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Case Study

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MYASTHENIA GRAVIS CRISIS: A CASE REPORT OF A MIDDLE - AGED INDIAN GENTLEMAN

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ABSTRACT

Myasthenia gravis (MG) is a chronic autoimmune neuromuscular disorder characterized by muscle weakness and fatigue. MG crisis, a life-threatening complication of MG, requires prompt recognition and intervention. We present the case of a 59-year-old Indian male who initially presented with generalized weakness and dizziness, progressing to respiratory failure type II requiring intubation. After extubation following initial intubation, patient developed a relapse of similar symptoms. Subsequent investigations and management led to the diagnosis of MG crisis, emphasizing the importance of timely neuro-consultation and intervention.

KEYWORDS: Myasthenia gravis, MG crisis, respiratory acidosis, plasma exchange, acetylcholine receptor.

INTRODUCTION

Myasthenia gravis (MG) is an autoimmune disorder characterized by weakness and fatigability of skeletal muscles, resulting from neuromuscular junction dysfunction. MG can manifest in various forms, from mild ocular to generalized weakness involving respiratory muscles, leading to life-threatening complications known as MG crisis.

CASE PRESENTATION

A 59-year-old Indian male was admitted to the ward with generalized weakness and dizziness for three days. His admitting diagnosis was dehydration secondary to starvation. He had no significant past medical history; he was a banker by profession and had lost his job 6 months ago. His condition deteriorated rapidly, experiencing severe respiratory acidosis (pCO2 101) necessitating intubation and transfer to the Medical ICU (MICU). Following successful extubation, the patient was reintubated the next day due to ventricular tachycardia and sudden drop in his conscious levels, Subsequent investigations, including a normal CT brain scan, failed to reveal the cause of his clinical decline. Extubated a second time, the patient presented with difficulty in swallowing, weakness and unilateral ptosis. Neurological consultation led to the provisional diagnosis of MG crisis, supported by elevated anti-acetyl choline receptor levels. The patient was promptly started on plasma exchange.

DISCUSSION

Myasthenia gravis (MG) is an autoimmune disorder characterized by muscle weakness and fatigability. While 85% of patients have IgG autoantibodies against skeletal muscle postsynaptic nicotinic acetylcholine receptors (AChR) leading to disruption of AChR function through complement activation and internalization, 7% ha antibodies against MuSK sarcolemma protein. Thymus abnormalities are observed in some patients, with thymoma present in 10% and thymic hyperplasia in 30%. The pathogenesis of MG involves the degradation of AChR, leading to a decrease in Ach release at the neuromuscular junction. Clinical finding include generalized weakness, ocular symptoms like ptosis, and diplopia, bulbar muscle involvement causing dysarthria, dysphagia, and respiratory muscle weakness. Diagnostic test such as repetitive nerve stimulation, single-fibre electromyography, edrophonium test, and ice pack test help in confirming MG and differentiating it from other neuromuscular disorders. Treatment strategies aim to improve neuromuscular transmission and muscle strength through acetylcholinesterase inhibitors, immunosuppressants, and potentially thymectomy in select cases.

This case underscores the importance of considering MG crisis in patient with unseen weakness and respiratory compromise.

CONCLUSION

In conclusion, MG crisis can present with a spectrum of symptoms ranging from muscle weakness, respiratory distress to neurological deficits. Early recognition and prompt intervention, including plasma exchange, are crucial in managing MG crisis and improving patient outcomes. Health providers should maintain high index of suspicion for MG crisis in at-risk patients to facilitate timely diagnosis and treatment.

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Conflict of interest

The authors declare no conflict of interest related to this case report.

Informed consent

Informed consent was obtained from the patient for the publication of this case report. Patient anonymity has been preserved.

REFERENCES

1. Gilhus NE. Myasthenia Gravis. N Engl J Med, 2016 Aug 11; 375(26): 2570-81.
2. Silvestre J, Parambil J. Management of myasthenia Crisis. J Intensive care Med, 2020 Jan; 35(1): 58-70.
3. Twork S, Wisener D, ruck T, Schettler C, Pavenstadt H, Wiendl H, Meuth SG. [myasthenia gravis: guidelines for prevention of exacerbation exacerbation and treatment]. Nervenarzt, 2012 Nov; 83(11): 1397.