Reviewer's report

Title: Surgical margins and survival after head and neck cancer surgery

Version: 1 Date: 23 November 2005

Reviewer: John K Joe

Reviewer's report:

General
The authors of the manuscript entitled "Surgical Margins and Survival after Head and Neck Cancer Surgery" are to be commended for their investigation of an area of interest not only inherent in head and neck oncology, but also for malignancies of other organ systems as well. The debate continues as to quantifying the amount of normal surrounding tissue that should be resected to obtain a satisfactory margin, not only in head and neck squamous cell carcinoma, but tumors such as cutaneous melanoma, as well. Of particular consequence when considering adequacy of surgical margins, as described by the authors, is the close proximity of normal, vital structures, such as the carotid artery, brain, and orbit. Thus, assessing the oncologic outcome of positive margins is an appropriate investigative question for consideration.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
A significant limitation to the present study is the reliance on epidemiologic data of overall survival when evaluating the prognostic significance of positive surgical margins. Given the propensity for head and neck squamous cell carcinoma to metastasize to regional cervical lymph nodes, and, in light of the known negative impact on outcome of metastatic lymphadenopathy, disease-specific survival and disease-free interval should be considered as potentially more important endpoints for analysis, than overall survival. Certainly a patient may present with local recurrence following positive margins of surgical resection and may not yet have succumbed to disease, given the follow up period when these data were analyzed. Furthermore, since functional impairments to treatment is a factor discussed by the authors, a discussion of functional impairments from disease recurrence, should be considered and analyzed, as well. Given the high incidence of associated comorbidities in the population with head and neck squamous cell carcinoma (e.g. cardiopulmonary disease), the question of overall survival is of less significance than those who die because of disease, i.e. disease specifici survival.

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

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Discretionary Revisions (which the author can choose to ignore)
1. Other important questions that could be investigated with these data include assessing the prevalence of positive margins and the site of primary tumor. In other words, was there a higher incidence of positive surgical margins at sites such as the skull base, where margins may be limited by adjacent vital structures, such as the brain or orbit; as opposed to sites such as the oral tongue, where wide local excision can be safely accomplished?
2. Other useful questions would include assessing the prognostic impact of "close" margins of surgical resection to that of positive margins. In other words, in cases where the margin was within one high power field, did those patients fare as poorly as when the margin was obviously positive?

3. Another interesting question regarding margin status would be - is a margin microscopically positive as bad a prognostic factor as a gross positive margin?

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.