Reviewer’s report

Title: Gene expression profiling in patients with polymyalgia rheumatica before and after symptom-abolishing glucocorticoid treatment

Version: 0 Date: 26 Feb 2017

Reviewer: Sarah Mackie

Reviewer's report:

Overall this is an interesting piece of work that will be potentially useful to other researchers studying the pathophysiological basis of inflammatory rheumatic disease.

My major criticism is that their interpretation of possible cytoskeletal dysregulation in PMR is not convincingly supported by the data presented. The only microtubule-related gene which was checked using qRT-PCR was TUBD1. The further link of cytoskeletal dysregulation to the symptom of prednisopone-responsive muscle stiffness seems highly conjectural.

Some other comments:

Abstract: "Overall, qRT-PCR confirmed the microarray findings" - can the authors be more specific as to what is meant.

Methods: I accept the authors' argument that it is reasonable to use the Chuang criteria, but the authors' defence of the use of the Chuang classification criteria (page 4, lines 87-93) should be moved to the Discussion rather than the Methods.

Discussion: The authors should be careful about making too much of BDNF or MARK4 given that they were not studied in qRT-PCR.

Statistical review: I do not have the expertise to assess the data analysis / statistical methods used here. A bioinformatician or statistician would be required to assess this.

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

Unable to assess

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.

No

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.

I recommend additional statistical review

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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