Extrathyroidal Hashimoto’s Thyroiditis of the Strap Muscles: A Case Report

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Abstract

Introduction: Ectopic thyroid gland is a rare occurrence with a prevalence of 1 per 100,000–300,000 people. Hashimoto’s thyroiditis involving ectopic thyroid tissue is particularly unusual. Methods: We present a case of ectopic thyroid tissue located in the strap muscles with concurrent Hashimoto’s thyroiditis, this tissue was initially believed to represent metastatic follicular thyroid carcinoma. We present this case report, this project was exempt from Institutional Review Board approval. Objective: To describe the presentation, work-up, surgical management, and brief review of literature. Conclusion: Whenever ectopic thyroid tissue is encountered the possibility of benign thyroid tissue should not be excluded even if the thyroid histology initially appears to be malignant in nature.

Case Description

An 83 year old female was referred to the Division of Head and Neck Oncology for further management of a newly diagnosed thyroid cancer. She had a past medical history of radiation in 1955 due to tuberculosis, radiation type or fields were unknown. Her thyroid history was also consistent with tuberculosis in 1955 due to tuberculosis, radiation type or fields were unknown. Her thyroid history was also

Histology

Figure 1

Figure 5: Hashimoto’s thyroiditis of upper central neck tissue. Abundant follicular lymphoid hyperplasia and oncocytic/Hurthle cell change of the follicles. Nearby skeletal muscle and fat (upper portion of the figure) H & E stain with 2x (20 x original magnification) magnification.

Figure 2

Figure 4: Ectopic thyroid adipose and soft tissue. Abundant thyroid follicles within fibrous tissue and fat demonstrating existence of ectopic thyroid glandular tissue. H & E stain with 4x (40 x original magnification) magnification.

Discussion

Dr. Hakaru Hashimoto is the physician credited for first describing HT. HT affects about 2% of the population, making it one of the most common thyroid diseases (2). It mainly presents in young or middle aged women, 30-50 years old (3), as a diffuse painful enlargement of the thyroid gland. Hypothyroidism is its most common complication (4). Up to 40% of patients report a positive family history of thyroid disease. HT is caused by autoimmune destruction, as evident from the presence of antithyroglobulin and antimicrosomal antibodies in the majority of patients (3). Upon histologic examination of the thyroid glands, there is presence of fibrosis, lymphoid cellular infiltration, thyroid cells become roseophilic and larger (Hurthle cells), the cytoplasm may appear granular due to excess mitochondria, and nuclei may be prominent (4).

Ectopic thyroid tissue is a rare entity occurring in about 1/100,000–300,000 people but its prevalence increases to 1/1000-8000 in people with thyroid disease. In autopsy studies, the prevalence of thyroid tissue can range from 7-10%. In about 70-90% of ectopic thyroid tissue it is the only thyroid tissue present (1).

Normal embryological development of the thyroid gland starts at the floor of the primitive foregut and migrates caudally to its final position pretracheally, thereby forming the thyroglossal duct (1). Fusion of two anlagen make up the thyroid gland: two lateral anlagen and a median anlage. The thyroid gland is fully formed by the 8th week of pregnancy and the thyroid gland is fully formed by 28 weeks of gestation. The thyroid gland is fully formed by the 8th week of pregnancy and the thyroid gland is fully formed by 28 weeks of gestation. At 6 months of age, the gland is fully formed by the 8th week of pregnancy and the thyroid gland is fully formed by 28 weeks of gestation. In young or middle aged women, 30-50 years old (3), as a diffuse painful enlargement of the thyroid gland. Hypothyroidism is its most common complication (4). Up to 40% of patients report a positive family history of thyroid disease. HT is caused by autoimmune destruction, as evident from the presence of antithyroglobulin and antimicrosomal antibodies in the majority of patients (3). Upon histologic examination of the thyroid glands, there is presence of fibrosis, lymphoid cellular infiltration, thyroid cells become roseophilic and larger (Hurthle cells), the cytoplasm may appear granular due to excess mitochondria, and nuclei may be prominent (4).

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