Malignant Fibrous Histiocytoma Metastatic to the Thyroid Gland: Case Report and Review of the Literature

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INTRODUCTION

Objective
1) Understand the presentation and diagnostic workup for malignant fibrous histiocytoma metastatic to the thyroid gland.
2) Be able to discuss different treatment strategies for malignant fibrous histiocytoma metastatic to the thyroid.

Methods: Case Report

Results:
Our patient with a left thyroid mass removed with thyroid lobectomy yielded a 200 gram left lobe measuring 9.5 x 7.5 x 5.4 centimeters. Histopathologic analysis revealed a cellular malignant neoplasm composed of spindle cells in a fascicular arrangement, suggestive of high grade metastatic sarcoma. Immunohistochemistry differentiated this lesion from anaplastic thyroid carcinoma and supported a diagnosis of malignant fibrous histiocytoma metastatic to the thyroid. Despite these findings, the patient elected not to proceed with a completion thyroidectomy.

Conclusions:
Malignant fibrous histiocytoma metastatic to the thyroid is a rare clinical entity, with only five cases reported in the literature. However, it merits consideration in the differential diagnosis of patients presenting with rapidly enlarging thyroid masses, especially those with a history of primary malignant fibrous histiocytoma elsewhere in the body. The foundation of treatment is wide local excision with adjuvant radiation and/or chemotherapy utilized on a case by case basis.

DISCUSSION

6th documented case of MFH metastatic to the thyroid gland

Clinical presentation similar to anaplastic thyroid carcinoma, in addition, histopathologic features are similar to the spindle variant of anaplastic thyroid carcinoma.

Immunohistochemical stains for MFH are positive for alpha-1-antichymotrypsin, alpha-1-antitrypsin, CD-68, and can differentiate MFH of thyroid from anaplastic thyroid carcinoma.

Treatment involves wide local excision, most often in the form of a total thyroidectomy. Neck dissection performed only if cervical lymph nodes are clinically or radiographically involved.

Adjuvant radiotherapy and chemotherapy have been utilized in treating MFH of the thyroid, mainly as an attempt to improve local-regional control, recurrence, and address metastatic disease. However, too few reports exist regarding its benefit in addressing these matters, and, as a result, decisions to incorporate it should be made on a case by case basis.

CONCLUSIONS

Malignant fibrous histiocytoma metastatic to the thyroid is a rare clinical entity. Its sudden onset is reminiscent of the clinical presentation for anaplastic thyroid carcinoma. Furthermore, histologic findings are also similar to those of the spindle variant of anaplastic thyroid carcinoma. As a result, a thorough history to uncover a primary site of MFH or the utilization of IHC stains to differentiate MFH from anaplastic thyroid carcinoma can aid in diagnosis. The foundation of treatment is wide local excision. Adjuvant therapy with radiation or chemotherapy is utilized on a case by case basis.

REFERENCES