Reviewer’s report

Title: Prevalence of chronic widespread pain in a population-based cohort of patients with spondyloarthritis - a cross-sectional study

Version: 1 Date: 10 Jan 2018

Reviewer: Elena Nikiphorou

Reviewer's report:

This article addresses differences in the prevalence of CWP in two SpA subgroups (AS and USpA). I read it with interest; it addresses an important patient reported outcome, clearly poorly studied in this population and to this extent, using both primary and secondary care data.

Minor

- The background is rather long and should be tightened up and shortened considerably; the study rationale should be more explicit, clearly indicating the reason/need for this study. At the moment, partly due to its length, the above is almost 'lost' in the text.

- Could the authors include the questionnaire in an Appendix?

- Page 6. 'An analysis of non-responders has already been published' - judging from the reference, does this imply that this was a prevalence analysis of all SpA patients? Nothing to do with pain or the purpose of this study, right?

- Longer disease duration seen in the AS patients, with lower mean pain levels. However, disease duration was not significant in the multivariable models. Can the authors speculate on possible reason for this, in discussion?

- Table 4: this is the multivariable regression analysis results, right? With all those variables in the model? Please clearly indicate this for the reader.

- Discussion, page 11, line 13: the comparisons made here between AS/USpA/the general population/RA - was pain assessment (CWP) done in the same way as in this study? Could the authors clarify this?
- The Discussion could be improved. Rather than just presenting the results again and comparing with other existing literature, I would have liked to see more discussion and speculation around the observed findings. For example, what could be the reason for the association between BMI and CWP? Potential reason(s) for disease duration not being significant?

- How accurately can pain be measured using an NRS and asking people to reflect on pain during the previous 12 months? Could this in part explain the lack of response to the pain question in a subgroup of patients? Can the authors please comment on this?

Major

- My understanding is that the questionnaire did not include information on comorbidities, which would be relevant in terms of the outcome of interest in this study: pain. I was also unclear whether there was co-existing Fibromyalgia in this group of patients, but then the Discussion clarified better this point (page 12, line 8). I would have found it helpful seeing some of this Fibromyalgia 'talk' at the beginning of the manuscript, for better setting the 'scene' and for clarity. Other comorbidities such as for example co-existing osteoarthritis/joint replacement or neurological disease or psychological/psychiatric disease could have impacted on people's experience of pain. These have not been looked for or adjusted.

- Were there any socio-economic variables available e.g. occupation, education which could also impact on pain perception, measured as part of this study? If so, they should be included in the analysis and incorporated into the multivariable models as appropriate. If not, this should be included in the limitations of the study, along with other major points discussed above and below.

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

Yes

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.

Yes
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 am able to assess the statistics

Quality of written English
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