Answering Reviewers

Reviewer #1:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Major revision

Specific Comments to Authors and Our Answer

(1) In the methods heading, the result of the study should not be included (please check the last sentences in the first paragraph) Table 1.

Our Answer: Thank you for the careful and comprehensive review. The last sentence of the first paragraph of the method is the first result of this article and should be placed in the first paragraph of the results. This change has been made.

(2)on the tumor location, please give the notation regarding UP and non UP Table 2.

Our Answer: Tumor location is divided into two parts: a tumor located in the upper lobe of the thyroid gland is referred to as UP; a tumor located in the middle lobe, lower lobe, isthmus and (whole) are collectively referred to as non-up. Remarks have been added to Table 1.

(3) Check the amount of "F" on pretracheal LNM, there was a different format compared to others

Our Answer: The amount of "F" on pretracheal LNM is an error. This value should be changed to 14.773, and this change has been made.

(4) The recent reference used in this manuscript was 2018, only 2 papers 2016, the others were more 5 years. Please use the recent reference.

Our Answer: The reference was not updated before our previous submission, so we reviewed the data again and selected the appropriate reference.

Reviewer #2:

Scientific Quality: Grade C (Good)

Language Quality: Grade A (Priority publishing)

Conclusion: Accept (General priority)

Specific Comments to Authors and Our Answer

Previous studies had shown that tumor size, location and extra thyroid extension is associated with LNM What is the importance of dissecting negative LLN if they have a risk for metastasis despite they ae still negative and they will not affect patient survival What are the suggested mechanisms or pathways of metastasis that can explain these association between LN groups

Our Answer:

(1) Lymph node metastasis (LNM) is one of the most important features of papillary thyroid carcinoma (PTC). LNM does not affect the long-term survival rate; however, it does increase the local recurrence rate in PTC patients and the complication rate of PTC patients with secondary surgery; it might even bring irreversible complications, which reduces the long-term quality of life of PTC patients. However, not all PTC patients need lymph node dissection (LND), especially cN0-PTC patients.

(2) Therefore, which PTC patients need it? Radical lymph node dissection is necessary for high-risk PTC patients with large tumor diameters, superior thyroid, extraglandular invasion and so on. Many scholars believe that the increased rate of LNM is related to these high-risk factors for PTC, which has been confirmed in our study. The metastasis of PTC to lymph nodes occurs first to the central lymph node and then to the lateral lymph node; there are some connections between central and lateral lymph nodes, and many scholars have argued thus. If we find those connections, we can dissect lymph nodes selectively, which will improve the accuracy of surgery. Our findings

revealed for the first time that prelaryngeal LNM can be a predictor of ipsilateral level-II LNM. Pretracheal and ipsilateral paratracheal LNM can be predictors of ipsilateral level-III and level-I LNM. Further studies are needed to confirm and explain these findings with larger sample sizes and more accurate data.