

Peer Review File

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Reviewer A

Comment 1: why was anti-MuSK analysed in thymomas? It is known that thymoma patients with myasthenia have nearly in all cases anti-AChR-antibodies. Why analyzing for anti-MuSK? (This is indeed recommended in nonthymomatous patients, but the article is about thymomas).

Reply 1: We measured anti-Musk antibodies to rule out myasthenia gravis other than myasthenia gravis associated with thymoma. However, as pointed out, measurement of anti-musk antibody is not necessary as a test for myasthenia gravis associated with thymoma. To avoid confusion, the description related to anti-musk antibodies was deleted, and the tests performed for the diagnosis of myasthenia gravis were added in more detail.

Changes in the text: We have modified our text as advised (see Page 5, line 1-3).

Comment 2: Can you be more specific in what kind of test you performed in your hospital to analyse the anti-AChR-ab? As far as I can see, nothing is described about the technique.

Reply 2: Yes, we can. Anti-AChR antibodies were submitted to our outsourced BML company and measured by radioimmunoassay (RIA). "Cosmic" II was used as the test reagent. We added the test method for anti-acetylcholine receptor antibody and the reagents used in our paper.

Changes in the text: We have modified our text as advised (see Page 5, line 11-15)

Comment 3: Earlier this year, a similar paper was published in Lung Cancer (Febr 2021). <https://pubmed.ncbi.nlm.nih.gov/33401082/>

The conclusion is the same as in this article: important to measure the anti-AChR-ab levels in patients with thymomas. This article was not cited in this paper but shares similar results

Reply 3: Thank you for your valuable advice. We have added the material you pointed out and added the following considerations. We could not find any literature discussing the postoperative evaluation of anti-AChR-Ab and the follow-up period of anti-AChR-Ab, so we investigated them further and added the results in our paper.

Changes in the text: We have modified our text as advised (see Page 8, line 21-24, Page 9, line 1-14)

Reviewer B

Comment 1: Some of the introduction focuses on patients with thymoma and preoperative myasthenia gravis – but this is not the area of concern. The desired conversation is around thymoma patients without myasthenia gravis preoperatively who develop myasthenia gravis post operatively.

Reply 1: We have omitted sentences that focus on thymoma patients with pre-operated myasthenia gravis.

The following sentences have been deleted. “The serum of 34 patients was analyzed for anti-AChR-Ab levels preoperatively, and 13 patients had detectable levels (>0.3 nmol/L). Seven patients had MG preoperatively.”

Changes in the text: We have modified our text as advised (see Page 6, line 3-4)

Comment 2: It seems patients with preoperative myasthenia gravis should be excluded from the study design leaving the ultimate initial cohort of patients at 27. The 7 with myasthenia gravis are immediately excluded and this should simply be an exclusion criteria.

Reply 2: We have excluded the seven patients with preoperative myasthenia gravis from the study design leaving the ultimate initial cohort of patients at 27 cases. And we noticed that one inappropriate case was included. The case was mistakenly included in the preoperative anti-ACh-R antibody-positive group, even though the anti-ACh-R antibody was not measured preoperatively. We deleted this case. The patient background of the case was a 50-year-old woman, thymo-thymectomy, Type AB, Masaoka disease stage I. Therefore, the number of cases was changed from 27 to 26 cases.

Changes in the text: We have modified our text as advised (see Page 4, line 22-24, Page 5, line 1.)

Comment 3: is there data on the level of the anti-AChR-Ab level after surgery and those with myasthenia symptoms? This would be an interesting finding and could imply a practice change in suggesting it be checked routinely after surgery.

Reply 3: Yes, we had some data on the level of the anti-AChR-Ab level after surgery and those with myasthenia symptoms. We have added data to the result and considered it.

Changes in the text: We added some data on the level of the anti-AChR-Ab level after surgery and those with myasthenia symptoms (see Page 7, line 3-10)

Comment 4: I question whether this study is powered appropriately to answer the question of using the anti-acetylcholine receptor antibodies as predictors of post-thymectomy myasthenia gravis.

Reply 4: As pointed you, there is a question that whether this study is powered appropriately to answer the question of using the anti-acetylcholine receptor antibodies as predictors of post-thymectomy myasthenia gravis. We have added sentences about the limits of our research.

Changes in the text: We have modified our text as advised (see Page 9, line 15-18).

Comment 5: The study is further confounded within the three patients developing myasthenia gravis with positive AChR-Ab as 2 were from preoperative samples and one was from a post-operative sample.

Reply 5: We have organized the text to avoid confusion. We have changed the content of Table 2 "the patients developed MG after thymectomy" to "patients with high preoperative anti-AChR-Ab levels". And we deleted the sentence "Two of the three patients with post-thymectomy MG displayed increased anti-AChR-Ab titers at the onset of MG. One patient was negative for preoperative anti AChR-Abs".

Changes in the text: (see Page 6, line 14-20)

Comment 6: The line "Patients showing signs and symptoms of MG were immediately referred to a neurologist for evaluation and further investigation before thymectomy." seems out of place for the methods of a retrospective review and should be omitted.

Reply 6: Thank you for your advice. We deleted the sentence pointed out.

Changes in the text: We deleted the sentence pointed out.

Comment 7: The appointment of the current professor also seems irrelevant to the study design.

Reply 7: Thank you for your advice. We deleted the sentence pointed out.

Changes in the text: We deleted the sentence pointed out.