Thyroid Carcinoma of the Elderly: About 60 Cases And Review of the Literature.

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Summary: The differentiated thyroid carcinomas are considered to have a good prognosis: 90% survival at 5 years. However, advanced age is a factor aggravating the prognosis with a marked increase in aggressive forms and a greater frequency of metastasis. We report a series of 60 cases collected in our department between 1994-2016. The anamnestic, clinical and histological characteristics, the results of the extension report were analyzed and compared with the data of the literature. Our results were the following: average age at diagnosis is 66.58 years (60-82 years). The sex ratio = 027 (47 women and 13 men) was pure papillary (31.66%), pure vesicular (28.33%). The vesicular component associated with the papillary was noted in 28.33%, vesicular carcinoma with undifferentiated component In 3 cases (5%), the oncocytic variant in 3.33% and the anaplastic carcinoma in 2 cases (3.33%), the metastases were noted in 35%.

Keywords: undifferentiated carcinoma, anaplastic carcinoma, TNM classification, aggressivity

I. Introduction

Differentiated thyroid carcinomas have an excellent prognosis with a 5-year survival estimated at 90%. However they tend to be more aggressive in older patients and more likely to recur. (1, 2). Indeed, the histological type is less favorable with an increase in follicular and anaplastic types, an advanced stage of the initial tumor, an extrathyroid extension, more frequent metastatic pulmonary and bone involvement, and a significantly lower survival compared to the younger ones (3)

II. Objective

The objective of this study is to report the phenotypic, therapeutic and evolutionary characteristics of thyroid cancers in the elderly

III. Materials And Methods

This is a retrospective study of 60 patients with age greater than or equal to 60 years carrying a thyroid cancer and followed between 1994 and 2016. All underwent questioning, clinical examination, a histopathological study and a complete as possible staging.

All patients underwent clinical examination and specific thyroid exploration (cervical ultrasound, fine needle aspiration thyroid, thyroid assessment, téléthorax, abdominal ultrasound). The staging was completed by patient context. After the exploration, patients underwent surgery (thyroidectomy ± laterocervical lymphadenectomy and récurrentiel) Histopathological study of surgical specimens were routinely performed. After surgery, a complementary treatment was indicated according to the histological type and the tumor stage. In the case of differentiated thyroid cancer patients received a course of iratherine and were put under suppressive therapy with levothyroxine. Patients were monitored regularly with clinical, biological (Determination of TG in braking and defreination) and radiological reevaluations (post-I131 tocoorporereal scintigraphy)

IV. Résults

The mean age at diagnosis was 66.58 ± 0.4 years (60-82 years). The sex ratio F/H is 3.6. The majority of patients (96.5%) had a differentiated carcinoma of the thyroid. In other cases, it was an anaplastic cancer of the thyroid.

The well differentiated type: Classic papillary is observed in one third of the cases (Table I).

Table I: Distribution of Patients by Histological Type:

<table>
<thead>
<tr>
<th>Histological type</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classic papillary</td>
<td>19</td>
<td>31.6</td>
</tr>
<tr>
<td>Classic Vesicular</td>
<td>17</td>
<td>28.3</td>
</tr>
<tr>
<td>Vesicular component associated with papillary</td>
<td>17</td>
<td>28.3</td>
</tr>
<tr>
<td>Vesicular carcinoma with undifferentiated</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>
75% of patients had a capsular break and had an advanced stage of tumor pathology. Slightly more than one-third (35%, n = 21) had secondary sites at the time of diagnosis (Table II).

**Table II: Distribution of Patients by Tumor Stage**

<table>
<thead>
<tr>
<th>Staging</th>
<th>TNM</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>T2</td>
<td></td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>T3</td>
<td></td>
<td>40</td>
<td>60.6</td>
</tr>
<tr>
<td>N1M0</td>
<td></td>
<td>2</td>
<td>3.3</td>
</tr>
<tr>
<td>N1M1</td>
<td></td>
<td>14</td>
<td>23.3</td>
</tr>
<tr>
<td>T4</td>
<td></td>
<td>5</td>
<td>8.3</td>
</tr>
<tr>
<td>N1M1</td>
<td></td>
<td>5</td>
<td>8.3</td>
</tr>
</tbody>
</table>

All patients were operated with the exception of the anaplastic type. Thyroidectomy was performed with cervical lymph node dissection. A transient hypoparathyroidism occurred in 25 patients (24.8%), permanent hypoparathyroidism in 4 (4%), hematoma in 6 (5.9%), recurrent nerve palsy in 2 (2%), and wound infection in 2 (2%) Postoperative evaluation showed remission in 41.6% of differentiated forms; In the other patients a chemotherapy more or less radiotherapy were realized in them. The evolution was marked by a tumor evolution in 2/3 of the cases and the death in 58% of cases after an average follow-up of 2.5 years from diagnosis.

