Reviewer's report

Title: Paraneoplastic Neuromyelitis Optica associated with ANNA-1 Antibodies in Invasive Thymoma

Version: 1
Date: 28 May 2014
Reviewer: Heather Moss

Reviewer's report:

The authors present an interesting case that meets diagnostic criteria for NMO in association with malignant thymoma. The manuscript would benefit from expanded detail. My main concern is that the addition to the literature is incremental. In particular the association between Aqu-4 ab and thymoma and the association of thymoma with multiple antibodies have been previously reported. Though the triad of Aqu-4, ANNA-1 and thymoma has not previously reported, the authors do not develop this contribution to make an educational or practice changing point. I defer to the editor regarding its suitability for BMC ophthalmology.

Major essential revisions
1. case presentation, paragraph 2, line 6-7, please detail type of color vision testing as many forms are not appropriate for use in a HM eye
2. case presentation, paragraph 2, was any other testing done at this time besides MRI when the vision did not recover?
3. case presentation, paragraph 3, was an MRI performed at time of presentation with left eye involvement?
4. case presentation, paragraph 4, can you provide more details of the malignant epithelial neoplasm - was it histopathological similar identical to her prior thymoma? Was the biopsy tissue stained for AQU-4 antigen +/- antibody?
5. case presentation, paragraph 5, I suggest you say 'NMO spectrum' since she has not manifested spinal involvement.
6. case presentation, paragraph 5, please provide more details regarding lower extremity symptoms - was additional imaging performed?
7. Top of page 6 - suggest heading such as 'discussion'
8. Discussion, last paragraph: AQU-4 is a known marker of poor visual recovery, so I think it is a stretch to suggest that this case illustrates a combination effect of both antibodies. Please scale this back.

Minor essential revisions - none
Discretionary revisions - none
Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests