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CASE REPORT

The Difficult Management of Depressive Symptoms in a Patient with Myasthenia Gravis: A Case Report

El difícil manejo de los síntomas depresivos en un paciente con miastenia gravis: reporte de caso

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ABSTRACT

Introduction: depression in patients with Myasthenia Gravis (MG) can be multifactorial, involving biological, psychological, and social factors. Depressive manifestations may arise as a result of the emotional impact of a chronic and potentially disabling condition, as well as from neurobiological changes associated with the disease or immunosuppressive treatment.
Method: in this article, we report a case of a 51-year-old man diagnosed with MG and concomitant depressive symptoms. Treatment was initiated with sertraline 150 mg/day and trazodone 50 mg/day.
Results: the choice of psychotropics should be made with caution, opting for drugs with a lower likelihood of affecting neuromuscular function. SSRIs are the most effective drugs for treating depression in patients with MG, and it is advisable to avoid drugs with anticholinergic effects, such as tricyclics and haloperidol.
Conclusion: caution is important when prescribing psychotropic medications to patients with MG due to the risk of affecting neuromuscular transmission.

Keywords: Myasthenia Gravis; Depression; Psychotropics.

RESUMEN

Introducción: la depresión en pacientes con miastenia gravis (MG) puede ser multifactorial, involucrando factores biológicos, psicológicos y sociales. Las manifestaciones depresivas pueden surgir como resultado del impacto emocional de una condición crónica y potencialmente discapacitante, así como de los cambios neurobiológicos asociados con la enfermedad o el tratamiento inmunosupresor.
Método: en este artículo, reportamos el caso de un hombre de 51 años diagnosticado con MG y síntomas depresivos concomitantes. El tratamiento se inició con sertralina 150 mg/día y trazodona 50 mg/día.
Discusión: la elección de psicotrópicos debe hacerse con precaución, optando por fármacos con menor probabilidad de afectar la función neuromuscular. Los ISRS son los fármacos más efectivos para tratar la depresión en pacientes con MG, y es recomendable evitar medicamentos con efectos anticolinérgicos, como los tricíclicos y el haloperidol.
Conclusión: es importante tener precaución al prescribir medicamentos psicotrópicos a pacientes con MG debido al riesgo de afectar la transmisión neuromuscular.

Palabras clave: Miastenia Gravis; Depresión; Psicotrópicos.

INTRODUCTION

Myasthenia gravis (MG) is a disease affecting the neuromuscular junction, autoimmune and mediated by B lymphocytes and antibodies, such as anti-muscle specific kinase (anti-MUSK), acetylcholine receptor (anti-AChR) and protein 4 (anti-LRP4).[1] Characteristic symptoms of MG include weakness of the eye muscles, difficulty swallowing and speaking, as well as generalized weakness in the limbs.[2] Incidence rates have a bimodal distribution, with onset in the third decade of life mainly in women and in the sixth decade in men.[3]

Chronic muscle weakness in myasthenia gravis can lead to limitations in daily activities, social isolation, and loss of autonomy, resulting in a deterioration in the patient's quality of life.[4] Concomitantly, depression contributes to the perceived worsening of muscle weakness, exacerbating MG symptoms,[5] particularly feelings of fatigue.[6,7]

Compared with the general population, mental health disorders are more prevalent in patients with MG,[8] with depression reported in one-third of these patients.[9,10] A study in patients with MG, in which an instrument assessing psychological distress in non-psychiatric patients was applied, showed that the proportion of patients with moderate to severe depressive symptoms increased from 59 % in those with mild MG to 273 % in those with severe MG.[3]

This report presents the case of a patient diagnosed with myasthenia gravis and comorbid major depressive disorder, highlighting the difficulties in treating depressive symptoms in a developing country.

CLINICAL CASE

This clinical case presents a 51-year-old man with no personal or family history of neurological or psychiatric conditions. He attended a public mental health service, reporting worsening anxious and depressive symptoms, accompanied by suicidal ideation, abulia, anhedonia, and significant weight loss.

The onset of depressive symptoms dated back 2-3 months, with manifestations of involuntary muscle contraction in the glabella, fluctuating palpebral ptosis, dysphonia, dysphagia, generalized asthenia, and perception of diffuse "discharges" throughout the body. The symptoms were initially associated with a psychiatric condition by a healthcare professional, and the patient was referred to the service for conversive disorder and suicidal ideation. However, subsequent diagnostic investigation was compatible with a diagnosis of Myasthenia Gravis, thus ruling out the conversive disorder. Initially, the ice test was performed, with a positive result. Then, an electroneuromyographic study of the four extremities was requested, which revealed signs of neuromuscular junction involvement, with a significant decrease, more evident in the proximal/bulbar muscles, compatible with Myasthenia Gravis. The disease was etiologically related to a thymoma, which was surgically treated.

Upon return to psychiatric care, the patient reported significant weakness, requiring him to use a wheelchair, as well as feeding difficulties requiring a nasoenteral tube. His treatment included monthly infusions of immunobiologics, in addition to drug therapy with trazodone 50 mg/day, sertraline 150 mg/day, prednisone 20 mg/day, and pyridostigmine 60 mg four times daily.

Despite the continued use of psychotropic medications and psychotherapeutic follow-up, the patient continued to experience persistent suicidal thoughts with concrete planning, feelings of depression, and the perception of being a burden to his caregiver.

DISCUSSION

Patients with myasthenia gravis should undergo a careful, comprehensive medical evaluation, including consideration of mental health and quality of life issues.[11] Multidisciplinary treatment, including medical therapy and emotional support, can improve these patients' quality of life and functional ability.[12] However, there needs to be more information on psychotropic treatment in patients with MG that allows for standardized practices, as studies often lack randomization or placebo control.[13]

The most commonly used classes of psychotropic medications to treat depressive disorders in the general population are selective serotonin reuptake inhibitors (SSRIs) and serotonin-norepinephrine reuptake inhibitors (SNRIs).[14] An observational study that looked at the likelihood of adverse effects of some classes of medications concluded that some SSRIs have an increased risk of causing side effects in patients with MG (e.g., sertraline, citalopram); however, the risk was not uniform within the class, with some medications showing lower risk (e.g., escitalopram, paroxetine).[15] In the case presented, the choice of sertraline and trazodone was based on their free availability in the public health system and the patient's financial hardship.

Some psychotropics with anticholinergic effects, such as tricyclics and haloperidol, can cause muscle weakness and influence neuromuscular transmission already compromised by myasthenia gravis.[13] Long-acting benzodiazepines, such as diazepam, should also be used with caution in these patients because of the risk of respiratory depression.[16] Exacerbation of MG symptoms has also been reported in patients using lithium.[17]

The choice of psychotropic medications in patients with MG should be careful, opting for medications with the least likelihood of affecting neuromuscular function. SSRIs remain the most effective medications in

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reducing symptoms and severity of depression in these patients; however, large-scale longitudinal studies are needed to understand better the management of depression in these patients with neuromuscular disease and to monitor the potential side effects of these medications systematically.

CONCLUSIONS

Aligning drug therapy for depressive conditions in patients with MG while avoiding potential side effects at the neuromuscular junction that could worsen disease progression remains a challenge. The therapeutic arsenal has limitations, given the possibility of adverse effects. Methodologically sound studies are needed to address the use of psychotropics in patients with MG.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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