Low-Dose Steroid after Thymectomy in Myasthenia Gravis: Is It a Complete Solution for Postoperative Respiratory Insufficiency?

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Dear Sir,

Postoperative respiratory insufficiency after thymectomy in Myasthenia gravis (MG) is a critical condition [1]. Currently, preventive strategies like the use of preoperative steroids after thymectomy show controversial results [2].

We have read the study done by Kataoka et al. with great interest where they have suggested that low-dose steroid treatment can prevent postoperative respiratory insufficiency (PRI) in patients with MG. However, we would like to refer to some questions and comments on the subject [3].

First, regarding the regimen of steroid in the postoperative period, two most important questions prevail: (a) Was the steroid dose lowered in the postoperative period? (b) How can the authors explain its mechanism of action? In addition, a dose of 30 mg/day prednisolone is not a low dose steroid therapy [4]. Instead of using the term 'low-dose,' 'supraphysiological dose' could be used. Furthermore, it would be more noteworthy if the cortisol levels of patients were also reported.

Second, surgical technique is an important aspect that needs consideration, because it does not have the same effect on all the patients [3]. This may result in complex pathways, as steroid requirement can differ with different surgery techniques, resulting

in the impairment of the standardization and influence rate of postoperative insufficiency.

Third, preoperative physostigmine doses used and preoperative respiratory function tests are related directly to the PRI in Myasthenia Gravis patients. Reporting of this data is also needed to evaluate PRI thoroughly.

Fourth, another important data that is directly related to PRI is the anesthesia technique and anesthetic agents used because of the influence they can have on the rate of postoperative respiratory insufficiency [5]. We believe two points need explanation: (a) More detailed information should be given about the anesthetic technique used, narcotics and neuromuscular blocking agents and their doses. Also the neuromuscular monitoring should be described [3]. (b) In the result section, it is stated that the use of epidural anesthesia did not differ in both groups, whereas the use of epidural anesthesia is not mentioned in the methods section [5]. More details should also be provided on epidural use, not only during the surgery but also during the surgery and in the postoperative period; epidural use only in the postoperative period for pain treatment could influence the results reported. Information

on the level of catheter insertion, the use of agents and their doses given from the epidural catheter and the level of analgesia should be expressed. These determinants are well known that in myasthenia gravis patients, lower doses of local anesthetics or only opioids should be used to decrease respiratory compromise [5].

Finally, data about PRI and invasive or noninvasive ventilatory options could make the study interesting to make a proper extrapolation of these results. A more precise definition of PRI and the criteria used to acknowledge an unsuccessful extubation, rescue therapy with noninvasive mechanical ventilation and How many patients needed invasive mechanical ventilation.

We consider that it is important to know these determinants in this study in order to carry out a proper assessment of the impact of preoperative low-dose steroid in the prevention of PRI. Further prospective randomized trials need to confirm these results.

Disclosure Statement

The authors report no conflicts of interest related to our paper.

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