Reviewer's report

Title: Whole body MR Imaging in Ankylosing spondylitis: A Descriptive Pilot Study in Patients with Suspected Early and Active Confirmed Ankylosing Spondylitis

Version: 3 Date: 5 December 2006

Reviewer: Martin Rudwaleit

Reviewer's report:

General
The manuscript has improved a lot.

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

By reordering Tables and Figures some errors occurred:
1. Table 3 is not a Table (as written in the text) but a Figure (will be Figure 1)
2. Table 4 is not a Table but a Figure (will be Figure 2).
3. Accordingly, Figures 1-5 will be Figures 3-7 (as is already indicated on the Figures!)
4. From own experience this great extent of inflammation in the 10 patients with suspected early AS is not representative of all early suspected AS patients. Patients in this study had high to very high disease activity (judged on clinical grounds) when included in the study. This fact (high disease activity) should be stressed a bit more in the first sentence of the conclusion.
5. The legend of Figure 2 (in the manuscript labelled as Table 4) is confusing. The wording of ‘SI joints only’ or lumbar spine only’ etc. needs clarification. I assume that what is meant is the number of patients with a positive result (i.e. active inflammation) when analysing only SI joints or analysing only lumbar spine etc. The wording as it stands in the Figure could also implicate the number of patients who have active inflammation only in SI joints but no inflammation elsewhere (same applies to lumbar spine only etc.). This should be clarified in the legend.

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. Looking at Figure 3 (labelled in the manuscript in the text as Figure 1 but on the Figure correctly as Figure 3) a patient with early suspected AS is shown. However, when looking at the left SI joints it appears that there is a lot of chronic changes already such as substantial sclerosis, joint width alteration, erosions, and even bony bridges. Although the STIR technique is not the appropriate sequence to evaluate chronic changes I doubt that the T1 image would look very different. It appears that this patient is very close to AS (fulfilling the New York criteria). Thus, I wonder what the x-rays look like (grade 2-3 left SI joint?) and I suggest to mention the radiographic grading of sacroiliitis of this patient in the legend of the Figure. This would increase credibility and informative content.

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
I declare that I have no competing interests in relation to the paper.