Reviewer’s report

Title: Association Study of Candidate Genes for Susceptibility to Kashin-Beck Disease in a Tibetan Population

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Reviewer: Xiong Guo

Reviewer’s report:

This paper describes a candidate genes association study of Kashin-Beck disease (KBD) using 1,414 study subjects. They identified FRZB, ASPN, COL10A1 and HABP2 as novel susceptibility genes for KBD. The study subject is interesting. The experimental design and statistical analysis are generally logical. In general, my comment on this manuscript is Accept with Minor Revisions. But I still have a few questions about this manuscript.

1. Materials and methods: the diagnosis and exclusion criteria of study subjects are not clear. More information should be provided, such as the diagnostic criterion of KBD and skeletal sites for X-ray examination.

2. Statistical analysis: Multiple test problem should be consider in this study. After strict Bonferroni correction, none of the 15 genotyped SNPs is significantly associated with KBD. At least, the authors should provide a discussion about this problem.

3. How many samples are used for exon sequencing? How about the sequencing quality? More information should been provided.

4. Overall the English writing is clear. There are some grammatical mistakes in the manuscript. The authors should carefully read and correct the mistakes.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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