Thyroid metastasis. A case report

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Background: Metastases to the thyroid gland are considered a diagnostic possibility in the presence or absence of known primary neoplastic disease. (1) Thyroid cancer is the most common malignant neoplasm of the endocrine system, most commonly affecting women and usually occurring in people aged 25 to 65 years, three major histological types have been classically defined: differentiated thyroid cancers, papillary and follicular varieties, medullary thyroid cancers and anaplastic thyroid cancers.

Keywords: Thyroid metastasis, thyroid neoplasia, thyroid cancer.

Quetzaltenango, Guatemala

Case Report

Radiology

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Thyroid cancer is the most common malignant neoplasm of the endocrine system, most commonly affecting women and usually occurring in people aged 25 to 65 years, three major histological types have been classically defined: differentiated thyroid cancers, papillary and follicular varieties, medullary thyroid cancers and anaplastic thyroid cancers.

Most nodules are asymptomatic. In on some occasions, the solitary metastatic lesion can be the initial presentation, a lump or mass in the neck that sometimes grows rapidly, swelling in the neck, pain in the front part of the neck that sometimes reaches up to the ears hoarseness or other changes in the voice that persist, constant cough that is not due to a cold (2)

Case report

A 63-year-old female patient with a history of esophageal squamous cell carcinoma (Squamous cell carcinoma) which progressed subsequently with thyroid lesion, confirming that it was a metastatic lesion secondary to the primary malignant neoplastic process primary.

On physical examination, the neck is mobile and symmetrical with presence of a palpable mass measuring approximately 5 cm in the right hemicervix, symmetrical and expandable thorax with adequate air entry and exit, rhythmic heart, not tachycardic.
Bioimages are requested for better characterization of the pathology.

The biopsy results show tissue thyroid infiltrated by squamous cell carcinoma squamous.

Discussion

Thyroid cancer is the most common malignant neoplasm of the endocrine system; in some cases, solitary metastatic lesions can be the initial presentation. (4)

The diagnostic method commonly used is performed thru a physical examination, the patient's health history, and in some cases, laryngoscopy, various biochemical studies, hormonal tests, ultrasound, and computed tomography.

Ultrasound is the first choice for imaging examination of thyroid diseases. The typical ultrasound findings of secondary thyroid neoplasms include poorly defined hypoechoic nodules and intranodular angiogenesis, and the size of multiple nodules ranges from 0.6 to 6.6 cm. Therefore, secondary thyroid neoplasms were divided into two types according to their ultrasound findings: diffuse type, which shows diffuse hypoechoic lesions involving the entire thyroid, and nodular type, which shows hypoechoic nodular lesions in the thyroid with a low degree of vascularization (5).

Regarding treatment, thyroid lobectomy is preferred over total thyroidectomy to minimize the risk to the contralateral recurrent laryngeal nerve and the parathyroid glands. Therefore, when treating patients with metastasis in the thyroid gland, we must thoroughly consider the characteristics and metastasis of the primary tumor, as well as the patient's tolerance

From the Radiology Department at San Juan de Dios Western Regional Hospital. Quetzaltenango, Guatemala. Received on August 21, 2025. Accepted on August 25, 2025. Published on August 27, 2025.

DOI 10.5281/zenodo.16959071

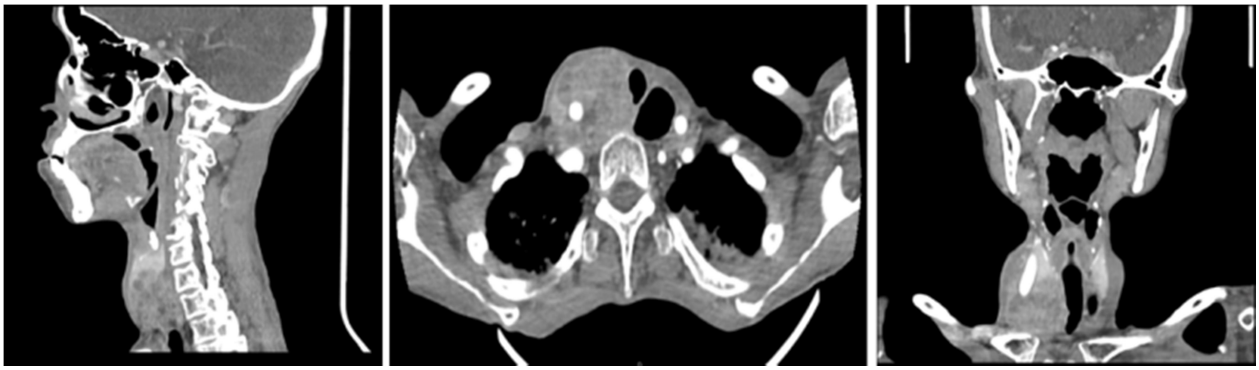

Figure 1. Neck CT scan. In the projection of the right thyroid lobe, the presence of an amorphous, heterogeneous mass with a solid component is observed, which extends both laterally and caudally in relation to the thyroid gland, reaching the prevertebral region of D1 and D2. It also invades the pleura at the level of the right pulmonary apex and the subcutaneous cellular tissue and skin of the anterior region of the neck. This causes displacement and reduction of the air column at the level of the D2 vertebral body. It also envelops and displaces the common carotid artery on the same side. Upon administration of intravenous contrast medium, it shows heterogeneous enhancement predominantly peripheral and reaches attenuation coefficients of up to +92 uH. It measures 6.5 cm in transverse diameter, 3.6 cm in anteroposterior diameter, and 5.6 cm in cephalocaudal extension, findings related to a metastasis lesion already known histopathologically.

