1. **Abstract**

   **Background:** Thyroglossal duct cysts (TDC) are common congenital deformities. Most of them are cysts formed by the thyroglossal ducts that do not disappear and degenerate in the early embryonic stage [1]. TDC exists alone and is rarely complicated by other congenital embryonic malformations. Only a few reports of TDC with branchial cleft cysts, thyroid cancer, thyroid hematoma, and epidermoid cysts have been reported [2-5]. Therefore, we report a patient with TDC and parathyroid cyst (PC), a rare disease that has never been reported.

   **Case summary:** A 47-year-old woman presented to clinic in April 2021 with a neck tumor which she had noticed 5 days earlier. We perfected the relevant examinations, such as ultrasound and CT, and resected the tumor. After surgical treatment, the pathology revealed a cervical thyroglossal duct cyst and a left lobe parathyroid cyst. The patient was followed up for 1 year without significant recurrence.

   **Conclusion:** We report a patient with a simultaneous TDC and a PC to explore the correlation between the two congenital anomalies.
Thyroglossal duct cysts, Parathyroid cyst, Congenital deformities, Rare disease, Case report

2. Have you considered using a gel pad to obtain more panoramic ultrasound images? Even if you haven’t used it, it would be useful to include a brief discussion deep-in about the advantage of using the gel pad on a curved surface such as the neck. Moreover, it has been documented how the gel pad can increase the detection of flow signals of superficial lesions. In this regard, I suggest you read, discuss, and cite the following articles: -Utility of a gel stand-off pad in the detection of Doppler signal on focal nodular lesions of the skin. J Ultrasound. 2020 Mar;23(1):45-53. doi: 10.1007/s40477-019-00376-3. Epub 2019 Mar 29. PMID: 30927249; PMCID: PMC7010871. -Tsui, B.C.H., Tsui, J. A flexible gel pad as an effective medium for scanning irregular surface anatomy. Can J Anesth/J Can Anesth 59, 226-227 (2012). https://doi.org/10.1007/s12630-011-9623-2.

I have modified it, as follows

For a curved surface such as the neck, using a gel pad can obtain more panoramic ultrasound images, and it allows the detection of otherwise-missed peri- or intra-lesional flow signals on Doppler imaging, increasing the diagnostic role of this technique in differential diagnosis of superficial lesions[11,12].

2) I think it would be interesting to briefly mention the neck differential diagnoses. In this regard, I suggest the following article in which a site-specific differential diagnostic approach in the neck lesion is provided, which you must cite: -Thyroglossal duct cysts and site-specific differential diagnoses: imaging findings with emphasis on ultrasound assessment. J Ultrasound. 2020 Jun;23(2):139-149. doi: 10.1007/s40477-020-00433-2. Epub 2020 Feb 12. PMID: 32052384; PMCID: PMC7242578.

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- Clinically, TDC presents as anterior neck mass that moves on protruding the tongue or swallowing due to its attachment to the hyoid bone. However, although clinical history and examination may suggest the diagnosis, imaging is required to confirm the clinical diagnosis and assess the anatomic extent of the lesion prior to treatment [10].
Ultrasonography is an ideal initial imaging investigation for neck masses as it available, inexpensive, and does not involve ionizing radiation. For a curved surface such as the neck, using a gel pad can obtain more panoramic ultrasound images, and it allows the detection of otherwise-missed peri- or intra-lesional flow signals on Doppler imaging, increasing the diagnostic role of this technique in differential diagnosis of superficial lesions\textsuperscript{[11,12]}. The typical ultrasonography description of a TDC is that of a wellcircumscribed, round or oval anechoic lesion with thin walls and increased through-transmission; no internal flow with Doppler imaging\textsuperscript{[13]}.

Figures: - In the caption of the figure 1 and 3, you should be more specific about the location of the TGC. Is the lesion located in the median or off-midline area? Is the lesion suprahypoid or infrahypoid? - In the caption of Figure 1: is the lesion content anechoic or are there internal echoes? Are there any signs of wall inflammation at Doppler? In the following article that I recommended you will find some examples of how to describe thyroglossal cysts more accurately. - Thyroglossal duct cysts and site-specific differential diagnoses: imaging findings with emphasis on ultrasound assessment. J Ultrasound. 2020 Jun;23(2):139-149. doi: 10.1007/s40477-020-00433-2. Epub 2020 Feb 12. PMID: 32052384; PMCID: PMC7242578.

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- **Fig.1** The anechoic echo, slightly off-midline to the left, between the thyroid cartilage and strap muscles, without wall inflammation

- **Fig.3** The hypodense foci, slightly off-midline to the left, at the left front of the hyoid