Reviewer's report

Title: Hard physical work combined with heavy smoking or overweight may result in so-called Modic changes

Version: 2 Date: 14 September 2007

Reviewer: Elizabeth Dean

Reviewer's report:

The investigators have addressed many points made by myself and the other review satisfactorily in their revision and attached responses to the comments. The Ms. is more internally consistent and all sections read more clearly.

My remaining comments and thoughts include the following (rather than being left up to the investigators however, I believe whether these are to be addressed, should rest with the editor).

Given many of the comments from the reviewers could not be addressed because this was a study based on secondary data analysis, I recommend stating this up front to make this clearer. This warrants a description of the purpose of this secondary data set and its context. In this way, the limitations of the present study are clearer to the reader.

For clarity, the declaration of hypothesis (abstract), assumptions (introduction), and hypotheses (discussion), needs to be ironed out and made consistent. Assumptions are not necessarily hypotheses.

Finally, re the odds ratio. I may have not made myself clear in my comments re ‘more detail needed about the calculation of the odds ratio and association statistics’". My recommendation was with respect to internal consistency of the Ms. and to have the statistical methods clearly outlined in the Methods, and then to have these appear in the Results, and ostensibly the Discussion, as opposed to the mathematical/statistic details of these common calculations. I do not have the previous draft of the Ms. in front of me to verify what the specific concern was exactly, but this version, seems to have addressed it as I review the statistical methods section.

Some English grammar issues remain.

Re ‘overweight’ vs. ‘being overweight’. The investigators argue that ‘...to use the correct grammatical terms makes the text very unwieldy....’. I can appreciate that in some contexts of scientific writing such as Tables, cryptic English is often used, however in the body of the text this is a grammatical mistake. The editor will need to decide what standards of English grammar and composition the journal wishes to reflect.

Page 8, line 1. Change ‘of which’ to ‘of whom’.
My personal preference in scientific writing is to avoid the nonspecific use of ‘it’, which persists in several instances. This is a personal preference however, and one that the editor will need to make a final decision regarding.

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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)

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Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

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.