Author's response to reviews

**Title:** Incidence and Outcome for Patients with Occult Lymph Node Involvement in T1 and T2 Oral Squamous Cell Carcinoma: A prospective study

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**Author's response to reviews:** see over
Submission:
Revised Version of (MS: 1546793206117902)“Incidence and Outcome for Patients with Occult Lymph Node Involvement in T1 and T2 Oral Squamous Cell Carcinoma: A prospective study“

Dear Professor Solera,
Dear associate Editors and Reviewer,

please find enclosed our revised prospective study entitled “Incidence and Outcome for Patients with Occult Lymph Node Involvement in T1 and T2 Oral Squamous Cell Carcinoma: A prospective study“, for consideration as an article for the Journal BMC Cancer (MS: 1546793206117902).

We addressed the comments of the reviewers in a revised manuscript. In this cover letter we answer in a point-by-point fashion to the concerns of he reviewers.
Major comments:

In the table 1, the rate of occult LN metastasis in T1 lesions is 9.3% (18/193) and not 5.5%. As well, the rate of occult LN metastasis in T2 lesions is 32% (43/134) and not 13.2%. Likewise, regarding the tumor grade, the rate of occult LN metastasis in grade 1, 2 and 3 will be 9.6%, 16.1% and 46.2% respectively. Accordingly, all percent values in the 3rd and the 4th columns needs to be revised. Furthermore, a column would be added to the table 1 for showing any statistical significance for these differences.

Answer: We appreciate the reviewer’s comments. The percentages were initially meant to be related to the overall number of patients (e.g. 18/327 = 5.5% for mentioned T1 - patients). The numbers and percentages were adjusted as suggested. In addition, the p-values between both groups were given, showing a significant difference between both groups in some criteria (T stage and grading). This means, that more patients are presenting without lymph node involvement if the tumor stages are T1 and T2, although T2 was found to be associated with a more frequent lymph node involvement compare to T1 tumor patients (9.3 vs. 32.1%). In terms of higher tumor grades there was no difference between both groups (51.3 vs. 48.7%).
Minor comments:

In the text and the table 2 and 3, there is no clear which subcategories of the prognostic variables are associated with poor overall survival. For example, in the abstract and the text, patients’ age found to be a prognostic factor in univariate and multivariate analysis; however, there is no clear younger age or older age is associated with poor outcome? Therefore, in the table 2 and 3, subcategories of each (categorized) variable and their Hazard Ratio would be defined.

Answer: We appreciate the reviewer’s comments. The Hazard Ratio is already an indicator for the distribution of the risk of the variables tested. As the HR is > 1 this indicates a higher risk with the higher stage (especially in T and grading classifications). But this depends on the coding system used and therefore these points have been correctly criticized by the reviewer. In the actual version of the manuscript it was clearly stated in the text which factor and its level would influence survival. We hope that it is now clear which variable negatively influences survival.

In addition, the language was proved by a native speaker also being an expert in this field.
1. In the Staging part: “Lymph nodes of more than 1 cm with a rounded configuration were regarded as probably involved by imaging criteria.” Was this diagnostic standard too simple?

**Answer:** We appreciate the reviewer’s comments. The staging part was refined since in its previous form it was too briefly and shortly described. More data was integrated and criteria performed given. In detail, the staging was confirmed by a specialist radiologist and postoperative pathohistological assessment was also part of the confirmation process. Diagnostic standard was CT and/or MRI of the head and neck as well as ultrasound sonography.

2. Although the rests of univariate log-rank test showing gender had no impact on the prognosis of the patients, male and female has different prognosis as previous data, since the risk factors for them might be different. It is better to put gender into the multivariable analysis.

**Answer:** As suggested by the reviewer gender was included into the analysis and the values given in the Table 3.

3. The time to recurrence 25.63±24.6 months in cases with N1 disease. Could you give the details of the recurrence number and recurrence time?
Answer: We appreciate the reviewer’s comment and added some more details. The number of recurrences depending on the N stage was already given in Table 1 (last column). In addition, another paragraph was added to present some more details regarding this criterion. Although there was a tendency between these groups, no significance level was detected.

We thank the reviewers and the editor for their time assessing this manuscript and improving the content of the paper. We believe that these queries improved the understanding of the scientific content of the paper.

We look forward to hearing from you and would be delighted if the manuscript was to be considered for publication in your journal. If you have any questions please do not hesitate to contact us.

Kind regards

Thomas Mücke, MD, DDS, PhD