Reviewer's report

Title: A Linkage Study of Candidate Loci in Familial Parkinson’s Disease

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Reviewer: Anna Glaser

Level of interest: A paper of limited interest

Advice on publication: Accept after discretionary revisions

This manuscript describes a linkage study of selected loci, previously implicated in Parkinson’s disease. Twelve families have been included in the study and the general conclusion is that there is no evidence of linkage for any of the chosen loci. There is reason also to report negative findings, which is why I recommend publication of this study. However, although the authors demonstrate in a satisfying manner that linkage to the selected loci cannot be supported for all of the families together, they cannot exclude the possibility that some of these loci are of relevance to disease development in individual families. Due to the relatively small size of the families this may be difficult to exclude on the basis of linkage analysis.

Discretionary revisions
1) In those cases were the selected loci are represented by specific genes it would be possible to sequence the gene in affected and unaffected individuals from the families were linkage cannot be excluded. This would provide more data to decide whether these loci really are important for disease development in these families and would make the results more interesting. However, I would not insist that this is done prior to publication, as the authors clearly state that they cannot exclude linkage to some of these loci in individual families.

Compulsory revisions
2) I would like to see some more of the data from the linkage analysis in individual families, such as a table describing the LOD scores from individual families above a certain level from the parametric and non-parametric analysis.
3) I would also like to see some more of the results from the statistical power assessment from the family material. This is mentioned in the manuscript, but not really well described, regarding the estimated MLS from individual families.

Competing interests:

None declared.