Reviewer's report

Title: Autoimmune polyglandular syndrome type 2 and autoimmune hepatitis with thymoma-associated myasthenia gravis: case report

Version: 0 Date: 07 Oct 2019

Reviewer: Jonathan Hazlehurst

Reviewer's report:

I read this case report which I agree has educational value to the readership with interest and have made a number of comments below.

Review

Minor comment: some of the grammar is not quite right and it would be good for the handling editor to correct in detail

Major: all instances of diagnosed "as" must be changed to diagnosed "with". This may seem subtle but the journal and authors must commit to using person-first language. Detailed comments are below.

Abstract

Please changed diagnosed "as" to diagnosed "with" in the this paragraph as a commitment to person first language.

"A 52-year-old woman with autoimmune hepatitis (AIH) and bronchial asthma (BA) had been diagnosed as APS-2; autoimmune Addison's disease (AD), and Hashimoto's thyroiditis (HT) 5 months previously, and underwent prednisolone (PSL) treatment. She then noticed ptosis, and was diagnosed as thymoma-associated myasthenia gravis (MG)"

The below conclusion is not clear. Are the authors suggesting that APS-2 and AIH are complications of thymom-associated MG. Please revise this sentence and clarify exact point being made.

"This case therefore suggests common endocrinological and autoimmune aspects of APS-2 with AIH in thymoma-associated MG, which are considered to be extremely rare complications."

Background

Please include prevalence of MG and AIH for additional context to this case report
Case report

"(Figure not shown). Based on these findings, she was diagnosed as APS-2." Please include details of PTH and calcium and also why comment on a figure that is not shown. Either include or delete (Figure not shown)

Why prednisolone rather than hydrocortisone? Is there data around use of pred preferentially versus hydrocortisone in APS2?-this needs comment as will be of interest to those of us more familiar with hydrocortisone in Addison's with limited experience of APS2 and would add to the educational value of the case report.

Please include a comment around developing MG despite being on prednisolone. Is there any data around this? It strikes me as unusual but I could be wrong. Is there anything in the literature about people developing MG who are on suppressive doses of glucocorticoids for other reasons?

On first presentation the patient had a CT abdomen and the adrenal glands were commented on. Was the chest imaged at the same time? Was there any evidence of thymoma at this point?

91 "Normalised ACA levels…" Is this true or simply a result of immunosuppression lowering antibody titres?

I would recommend additional detail interpreting the below text. This is currently an information dense list that is not very accessible for the general reader. Need to include why HLA typing was done? What added information did HLA typing provide? Did it influence the care? And of course mostly of the subtypes listed below what are the implications in terms of association with disease. This could be demonstrated within a table.

"And she had HLA-A*11:01/24:02, B*39:01/51:01, C*07:02/14:02, 96 DRB1*04:05/11:01, DRB3*02:02, DRB4*01:03, DQA1*03:03/05:05, DQB1*03:01/04:01, 97 DPA1*01:03/02:02, and DPB1*02:01/05:01."

Recommend change BA to bronchial asthma as this will be read by the causal endocrine reader and they won't be familiar with BA for bronchial asthma.

"HLA typing analysis may aid to identify diseases susceptible population, and to diagnose earlier those entities" This sentence is very broad and I'm not sure what it adds. If the authors are going to place great importance on the HLA typing in this case then they need to discuss the HLA information in far greater detail!

Other

Figure 1: I think the arrows on the abdominal CT of the adrenals have moved very slightly on formatting and need correction.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

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Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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