Reviewer’s report

Title: Effectiveness of Low-Dose Doxycycline (LDD) on Clinical Symptoms of Sjogren’s Syndrome: A randomized, double-blind, placebo controlled cross-over study

Version: 1 Date: 8 June 2007

Reviewer number: 1

Reviewer’s report:

General

This well written paper describes the findings of a small, randomised, double-blind, placebo-controlled cross-over study to evaluate the effect of low-dose doxycycline in comparison to placebo on the subjective symptoms in Sjögren’s patients.

In general, the paper is well written and the conclusions made are sensible in view of the findings of the paper. Essentially, the authors found that there were no clinically significant effects of low-dose doxycycline in Sjögren’s syndrome patients and make the correct statement that further studies to investigate the use of low-dose doxycycline in Sjögren’s syndrome are not justified.

In summary, this paper is well written, describes an interesting clinical study, with sound hypotheses, but requires some simple modifications before being suitable for publication.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. The number of subjects involved in this study (22) is very small and one interpretation of the lack of clinically significant findings in this study is that there were simply insufficient patients involved. It is not clear whether a power calculation was performed to justify the number of 22 patients that were recruited as being sufficient to test the hypothesis in question. A power calculation to justify sample size is required.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. On Page 5, on the 11th line of the discussion, “doxycycline” is misspelt.

2. On Page 6, on the 3rd last line, “LLD” should be written “LDD”

3. In the reference list, reference 26 (Preshaw et al) is incorrectly numbered as reference 27. This needs to be corrected, together with checking that the in-text citations still refer to the correct references.

4. In figure 4, it is not immediately clear which data are significantly different from each other and the use of lines and asterisks (as is more usual in scientific papers) would enhance this, rather than using “a” and “b”.

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Discretionary Revisions (which the author can choose to ignore)

None

What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable
**Statistical review:** No, the manuscript does not need to be seen by a statistician.