Reviewer's report

Title: Prognostic factors associated with the survival of oral and pharynx carcinoma in Taiwan

Version: 4 Date: 7 February 2007

Reviewer: Victor Moreno

Reviewer’s report:

General

This is a descriptive study of prognostic factors of oral cancer. The statistical methods used are reasonable but could be improved. The design, however, has several limitations that minimize the interest.

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

– Cases dead for other causes of oral cancer were censored, but there is no information about the quality of the death certificates. It is standard in survival analysis of cancer registry data to assume all deaths related to cancer and adjust the expected mortality using relative survival analysis. This could also explain the differences between ethnic groups if they have overall different mortality rates.

– The most relevant prognostic factor, tumor stage, is not available. Only treatment modality can be used as proxy. Since the differences between ethnic groups are small, these could be completely explained by tumor stage. Residual confounding cannot be ruled out as an explanation of the differences.

– The sample is hospital based and no information is given about the representativity of the general population.

– The number of cases for each ethnic group 302, 556 and 8181 have proportions 3%, 6% and 90%, which do not agree with the population proportions 2%, 12% and 86%. Are oral cancer incidence rates different for these ethnicities? If cancer incidence is similar these proportions show evidence of selection bias in the sample and this would mean the results have low validity.

– Follow-up is said to be “active”, but there are no data about lost of follow-up. This suggests that in fact only death certificates were linked and no confirmation was sought whether those not found dead were really alive and in the territory. If this is the case, follow-up was “passive” and survival rates might have been overestimated. Also this problem could be differential for ethnicities or periods, and explain why more recent cases have worse prognosis.

– In this revision adenocarcinomas and lymphoma have been excluded, but cases NOS and other, are still there, which introduce misclassification and heterogeneity.

– It is not clear from the methods section if the investigators really know the ethnic of the patients or only their residence and they impute ethnic. They say that mainland Chinese could not be traced, which is ambiguous. If this is the case, all analysis regarding ethnicity, the point of the paper, in fact are related to residence.

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

Discretionary Revisions (which the author can choose to ignore)
What next?: Reject because too small an advance to publish

Level of interest: An article of insufficient interest to warrant publication in a scientific/medical journal

Quality of written English: Acceptable

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

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