Reviewer's report

Title: Subjective health complaints and reduced general function are not associated with tick bites or antibodies to Borrelia burgdorferi sensu lato in blood donors in western Norway

Version: 2 Date: 16 May 2015

Reviewer: Bjarte Stubhaug

Reviewer's report:

Major compulsory revisions: none.

Minor essential revisions:

1. As the unique contribution of this study was to include the SHC questionnaire, the authors should make a greater effort to discuss and explain why the duration of SHC is not included in the data, as the original article of SHC (ref 19: Eriksen et al, 1999) has this included.

2. Furthermore, a discussion is needed whether a dichotomization of SHC into "no complaint" vs any degree of complaint could influence the analysis and results, as the SHC questionnaire definitely discriminates between 0-3.

This is all the more interesting also for the discussion part, where several other studies are referred to and discussed, describing "significantly more fatigue..." (ref 31), "more impairment...higher prevalence of ...impairment" (ref 8,9), "more symptoms..." (ref 10), "higher frequency of patients ...frequency of symptoms" (ref 15). A better description of the actual measurement of SHC compared to other measures, and the validation of this, is called for.

3. The conclusion of the correlation between number of tick bites and good physical fitness seems to ignore the possible - and more important - correlation mentioned in the discussion part, that people in good health very often have active outdoor activities, exposing them to tick bites. The conclusion on this part is misleading.

4. Same goes for the conclusion on "pseudoneurological" complaints, where none of the individually complaints were sign associated with the risk factors, which is also emphasized in the discussion of the Treib study (ref 31), describing more fatigue etc..

Discretionary revisions:

The relevance of including a study on Lyme Neuroborreliosis in the discussion could be questioned.

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.

Declaration of competing interests:

I declare that I have no competing interests