Reviewer's report

Title: Serum paraoxonase and arylesterase activities in patients with lung cancer in Turkish population

Version: 2 Date: 19 January 2007

Reviewer: Dariusz Nowak

Reviewer's report:

General Scanty data are available on the activity of serum paraoxonase and arylesterase in lung cancer patients. Moreover the relationship between activities of these enzymes and the risk of pulmonary malignancy is not fully established. Therefore, this case-controlled paper is original and interesting and adds something new to the understanding genetic risk factors of lung cancer development. However, there are some methodological flaws in this study that are listed below;

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

1. The number of analyzed subjects is 39. In my opinion this group (as well as the control group) is too small especially in the view of the paper title “Serum paraoxonase and arylesterase activities in patients with lung cancer in Turkish population”. For instance a recent study of Lee and coworkers on genetic polymorphism of the paraoxonase-1 (PON1) and lung cancer (J Prev Med Pub Health. 2005,38,345-350) involved 177 patients. Spectrophotometric techniques applied by the authors for determination of paraoxonase and arylesterase activities are relatively simple and not expensive. Therefore, it seems that authors could enlarge the number of the studied cases in the relatively short time.

2. The statistical analysis is inadequate. There are numerous variables e.g histological type of tumor, stage of the disease, patients demographic data, serum concentrations of HDL, LDL, triglycerides and activities of paraoxonase and arylesterase. Authors should define what is/are independent variable/s and what is/are dependent variable/s and perform multivariate analyses with using multiple linear regression or logistic regression. The 95% confidence intervals should also be calculated.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. How blood was taken for serum specimens preparation?

2. What techniques were used for serum HDL, LDL, and triglycerides levels determination? This should be briefly described.

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Discretionary Revisions (which the author can choose to ignore)

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

**Declaration of competing interests:**

I declare that I have no competing interests.