Abstract: A 67 y/o WM c/o sudden onset ptosis and variable diplopia, which is worse in the evening. Positive ice pack test, labs, and neurologic evaluation confirms ocular myasthenia gravis.

I. Case History
A. Patient Demographics: 67 y/o WM
B. Chief Complaint: Sudden onset variable, non-painful diplopia and ptosis – one week duration
C. Ocular/Medical History: hypertension, high cholesterol, and atrial fibrillation
D. Medications: atenolol, simvastatin, niaspan, and coumadin

II. Pertinent Findings
A. Clinical
   – PERRL (-) APD
   – EOM’s FROM OU
   – Hypertropia (4Δ ILHyperT) – variable throughout the examination
   – Initial MRD: 3mm OD and 6mm OS- fatigable and variable throughout the examination
   – (+) Cogan’s Lid twitch [Video]
   – (+) ice pack test [Video]
   – (+) prolonged upgaze test [Video/Photo]
B. Physical
   – (-) dysphasia, dyspnea, dysarthria or ataxia
C. Laboratory Studies
   – ACH-R, TSH
D. Radiology Studies
   – CT of Chest, MRI/MRA of Brain with and without contrast

III. Differential Diagnosis in this case
A. Primary Diagnosis
   – Ocular Myasthenia Gravis
B. Other Differentials
   – partial cranial nerve 3 palsy
   – Horner’s syndrome
   – thyroid eye disease
   – decompensated phoria with myogenic/senile ptosis
   – intracranial mass

IV. Diagnosis and Discussion
A. Elaborate on the condition
   – Chronic, autoimmune disease affecting nicotinic acetylcholine receptors at neuromuscular junctions of skeletal muscle
   – Voluntary skeletal muscle involvement can be generalized throughout the body or remain localized to ocular manifestations
Typically affects women in the 2nd-3rd decade of life and men in the 6th and 7th decade of life

Ocular manifestations presenting symptoms in up to 75% of cases

More than 50% of patients presenting with ocular myasthenia will progress to generalized within 2 years of onset

Pathophysiology Review

Diagnostic Testing

- Edrophonium
- Ice pack test
- Sleep test
- Serologic Testing

B. Unique features of Ocular Myasthenia Gravis

- Ptosis and diplopia- which is variable and fatigable
- Ophthalmoplegia may mimic any disorder of eye movements or complete ophthalmoplegia can occur
- Emergent referral to intensive care unit if signs of ventilatory fatigue, dyspnea or dysphagia to prevent respiratory arrest and ultimately death

V. Treatment and Management

A. Our patient was referred to a neurologist and was treated with oral pyridostigmine bromide. The diplopia resolved and ptosis was greatly improved.

B. Other Treatment considerations

- Immunosuppressive therapies
- Oral steroids (decreases the conversion to generalized myasthenia gravis)
- Thymectomy
- Other ocular management

C. Bibliography


VI. Conclusion

This case demonstrates classic signs of ocular myasthenia gravis. Myasthenia Gravis may be a diagnostic challenge because it can mimic any eye movement disorder. Thorough ocular examination and consideration of systemic associated symptoms is vital for appropriate diagnosis, and in certain cases, emergent referral and treatment is life saving.