Reviewer's report

Title: Are the determinants of vertebral endplate changes and severe disc degeneration in the lumbar spine the same? A magnetic resonance imaging study in middle-aged male workers

Version: 2 Date: 21 February 2008

Reviewer: Charlotte Leboeuf-Yde

Reviewer's report:

Minor essential revisions:

on p.5, first line under Magnetic Resonance Imaging, you have written Signa, but my eye tells my it should be Sigma, but I may be wrong?

P.5 under image analysis, new sentence, you write that readers were blinded to patients' clinical status, should be subjects'.

P.8 Second line, add a comma before your new phrase starting with 80%.

p.8 Determinants of Modic changes, 4th line: You forgot the word "and" in the bracket and the word "were" after it.

P.9 second line, should the confidence interval start with 0.00?

P.9, discussion, second line, change the words in case of to "to".

P.10. You can't introduce new result sin discussion, (third para)

P.10. also third para: When you say a slight trend towards an association, did you really test for trend or was it the usual reluctance to let go of an insignificant finding?

P.11 first sentence should state that the significantly higher findings in the subgroup with Modic changes and disc degeneration was in comparison with those with disc degeneration but without Modic changes.

P.11. I believe that the ref 11 could not test for genetic factors because they only had one type of twins, I am fairly sure that they talked of familial factors. In one case, I don't think the term genetic inheritance is good. Genetic factors (if this was the case) is what it is.

Discretionary revisions:

I have commented on this before, and it seems to be too late to do anything about it, but your classification of alcohol consumption is not correct. For example in your new text you have a variable "once a month or less". How can you obtain this category when you did not collect that sort of data (unless your questions to the study persons were different from your a priori division into six
categories (never, seldom, 2-3 times a month, 3 to 4 times a week, once or twice a week and daily)?

On p.6 third line you speak of a more stable and chronic degenerative process. I am just wondering, could this not be a REgenerative process rather than a DEgenerative process?

Also, last time I commented on language, but in retrospective, I see this was not fair. There were the usual errors, which had nothing to do with grammer etc. My apologies.

**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, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests**: I declare that I have no competing interests.