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CARCINOMA THYROID DUPLEX-COEXISTENCE OF PAPILLARY THYROID CARCINOMA WITH THYROID LYMPHOMA: A CASE REPORT AND LITERATURE REVIEW.

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Background: Malignant tumors of the thyroid gland accounts about 1% of the newly diagnosed malignant tumors each year, and their incidence in women is twice the incidence in men. Papillary thyroid cancer (PTC) represents 80-85% of thyroid cancer and its prevalence has been rising in the last decades. On the contrary, primary thyroid lymphoma (PTL) is a rare disease, accounting for 3% of extranodal lymphomas and about 5% of thyroid malignancis. Despite several cases in witch both PTC and PTL arise in the setting of chronic lymphocyte thyreoiditis, the coexistence of both tumors is very rare.

The aim was to present a patient with a primary thyroid lymphoma and papillary thyroid carcinoma, who had previously not had any immunological changes to the gland, that is, she had not had any chronic lymphocyte thyroiditis, but due to the compressive syndrome it was necessary to perform an emergency surgical procedure to reduce the tumor.

Conclusion: Considering the higher risk of neoplasia in Haschimoto's thyreoiditis with long-standing disease and nodular lesions, our case highlights the importance of regular folow-up in order to reach an early diagnosis: in particular, a sudden tharoid enlargement in elder patients should lead physicians to consider PTL in the differential diagnosis.

Key words: Malignant tumor, Papillary thyroid carcinoma, Thyroid limphoma

INTRODUCTION

Malignant tumors of the thyroid gland account for about 1% of the newly diagnosed malignant tumors each year [1] and their incidence in women is twice the incidence in the men [2].They most often occur in older patients where the average age of occurrence is 65 years. According to the WHO classification (2004), thyroid tumors are divided into: carcinoma of the thyroid, adenoma and similar tumors, and other thyroid tumors which include: teratomas, angiosarcomas, paragangliomas and other as well as primary lymphomas and plasmacytomas [3]. Papillary thyroid cancer (PTC) represents the most frequent variaition at countries with iodine sufficient diet [4] and its prevalence has been rising in the last decades, being about 80-85% [4,5]. Probably it is due to improved diagnostics of the small cancer <1cm. Primary thyroid lymphoma (PTL) accounts for 3% of extranodal lymphomas and about 5% of thyroid malignancies, having a prevalence of one to two cases per miloin people [5,6]. More common in women (3:1) at seventh decade of life, it develops 5-10 years earlier in men [7]. Its pathogenesis is unknown, but PTL, autoimmune diseases and antigen stimulation have been associated. Patients with Hashimoto's thyreoiditis (HT) have 40-80 times more risk, however only 0,6% develop it [8,9]. Extranodal marginal zone B cell lymphoma (EMZBCL) and diffuse large B cell lymphoma (DLBCL) are lymphomas which most ofen occuer in the thyroid with areas of morphology of a transient form between these two types of lymphoma. Other, especially follicular lymphomas are extremely rare [3]. Diffuse large cell B lymphomas are lymphomas which occur most often in the lymphonodes, whilst in 30% of cases they can occur as extra-nodal. The most common extra-nodal site where lymphomas of this type occur is the thyroid [8]. The rapidly growing mass of the thyroid gland in a older woman should always arouse suspicion of a tumor. Pathological verification is the gold standard for diagnostic decision immunohistochemistry, flow cytometry or genetic molecular analysis are still necessary in addition [3]. Treating large cell lymphomas of the thyroid gland is no different from treatment lymph nodes [9]. Treatment is based on the sub-type of the lymphoma and the scope of the disease. Today, the trend in treatment of large cell lymphomas is for treatment to be selected on the basis of prognostic factors. Treatment of a disease which is limited to the thyroid glandis performed by local regional radiation or surgery. In most patients, treatment is mainly by a standard chemo-therapy regime, which consists of Cyclophosphamide, Doxorubicin, Vincristine and Prednisolone (CHOP) in combination

with radiation, and must always be under the supervision of an oncologist [10]. The goal of this is to present a patient with microPTC and thyroid lymphoma, who had not had any previous immunological disease of thyroid gland, that is, chronic lympocyte thyroiditis, and in whom it was necessary to perform surgery to reduce the tumor due to compression syndrome.

