Reviewer’s report

**Title:** Distribution of immune cells in head and neck cancer: CD8+ T-cells and CD20+ B-cells in metastatic lymph nodes are associated with favourable outcome in patients with oro- and hypopharyngeal carcinoma

**Version:** 1 **Date:** 9 March 2009

**Reviewer:** Ian Frazer

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This is descriptive immunophenotyping of lymphocytes relating to head and neck epithelial tumours. The numbers are small.

1) It would be helpful to know what the hypothesis under test was considered to be. before the work was undertaken: this impacts directly on the statistical analysis of the findings. Also, the observation that there are relatively more CD20+ve lymphocytes in a lymph node than in a tumour, and relatively less CD8 T cells, doesn’t help with the understanding of the disease process unless in test of a specific hypothesis.

2) A conclusion that increased CD20 cells in lymph nodes are of prognostic significance would be clinically useful, if justified by the data. It would be important to know if this were a defined hypothesis at the commencement of the work, or merely an observation of apparent significance sifted from many that might have been made on the data set. If the latter, a further prospective study to test this hypothesis would evidently be required, as the stats are marginal without correction for the number of parameters assayed.

3) HPV status of head and neck epithelial cancer is a recognised variable for survival for head and neck cancer, as is age as a surrogate marker for likely HPV status. Univariate analysis of these variables should be undertaken on the same tumour set.

Minor point – lymphocytes in uninvolved lymph nodes should not be referred to as TIL.

**Declaration of competing interests:**

I have no conflicts or competing interests.