

Primary Thyroid Non-Hodgkin's Lymphoma

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Abstract

Primary non-Hodgkin's lymphoma of the thyroid gland was rarely described. We report the case of a 44-year-old man admitted for an anterior neck swelling, hoarseness and dyspnea. The chest radiograph showed a trachea deviation. He had no clinical, biological or radiological sign of other lymphoma locations. Ultrasound examination of the neck revealed a bilateral heterogeneous thyroid lesion. Cytology revealed lymphoid cells having high nuclear-cytoplasmic ratio with multiple and irregular nucleoli. An urgent thyroid surgery consisting of total thyroidectomy had been performed since the presence of compressive signs due to the tumor. The histopathological examination of a biopsy from the thyroid tissue confirmed a high-grade non-Hodgkin's lymphoma. Then, L-thyroxin substitution therapy, chemotherapy and radiotherapy were initiated. A prolonged remission was noted.

Keywords

Thyroid Gland, Lymphoma, Immunohistochemistry

1. Introduction

Hodgkin's lymphoma presents 10% of all lymphomas, and 90% corresponds to non-Hodgkin lymphoma (NHL).

NHL is characterized by clinical features and histological polymorphism inducing a lateness of the diagnosis and worsening the prognosis [1] [2].

NHL is not rare, and can be encountered in different specialties. The diagnosis may sometimes be not evoked in the absence of typical clinical or biological signs, but histological results conclude to NHL [1]-[3].

The histological study determines the malignancy grade affecting the prognostic profile.

The immunohistochemistry defines the NHL type (T-cell or B-cell lymphoma). Many effective treatments per-

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mit a remission in case of early diagnosis.

Primary NHL of the thyroid gland is a rare disease. Principle differential diagnoses are lymphocytic thyroiditis and thyroid carcinoma. The confirmation is based on the finding of immunohistochemistry. The treatment associates chemotherapy, radiotherapy and surgery according to clinical form. The aim of this study is to insist on the scarcity of the thyroid primary NHL, a diagnosis which should be considered in case of thyroid swelling. It focuses on the relation between the prognosis and the time to diagnosis.

2. Case Report

A 44-year-old man presented with a progressive swelling of the anterior neck without local inflammatory signs, a recent hoarseness and a discrete dyspnea lasting for a month. He had no fever or sweat. The lymph nodes areas were free. The abdominal examination didn't find a hepatosplenomegaly.

The lactate dehydrogenase and the beta 2 microglobulin levels were normal.

The research of antithyroid antibodies was negative.

The chest radiograph showed a trachea deviation.

Thoraco-abdominal and pelvic CT scan was without abnormalities.

Ultrasound examination of the neck revealed a bilateral heterogeneous thyroid lesion having 5 cm of diameter. It didn't find lymphadenopathy.

Fine needle aspiration was performed under ultrasound guidance. Cytology revealed lymphoid cells having high nuclear-cytoplasmic ratio with multiple nucleoli.

An urgent thyroid surgery consisting of total thyroidectomy was performed since the presence of compressive signs due to the tumor. The histopathological examination of a biopsy from the thyroid tissue found small atypical lymphoid cells infiltrates with nuclear abnormalities and a high nuclear-cytoplasmic ratio. Immunohistochemistry showed CD45 and CD20 cell expressing. The conclusion was a high-grade malignancy B-cell NHL.

L-thyroxin substitution therapy, chemotherapy by the CHOP regimen and radiotherapy against the localized tumor were initiated after the total thyroidectomy.

The evolving was marked by a prolonged remission during a monitoring lasting 3 years.

3. Discussion

Primary lymphoma of the thyroid gland is a rare pathology reported in few publications [1]-[3]. It is strongly associated with chronic lymphocytic thyroiditis [4].

The lymphocytic thyroiditis and small cell carcinoma are the essential differential diagnosis of the lymphoma [4] [5].

An observation of a NHL of the thyroid, developed on Hashimoto's thyroiditis was published [5].

The diagnostic is difficult because of the absence of other clinical or biological signs evoking a lymphoma and the similarities of the cytology findings with other diagnosis.

Cytological results direct the diagnosis.

However, only the immunohistopathology allows the confirmation of the lymphoma.

Colović *et al.* reviewed the management and outcomes of nine series of patients affected of thyroid NHL [6] in whose five patients had stage IE and four patients presented stage IIE. Total thyroidectomy was performed in three patients and subtotal thyroidectomy in four cases [6].

The treatment was based on surgical resection.

Nevertheless, new therapies including chemotherapy, local radiotherapy and biotherapy (rituximab) are efficient. Surgery is reserved for tissue diagnosis and in case of airway compression [7] [8].

Surgery in combination with chemotherapy and/or radiotherapy is indicated in high-grade thyroid NHL, with a long-term remission evolving in 77% of patients with a median survival of 79 months [6].

An early diagnosis and treatment guarantee a better prognosis.

4. Conclusion

In case of thyroid enlarging, diagnostic difficulties are encountered to confirm a primary thyroid NHL inducing a lateness of therapeutic management.

Disclosure Statement

The authors have nothing to disclose.

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Abbreviation

NHL: non-Hodgkin's lymphoma