

## A Case report on myastheniagravis

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### ABSTRACT

Autoimmune Myasthenia Gravis is a neuromuscular disorder that affecting mainly muscarinic ,nicotinic acetylcholine receptors .The overall incidence rate of myasthenia gravis is estimated at 2.1 to 5.0 per 1,00,000 people per year. This autoimmune disorder caused by an antibody-mediated blockade of Neuromuscular transmission resulting in skeletal muscle weakness and muscle fatigue. The chief target of the autoimmune disorder is the skeletal muscle nicotinic acetylcholine receptor(nAChR).The most common complications of myasthenia gravis is myasthenia crisis. in most cases of myasthenia gravis, patients experiences symptoms of eye problems, such as; Drooping of one or both eyelids(ptosis),double vision(diplopia);In the management cholinesterase inhibitors included along with corticosteroids and immunosuppressants. Proton pump inhibitors and nutritional supplements are given as adjuvant therapy.

**Keywords:**Autoimmune;Myastheniacrisis;Drooping;Ptosis; Diplopia.

### I. INTRODUCTION:

Myasthenia gravis is one of the autoimmune disorder that affecting the neuromuscular junction .It is characterized by generalized muscle weakness which can involve voluntary muscles that leads to fatigability.voluntary muscles involves muscles of the eyes,throat and extremities.

Myasthenia gravis is mediated by type II antibody reaction in which autoantibodies directed against nicotinic acetylcholine receptors at the neuromuscular junction and attack the myoneural junction thereby damage the post synaptic membrane via complement fixation.Failure of action potential propagation across the neurons eventually leads to neuromuscular weakness and results in loss of stiffness[1].uni or bilateral ptosis is the sign of myasthenia gravis. Muscle weakness

usually fluctuates and increases with muscle activity.the muscarinic receptors in the pupil doesnot affected by the disease and are therefore spared.(2)

Blepharitis is an inflammation of the eyelids and can cause for ocular irritation, tearing, red eyes,burningsensation,photophobia and blurred vision.[3-5]

### II. CASE REPORT AND DISCUSSION

A 67 years old male patient was presented with chief complaints of deviation of angle of mouth,double vision ,difficulty in swallowing since 3 days .

Patient was admitted in hospital with his chief complaints including ocular irritation , weakness in the arms ,hands ,fingers ,legs and neck along with shortness of breath (SOB) which is sudden onset,progressively increasing ,present even atrest .

Patient was initially taken treatment at out side hospital and from there patient was brought to neurosurgeon for further management .

Past medical history revealed that he had Myasthenia gravis from 5 months for which patient was on regular medication. Patient had an episode of vertigo 2 years back

The physician advice for Acetyl choline Receptor antibody (IgG) serum test and MUSK (muscle specific kinase) .

The physician also advise for CBP ,RFT,LFT,CUE,Serum electrolytes ;which were found to be normal

Based on clinical immunology laboratory reports,the observed value of Acetyl choline Receptor antibody (IgG) in serum was found to be 0.92 nmol/L which indicates test positive. The observed value of MUSK Antibody in serum was found to be 0.14U/ml which indicates test negative.

Besed on chief complaints and clinical immunology laboratory reports the physician confirmed the diagnosis as Myasthenia gravis.



Picture 1.Deviation of mouth.Picture2.ptosis of both eyes.

**Management:**

S.No	Brand Name	Generic Name	Category	Dose	Frequency.	R.O.A
1	T.GRAVITOR	Pyridostigmine	AchEI	60mg	QID	Oral
2	T.WYSOLONE	Prednisolone	Corticosteroids.	10mg	BD	Oral
3	Cap.REJUNEX-CD3	Methylcobalamine &Alpha lipoic acid	Nutrition Supplements		OD	Oral
4	T.PANTOP	Pantoprazole	PPI's	40mg	OD	Oral
5	T.AZORAN	Azathioprine	Immunosuppressants	50mg	OD	Oral

**III. CONCLUSION:**

Tablet.Gravitor(60mg) is AchEI that was given to treat myasthenia gravis.A corticosteroid prednisolone(10mg)which acts as immunosuppressant.it works dumping down the immune system activity there by reducing the antibodies production and helps in transmission of messages from nerves to muscles. Finally it is thought to improve muscle strength ,weakness and

fatigue. Rejunex capsule is used as nutritional supplement and as adjuvant therapy.Tablet Azathioprine is used as immunosuppressant which help in controlling of body's immune system.

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