



Myasthenia Gravis

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Case Report

SS, aged 60 years, a known diabetic, was admitted to the Kothari Medical Centre, Kolkata, India on 17 April 2015. He complained of drooping of upper eye lids (ptosis), easy fatigability, and inability to swallow food, nasal intonation and proximal muscle weakness for about 3 months. Typically, the symptoms are worse in the evening than in the morning and difficulty in combing the hair in the evening. The edrophonium test using intravenous administration of edrophonium chloride was done and the test was positive to relieve weakness in myasthenia gravis. Single fiber electromyography (EMG) was performed to detect nerve-to-muscle transmission which was reduced. Diagnostic imaging of the chest, using computed tomography (CT) and magnetic resonance imaging (MRI) were used to identify the absence of a thymoma. Pulmonary function testing was normal. Recently, a second antibody called the anti-MuSK antibody has been found to be helpful in the diagnosis of MG. This antibody was detected in this case.

Myasthenia Gravis may be defined as "grave muscular weakness." MG is a chronic autoimmune neuromuscular disorder characterized by fluctuating weakness of the voluntary muscle groups. MG is probably under diagnosed and the prevalence may be higher. Myasthenia Gravis occurs in both genders, and all ages. The voluntary muscles of the entire body are controlled by nerve impulses that arise in the brain. These nerve impulses travel down to the place where the nerves meet the muscle fibers which connect with muscle fibers. There is a space between the nerve endings and muscle fibers; this space is called the neuromuscular junction. When the nerve impulse arrives at the nerve ending, it releases acetylcholine. Acetylcholine travels across the space to the muscle fiber side of the neuromuscular junction where it attaches to many receptor sites and the muscles contract. In MG, there can be as much as an 80% reduction in the number of these receptor sites which is caused by an antibody that destroys or blocks the receptor site. Muscle weakness occurs when acetylcholine cannot activate enough receptor sites at the neuromuscular junction. MG is not a very common disease, but many times the diagnosis is missed.

Key words: Myasthenia Gravis, Muscle weakness, Electromyography, CT

References

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