Lymphangioma of the Thyroid

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Thyroid nodules are a presenting symptom of a broad variety of thyroid disorders. Despite the frequency of thyroid nodule in otolaryngology practice and the availability of novel diagnostic procedures, occasionally a head and neck surgeon may be surprised by a histopathological finding of lymphangioma in the thyroid tissue sections. Four previous reports of thyroid lymphangioma have been published in the last 50 years [1-4]. We report a fifth case and discuss its clinical importance.

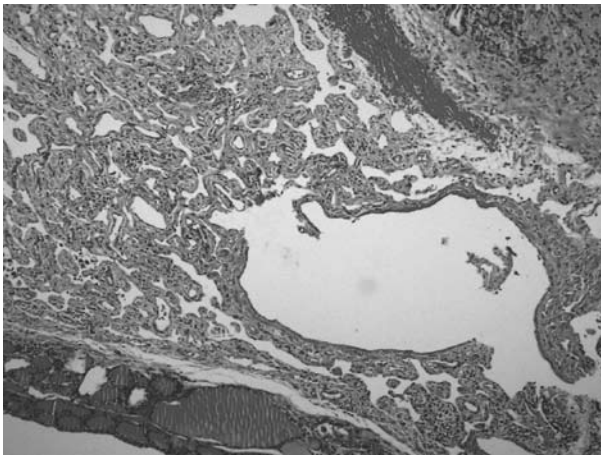
Patient Description

A 66 year old woman presented with an 8 month history of thyroid enlargement and occasional shortness of breath. There was no history of neck irradiation or previous thyroid disease. Thyroid nodule had been found in her brother but surgery was not performed. Our patient had arterial hypertension, glaucoma and peptic disease with gastroesophageal reflux. Physical examination revealed a large smooth mass in the left lobe of the thyroid, which moved with swallowing. Normal vocal cord movement was noted on indirect laryngoscopy. The results of the thyroid function tests were normal as were the routine laboratory tests. Fine-needle aspiration biopsy revealed a few follicular cells with blood and colloid, consistent with nodular goiter.

Owing to the unusually rapid clinical development and respiratory difficulty, additional studies were performed. Neck ultrasound demonstrated the enlarged non-homogenous left lobe of thyroid gland. Neck computed tomography without contrast demonstrated an 8 x 5 x 4 cm mass in the left lobe of the thyroid, which extended 1.5 cm below the sternal notch and caused tracheal compression and deviation to the right. Lymph nodes were within normal limits in both studies.

In view of the respiratory complaints and evidence of compression on the trachea the patient was referred for surgery. A left hemithyroidectomy was performed, with preservation of the left recurrent laryngeal nerve. Her postoperative recovery was uneventful.

Macroscopic examination revealed an enlarged left lobe of the thyroid (100 g) measuring 8 x 5 x 5 cm and with a rough multinodular surface. Within the lobe, cystic areas ranging from 0.2 to 0.5 cm in diameter were found. Microscopic examination demonstrated diffuse and nodular adenomatous goiter with microscopic lymphangioma [Figure].



Photomicrograph demonstrating the microscopic lymphangioma within the thyroid parenchyma. Multiple dilated lymphatic channels lined by endothelial cells are seen, but no capsule is present. (Hematoxylin and eosin, original magnification x 40)

At follow-up 14 months later the patient was symptom free. Palpation of the neck revealed a slightly enlarged right lobe of the thyroid with nodularity. An ultrasound neck examination taken 14 months postoperatively showed no remains of thyroid tissue in the bed of the left thyroid lobe, some multinodular enlargement of the right lobe of the thyroid and normal lymph nodes.

Comment

Lymphangiomas are uncommon benign congenital malformations of lymphatic development that are usually diagnosed during infancy. When found, they are usually located in the head and neck. Common head and neck sites are the anterior or posterior cervical triangle, floor of the mouth, and the tongue [5]. The most accepted theory is that the dysplastic lymphatic tissue is sequestered in a target organ during embryogenesis. No evidence of increased cell turnover was found, but once transected these lesions can proliferate into the surgical scar. Imaging studies in the evaluation of lymphatic malformation include ultrasonography, computed tomography and magnetic resonance imaging. Despite proximity to common sites of lymphangiomas, the thyroid gland is a very rare anatomic location for this lesion. Only four such cases have been reported previously [1-4].

All five patients, including our case – three women and two men – were adults with an age range of 21 to 66 years. The presenting feature in all five patients was a thyroid nodule. The time from appearance of the thyroid enlargement to surgery ranged from 8 months to 4 years. Three patients complained of dyspnea during exercise [1,4], most likely due to compression on the trachea by the

goiter. The thyroid function was normal in all five cases. A technetium thyroid scan was performed in three cases and showed hypofunctioning thyroid nodules [2-4]. Only in our case were CT and ultrasound performed. In the last three cases fine-needle aspiration was conducted [3,4]. There was no suspicion of a lymphangioma preoperatively in any of the five cases.

The treatment of choice for lymphangioma is surgical excision as complete as possible. All five patients underwent thyroid surgery with excision of the lesions and surrounding thyroid tissue. Subsequent pathological examination revealed a microscopic lymphangioma. In two cases, surgery and postoperative recovery were uneventful and the follow-up examination revealed symptom-free patients [1,2]. In our patient the results were similar, apart from a slight enlargement of the remnant thyroid without any symptoms. Data on surgical complications and follow-up are lacking in the other two case reports [3,4].

In summary, lymphangioma of the thyroid is a rare cause of thyroid nodule. The characteristic clinical pattern and the value of an additional evaluation are not clear due to limited information. We hold that a complete surgical excision is curative; therefore, awareness of this possibility is important during assessment of thyroid nodules.

References

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