Author's response to reviews

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

Authors:

Ulrich Weber (ulrich.weber@balgrist.ch)
Christian W. A. Pfirrmann (christian.pfirrmann@balgrist.ch)
Rudolf O. Kissling (rudolf.kissling@balgrist.ch)
Juerg Hodler (juerg.hodler@balgrist.ch)
Marco Zanetti (marco.zanetti@balgrist.ch)

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Author’s response to reviews: see over
Cover letter (re-submitting 2)

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Whole body MR imaging in ankylosing spondylitis: a descriptive pilot study in patients with suspected early and active confirmed ankylosing spondylitis

Dear Dr Kouremenou

Please find below a point-by-point response to the concerns of reviewer 2 (Dr. Martin Rudwaleit).

1. – 3. Reordering Figures
All figures have been renamed / reordered (figure 1 to figure 7) and are now labelled correctly in the manuscript.

4. High disease activity in the suspected early AS group
Disease activity in this patient group is remarkably high indeed. After this pilot study we continue with WB-MRI in suspected early disease stages; with growing numbers of patient referrals the proportion of patients with suspected early AS and low disease activity is increasing. Although no formal assessments have been done yet it is my impression that inflammatory changes in this low disease activity group are less pronounced than in the pilot study. Based on this observation we agree with the reviewer to comment on the unusually high disease activity in this pilot study and the first sentence of the conclusion (page 19, line 3 of the conclusion) has been adapted.

5. Legend of figure 2
In order to avoid misunderstandings indicated by the reviewer, the legend of figure 2 has been revised. Space restrictions didn’t allow an extensive change of the wording in the figure itself.

6. Figure 3 with chronic changes of the left sacroiliac joint
This point has been well taken by the reviewer that the left sacroiliac joint displays several signs of chronic inflammatory changes (sclerosis, joint width alteration and beginning erosions).
In this study, disease duration in the early AS group has been defined by inflammatory back pain for less than 24 months. The concept of disease duration in AS has recently been reviewed and published by ASAS (Ann Rheum Dis 2006;65:1518). Defining onset of disease in AS is complex and the term “symptom duration” (symptoms of inflammatory back pain) may be a more adequate wording than “disease duration” (the legends of figures 3-7 have been adapted). In several cohorts of patients with suspected early AS and a symptom duration of less than 24 months the conventional radiographs show chronic lesions close to fulfilling the modified New York classification criteria, a few patients even fulfilling these criteria. I’m not aware of a systematic analysis of this seemingly paradox observation; it probably reflects coping strategies of the patients who seek medical assistance only after
prolonged periods of intense inflammatory back pain and not during the first episodes which are often transient.
The patient mentioned above had a score of sacroiliitis on plain X-ray of 1 (right) and 2 (left). In our early suspected AS group, 2 other patients had the same score (1/2), one patient even fulfilled the mNY-criteria with a score of 2/2 (symptom duration 9 months).

The authors discussed 2 options dealing with this phenomenon. The option suggested by the reviewer is to add the score of the sacroiliac joints on plain X-ray (or even to add a separate figure with the corresponding plain X-ray) and to discuss the complex issue of symptom duration.
The option preferred by the authors is to provide the WB-MRI of another patient of the suspected early AS group without chronic inflammatory changes of the SI joints (symptom duration 7 months, SI joint score 1/1). Symptom onset and disease onset may be close together in this patient.
Should the reviewer or the editor prefer to keep the figure with the chronic changes on the left side and a legend discussing the issues mentioned above please let us know.

We hope to have addressed the concerns of reviewer 2. As the abstract contained 366 words, the last 4 lines have been skipped and the first 4 lines have been shortened (now 302 words). Re-wording in the abstract made upon the reviewers’ comments have not been changed.

This point-by-point response and the revised manuscript have been approved by all authors.

Best regards

Ulrich Weber, MD

Zurich 04.02.2007