Reviewer’s report

Title: The contribution of the ABCG2 C421A polymorphism to cancer susceptibility: evidence from the current literature

Version: 1 Date: 28 June 2012

Reviewer: Csaba Szalai

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Chen et al. carried out a meta-analysis to investigate the role of the C421A polymorphism in the susceptibility to cancer. Altogether 10 studies 3593 cases and 6875 controls were involved. According to their evaluations the A allele seems to be associated with decreased cancer risk in different types of cancers. The applied statistical methods are adequate, and the discussion is well balanced and supported by the data. All of the data are available to evaluate and replicate the calculations. The results are partly a confirmation of a previous meta-analysis by Campa et al, which included 3 studies. The results of this latter were also included. The results of the present study could be interesting also, but, there are some disturbing mistakes in the paper.

Major compulsory revisions

I recalculated some of the results and for an unknown reason I received slightly other numbers found in the paper, although it did not influence significantly the conclusion. But, e.g. in the paper of Semsei et al. the A allele in the C421A polymorphism has higher frequency in the cases (10.6%) than in the controls (9.4%), and still the figure 2 shows an odds ratio value of 0.94, i.e. below 1, which is contradictory to the frequencies. If a frequency of an allele in the cases is higher than in the controls, the OR must be above 1. All the statistical calculations must be recalculated, and the results must be modified accordingly.

Minor essential revisions

1. In table 2 there are superscripts (a, b), but there are no explanations for them.  
2. There are several disturbing minor grammatical mistakes in the paper, e.g. ‘dates’ instead of ‘data’, and ‘Begger’s funnel plot’ instead of ‘Begg’s funnel plot’, etc.

Discretionary revisions

1. It would be interesting to evaluate and discuss, whether the number of the A allele carried by an individual influence the risk to ALL (i.e. AA vs AC)?

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: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.