Peer Review File

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Reviewer A

Comment 1: Rephrase line 27-28 due to incorrect language.
Reply 1: Thank you for your comments， we modify the incorrect language.
Changes in the text: We have modified the sentence. (see Page 1, line 27-28)

Comment 2: In sentence 32 you state that the patient had no high-risk factors AND a low risk of recurrence. Can you explain what you mean with the fact that the patient has a low risk of recurrence?
Reply 2: The size of the papillary thyroid carcinoma was 1.5cm×1cm, which was less than 4cm, and without metastatic lymph node spread. Consistent with differentiated carcinoma of the thyroid gland, the concept of prognostic risk group is equally relevant to thyroglossal duct cyst carcinoma. Therefore, we consider patients to be low-risk of recurrence.
Changes in the text: None.

Comment 3: In line 33-34 you state that to date there has been no recurrence. For full clarity it might be of added value to state how long the follow-up has been from the procedure to writing this manuscript.
Reply 3: We supplement the follow-up procedure in the article.
Changes in the text: We have modified our text as advised (see Page 4, line 105).

Comment 4: Line 109: add 'a' to it has been ... extremely.
Reply 4: We modify the incorrect language.
Changes in the text: We have modified our text as advised (see Page 4, line 109).

Reviewer B

Comment 1: The discussion part is exceptional: I think it will add if you compare your findings with this article that reports a similar findings, recently published: De Sousa Machado A, Dias D, Silva A, et al. Papillary Carcinoma Within Thyroglossal Duct Cyst: A Rare Midline Coexistence. Cureus 14(11): e31906. doi:10.7759/cureus.31906
Reply 1: Thank you for your comments. I compare with the literature you recommend in my article.
Changes in the text: We have modified our text as advised (see Page 6, line 184) and and adjust the references accordingly(see Page 6, line 189) (see Page 6, line 190) (see Page 6, line 196) (see Page 9, line 306) (see Page 10, line 307-312).

Comment 2: Also, if available, some photographs of the procedure might be interesting to add.

Reply 2: I feel so sorry that there are no suitable photographs of the procedure to add.
Changes in the text: None.

Reviewer C

A well written case report on rare occurrence of isolated papillary carcinoma of thyroid in thyroglossal duct remnant. The presentation of clinical details and the discussion on the various controversies surrounding the management is appropriate. I have the following suggestions.

1. I find it surprising why the authors did not consider FNAC from the thyroglossal duct cyst, especially when the pre-operative radiological characteristics were suggestive of a neoplasm. Suspicious features on USG do mandate FNAC (PMID: 36891423). It can provide a straightforward diagnosis several times, and the sensitivity tends to be better when there are suspicious features in radiology (PMID: 36898922)(PMID: 36059313).

Reply: Thanks for your advice. FNAC is indeed the most reliable and safe diagnostic method before surgery to increase the detection rate of thyroid cancer. However, the success rate of detection is to a certain extent dependent on the experience of operators and cytopathologists, as well as the internal characteristics of the nodules. There are still some FNAB results that cannot be diagnosed, and a part of samples are too few to support cytological diagnosis, which may require repeated puncture.Moreover, although complications of FNAB are uncommon, very few patients develop serious complications through FNAB, such as obstruction of the upper airway due to heavy bleeding. Therefore, FNAC as a routine test may not be cost-effective in all TGC cases, and we did not perform FNAC before surgery.
Changes in the text: None.

2. Also, nearly 45% of cases can have a focus of concomitant malignancy in the thyroid (PMID: 36891423).

Reply: Suresh S et al. found that 43.3% of TGCC cases were accompanied with thyroid malignancy. In our case, cervical ultrasound and enhanced CT showed no abnormalities in the morphology and size of the thyroid, and no nodules or masses within it. Therefore, considering that there was no evidence of cumulative thyroid cancer, we chose to follow up closely after Sistrunk surgery, and the patient did not see recurrence for 1 year after surgery.
Changes in the text: None.

3. The management of thyroid gland in thyroglossal duct cyst carcinoma needs to be individualized, and the most important factor for decision-making is status of the native thyroid gland and completeness of surgery (PMID: 36423942)(PMID: 36059313). A management algorithm has been proposed recently (PMID: 36423942).

Reply: Peres C and Devaraja K et al. made recommendations for the management of TGCC with or without thyroid tumors.If thyroid is found to be nodular with suspicion on ultrasonography or a cold nodule in a thyroid scan; presence of clinically/sonographically detected lymphadenopathy; with histologically positive margins or cyst wall invasion ; or in the presence of the previous history of neck irradiation, it consider thyroidectomy with or

without appropriate cervical lymphadenectomy. On the contrary, in the absence of thyroid nodule and cervical lymph nodes; aged under 45 years; no previous history of radiation exposure;or low-grade tumors without cyst wall invasion, a good Sistrunk surgery itself is adequate and definitive,and a long-time period of observation with serial ultrasound should be held.This is consistent with the postoperative management of TGCC in our case
Changes in the text: None.

4. One of the points that can be added to discussion is - extracapsular extension or lymph node metastasis did not affect OS (PMID: 36891423). However, these factors suggest a need for thyroidectomy and neck dissection (PMID: 36423942)(PMID: 36059313)

Reply: We have added this point to the discussion——Suresh et al. (27) analyzed 30 cases of thyroglossal duct cyst carcinoma, found that prognostic factors such as extracapsular expansion or lymph node metastasis did not affect overall survival. Nevertheless, thyroidectomy and neck dissection are still required for high-risk patients.
Changes in the text: We have added this point to the discussion and add a reference of no27. (see Page 7, line 216) (see Page 11, line 350)

Reviewer D

1. According to the CARE checklist, you should include the keyword "case report", please add it.

Key Words	2	2 to 5 key words that identify diagnoses or interventions in this case report, including "case report"	page1, line25-26	Key Words

Keywords: Ectopic thyroid; papillary thyroid carcinoma; thyroglossal duct cyst

Reply: We add "case report" in the keywords.
Changes in the text: We have modified the keywords. (see Page 2, line 41)

2. Figure 1: Please indicate the meanings of "1" and "2" in figure legends.
Reply: We discuss with ultrasound specialist, and amend the meaning of this figure. The previous text has also been modified accordingly.
Changes in the text: ①We have modified the meanings of Figure1. (see Page 10, line 320)
②We have modified the previous text. (see Page 3, line 80)

3. Please define all abbreviations in Figure 3 legends.
Reply: We add full name of abbreviations to Figure 3 legends.
Changes in the text: We have modified the Figure 3 legends. (see Page 11, line 334)