Efficacy and safety of efgartigimod in a patient with refractory AChR-IgG-positive myasthenia gravis and coexisting multiple sclerosis

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OBJECTIVE

The co-occurrence of autoimmune myasthenia gravis (MG) and multiple sclerosis (MS) is rare. Treatment can be challenging as drugs that are approved for MG may be ineffective or harmful in MS, and vice versa.

Efgartigimod is a human immunoglobulin G1 (IgG1)-derived Fc fragment that targets the neonatal Fc receptor (FcRn), recently approved as add-on to standard therapy for patients with acetylcholine receptor (AChR)-IgG-positive MG.

The safety of efgartigimod in patients with MS is unclear. We herein report the successful use of efgartigimod in a patient with treatment refractory AChR-IgG-positive MG and coexisting primary-progressive MS (PP-MS).

MATERIAL AND METHODS

The clinical presentation, diagnostic work-up and therapeutic management of the patient are described.

RESULTS

A 73-year-old woman was admitted in January 2025 to our Neurology Unit with worsening dysphagia, dysarthria, shortness of breath, generalized weakness with head drop, and eyelid ptosis.

- She was diagnosed with AChR-IgG-positive MG in 2023, since she had experienced two disease relapses with similar symptoms, since then, successfully treated with plasmapheresis (PLEX) followed by a taper of oral prednisone (starting from 25 mg/day), and pyridostigmine.
- Azathioprine was started after the first relapse, but discontinued after 10 months due to recurrent skin phlegmon. Her past medical history was also remarkable for blood hypertension and PPMS, diagnosed in 2012 and radiological inactive since then without disease modifying treatment.
- After the admission, she was started on oral prednisone (1 mg/Kg/day), and PLEX (for a total of three exchanges on alternate days, limited by poor venous access), followed by intravenous immunoglobulins (IVIG; 2 g/Kg), but no clinical improvement was observed over the next month (QMG-score ≥ 13; MG-ADL = 7).
- Treatment with efgartigimod was then started as a rescue, leading to rapid clinical improvement already after the first infusion. At the end of the fist cycle of efgartigimod, she only complained of mild MG symptoms (QMG-score ~ 3; MG-ADL = 2).
- Clinical improvement was sustained after the second cycle of efgartigimod for a total follow-up of four months. No clinical or MRI evidence of MS disease activity was observed during efgartigimod treatment. **(Figure 1)**

CONCLUSIONS

This case supports the use of efgartigimod as rescue therapy in patients with MG exacerbations refractory to PLEX and IVIG, and highlight its potential utility as safe treatment option in patients with coexisting MS.

References

Howard, James FDe Bleecker, Jan L. et al. , Lancet Neurology

Figure 1 - The timeline summarized the clinical course and the management of the patient