**V. Discussion**

Thyroid carcinomas are rare malignant tumors, accounting for 1% of cancers. They are generally of good prognosis, and present clinical and evolutionary aspects depending on their histological origin (4). Since the 1970s, the incidence of thyroid cancer has increased in most countries. Reach the young subject before the age of 50, especially the female sex. However, it can occur in the elderly.

Age at diagnosis of thyroid cancer influences prognosis. There was a steady fall in survival with age: 100% survival at 10 years in patients younger than 20 years of age, 55% in patients aged 31 to 40, 31% in patients between 41 to 50 years old, and less than 5% for those older than 60 (5)(6) (7). The steady decline in survival with age occurred with both well-differentiated (papillary, follicular, and Hurthle cell cancer) and poorly differentiated (medullary, anaplastic, and undifferentiated) thyroid cancers. In patients less than 45 years of age with papillary thyroid cancer, the 10-year survival rate was 97%, and in those 45 years of age or older, the 10-year survival rate was 47-85% (8).

Recurrence of thyroid cancer is also influenced by age. Cady et al followed 600 patients with differentiated thyroid cancer for 15 to 45 years (9). In women less than 50 years of age, the overall risk of recurrence was 10% and the risk of death was 3%; in contrast the risk of recurrence and death in women older than 50 years was 32% and 30%, respectively. Of the patients in whom disease recurred or metastases developed, 89% of the women over age 50 died and only 30% of those less than 50 years of age died. In men, the risk of recurrence was approximately 32% in those older than 40 years of age and approximately 12% in those who were younger than 40. Lymph node recurrence occurs in 10-14% of patients and is typically associated with a good prognosis. However, patients 45 years of age and older who have lymph node recurrence are more likely to die of their disease than those under the age of 45 (10).

In older patients with thyroid cancer, extension of disease outside of the thyroid gland dramatically worsened prognosis while it did not alter the good prognosis in young patients. The recurrence rate and death rate increased to approximately 67% and 60%, respectively, in older patients, while in younger patients the recurrence rate and death rate were 12% and 4%, respectively (9). Distant metastases are a more ominous sign in older patients with thyroid cancer. The risk of death in older patients with distant metastasis is approximately 96%, but in younger patients the risk of death is 63% (9). The management of thyroid cancer in an older patient is the same as that in a younger individual. In most patients, near total or total thyroidectomy followed by radioactive iodine ablation of the remaining tissue is the accepted approach.

However, thyroidectomy in the elderly is associated with an increased risk for pulmonary, cardiac and infectious complications in comparison with middle-aged patients. In older patients, thyroxine suppression therapy (equivalent to subclinical thyrotoxicosis) may trigger atrial fibrillation. In the Framingham Heart Study, individuals greater than 60 years of age with TSH values of 0.1 mU/L or less had an adjusted relative risk of 3.8 for developing atrial fibrillation during a 10-year follow-up and those with TSH values between 0.1 mU/L and 0.4 mU/L had an adjusted relative risk of 1.6 (11) (12).
The effect of prolonged subclinical hyperthyroidism due to L-thyroxine therapy on bone mineral density is controversial. A meta-analysis that included 13 studies, in which 50% of the patients with L-thyroxine-induced subclinical hyperthyroidism had thyroid cancer, reported average bone mass loss of 0.91% per year over a 10-year period in postmenopausal women (13). This decline in bone mass was statistically significant when compared to controls. Anaplastic cancers account for about 1.6% of thyroid cancers and their annual incidence is of the order of two per million inhabitants (8). They predominate widely in the elderly, with a peak incidence in the seventh decade.

The hypothesis of anaplastic cancer of the thyroid must be evoked in an elderly patient with an old goitre in the presence of an acute cervical symptomatology associating A mass syndrome of thyroid origin and signs of indirect compression. Management should be rapid for two reasons: the tumor doubling time is extremely short, and the extent of disease extension affects treatment options and survival (14). In contrast, primary thyroid lymphoma is also rarely thyroid malignancy, accounting for only 0.6% to 5% of all thyroid cancers (10). The peak incidence of thyroid lymphoma is between 50 and 80 years of age. Almost all patients with thyroid lymphoma have Hashimoto’s thyroiditis with or without hypothyroidism (15) (16).

Bibliographie

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[17] Conclusion: La prédominance féminine est classique quel que soit l’âge.La fréquence des formes histologiques plus agressives et des métastases notamment à distance modifient le pronostic des cancers thyroidiens chez le sujet âgé le rendant plus défavorable.

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