

Exploring side effects of corticosteroids in myasthenia gravis: Unveiling alternatives for safer treatment

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Madam, Myasthenia Gravis (MG) is a chronic organ-specific autoimmune disease that weakens voluntary muscles by affecting neuromuscular junctions. The formation of antibodies against acetylcholine receptors is the most prevalent cause. The incidence and prevalence rates of (MG) are increasing exponentially.¹

In addition to symptomatic medication, corticosteroids continue to be the first-line treatment for MG due to their affordability, ease of access, and efficacy.² Although corticosteroids are frequently prescribed, they are not without drawbacks. Long-term corticosteroid use can result in various side effects, including osteoporosis, weight gain, acne, elevated blood pressure, mood fluctuations, and a cushingoid appearance. It has also been linked to rare complications such as gastric and esophageal irritation, compressive fractures, and aseptic femoral head fracture.³ Given the hazards associated with long-term corticosteroid use in treating MG, researchers and healthcare professionals should investigate alternative MG treatments. By doing so, new and safer treatment options can be identified, which could contribute to improved treatment and substantially enhance the quality of life for MG-affected populations. Numerous nonsteroidal medications, including mycophenolate mofetil, methotrexate, and azathioprine, have demonstrated success in clinical trials for kidney transplantation, rheumatoid arthritis, and myasthenia gravis, respectively. To confirm the efficacy of these pharmaceuticals in the treatment of MG, urgent research and trials based on in vitro and animal models are required. Based on well-designed clinical trials, these also require human testing.⁴

The tapering of prednisone is an alternative option. Prednisone tapering is still a problem in the therapeutic management of patients with generalized MG because, although it is a useful treatment, it has a number of adverse effects that make it necessary to find the lowest possible effective dose as quickly as feasible. Rituximab and

azathioprine enable quick tapering. It is necessary to evaluate and contrast the corticosteroid-sparing effect of novel treatments with that of azathioprine and rituximab. Given their impact on MG status, it's possible that these novel therapies will make it possible to drastically cut back on corticosteroids or possibly stop taking them entirely.⁵

The abnormal immune responses in MG can be managed and resolved with the new drugs that specifically target them. These agents include chimeric antigen receptor T [CART-T] cell therapy, autologous stem cell transplantation, B cell depleting agents (anti-CD 19 and 20, and B cell activating factor [BAFF] inhibitors), proteasome inhibitors, terminal complement C5 inhibitors, Fc receptor inhibitors, T cells, and cytokine-based therapies (subcutaneous immunoglobulin [SCIG]). With regard to MG therapy, the majority of these novel drugs are superior to traditional immunosuppressive treatment (IST) because to their quicker onset of action, more favourable side effect profiles, and potential for long-term, sustained remission. Further trials and research into their efficacy is required to bring them into clinical practice as early as possible.⁶

In conclusion, it is essential to recognize the adverse effects of corticosteroids in the treatment of MG and to seek out safer alternatives. We can enhance patient care and eradicate hazards associated with corticosteroid use by investigating new treatment landscapes.

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