetylcholine receptor antibodies (ACHR-Ab) which were present in the patient’s serum. ACHR-Ab are detected in approximately 50% of patients with MG. ACHR-Ab are detected in over 90% of patients with MGFA, 2010).

Pathophysiology
NMs are formed as axons divide and enter skeletal muscles (Weeks, 2012). When stimulated, ACh is released from the motor nerve terminal. The muscle end-plate is the site where the action potential is converted into a local depolarization giving rise to muscle contraction (Cufi et al., 2012). 1. The patient was sent for an immediate ophthalmic catheterization to rule out conjunctival disease or other visual system.