Reviewer's report

Title: A Case-Control Study of Occupational Magnetic Field Exposure and Alzheimer's Disease: Results from the California Alzheimer's Disease and Treatment Centers

Version: 3  Date: 13 February 2007

Reviewer: Hester Ward

Reviewer's report:

General
I think that this paper is now in an acceptable overall format that could be accepted for publication. However, I do have some concerns regarding the fact that there seems to have been some errors in analysis/data presentation in the initial paper as stated by the authors in the "Authors' response". This means that one is less confident that the results reflect accurately the data collected. Having said that, the authors have addressed the lack of detail in the methods section & have reanalysed their data, which includes separate analysis of males and females.

There were a few editorial points that you may wish to bring to their attention, if BioMed Central go ahead with publication which are:-

1) Possible inconsistencies between Table 3 and text on page 11, para 1 (2nd para of the results section).
   P values: The text states that "females constitute 71.4% of the cases & 62.9% of the controls (p<0.02)". However, in table 3 under the "gender" row the p value is given as "p<0.002".
   P values: The text states that the mean age at exam & mean age at onset were not significantly different between cases and controls, although in the table by the "mean" the have p values of "<0.001" for age at exam and "p<0.003" for age at onset.
   In the text, they describe the age groupings as "trichotomized distributions" that is, I presume into three groupings). However, the age at onset is divided into four groups which is therefore "quad.....".

2) Page 18, number 3) they make an intriguing statement in their concluding comments regarding seamstresses, but say "data not presented". I think to be highlighted in the conclusions, the data should be presented in some format.

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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)