Reviewer's report

Title: Diagnostic Techniques for Inflammatory Eye Disease: Past, Present and Future: a Review

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Reviewer: John Forrester

Reviewer's report:

General comments
This is an valuable review outlining some of the various diagnostic techniques central to the good management of sight-threatening uveitis. In addition, there are important conceptual references eg to the philosophy of testing for infectious causes as well as the difficulty of making diagnosis in the acute medical ophthalmic emergency condition. The importance of performing tests of the systemic health status as an indicator of the overall wellbeing of the patient rather than as a search for cause of disease might be considered relevant, particularly as a baseline prior to commencement of immunosuppression which can further compromise health. In this context, it is unlikely that cytokine / chemokine biomarkers will have a true specificity but rather represent modern equivalents of acute phase reactants. As such these will have their place in the overall assessment of the patient but will be unlikely to aid diagnosis. Perhaps the authors might wish to add some additional critical analysis to the value of such tests and even the value of undertaking clinical studies of this nature?

Specific comments
1. No pagination
2. The text could be shortened.
3. On page 2 targeted treatments are described as being targeted against various agents such as interferon alpha - this is not exactly correct, interferon alpha is the agent doing the targeting but it is not clear against what... same applies to the “cell surface molecules”....
4. There is a little confusion in the sentence: “40-86% of patients have an underlying cause ranging from infectious to autoimmune causes, although the vast majority remains classified as idiopathic when no apparent cause can be identified....” is this the vast majority of the remaining cases excluding the 40-80%...
5. ?cytokines rather than cytokine in “Advances in technology have also enabled direct measurements of the different levels of cytokine and chemokines,”
6. In TB perhaps a discussion of the negative Mantoux test ight be valuable re
active disease and atypical mycobacteria?
7. A discussion of specific vs non-specific changes in IgG, IgM and IgA might be useful
8. The value of CXR, chest CT scanning, and abdominal ultrasound / CT scan to detect changes in liver, spleen and lymph nodes?
9. Mention of HIV and when to test?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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