SIR, The lack of specificity of the new American College of Rheumatology/European League Against Rheumatism (ACR/EULAR) criteria for classification of RA [1] may have suffered its first casualty [2]. Periarticular osteopenia has classically been considered part of RA [3, 4]. Alves et al. [2] were unable to distinguish any difference in periarticular bone density using dual-energy X-ray absorptiometry (DEXA) averaging of three and four MCP joints of the most affected hand. There appears to be four possible explanations:

(i) There is no significantly increased occurrence of periarticular osteopenia in RA. This is contrary to observations in definitively diagnosed RA [5].

(ii) Given the study entry criteria of one swollen joint or pain or loss of motion in at least two joints, there may have been limited MCP joint involvement. If periarticular osteopenia has any relationship to inflammation, the normal density of unaffected joints may have camouflaged the periarticular osteopenia in an afflicted joint. This could simply represent an averaging artefact.

(iii) DEXA averaging of three or four joint groups may not have the spatial resolution afforded by examination of standard X-rays. Localization of DEXA regions of interest (ROIs) variably includes diaphyseal bone adjacent to the peri-articular region [2]. This again could simply represent an averaging artefact.

(iv) Lack of specificity of ACR/EULAR criteria may be responsible [1], as other forms of polyarthritis (e.g. SpA) do not appear excluded. Even before proposal of these new criteria, there has been controversy as to which criteria are appropriate [6], with some lumping polyarticular inflammatory arthritis whereas others split off those who have subchondral (rather than solely marginal) erosions. The archeological record [7] and biomechanical engineering studies [8, 9] support the splitters, as the split-off group has characteristics indistinguishable from other individuals diagnosed with SpA [6]. Fifty per cent of the split-off and SpA groups do not manifest periarticular osteopenia and may actually have new bone formation (increased density).

All four possibilities should be considered. If possibilities (ii) and (iii) explain the findings, then DEXA would appear to have no role in addressing the question of periarticular osteopenia. If the first possibility explained the observations by Alves et al. [2], there may have been no reason to even perform the study. However, the most likely explanation may be the lack of specificity of entry criteria. The ACR/EULAR certainly are most helpful for making the diagnosis of RA that many insurance companies (at least in the USA) require for prescription of biologic agents. This solves the physician’s patient care dilemma, as uSpA has not been one of the insurance company criteria for allowing such therapy. However, lumping disparate diseases may be compromising our ability to understand their nature.

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