Reviewer’s report

Title: Associations between XRCC3 Thr241Met polymorphisms and breast cancer risk: Systematic-review and meta-analysis of 55 case-control studies

Version: 0 Date: 05 Apr 2019

Reviewer: Sumantra Chatterjee

Reviewer's report:

The study by Dashti et al is a meta analysis of 30966 sporadic and 1174 familial multi ethnic breast cancer cases with 32890 controls to find association between a specific polymorphism in the gene XRCC3 and breast cancer. The authors report association with the SNP in Arab populations in a recessive model and in a dominant model in Asian population. This is a standard meta analyses and doesn't provide any new insight in to the role of this polymorphism in breast cancer. Furthermore breast cancer is extremely heterogeneous disorder. The authors should try to separate the cases into ER positive, ER negative and triple negative breast cancer and re do the meta analyses. This might even show that the concerned SNP is indeed significantly associated with a particular subtype of breast cancer in all or particular ethnicity. This will make the analyses more useful to the community.

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?
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Yes

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I recommend additional statistical review

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