

“Late Onset Myasthenia Gravis” - A Rare Presentation Masquerading as Stroke

Dr. Shravankumar¹, Dr. Bharath D S², Dr. Swaroop K³, Dr. Shravani P⁴, Dr. Ravishankar S N⁵

¹Post Graduate, Akash Institute of Medical Sciences and Research Centre, Bengaluru, Karnataka, India

²Senior Resident, Akash Institute of Medical Sciences and Research Centre, Bengaluru, Karnataka, India

³Assistant Professor, Akash Institute of Medical Sciences and Research Centre, Bengaluru, Karnataka, India

⁴Assistant Professor, Akash Institute of Medical Sciences and Research Centre, Bengaluru, Karnataka, India

⁵Professor and HOD, Akash Institute of Medical Sciences and Research Centre, Bengaluru, Karnataka, India

Abstract: *Myasthenia gravis (MG) is an autoimmune neuromuscular disorder characterized by fluctuating muscle weakness that worsens with activity (fatigue) and improves with rest. We report case of 63 year old male presented with left sided Hemiplegia and left sided facial palsy (ummn type), during the course patient developed bilateral ptosis increased on fatigability, Icepack test, edrophonium test was positive, AchR antibody came positive, Hence the diagnosis of Late-onset Myasthenia gravis was made and patient was started on drugs. This report highlights the atypical and rare presentation of a Myasthenia with Acute infarct which emphasizes the need for a comprehensive diagnostic approach and evaluation.*

Keywords: Myasthenia gravis, ptosis, Hemiplegia, AchR antibodies, edrophonium test.

1. Introduction

Myasthenia gravis (MG) is a neuromuscular junction disorder characterized by weakness and fatigability of skeletal muscles¹. Myasthenia gravis is frequently underdiagnosed especially in the elderly population with comorbid illness². Late-onset Myasthenia gravis is defined as onset after the age of 50³. Myasthenia gravis is especially difficult to identify in patients with recent stroke given overlapping signs and symptoms. We present here a case of Late-onset Myasthenia gravis succeeded by an acute stroke that pursued a course leading to Late onset Myasthenia in the form of bilateral ptosis.

2. Case Report

A 63 year old RAMANJINAPPA came to ER with complaints of left sided weakness since 1day, deviation of angle of mouth to right side since 1day, he is known case of type 2 diabetes mellitus since 15 years on medication, known case of hypertension since 15 years on medication, chronic smoker and alcoholic since 20 years.

We made a provisional diagnosis of CVA with left sided hemiplegia with ipsilateral facial palsy and evaluated for the same.

Patient was being evaluated for CVA, during the course of treatment patient developed bilateral ptosis which increased as the day goes on and with fatigue, initially we thought it to be due to progression of stroke, but his symptoms continued to worsen, however infections, thymus enlargement, thyroid dysfunction, electrolyte abnormalities, and stroke progression was ruled out by appropriate laboratory and radiographic studies. Then bedside Icepack test was done, which was positive (ptosis improved), then edrophonium test was done which also showed positive results. Then patient was evaluated for late onset Myasthenia gravis.

3. Lab Investigation and Imaging

- MRI stroke protocol - large area of restricted diffusion noted in right MCA territory involving posterior frontal lobe, which is hyperintense on flair suggestive of acute infarct.
- Ice pack test - positive
- Edrophonium test - positive
- AchR antibodies - positive



Before edrophonium test

After edrophonium test

Hence a definitive diagnosis of acute stroke with late onset Myasthenia gravis was made. Antibodies for Myasthenia gravis came positive, Patient was started on Tab Pyridostigmine 60mg, ptosis improved over the days, Patient was stable at discharge.

4. Discussion

We present an unusual scenario of late onset Myasthenia gravis confounded by the presence of an acute MCA territory stroke. Acute stroke and Myasthenia coincide in the same patient, in fact only a single case is reported that had both conditions concurrently³. With our ageing population, prevalence of late onset Myasthenia gravis is on the rise².

Although difficult due to physiological changes that occur with ageing, prompt diagnosis is crucial especially in the elderly population. Delayed diagnosis can be catastrophic as patient might go into Myasthenia crisis and respiratory failure. Early detection and evaluation is helpful in delaying the complications of Myasthenia crisis.

5. Conclusion

Myasthenia gravis should remain in the differential diagnosis especially in elderly patients presenting with sudden onset of ocular symptoms even in post stroke patients. Patients can have rapid progression to Myasthenia crisis when the respiratory system is already compromised by acute stroke.

Hence detailed evaluation needs to be done to prevent the Myasthenia crisis.

References

[1] Harrison's Principles of internal medicine 21st Ed. New york: McGrawHill Education; 2022: 3509.

- [2] Aarli JA, Myasthenia gravis in the elderly: is it different? Ann N Y Acad Sci 2007; 1132: 238-43
- [3] Aarli JA, Late-onset Myasthenia gravis: a changing scene. Arch Neurol. 1999; 56:25-27
- [4] Kim SJ, Park GY, Choi YM, Sohn DG, Kang SR, Im S. Ann Rehabil Med, 2017;41 (6):1082-1087.