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: 1 Date: 21 September 2006

Reviewer: Maxime DOUGADOS

Reviewer's report:

The authors are reporting the results of a pilot study aimed at evaluating the interest of the whole body MRI in patients suffering from spondylarthropathy either at an early or late stage of the disease. This is a very exciting area. This study seems to have been well conducted and clearly presented.

Some remaining comments/remarks/questions.

1. Sample size
The authors should recognize that the small sample size denies any definite conclusion. Such information should be mentioned in the title/abstract and discussion sections of the manuscript.

2. Inclusion criteria
§ The reviewer has not understood the exclusion criteria stated to the co-existence of psoriasis? could the authors comment on that?
§ The reviewer has understood why the authors focused their analysis in the sub-group of patients with a BASDAI \( \geq 4 \) but this should be discussed (the reviewer anticipates that the % of observed MRI abnormalities will be of lower magnitude in the general AS population). Following this point, could the authors provide the % patients refractory to NSAIDs while participating at this study?

3. Classification criteria
Could the authors provide the following information:
§ How many IBP patients would fulfill the modified NY criteria if SI-MRI abnormalities replace the proposed radiological abnormalities?
§ Same question for the AMOR criteria if the authors consider the presence of sacroiliitis by MRI definition?

4. SI fatty replacement of bone narrow
This is interesting. Could the authors provide (if available) the information of such abnormality in the general population?

5. THE MAIN COMMENTS
a) The simplicity of the technic
The reviewer has understood that time of acquisition was 30 minutes, but what about the time of analysis?
b) The usefulness
The current main question when dealing with refractory, clinically active AS patients is the demonstration of an objective sign of inflammation before considering anti-TNF therapy. Some researchers have previously proposed MRI for this purpose. The main remaining question is "which MRI? In order to try to answer this question when using the whole body MRI could the authors provide a table entitled "MRI abnormalities suggestive of inflammatory active lesions with regard to the different localizations" and with the following parameters?
§ SI joints only (% patients)
§ Lumbar region only
§ Thoracic region only
§ Cervical region only
§ Anterior chest wall only
§ Pelvic region (without SI joints) only
§ SI + any spinal area + anterior chest wall
§ SI + any spinal area + anterior chest wall pain + pelvis

6. Figures and length of the manuscript
It is the impression of the reviewer that:
a) Number of figures
Some of these should be deleted and the information provided in a table (even very busy).
N.B.: the ones showing examples should be kept.
b) Discussion section length
This section could be shortened.

What next?: Accept after discretionary 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'