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## Vitamin D and myasthenia gravis

### Vitamina D y miastenia gravis

#### Dear Editor:

I read with great interest the article published in *Neurología* under the title “Epidemiology of myasthenia gravis in the province of Ourense (Galicia, Spain),” which reports that 85.1% of patients diagnosed with myasthenia gravis (MG) present vitamin D deficiency (< 30 ng/mL).<sup>1</sup> In recent years, growing emphasis has been placed on the importance of vitamin D due to its influence in several processes, such as immunity. Vitamin D is known to play a significant role in the homeostasis of calcium and phosphorus, in the regulation of functional hormones, and in the activation of regulatory T cells and B cells.<sup>2</sup>

Kang et al.<sup>3</sup> observed that serum vitamin D levels were significantly lower in patients with MG than in healthy controls. Furthermore, an improvement in muscle weakness has been observed after cholecalciferol supplementation in patients with low vitamin D levels.<sup>4</sup> However, the most remarkable finding is the report of a patient showing remission of recurrent MG after administration of megadoses of vitamin D (80 000–120 000 IU/day).<sup>5</sup> Nevertheless, megadoses are reported to be harmful to health due to an increase in the risk of falls, and consequently the rate of fractures.<sup>6</sup>

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<https://doi.org/10.1016/j.nrleng.2022.01.006>

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A recent randomised controlled trial did not observe a clinically significant improvement in patients treated with vitamin D with respect to those receiving placebo; however, the dose administered was 800 IU/day, which is much lower than that reported in previous studies.<sup>7</sup>

It is currently unclear whether low serum vitamin D levels are associated with a higher risk of MG, as has been described in other such diseases as multiple sclerosis.<sup>8</sup> Therefore, further studies are needed on the influence of vitamin D on the onset and progression of MG. We should also mention that between 42% and 82% of patients with MG experience central fatigue; even patients in remission or with mild symptoms show mild fatigue.<sup>9,10</sup> As central fatigue seems not to improve with immunosuppressant treatment, it is important to establish the role of vitamin D in the fatigue perceived by these patients.<sup>9</sup> Therefore, I agree with Kang et al.<sup>3</sup> in recommending that healthcare professionals monitor vitamin D levels in patients with MG in order to maintain optimal serum concentrations.

## Funding

This study received no funding of any kind.

## Conflicts of interest

The authors have no conflicts of interest to declare.

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<https://doi.org/10.1016/j.nrleng.2021.11.006>  
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