Reviewer's report

Title: Risk factors for nasal malignancies in German men - The South-German Nasal Cancer Study

Version: 1 Date: 25 May 2012

Reviewer: Wolfgang Hoffmann

Reviewer's report:

Greiser E et al.: Risk factors for nasal malignancies in German men – the South-German Nasal Cancer Study
Submitted to BMC Cancer

This is a population based case control study conducted in two Federal States in southern Germany applying computer assisted telephone interviews with mailed paper questionnaire backup. The paper is clear and succinct. Various typos and grammatical errors (see below) require language editing.

The study is one of the larger international case control studies on risk factors for nasal carcinomas and one of the few which have addressed nasal snuff as a specific risk factor for cancer of the nasal cavity and the paranasal sinuses.

The setting, design, sampling scheme and exposure assessment are adequate and the effort of case ascertainment as well as sampling of population based controls place this study in the top rank of epidemiologic quality. A comprehensive array of established as well as innovative risk factors has been considered.

The study confirms previously reported risk factors and provides evidence for novel factors. It adds considerably to the epidemiologic evidence on this type of cancer.

Recommendation: Accept with major revisions.

Major Compulsory Revisions

The authors should specify, to which extent, if any, the case ascertainment was prospective.

In the results section, detailed medical information is provided on the tumor cases (histologic type, exact location of origin, e.g. p 8). It seems unlikely that these could be solicited from the patients in a CATI.

The percentage of proxy interviews should be specified in Table 1. Were these pooled with the case interviews in the results tables? Were also proxies interviewed in case of deceased controls?

In the discussion the authors should include a critical assessment of the strengths and weaknesses of their case ascertainment and exposure assessment. To which extent was population based ascertainment achieved i.e.
how complete was the ascertainment with respect to the expected total number of cases in the study period and study area? Please comment on possibility of selective participation with respect to education (Table 1) vs. education as a possible risk factor.

Table 1: Provide p-values for distribution over categories of cases vs. controls. Educational attainment seems systematically different between cases and controls!

Table 2: Section smokers, row 3, col 2-3: percent value does not make sense for number of package-years! Are the provided numbers a copy mistake from row 2? (same problem in Table 3, row “smoking per packyear, Tables 4, 5, 6 rows per year of exposure, Table 7 rows per year)

Some of the estimates are quite different based on the two models. This may mean, that one or more of the additional parameters in model 2 were particularly influential. The authors should provide parameter estimates for the respective confounders in both models for each of the analyses as additional material.

Minor Essential Revisions

Abstract, para results, l 4: “…in never smokers 1.10 whereas…”
L 12: “…after ever domestic use of insecticides…”
P 4 l 3: “…use of snuff to nasal…”
P 5, l 1-2: the extremely high OR of 30.2 in a subgroup of ref [7] should not be reported without a comment on the very limited precision – it is obviously based on very few cases (indicated by a 95% CI of 1.67 to 546)
P 6, l 3-4: use consistent format for decimals
P 7, para Results, l 8: “Of these addresses 165 were no longer valid…”
P 10, para Asbestos, l 7: “…nasopharynx…”
Para Organic solvents, l 3: “…questionnaire module on specific tasks…”
L 5-6: please use consistent measure of association (usually OR in a case control study)
P 12, para 2, l 8: “… was applied to draw this conclusion…”
P 14: last sentence needs to be rephrased
P 16, para Asbestos, l 10: “…results as men with…”
P 17, para 3, l 9: “… as a variety…”
Table 2, footnote: package-year should be defined as “equivalent of 1 package per week for one year” (same with pack-years for cigarettes)

Level of interest: An article of outstanding merit and interest in its field

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.