Review article: Subjective health complaints are not associated with tick bites or antibodies to Borrelia burgdorferi sensu lato in blood donors in western Norway: a cross-sectional study

The aim of this article is to explore if there is an association between subjective health complaints, general function and physical fitness as assessed by standardized questionnaires and tick-bites and specific borrelia IgG and IgM in a blood donor population in an high endemic regions of tick borne diseases in Norway. A 1213 blood donors were included, and no association was found.

This is a very well written paper which is interesting because of the controversy about health consequences after tick-bites and infections with tick borne pathogens.

In the discussion part of the article the most obvious difficulties in interpreting the results of the study are clearly presented. People who are not feeling well, if they had a tick bite or not, will not give blood. All blood-donors are asked about their current health situation before the donation, and are not supposed to give blood if they feel in any way sick or unwell. As the authors correctly present it, many studies on long term consequences state that long term health problems after localized borreliosis are uncommon, but health problems after disseminated borreliosis, like Lyme neuroborreliosis, are well documented, also in Scandinavian studies. It is unlikely that any of these blood donors did have or did earlier have disseminated Lyme disease.

I think that this very important limitation of the study should also be presented in the conclusion.

Expect this I only have one more comment: the authors should be consequent in using “Lyme neuroborreliosis” or only “neuroborreliosis” alone trough out the manuscript.

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.

Declaration of competing interests:

'I declare that I have no competing interests