CASE REPORT

A 65-year-old women followed-up due to a goiter enlargement in last five mounts, now presents with associated cervical pain, dysphagia and dyspnea to solids. On physical examination, thyroid gland was enlarged asymmetrically. The left lobe was larger than the right and it had a nodule of 6cm, hard, adhered to deep tissue and less mobile at deglutition. A nodule of 3cm with the same characteristics was found at right lobe. There was no palpable cervical lymphadenopathy and the rest of the examination and laboratory results were unremarkable. The patient was euthyroid and she didn't take any medication. Thyroid ultrasonography showed multinodal changes to the thyroid gland with a compressed trachea on the right and to the front. On both sides of the neck there were of enlarged lymph nodes. On computed tomography(CT) scan, the thyroid mass was predominantly in the left lobe, extending cranially to the margin of the mandibule and caudally to the mediastinum to the level of the ThIII. Since compressive syndrome and respiratory insufficiency were present, it was proposed following consultation that tumor reduction tracheotomy and total thyroidectomy was performed. Although the preoperative USG guided needle aspirative biopsy is the mainstay in the current literature and should be done in every suspected nodule, we preferred the prompt surgical treatments in the particular case due to the fast multinodular growing in the patient and the compressed trachea. Histopathology found a papillary thyroid microcarcinoma, of 5 mm x 3,5 mm in the right lobe (Figure 1) and concomitant Lymphoma malignum diffusum centroblasticum B glandule thyreoideae- diffuse large cell B lymphoma in the left lobe (Figure 2) and accompanied of Thyroiditis chronica lymphocytica in the both lobe (Figure 3). Immunohistochemical analysis showed that the neoplastic cells were positive for CD20 (Figure 4) and bcl-2, whilst they were negative for CD 3, CD 5, CD 10, cyclin D1. PTC was considered pT1aNoMo. The patient is referred to a hematologist for further treatment for the PTL, but she did not undergo radioactive iodine ablation treatment fot the microPTC as per guidellines.The patient was discharged home and prescribed oral levothyroxine 100 mcg per day .

DISCUSSION

PTL, with an estimated annual incidence of two cases per milion, is a rare thyroid malignancy. The coexistence of thyroid lymphoma and PTC in a context of HT is extremely uncommon, with few cases [10,11,12]. The course can be indolent and only detected by thyroid ultrasound, as the experiences of Cheng et al [12] and Vassilatou et al [13] or, more typical of PTL, an enlargement of a neck mass [8] that can be with obstructive symptoms as hoarseness [10], dysphonia, neck pain and dysphagia as the present patient or even severe airway obstruction leading to emergency surgery [14], or without them, an isolated enlergement [11]. Thyroid lymphomas are typically B-cell non- Hodgkin's lymphoma (NHL), and the most common subtype of PTL is diffuse large B-cell Lymphoma (DLBCL), accounting for >50% of cases, followed by MALT lymphoma, witch represents 10-23% of cases [15,16,17]. The most common clinical presentation is a rapidly growing neck mass, which is reported in >70% of cases [18]. An vast majority of cases [15,16,17] in which patients presented with a history of a rapid growing neck mass in the context of a large goiter, as usually happens with patients harboring PTL, as in our patient. PTL is most commonly observed in middle- to older-aged famales [19]. Age has been shown to be a significant factor among PTL patients, especially those > 60 years of age, in agreement with our results [19,20]. There is an association between papillary thyroid cancer and thyroid lymphoma in the setting of Hashimoto's thyroiditis [21]. Hashimoto's thyroiditis has been associated with 10-58% of cases of papillary thyroid cancer and more than 90% of cases of thyroid lymphoma [21]. However, the co-occurrence of papillary thyroid cancer and thyroid lymphoma is very rare [21]. This case demonstrates that as a clinician, one must be of the possibility of multiple concurrent thyroid malignancies. Of note, our patient was never diagnossed with thyroiditis prior to her presentation , but had evidence of chronic thyroiditis on final pathology. Because of the association of thyroid malignancy in patients with Haschimoto's thyroiditis, there should be adequate surveillance in patients with a history of Haschimoto's thyroiditis for papillary thyroid cancer as well as thyroid lymphoma. Some studies suggest performing a thyroid ultrasound at the initial visit for patients diagnosed with Haschimoto's thyroiditis to screen for thyroid malignancy [22].

CONCLUSION

This unusual case of papillary thyroid carcinoma and thyroid lymphoma is interesting because it occurred in a patien who did not have Haschimoto's thyreoiditis. The surgery was performed bacause of compression of the airways caused by the rapid increase in size of the thyroid gland due to infiltration by neoplastic cells. Considering the higher risk of neoplasia in Haschimoto's thyreoiditis with long-standing disease and nodular lesions, our case highlights the importance of regular folow-up in order to reach an early diagnosis: in particular, a sudden thyroid enlargement in elder patients should lead physicians to consider PTL in the differential diagnosis.

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