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Impact of laparoscopic gastric bypass in a patient with myasthenia gravis and obesity

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Dear Editor,

Myasthenia Gravis (MG) is a chronic neuromuscular disease characterized by fatigue and fluctuating muscle weakness that worsens with activity and improves with rest (1,2). Although its exact etiology is unknown, we know that the body produces antibodies that interfere with neuromuscular transmission, and that it is associated with the thymus. The symptoms vary depending on the muscles affected and can become disabling.

We present a 52-year-old woman with type II diabetes, SAHS controlled with CPAP and severe Myasthenia Gravis, treated with corticosteroids, immunosuppressants and pyridostigmine (Mestinon[®]) since 2012. In 2022, due to worsening, she received intravenous immunoglobulins.

She had obesity (BMI: 47 kg/m²) secondary to prolonged corticosteroid therapy and a sedentary lifestyle caused by her limitations, which led to the indication for a gastric bypass (GB). Anesthesia was induced with intravenous agents and maintained with a balanced combination of intravenous and inhalation drugs. Cisatracurium, a non-depolarizing neuromuscular blocker, was used to avoid the administration of muscle reversal agents and reduce the risk of complications such as prolonged mechanical

ventilation.

The robotic GB was performed without incidents (alimentary limb: 200 cm, biliopancreatic limb: 75 cm), and the patient was discharged 48 hours later with a favorable postoperative course. Currently, her BMI is 28 kg/m², with a progressive reduction in corticosteroid and Mestinon® doses. Although the Myasthenia Gravis Quantitative Strength Scale (QMG) was not used, follow-up showed functional and clinical improvement.

MG has a prevalence of 5–24 cases per 100,000 inhabitants, primarily affecting young women. Although obesity is rare in individuals with MG, it can occur due to prolonged corticosteroid use and a sedentary lifestyle. Weight loss improves metabolic syndrome, reducing systemic inflammation, oxidative stress, and factors that exacerbate autoimmunity, which can alleviate muscular symptoms and enhance quality of life (1-3).

The laparoscopic approach is preferred due to its benefits, such as reduced pain and improved respiratory outcomes. The combination of intravenous and inhalational anesthesia, along with the avoidance of muscle relaxants, facilitates an uncomplicated recovery.

Bariatric surgery is a safe and effective strategy for patients with obesity and MG, provided there is careful perioperative management and a multidisciplinary approach. There is no evidence supporting the choice of a specific surgical technique. Optimizing pharmacological treatment, maintaining electrolyte balance, and close monitoring are essential to prevent complications (1,4,5). These comprehensive approaches not only reduce surgical risks but also improve long-term metabolic and neuromuscular outcomes.

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