ABSTRACT

Educational Objective: At the conclusion of this presentation the participants should be able to discuss the etiology of lateral aberrant thyroid tissue and demonstrate the proper workup of patients presenting with a lateral neck mass to include the possibility of ectopic thyroid tissue.

Objectives: To illustrate a case report of a patient presenting with lateral thyroid tissue situated at the carotid bifurcation mimicking a carotid body tumor.

Study Design: Case report and review of the literature.

Methods: A patient is presented with a lateral neck mass. Preoperative imaging demonstrated a heterogeneous right neck mass centered at the carotid bifurcation. Catecholamine levels, and thyroid function tests were within normal range and FNA was nondiagnostic. Patient underwent preoperative embolization of the neck mass followed by resection. Final pathology revealed findings suggestive of follicular adenoma.

Results: The patient underwent resection of the right neck mass after successful preoperative embolization without complication. The location of the mass in the lateral neck, the benign histopathology (follicular adenoma), and the distinct separation from the thyroid gland all support the diagnosis of “lateral aberrant thyroid”.

Conclusions: This case highlights the importance of considering lateral aberrant thyroid in the differential of lateral neck mass. Further workup should include characterization of the orthotopic thyroid gland and patients should always be consented for definitive surgical therapy should intraoperative findings or frozen section reveal findings suggestive of malignancy of thyroid etiology.

CASE REPORT

A 40-year-old presented with a right-sided cervical mass of 18 months duration. Patient was asymptomatic, denying: pain, dysphagia, dyspnea, cough. Physical Exam notable for right neck mass spanning levels I through III. The mass was nontender, non-compressible, and laterally mobile.

Preoperative assessment
- CT showed a 9 x 4 x 5 cm right neck mass with heterogeneous enhancement
- MRI showed heterogeneous mass hyperintense on T1 and T2. Sharp demarcation between the tumor and the thyroid gland.
- FNA yielded non-diagnostic results.
- Thyroid function tests, Urinary VMA, and normetanephrine levels all within normal range

RESULTS

True benign thyroid masses presenting as solitary lateral neck mass remain very rare. Indeed, the etiology of such masses has generated much controversy.

• In 1906, Scharger first coined the term “lateral aberrant thyroid”, which he defined as a “normal pathology thyroid, situated at some definite distance from the normal thyroid, with which it has no connection whatsoever”.
• In 1946, Lahey and Fierra reported a series of 47 cases of “lateral aberrant thyroid” tissue. The authors attributed the origin of the lateral aberrant thyroid tissue as ultimobranchial bodies that underwent conversion to thyroid tissue.
• In 1944, Clay and Blackman proposed that the “lateral thyroid masses” represented metastases to lymph nodes from a primary carcinoma of the thyroid.
• In 1986, Maceri et al. reported a series of 268 cases of thyroid cancer, of which 36 patients had, as the sole presenting sign, a lateral neck mass that proved to be metastatic thyroid cancer.
• In 1996, Rabinov presented a case of right neck mass excision for presumed branchial cleft cyst. Postoperative histopathologic examination revealed papillary thyroid carcinoma.

In our case, the lateral aberrant thyroid tissue was located anteromedial to the carotid sheath, centered at the level of the carotid bifurcation. Intraoperatively, the mass was noted to be separate from the right thyroid lobe. The location of the mass in the lateral neck, the benign histopathology (follicular adenoma), and the distinct separation from the thyroid gland all support the diagnosis of “lateral aberrant thyroid”.

CONCLUSIONS

In conclusion, lateral aberrant thyroid represents a rare, yet important diagnosis in the differential of lateral neck masses. Clinicians should entertain the possibility of ectopic thyroid tissue. Further workup should include characterization of orthotopic thyroid gland with complete blood tests. In cases where the definitive diagnosis is uncertain preoperatively, patients should be consented for definitive surgical therapy should intraoperative findings and/or frozen section reveal evidence suggestive of malignancy.

REFERENCES