Reviewer’s report

Title: Progressive stenosis and radiological findings of vasculitis over the entire internal carotid artery in moyamoya vasculopathy associated with Graves’ disease: A case report and review of the literature

Version: 1 Date: 05 Oct 2018

Reviewer: Ioanna Koutroulou

Reviewer’s report:

This case report seems to be very interesting, since it describes a rare condition of Graves' disease combined with moyamoya vasculopathy.

My points are:

Major points:

1. The phrase "increased signal intensity", which is used frequently in the manuscript, will probably lead to false interpretations, so it should be replaced with another more comprehensible expression like "improved flow".

2. In the "Case Presentation" section, the term "watershed subcortical" should be avoided, because these infarcts are also cortical and not clearly watershed. A more general term should be used.

3. In the "Case Presentation" section, the stroke is referred, as of unknown etiology, but there are no references, regarding the diagnostic procedure, which concluded to this diagnose.

4. In the "Case Presentation" section, a 3D computed tomographic angiography is referred, but there is no corresponding image. Display an image or delete this examination from the manuscript.

5. In the "Case Presentation" section, it is referred "clopidogrel and aspirin from loading doses". This phrase makes no sense, so please rephrase.

6. In the "Case Presentation" section, it is referred "but the vessel wall remained enhanced on CE 3D-T1W1" and there is no corresponding image. Please specify.

7. In the "Thyrotoxicity and cerebrovascular disease in the first episodes" section, there should be a statistical analysis
8. In the "Treatment" section, a patient with thyroidectomy is mentioned twice and there is no report of the patients with no treatment. It would be also very interesting to make a comment, about the prevalence of women among these patients.

9. In line 191, the meaning of the phrase "common underlying immune mechanisms" is not clear. Please specify or delete this phrase.

10. In lines 222-225, the phrase "Increased signal…disease" is not understandable. Please rephrase.

FIGURES

1. In Figure 1, the upper panel should preferably be a separate figure from the MRA images. The reference values should also be mentioned in the vertical columns.

2. In Figure 1, the MRA panels should be aligned.

3. In Figure 1, it is better "an euthyroid"

4. In Figure 1, (A) there should be only a comment on the image.

5. In Figure 1, (F,G) these panels should be commented on separately in the legend.

6. In Figure 1, (H) the phrase "increased signal… in Moyamoya disease" should be deleted.

7. In Figure 2, (A) it is better "of the terminal portion of the left ICA"

8. In Figure 2, (C) it is better "12 months after the second" and "vessels might have been developed"

9. In Figure 3, there should be a reorganization of the panels (without and with CE side by side) and a revised legend because the meaning is obscure.

10. In Supplementary figure 2- title, please rephrase "in the first and the second episode"

11. In Supplementary figure 2, (A) there should be an arrow indicating the mild stenosis. The meaning of this sentence is not right, please clarify. Specify also , what these images depict (A-B)

12. In Supplementary figure 2, (B) a dissection is presumed due to an aortic dissection, but there is no evidence of this in the manuscript. Please clarify

13. In Supplementary figure 3, the legend refers to "wall thickening with diffuse gadolinium…..", but the actual pictures are from MRA. Please make another relevant comment
Minor points:

1. In the "Abstract" section, please rephrase as follows "of progression of the lesions.." and "progression, thyrotoxicity and treatment"

2. In the "Background" section, please rephrase as follows "despite the control of GD" and "progression and the lesions"

3. In the "Case presentation" section, please rephrase as follows "seemed thicker in the left ICA than in the right" and "[anti-thyroid peroxidase…(TRAb, 8.3 IU/ml)]". Also in line 112 "show new infarction"

4. In the "Discussion- Patients" section, please rephrase as follows "the 20 patients included, 19 females…"

5. In the "Discussion- Treatment" section, please rephrase as follows "and 10 of these patients"

6. In line 205 please rephrase as follows "and may be caused.."

7. In line 228, please rephrase as follows "might have worked"

8. In line 234, please rephrase as follows "be reasonable choice"

9. In the "Conclusion" section, please rephrase as follows "we treated the patient as having vasculitis of medium-to-large vessels with IVMP"

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.

Unable to assess

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.
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Needs some language corrections before being published

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