Author’s response to reviews

Title: Comparative Efficacy of Six Therapies for Hypopharyngeal and Laryngeal Neoplasms: a Network Meta-analysis

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Reviewer reports:

Henry S. Park (Reviewer 2): Thank you for performing this subgroup analysis of the 17 studies that included more than just the early-stage patients, which I believe is helpful. I understand that the 7 studies involving only early-stage patients may have had insufficient data to draw any significant conclusions, but I think that this should be stated explicitly in the manuscript. In addition, I believe that the first sentence of the conclusion should be modified to reflect this, since I don't think it is fair to suggest that RT alone is suboptimal in all circumstances (you still haven't proven that RT alone is not a very reasonable choice among the early-stage glottic larynx patients, who are treated under a completely different paradigm than the locally advanced patients).

Reply:

Dear reviewer, thank you very much for your comments. Our responses and explanations to your comments are as follows.
To state 7 studies involving only early-stage patients which might have insufficient data to draw any significant conclusions explicitly, we added “Among 28 included studies, 7 papers included only early-stage patients, 4 papers included both early-stage and locally advanced stages patients and 17 papers only included locally advanced stages patients (larynx stage III-IV and hypopharynx stage II-IV). For the treatments related to 7 papers included only early-stage patients were limited and the data were not sufficient enough to draw reliable conclusion, we decided to add a subgroup analysis of 17 papers only included locally advanced stages patients (larynx stage III-IV and hypopharynx stage II-IV).” in the results’ part of Subgroup analysis.

In addition, we all think that it is very necessary to modify the conclusion after carefully thinking about your suggestions. Reasons are as follows.

Firstly, as shown in Table 3, RT might have the worst performance in term of 3-OS, 5-OS and 5-OSR with the SUCRA value of 0.243, 0.151 and 0.076.

Secondly, SUCRA results of subgroup analysis for locally advanced hypopharyngeal and laryngeal neoplasms (Table S3) demonstrated that RT ranked the last with SUCRA value of 0.2138, 0.1319 and 0.0182 for 5-OS, 5-DFS and 5-OSR. Besides, RT was the second-worst treatment for 3-OS (0.3182) and 3-DFS (0.3379).

Thirdly, due to limited studies and insufficient data on early-stage patients, our analysis could not come up with the conclusion that RT alone was the suboptimal in all circumstances. More well-designed and larger RCTs are still urgently needed to verify this conclusion in order to provide more credible medical guideline.

Taking all above-mentioned into account, the conclusion was modified to “RT combined with surgery turned out to be optimal therapy of all the outcomes while the efficacy of RT was relatively poorer in the treatment of patients with larynx stage III-IV and hypopharynx stage II-IV.”

We also revised discussion part accordingly and have added “Fourthly, due to limited studies and insufficient data on early-stage patients, our analysis could not make a subgroup analysis of these patients. Therefore, future studies are needed to assess the impact of various treatments in the management of early-stage glottic larynx patients in order to provide more credible medical guideline.” We have also rechecked throughout text for any needed correction.