

## Clinical Highlights:

- Myasthenia Gravis
- Horner's Syndrome
- 3<sup>rd</sup> Nerve Palsy

Omni Eye Services- An educational service to the optometric community

## Can Lid Ptosis Warn of Systemic Disease?

By: John Insinga, OD, FAAO

A 76 year old male presented to our Parsippany center with a chief complaint of difficulty driving due to obscuration of the vision through his left eye. He felt this was due to the sudden onset of an acute painless drooping of his upper eyelid. He reported these symptoms began approximately one week prior. He was in good health and taking no medications. His ocular history was non-contributory. Additionally, his family medical and ocular histories were unremarkable. Entering visual acuities measured 20/60 in the right eye and 20/40 in the left. External examination revealed an obvious ptosis of the left upper lid. Pupils were equal, round, and reactive to light. There was no afferent defect present. Extra ocular



motilities were full without restriction. Distance cover testing in all fields of gaze was without deviation.

The patient's slit lamp examination was significant for nuclear sclerotic cataracts of a grade 2 in the right eye and 1+ in the left eye. Dilated fundus examination showed flat, pink optic nerves with cupping of .35 in the right and left eyes. Both maculae were clear, the vessels were of normal caliber and both peripheries were intact.

A truly ptotic lid may be either congenital or acquired. In this particular case we are presented with an acquired ptosis. The first step in evaluating a patient such as this is to examine the pupils for anisocoria as well as an abnormal reaction. A miotic pupil ipsilateral to the ptotic lid may be indicative of Horner's Syndrome assuming the anisocoria is greater in dim verses bright illumination. Conversely, a patient with a relatively dilated poorly reactive pupil in addition to an ipsilateral ptotic lid may be experiencing an



impending, divisional, or full blown third cranial nerve palsy depending on their extraocular motility findings. A third nerve palsy with pupil involvement must be managed on an emergent basis. These patients are assumed to be suffering from an aneurysm until proven otherwise.

This patient appeared to have no pupillary abnormality associated with his ptosis and his extraocular motilities were normal. In this clinical scenario, Myasthenia gravis (MG) must be considered. Myasthenia gravis is an autoimmune disease affecting the muscle end plate of the neuromuscular junction. Specifically, the patient's immune system produces antibodies that bind acetylcholine receptors resulting in impairment of signal conduction across the neuromuscular junction. Typically, MG patients are female with peak onset at about 20 years of age. There is however a second group of patients, mostly male, that acquire the disease in late adult life. There is a wide range of variability in the clinical course of MG. Weakness and fatigability first manifests within muscle groups that are most actively used. These include the extraocular and

facial muscles as well as those of the tongue and extremities. Ocular signs, particularly lid ptosis, may be an initial manifestation in as many as 75% of MG patients. Patients suffering from the severe form of this disease may progress to eventual motor incapacity of the trunk and limbs. Myasthenia gravis can result in respiratory compromise and increased vulnerability to pulmonary infection both of which may be life threatening.

Variability and fatigability are hallmarks of muscle groups affected by MG. A few simple tests were performed in our office to confirm the need for a further neurologic work up. Upon extended upgaze our patient illustrated a marked worsening of his ptosis. After a slow recovery period, the side of a cold soft drink can was placed over the left lid. This resulted in a significant improvement of his ptosis. Although not 100% specific for MG these two simple tests are considered reliable enough to initiate a work up for MG. This patient was later shown to be seropositive for acetylcholine receptor-

binding antibodies. This patient is currently being cared for by both his optometrist and a neurologist for Myasthenia Gravis.

“Ocular signs, particularly lid ptosis, may be an initial manifestation in as many as 75% of MG patients.”

**Iselin**  
**732-750-0400**  
**732-602-0749 (fax)**

**Rochelle Park**  
**201-368-2444**  
**201-368-0254 (fax)**

**Parsippany**  
**973-538-7400**  
**973-538-3007 (fax)**

**Springfield**  
**973-376-5676**  
**973-376-8176 (fax)**