Response to: 'Synovitis in knee osteoarthritis: a precursor or concomitant feature?' by Zeng *et al*

We thank Zeng *et al*[1] for their interest in our paper 'Synovitis in knee osteoarthritis: a precursor of disease?'.[2] We would like to clarify the reason we chose radiographs over MRI to identify early radiographic knee osteoarthritis (OA). We agree with the author's statement that MRI is more sensitive than knee radiographs for identification of early knee OA.[3] However, at the moment the MRI definition of knee OA has not been completely validated and the utility of MRI in future tissue damage is currently being established.[4] Due to these limitations, it was felt that the established and validated measure of Kellgren–Lawrence grading of knee OA (the current standard definition of incident structural OA) was better suited for the current purpose. In addition, the development of radiographic knee OA is a complex process and the Kellgren–Lawrence grading provides a better composite assessment than one single parameter assessed on MRI. Further, the impact of the MRI-related tissue findings is just being established, and it is premature to use the MRI grading at this point.

The accepted Kellgren–Lawrence grading of 2 was used to classify patients as radiographic knee OA in our study.[5] Therefore, the association between earlier grades of radiographic knee OA was not assessed. But we agree that assessment of these grades would be useful.

It is possible that both synovitis and radiographic OA are caused by similar pathogenic processes and it has recently been shown that the interaction of multiple joint tissues seems to play a role in the development of incident radiographic OA.[6] Though it is possible to examine the individual radiographic features, the purpose of this study was prediction of incident radiographic OA, but not development of incident joint space narrowing.

We thank the authors for identifying the error in the CI of ORs for occurrence of ROA associated with effusion–synovitis at P0 in the abstract. We note that table 2 and the abstract have the correct CIs for baseline synovitis (OR=1.80) (with the upper limit of 2.95), while the text has 2.96. We are grateful to the authors for their comments and suggestions.

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