Reviewer's report

Title: Effects of polymorphisms in ERCC1, ASE-1 and RAI on the risk of colorectal carcinomas and adenomas: a case control study

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Reviewer: Jae-Gahb G Park

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General

In this manuscript, Skjelbred et al., described the association between polymorphisms in ERCC1, ASE-1, and RAI and the risk of colorectal carcinomas and adenomas. They found that the variant allele of the ASE-1 polymorphism was associated with an increased risk of adenomas with a statistical significance. This observation was apparent among women only. No other association with a statistical significance was observed in the case-control study. Although they performed a case-control study on the polymorphisms for the first time in colorectal carcinomas and adenomas, several points should be explained more detail.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. Clinical information on the case group (both carcinomas and adenomas) should be described more detail. Also, more in-depth analysis between the available clinical information of the cases and the polymorphisms should be performed.

2. In 981 adenoma cases, they further analyzed the adenomas into two groups (high-risk adenomas and low-risk adenomas). The authors should explain the reason why they performed subgroup analysis in aspect of colorectal cancer development process.

3. P values for Hardy-Weinberg equilibrium of the polymorphisms in cases and controls should be described in results.

4. The authors used a case-control study design to test the association between the polymorphisms and the risk of colorectal carcinomas and adenomas. However, the number of carcinoma cases used in this study is too small to explain the association between the polymorphisms and the risk of colorectal cancer. Also, the mean age of carcinoma cases was totally unmatched with that of control groups. More dedicated selection of carcinoma cases should have considered in the initial design of this study.

5. More explanation on the relationship between ASE-1 polymorphism and an increased risk of adenomas should be discussed.

6. The conclusion should be re-written in regard of the study purpose and results. The sentences mentioning different gender are inappropriate to clearly summarize the study.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interest