

A CASE REPORT

Rare Manifestation Of Myasthenia Gravis- Unilateral Ptosis.

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ABSTRACT: Myasthenia Gravis is an autoimmune disorder. In this condition, antibodies are produced against acetylcholine receptors present at the neuro-muscular junction causing weakness and fatiguability of skeletal muscles. In around 85% of the patients, the Thymus gland is abnormal. In our case study, we describe a patient with acute onset of left eye ptosis ,diplopia, along with generalized weakness and fatiguability of skeletal muscles. Patient also had features of difficulty in swallowing. The highlighting feature is – patient had sudden onset of ptosis and his weakness followed an atypical pattern, it was non-fluctuating and showed no diurnal variation. Several investigations done and diagnosis of Myasthenia Gravis confirmed. Hence, Physicians should be alert in dealing a patient with acute onset of unilateral ptosis, work up for Myasthenia Gravis should be done, because early diagnosis and management improves the patient's condition dramatically.

KEYWORDS: Myasthenia Gravis, acute onset ptosis, non-fluctuating, non-diurnal.

INTRODUCTION:

Myasthenia Gravis prevalence is 200 in 1,00,000 persons. Almost all age groups are affected, Females affected in 20's to 30's whereas males affected in 50's to 60's. Myasthenia Gravis is a neuromuscular junction disorder. Anti acetylcholine receptor antibodies at neuromuscular junction responsible for the immune attack. Patient exhibits features of weakness , fatiguability of skeletal muscles. Lid and extra ocular muscles are the first to be affected. The weakness is of fluctuating type and shows diurnal variation. Deep tendon reflexes preserved. Patients die due to respiratory failure. Diagnosis confirmed with help of various tests such as ice pack test, Edrophonium chloride test, Anti cholinesterase antibodies assay, Electromyography, Repeated nerve stimulation tests etc. Early diagnosis and prompt treatment of Myasthenia Gravis lessens the complications of the disorder.

CASE REPORT: A 60 years of age male, who is a known case of Type -2 Diabetes mellitus, Bronchial Asthma and Dyslipidemia presented to our opd with complaints of sudden onset of left eye drooping of eyelid(ptosis), diplopia, along with generalized weakness and fatiguability of skeletal muscles. Pattern of weakness – Non fluctuating and Non- diurnal. Patient also had complaints of difficulty in swallowing. On examination, Patient's power in muscles was decreased(3/5 in all 4 limbs). Deep tendon reflexes were preserved. Left eye – drooping of eyelid was present. On performing ice pack test, left eye ptosis improved. Anti-acetylcholine esterase antibodies assay showed- 1.42 nmol/L . Electromyography test done showed f/s/o Neuromuscular junction disorder. Repeated nerve stimulation test showed decremental response. All tests done were in favor of Myasthenia Gravis. Treatment was started with- Pyridostigmine and he showed great improvement in his general condition.

DISCUSSION: Myasthenia Gravis is a post-synaptic neuro-muscular junction disorder. The prognosis of Myasthenia Gravis has improved as a result of advances in treatment. Myasthenia Gravis should be differentiated from other neurological conditions such as Lambert Eaton Myasthenic Syndrome(Pre-synaptic disorder), Neurasthenia, Hyperthyroidism, Botulism, etc. When patient presents with ptosis , weakness and fatigability of skeletal muscles , Myasthenia Gravis should be an immediate suspicion. Physician should be aware that, Myasthenia Gravis can present as Unilateral ptosis initially and the weakness/fatiguability of skeletal muscles need not always be of fluctuating pattern and show diurnal variation. Apart from Ice pack test, Edrophonium chloride test, Anti cholinesterase antibodies assay, Electromyography, Repeated nerve stimulation , CT of the orbits, brain, neck and chest can be done. If there is presence of Thymoma, Thymectomy can be done which helps in improvement of the condition. The various treatment options available for Myasthenia Gravis are Anticholinesterase medications, steroids, immunotherapy, plasmapheresis, intravenous immunoglobulin etc. Myasthenic crisis condition requires intensive care support to prevent death from respiratory failure.

CONCLUSION: Myasthenia gravis starts as unilateral ptosis and later becomes bilateral. All patients with Myasthenia Gravis will not follow a strict pattern of the disease with fluctuations and diurnal variations. Since Myasthenia Gravis mimicks other neurological conditions, at times it leads to a misdiagnosis. Hence, a careful approach needed. Nowadays, due to great advances in medicine this disease is almost curable when diagnosed early without any delay.

CONSENT: Consent obtained from patient for publishing the details.

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REFERENCES:

1. Golden SK, Reiff CJ, Painter CJ, Repplinger MD. Myasthenia Gravis Presenting as Persistent Unilateral Ptosis with Facial Droop. *J Emerg Med.* 2015 Jul;49(1):e23-5. doi: 10.1016/j.jemermed.2015.01.002. Epub 2015 Mar 19. PMID: 25797936; PMCID: PMC4476909.
2. Nair AG, Patil-Chhablani P, Venkatramani DV, Gandhi RA. Ocular myasthenia gravis: a review. *Indian J Ophthalmol.* 2014 Oct;62(10):985-91. doi: 10.4103/0301-4738.145987. PMID: 25449931; PMCID: PMC4278125.
3. Donaldson L, Issa M, Dezard V, Margolin E. Low probability of myasthenia Gravis in patients presenting to neuro-ophthalmology clinic for evaluation of isolated ptosis. *European Journal of Ophthalmology.* 2022;0(0). doi:10.1177/11206721221107300
4. Oosterhuis HJ. The ocular signs and symptoms of myasthenia gravis. *Doc Ophthalmol.* 1982 Jan 29;52(3-4):363-78. doi: 10.1007/BF01675867. PMID: 7067604.
5. Asghar H, Sheikh FN, Dev H, Lazarevic MB, Hassan SA. An Atypical Presentation of Myasthenia Gravis: A Case Report. *Cureus.* 2019 Apr 29;11(4):e4563. doi: 10.7759/cureus.4563. PMID: 31281747; PMCID: PMC6599468.
6. Hellmann MA, Mosberg-Galili R, Steiner I. Myasthenia gravis in the elderly. *Journal of the neurological sciences.* 2013 Feb 15;325(1-2):1-5.
7. Schon F, Drayson M, Thompson RA. Myasthenia gravis and elderly people. *Age Ageing.* 1996 Jan;25(1):56-8. doi: 10.1093/ageing/25.1.56. PMID: 8670530.
8. Vincent A, Clover L, Buckley C, Grimley Evans J, Rothwell PM; UK Myasthenia Gravis Survey. Evidence of underdiagnosis of myasthenia gravis in older people. *J Neurol Neurosurg Psychiatry.* 2003 Aug;74(8):1105-8. doi: 10.1136/jnnp.74.8.1105. PMID: 12876244; PMCID: PMC1738592.
9. Tremolizzo L, Giopato F, Piatti ML, Rigamonti A, Ferrarese C, Appollonio I. Myasthenia gravis mimicking stroke: a case series with sudden onset dysarthria. *Neurol Sci.* 2015 Jun;36(6):895-8. doi: 10.1007/s10072-015-2098-0. Epub 2015 Feb 4. PMID: 25648108.