Author’s response to reviews

Title: Identifying risk factors for metastasis to the level VII lymph node in papillary thyroid carcinoma patients

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1. The authors present a nice series of prophylactic CND dissection that also included a Level VII dissection. It is unclear what the authors mean by “intraoperative LN exploration” in Table 2 and in the manuscript. It is suggested that all patients underwent Level VII dissection -so what does this mean and how did affect the extent of surgery and/or LN dissection.

Comment 1:

Thanks very much for your comments. In the manuscript we used the concept of “intraoperative exploration”, which caused misunderstanding by the reviewer. Therefore, in the revised manuscript we corrected this concept into gross lymph node metastasis. Characteristics of gross lymph node metastasis include hard, cystic, extravasation, adhesion, and fusion.

2. The authors recommend including Level VII nodes in prophylactic CND. However, what they have failed to address in this manuscript is what is the real benefit of prophylactic CND – whether including Level VII or just Level VI. Since the benefit of prophylactic CND that is confined to Level VI has not convincingly been shown to provide any reduction in local recurrence, why should a more extended dissection provide any benefit?

Comment 2:
Thanks for your comments. Although a large number of clinical studies have shown that prophylactic central lymphadenectomy in patients with low-risk thyroid papillary carcinoma does not significantly reduce overall survival. At the same time, the ATA guidelines do not recommend routine central lymphadenectomy for all cases of papillary thyroid cancer. However, in recent years, a large number of studies based on long-term follow-up results have found that the recurrence rate of simple lobectomy cases is significantly higher than that of central lymph node dissection after lobectomy. At the same time, central lymphatic dissection did not increase the incidence of postoperative complications. The Chinese Thyroid Association also recommends routine prophylactic CLND. We designed this study to determine the potential risk factors for Level VII LNM based on the two factors. One was the N classification of level VII lymph node metastases was shifted from N1b to N1a according to AJCC 8th edition. The other was that level VII lymph nodes were in anatomically continuous with level VI lymph nodes. In clinical practice, hyperextension position of head and cranial traction of level VI make part of level VII dissected as level VI. These might be one possible reason why we rarely enface patients who had recurrence of level VII during surveillance. Besides, the inferior extent of CLND was still inconsistent between different guidelines.

Based on the above reasons, level VII LNM is worth studying and the findings are valuable for further investigation. In future, we will focus on the prognostic value of prophylactic CLND (level VI and/or level VII).