Author’s response to reviews

Title: Advantages of using reduced-volume intensity modulated radiation therapy for the treatment of nasopharyngeal carcinoma: a retrospective paired study

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Reviewer 2

Comment 1:

"LV-IMRT arm". (Page 6, line 117) Is this a typing error?

Response: Thanks for the referee’s friendly reminder. We are awfully sorry for our carelessness. And we have corrected this sentence in Line 117, Page 6.

Comment 2:
In this study the tolerability and the toxicity of chemotherapy is not investigated. Which toxicity is associated to chemotherapy? The authors should eliminate the cases with chemotherapy-associated toxicity when indicated because they falsify the comparison of RV-IMRT to CV-IMRT.

Response: Thanks for the referee’s good evaluation and kind suggestion. In our study, all included patients tolerated well and completed the planned treatment therapy. By reviewing related literature, we know that the most common adverse effects induced by chemotherapy are bone marrow suppression, constitutional symptom, and gastrointestinal complications. With proper treatment, patients with chemotherapy-associated toxicity often recover soon. Whereas, radiotherapy-induced late toxicities are the major factors that negatively affect nasopharyngeal carcinoma patients’ quality of life (QoL), including xerostomia, dysphagia and hearing loss. The aim of this report is to investigate whether using reduced-volume IMRT for the treatment of NPC has any QoL advantage over CV-IMRT with similar survival rates. Therefore, we primarily assessed late radiotherapy adverse effects including xerostomia, skin reaction, dysphagia, hearing loss, and blurred vision, which were defined as symptoms occurred beyond three months after the completion of treatment and were little affected by chemotherapy. Besides, cases included in our study were paired using propensity score matching method to minish the interference of heterogeneity. The matched patients in both arms had balanced characteristics, including the use of chemotherapy (concurrent chemotherapy, neoadjuvant or adjuvant chemotherapy). Thus, similar chemotherapy-associated toxicities were expected in two arms. Finally, we all think well of this suggestion and get many illumination. Our center is about to conduct a prospective study to compare the clinical treatment outcomes and toxicities of RV-IMRT with those of CV-IMRT for NPC patients. The comparison of acute and late radiotherapy-induced toxicities between the two groups will be performed thoroughly.