Reviewer's report

Title: Cardiovascular risk management in patients with active Ankylosing Spondylitis: a detailed evaluation

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Reviewer: Charalampos Papagoras

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This is an interesting paper describing real-life data on cardiovascular (CV) risk assessment and management in a large cohort of AS patients in a western country.

Major Compulsory Revisions:

1. In the Introduction section, a reference to the EULAR CV-RM recommendations (not guidelines) should be added. Ref 9 (J Rheumatol. 2010 Jan;37(1):161-6) better supports the statement “In recent years, however, accumulating evidence for the increased CV risk in AS is emerging” and should be moved after that.

Methods section

2. In the “Study population” paragraph, the design of the study and the main eligibility criteria must be clearly stated. Apparently, this is a retrospective cross-sectional study, i.e. all patients were assessed for CV risk factors and management at a single defined time point (right before anti-TNF treatment initiation, when the disease activity was high). Moreover, all patients seem to have been anti-TNF-naive. Dates of the assessment of the first and last patient should also be provided. Why were etanercept and adalimumab the only options for the subsequent anti-TNF treatment? Had the patients some kind of a trait that excluded the administration of infliximab, golimumab or certolizumab? If not, the reference to the drugs to be initiated after the data for this study had been collected is irrelevant and should be omitted.

3. In “Patient characteristics” replace “length” with “height”.

4. In “CV risk assessment” a reference to the Dutch CV-RM guidelines should be added.

5. In “CV risk management” the parameters taken into account in the Dutch CV-RM guidelines should be mentioned briefly and the guidelines themselves be referenced. Please, provide a definition for “smoker”.

Results section

6. In the “Prevalence of CV risk factors” paragraph the comparisons of the prevalence of the various risk factors between AS patients and the general population may lead to unsound conclusions, since both populations are not matched regarding gender and age distributions. Such a comparison should at
least be age- and sex- adjusted. The results shown on Figure 1 are accompanied by no figure legend, colour legends, titles in the axes, percentages, p-values or other statistics and therefore are not at all informative.

7. In the “CV risk assessment” paragraph, it should be added that 8 patients were also excluded because of a prior diagnosis of a CV disease. In the same paragraph it reads that, after adding 15 years to the age of the AS subjects, 239 patients’ CV risk could be estimated. However, if 8 patients are excluded due to missing blood pressure or serum lipid data and another 8 patients due to prior CVD, that makes 254-8-8=238 evaluable patients.

8. In the “CV risk management” paragraph, it reads that nine patients were not treated at all and 22 were under-treated. However, this is in conflict with the data in the following paragraph (“51 patients had an indication for CV risk treatment of which 47 patients (92%) received some form of CV risk medication”), as well as with Figure 2, in which it is shown that 4 patients were not treated and 27 under-treated. Overall, this whole paragraph should be re-structured according to the flowchart of Figure 2. Figure 2 should have a legend and be cited in the text.

Minor Essential Revisions

1. Introduction Section, second paragraph, first line: add “risk” after “CV”.

Discretionary Revisions

1. In the Discussion section, the authors could provide data about the rates of successful CV-RM guidelines implementation in the general Dutch population, if available. How often are people of the general Dutch population treated appropriately for CV risk, undertreated or not treated at all? This could allow some thoughts concerning all those issues possibly interfering with CV risk management in people with rheumatic diseases mentioned in the fifth paragraph.

Minor issues not for publication

1. Discussion section, fifth paragraph: after “76%” delete “percent”.

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