Reviewer's report

Title: The Optimal Slice Thickness Of MRI Scans For The Assessment Of Knee Cartilage Volume For Cross-Sectional And Longitudinal Studies

Version: 1 Date: 11 November 2004

Reviewer: Lyn March

Reviewer's report:

General
The authors are addressing an important issue, namely the accurate and timely MRI assessment of knee cartilage volume. They have a strong track record in this field and have previously published validation studies of their chosen reference standard 1.5mm thick slices.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
Page 6 mentions ROA as max 12 in first line and then talks of 3 out of 9 in last line.

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Discretionary Revisions (which the author can choose to ignore)

1. They have only addressed cartilage volume and no other aspects of knee structure such as cartilage defects / quality and subchondral bone which are of growing importance in OA research. This should be addressed in discussion or included in the results if they have analysed it.
2. The authors do state that the patients in both groups had at best mild radiographic OA. The trend was evident for differences between the slice thicknesses to be greater in the presence of ROA. The authors should acknowledge this as a potential limitation and that it may not be generalisable to more advanced OA where greater irregularities and heterogeneity in cartilage thickness are evident.

What next?: Accept after minor essential 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.