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LETTER TO EDITOR

Onset of Takotsubo 7 days after myasthenic crisis suggests an alternative trigger

El inicio de Takotsubo siete días después de la crisis miasténica sugiere un desencadenante alternativo

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Dear Editor,

With interest, we read the article by Riano-Odiviela et al. about a 78-year-old female with myasthenia gravis (MG) who experienced a myasthenic crisis during a respiratory infection manifesting as dysphagia and partial respiratory insufficiency being treated with immunoglobulins and non-invasive positive pressure ventilation (NIPPV)[1]. Seven days after onset of myasthenic crisis, she experienced acute respiratory failure requiring mechanical ventilation[1]. Takotsubo syndrome (TTS) was diagnosed[1]. She recovered spontaneously and could be extubated 36 h later. Echocardiography became normal 10 days after onset[1]. We have the following comments and concerns.

It is unusual that TTS develops with a latency of 7 days after onset of a myasthenic crisis. We should know if there was an alternative trigger of TTS. We should know if myasthenia further deteriorated despite initiation of immunoglobulins and NIPPV.

The most frequent neurological triggers of TTS include subarachnoid bleeding, epilepsy, ischemic stroke, intracerebral bleeding, migraine, encephalitis, traumatic brain injury, and posterior reversible encephalopathy syndrome[2]. Were these common triggers excluded as causes of TTS? Was pulmonary embolism excluded?

We should know if it is conceivable that TTS was not triggered by exacerbation of myasthenia but rather by the respiratory infection. Thus, we should know if there was pneumonia or bronchitis and if the applied antibiotic treatment was effective or not.

Myasthenic crisis is not only characterized by deterioration of weakness and development of respiratory failure but also by dilated pupils. We should know if the pupils were truly dilated in the index patient on admission.

Treatment of myasthenia with only 90 mg pyridostigmine per day is unusually low. Was the low dosage selected because of low body weight? In a 70 kg heavy patient, the initial dosage of pyridostigmine is recommended to be 240 mg/day. We should know if pyridostigmine was increased at onset of the exacerbation or not.

Missing is the medication other that the anti-myasthenic treatment. We should know which antibiotic was given for the respiratory infection and if it was one which potentially deteriorated MG, such as amoxicilline[3], tobramycine[4], or azithromycine[5].

A shortcoming of the study is that titers of acetylcholine receptor antibodies leading to the diagnosis MG and the results of repetitive nerve stimulation and single-fiber electromyography were not provided. We should know if these parameters, as can be expected, deteriorated during exacerbation of myasthenia on admission.

Overall, this interesting report has a number of shortcomings which should be addressed before drawing final

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conclusions. Particularly, alternative triggers to myasthenic crisis should be provided given the delay of 7 days between onset of myasthenic crisis and onset of TTS.

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Conflicts of interest

There are no conflicts of interest.

Ethical disclosures

Protection of human and animal subjects. The authors declare that no experiments were performed on humans or animals for this study.

Confidentiality of data. The authors declare that they have followed the protocols of their work center on the publication of patient data.

Right to privacy and informed consent. The authors declare that no patient data appear in this article.

References

1. Riaño-Ondiviela A, Escota-Villanueva J, Pinillos-Francia G, Morlanes-Gracia P, Cantero-Lozano D, Salvador-Casabón JM, et al. Takotsubo syndrome or stress cardiomyopathy precipitated by severe myasthenic crisis. Síndrome de tako-tsubo o miocardiopatía por estrés desencadenado por una crisis miasténica grave. Arch Cardiol Mex. 2020;90:210-2.
2. Finsterer J, Wahbi K. CNS disease triggering takotsubo stress cardiomyopathy. Int J Cardiol. 2014;177:322-9.
3. Vacchiano V, Solli P, Bartolomei I, Lai G, Liguori R, Salvi F. Exacerbation of myasthenia gravis after amoxicillin therapy: a case series. Neurol Sci. 2020;41:2255-7.
4. Hussain N, Hussain F, Haque D, Chittivelu S. A diagnosis of late-onset myasthenia gravis unmasked by topical antibiotics. J Community Hosp Intern Med Perspect. 2018;8:230-2.
5. Pradhan S, Pardasani V, Ramteke K. Azithromycin-induced myasthenic crisis: reversibility with calcium gluconate. Neurol India. 2009;57:352-3.