to surgery and life expectancy, and adopt an individualized treatment plan with multidisciplinary cooperation.

Conclusion

The biopsy results show tissue thyroid infiltrated by squamous cell carcinoma squamous cells showing nests and tongues of large cells with irregular high-grade nuclei with scant squamous differentiation, infiltrating thyroid follicles, some of which are dilated and contain colloid, indicating metastasis of squamous cell carcinoma, based on the clinical, histological, and radiological findings, thyroid metastasis is diagnosed.

The typical ultrasound findings of secondary thyroid neoplasms include ill-defined hypoechoic nodules and intranodular angiogenesis, and the size of the multiple nodules ranges from 0.6 to 6.6 cm, which is why they divided secondary thyroid neoplasms into two types according to their echographic findings: diffuse type and nodular type.(3)

The surgery is the main comprehensive treatment, which includes total thyroidectomy or subtotal thyroidectomy plus cervical lymph node dissection, postoperative chemotherapy or radiotherapy, and long-term oral thyroxine tablets to replace thyroid function and inhibit the secretion of pituitary thyrotropin to reduce cancer recurrence.

Conflicts of interests

The authors have no conflicts of interests.

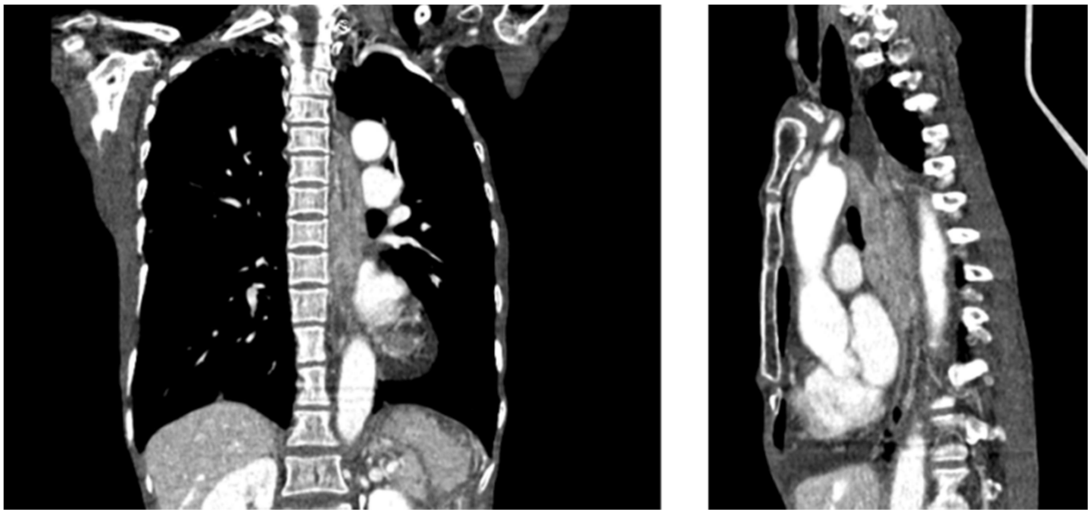

Figure 2. Thoracic CT-Scan. The presence of an infiltrative lesion at the level of the esophagus in its middle third is observed, causing total occlusion of its lumen, with dilation of the proximal portions. The lesion is amorphous, heterogeneous, shows enhancement upon administration of intravenous contrast medium reaching attenuation coefficients of up to +156 HU, measures 14.7 cm in longitudinal diameter, 3 cm in transverse diameter, and 3.5 cm in anteroposterior diameter. At the time of the study, no infiltration of the wall of adjacent vascular structures or airways is observed. These findings are related to an occupational process histologically characterized as squamous cell carcinoma.

The presence of multiple solid and subsolid nodules is observed mainly at the level of the upper lobe on the right side, the largest in this region measuring 2.1 x 2.0 cm; likewise, multiple solid nodules in smaller quantities are observed in the rest of the parenchyma of both lungs, with the largest one at the level of the posterior segment of the left lower lobe measuring 1.7 x 1.3 cm, these nodules are considered metastatic.

DOI 10.5281/zenodo.16959071

Acknowledgements

We thank Dr. Jose Carlos and Dr. Mary Coti for their support in the diagnosis of this case.

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 DOI 10.5281/zenodo.16959071