Erosions in rheumatoid arthritis: is there less here than meets the eye?

Sirs,

The last 10–15 years have seen important advances in the way rheumatoid arthritis (RA) is treated, with better and earlier use of methotrexate, availability of biologic agents for those patients with inadequate response to MTX and recognition that early, aggressive treatment to a target of low disease activity or remission improves long-term outcomes in groups of patients. The next logical step, personalised medicine, where individual patients can be assessed to determine the best route of treatment, has not been realised yet. One major problem is that there are no gold standard outcomes or individual measures that work for every patient, hence our dependence on composite indices. These indices work very well in groups of patients but still better measures for individual patients would likely be preferred.

Dr Goldman, in a recent letter, proposes a more aggressive imaging (MRI, CT, US) and biomarker (MBDA) strategy to assess treatment outcomes in place of what we currently have (1). The currently available imaging techniques, especially when MRIs are concerned, do seem to visualise more damage than what can be seen in a plain radiograph. Some data suggest MBDA may be slightly better at predicting joint damage than current composite indices. However, before we jump on the bandwagon of more imaging and blood work for our patients, we need data that show that these make any difference in outcomes that are important to patients, compared to the current composite indices. Years have already been wasted by thinking a 2-unit change, out of a potential 448 units on a Sharp van der Heijde modified score, is important, where the differences may be statistically significant (due to a few outlier patients) (2), but are clinically irrelevant (3). MRIs do show more erosions in joints, which may be missed on radiographs, and even in patients in clinical remission by the composite indices. Yet, no one knows if it makes a difference to see these "markers" of active disease as long as the patient is on treatment for their RA. No one has data to suggest that patients in CDAI, RAPID3 or DAS28 remission with no erosions on radiographs of the hands but 2 MCP erosions on MRI would have a different outcome than someone with no MRI erosions. The same applies to the MBDA where all the data so far available suggest that it has no added value over current disease activity composite indices in an individual patient, which is who rheumatologists treat, not groups of patients. Another issue, of course, is what to do when they do not match. What if a patient has a DAS28 score which suggests the patient is in remission and he also has a high MBDA score? What to do then? Do we treat the laboratory test or the patient? Where do we set the line of overdiagnosis and overtreatment? What happens with "first do no harm" when we unnecessarily start pushing medications on patients who have a 2-unit worsening on a radiograph, less than 0.5% of the potential change?

I would propose that until the data are available to know what impact, if any, these promising, yet possibly too sensitive measures have on patient outcomes, they should remain investigational and only when data show their impact above and beyond our current assessment tools should they become part of our routine care for RA patients.

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References

1. GOLDMAN JA: Erosions are like cockroaches, when you see one there are many others you do not see. It's just one erosion! No, it is not!. *Clin Exp Rheumatol* 2014; 32 (Suppl. 87) S5-6.
2. KLARESKOG L, VAN DER HEIJDE D, DE JAGER JP *et al*.; TEMPO (TRIAL OF ETANERCEPT AND METHOTREXATE WITH RADIOGRAPHIC PATIENT OUTCOMES) STUDY INVESTIGATORS: Therapeutic effect of the combination of etanercept and methotrexate compared with each treatment alone in patients with rheumatoid arthritis: double-blind randomised controlled trial. *Lancet* 2004; 363: 675-81.
3. YAZICI Y, YAZICI H: Tumor necrosis factor alpha inhibitors, methotrexate or both? An inquiry into the formal evidence for when they are to be used in rheumatoid arthritis. *Clin Exp Rheumatol* 2008; 26: 449-52.