Reviewer's report

Title: Cigarette, cigar and pipe smoking, passive smoke exposure, and risk of pancreatic cancer: a population-based study in the San Francisco Bay Area

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Reviewer: Uwe A Wittel

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In the paper “Cigarette, cigar, and pipe smoking, passive smoke exposure, and risk of pancreatic cancer: a population-based study in the San Francisco Bay Area” by GJ Tranah et al. the authors report the results of a population-based case-control study in which they examine the influence of smoking on pancreatic cancer development. The data has been obtained by personal interviews with patients shortly diagnosed with pancreatic cancer and a randomly selected control collective. The sample size seem to be appropriate for most analyzed parameters and the statistic methods applied seem to be appropriate as well.

The results are in accord with other studies in showing an increase in PC risk from cigarette smoking. The description of a dose dependency between packyears smoked, and the OR for PC as well as the analyses of PC risk after smoking cessation are novel. However, at two points the authors need to improve their manuscript.

Major Compulsory Revisions

1. P7L1

In table 3 the percentage of individuals 5-10 years post smoking seems to be identical in PC as well as in controls. For the statement of a 70% reduction of risk for PC, the sample size of this sub-group seems to be too small especially since then, former smoking 15-20 ago would protect from pancreatic cancer - which is unlikely. Additionally, in an older prospective study by Fuchs CS et al. (Arch Int Med 156(19)) the authors report a rapid reduction in PC risk after smoking cessation of 48% within the first two years. This would further support the data in table 3 that the adverse effects of cigarette smoking on pancreatic cancer development are greatly reduced with the first 5 years after smoking cessation.

2. P15 Table 4

In table 3 the odds ratio for PC development already decreases >5 years after smoking cessation. It is unclear why the authors chose 10 years and not 5 or 15 according to their own data in table 3?

Generally the reader needs more and clearer help on the interpretation of table 4. It is hard to believe that for past smokers the risk for developing pancreatic cancer is lower the more they smoked.
Where is the California Pacific Medical Center Research Institute located

This statement is not correct. Even though the survival benefit in months may be small, chemotherapy and surgery significantly increases the median survival with a high level of evidence.

Pancreatic cancer usually develops over many decades

This statement is speculative. Neither molecular factors nor the timescale of pancreatic cancer development have been identified to date.

A total of 532 cases …

This is confusing. Does it mean a total 794 eligible cases out of which 67% completed the interview?

How is the refusal rate explained. Is there also a refusal rate in the control group?

The definition of smoker is very strict and an influence of the smoking of 100 or 200 cigarettes in a lifetime is very unlikely to increase the risk for pancreatic cancer.

Why were patients with completed interview excluded from the analyses?

Please give the absolute numbers for this sub-analysis since sample size is expected to be very small.

Two periods.

To the OR of 1.6 in past smokers is first mentioned in the discussion and cannot be found in the result section.

Is there any p-trend?

Table 2
The definition for former smoking is not given.
What is the p-trend for cigar and pipe smoking?

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, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests