Reviewer’s report

Title: Family history of cancer, personal history of medical conditions and risk of oral cavity cancer in France: the ICARE study.

Version: 1 Date: 7 March 2013

Reviewer: Scott Langevin

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Synopsis:
This manuscript entails an investigation into risk factors beyond the usual suspects for oral squamous cell carcinoma, including history of various medical conditions and familial risk, using a large, population-based case-control study. The authors report increased risk among those having a first-degree relative with a history of head and neck cancer, and increased risk with a history of candidiasis, which may have important implications on risk stratification. The manuscript is well written and the analysis is appropriate. As such, I have only a few minor comments, detailed below.

Discretionary Revisions:
Candida albicans can metabolize ethanol into its carcinogenic metabolite, acetaldehyde, and accordingly, candidiasis has been associated with elevated oral acetaldehyde levels. Have the authors considered stratifying the analyses by heavy alcohol consumption to test for a synergistic effect?

The authors state in the Discussion that they are unable to identify any specific mechanism for the observed inverse relationship between rhinitis and oral cancer. There are a number of studies that suggest a protective effect of allergies on head and neck cancer risk (Michaud DM et al. Cancer Causes Control. 2012; Vena JE et al. Am J Epidemiol. 1985; Bosetti C et al. Eur J Cancer Prev. 2004), likely due to immunological differences. Given that chronic rhinitis and nasal polyps are closely associated with allergies, perhaps this should be mentioned a possible explanation.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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