Reviewer's report

Title: Serum p53 antibody detection in patients with impaired lung function

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Reviewer: Magali Olivier

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In this manuscript, the investigators have analyzed the presence of serum p53 antibodies in a series of 675 individuals in relation with their smoking habit and lung function. They found that serum p53Ab were present in around 5% of individuals and were associated with lung function impairment and tobacco consumption.

This study has a number of limitations: the number of non-smokers is very small compared to smokers; the criteria for inclusion are poorly described; it is not indicated whether the individual included have been monitored for other diseases (p53 Ab antibodies have been linked to other cancer types); there are no data on lung cancer occurrence, thus the presence of these serum p53Ab cannot be correlated with cancer risk. The design of the study is thus questionable.

In conclusion, the study is poorly designed and thus cannot answer the question addressed by the authors: can p53 serum Ab have a role as biomarkers for the early detection of lung cancer. Although smoking and lung function impairment are associated with increased cancer risk, they cannot be taken as surrogate for cancer risk.

Level of interest: An article of limited interest

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.