Reviewer's report

Title: Association study between SNP rs150689919 in the DNA demethylation gene, TET1, and Parkinson's disease in the Chinese Han population

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Reviewer: Hiroyuki Tomiyama

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Comments

The authors conducted a case-control study to evaluate the possible association between sporadic PD and the single nucleotide polymorphism (SNP) c.1460C>T (rs150689919) in the coding region of the Tet methyl cytosine dioxygenase 1 (TET1) gene. In their previous exome data, they had found three patients from different pedigrees sharing the variant (rs150689919). Genotyping was determined by PCR and direct sequencing for 514 sporadic PD patients and 529 normal controls. As a result, there was no statistical significance in TET1 rs150689919 genotype or allele frequencies between the PD cases and healthy controls, even after being stratified by gender and age at onset. They found that rs150689919 in TET1 may not be associated with PD in the Chinese population. This study may disclose new findings in the Chinese population, however, the results were negative. I feel discussion section may be a little bit redundant. As they described, why they focused on the TET1 rs150689919 is an important point in this study. The authors should show pedigree trees of the families with TET1 rs150689919 because this study is started from their family based study conducted by exome sequencing. If the family members have other variants or mutations in the TET1 gene, please provide the analyzed members data by the exome analysis in a table. This may disclose whether there are less possibility of association between sporadic PD and the TET1 gene or not in the Chinese population.

Level of interest: An article of limited interest

Quality of written English: Not suitable for publication unless extensively edited

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.