Reviewer's report

Title: Association between polymorphisms in ERCC2 gene and oral cancer risk: evidence from a meta-analysis

Version: 1 Date: 21 September 2013

Reviewer: Jeffrey Wickliffe

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Major Compulsory Revisions
1.) The authors must better disclose the data sets used for their combined analysis. For example, the authors state that 9 datasets (only 6 studies) were used for the evaluation of the rs13181 SNP in the ERCC2 gene for their work. It appears that these 9 datasets were not necessarily independent of one another. This would seem to be an inherent flaw in their meta-analysis. Parsing the same subjects under a single study into separate groups and using them all as representative (independent) of cases and controls for risks of developing oral cancer (as opposed to the risk of leukoplakia) seems improper. If that is the case here, this manuscript cannot be published as is.

Minor Essential Revisions (some of these could be considered Major)
1.) Italicize ERCC2 following proper gene symbol nomenclature (throughout).
2.) The gene name is excision repair cross-complementing ... not complimentary (throughout).
3.) Six most prevalent cancers are lung, breast, prostate, colorectal, liver, and stomach. Oral is not sixth (background).
4.) Reactive oxygen species are not DNA damage in and of themselves. They can cause DNA damage (background).
5.) ERCC2 is not the most important gene or protein in the TFIIF/NER complex. It is an important component (background and discussion).
6.) NER is not the most important DNA repair pathway. They are all important and there are essential genes and proteins in all repair pathways. ICR also repairs crosslinks. Many oxidized or alkylated bases are repaired by BER. Should read thymidine dimer not dimmer. In addition, simply repeating what was written almost verbatim in the discussion what was written in the background is unnecessary (discussion pages 12-13).
7.) The rs13181 SNP (aka 751) is not located in the active helicase domain. It is adjacent to this domain. The reference used to support this is miscited. Those authors, Coin et al. did not examine the 751 site in their study of ERCC2 helicase activity and further Taylor et al. (1992) PNAS which was cited in that manuscript as impetus for examining the carboxyterminus for active site domains describes mutations in sites 675-730 (XPD disease) and sites 713-730 (TTD disease).
Level of interest: An article of limited interest

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

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests