CLN Metastasis with PTC Located in the Isthmus

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ABSTRACT

Objective
To investigate the patterns and predictive factors of central lymph node metastasis in the patients with papillary thyroid carcinoma located in the isthmus.

Methods
We evaluated the 447 with solitary nodules of 1257 patients with papillary thyroid cancer who underwent total thyimnodectomy with bilateral central lymph node dissection. We reviewed the charts retrospectively. The patients were analyzed in two groups; group I: patients with cancer located in the isthmus (n=35) and group II: patients with cancer in other regions (n=412). We evaluate the clinicopathological characteristics and predictive factors and compared between the two groups.

RESULTS
The frequency of central lymph node (CLN) metastasis (CLN metastases) was 51.2% (230 cases) in the patients with single nodule of papillary thyroid cancer. The frequency of papillary thyroid carcinoma located in the isthmus was 7.8% (35 cases).

CONCLUSIONS
This study confirms that the number of central lymph node metastasis in isthmus was 7.8% (35 cases). Considering papillary thyroid cancer located in the isthmus showed different characteristics from the conventional papillary thyroid cancer. In conclusion, it is recommended that bilateral central compartment neck dissection or modified lymphadenectomy is considered an appropriate surgical option for papillary thyroid cancer with single nodule located in the isthmus.

INTRODUCTION

Thyroid isthmus is the central part of the thyroid gland which connects the right and left lobes. The surgical strategy for papillary thyroid carcinoma (PTC) located in the isthmus is controversial but a few papers were reported. PTC of the thyroid isthmus is a low-grade tumor which has an adequate edge of surrounding normal thyroid tissue and modulated and directed neck dissection when cervical lymph node (CLN) are palpably enlarged node (Segeney et al, 1990). Parathyroidectomy alone may be sufficient. Select some patients with PTC limited to the isthmus (Nixon et al, 2010).

REFERENCES

SUBJECTS AND METHODS

461 patients (2005-2011) : 1) Total thyroidectomy with bilateral CLN dissection (CLND) - PT C in single nodule
2) Group I - patients with tumors located at the isthmus
3) Group II - patients with tumors located at other thyroid region
4) Exclusion criteria: - anaplastic thyroid cancer - multifocality - Bilateral central lymph node metastasis
5) Total thyroidectomy with bilateral CLN dissection (CLND) - PT C in single nodule
6) Group I - patients with tumors located at the isthmus
7) Group II - patients with tumors located at other thyroid region
8) Exclusion criteria: - anaplastic thyroid cancer - multifocality - Bilateral central lymph node metastasis

RESULTS

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Group I (n=35)</th>
<th>Group II (n=412)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Male 5/32(15.6%)</td>
<td>Male 178/382(46.6%)</td>
<td>0.490</td>
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<tr>
<td></td>
<td>Female 27/32(84.4%)</td>
<td>Female 233/382(61.4%)</td>
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<td>Age</td>
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<td>&gt;1 6/32(18.8%)</td>
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<th>Others (n=26)</th>
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<tbody>
<tr>
<td>Sex</td>
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<td>Male 2/26 (7.7%)</td>
<td>0.010</td>
</tr>
<tr>
<td></td>
<td>Female 4/3 (14.3%)</td>
<td>Female 24/20 (60.0%)</td>
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</tr>
<tr>
<td>Extrathyroidal extension</td>
<td>yes 1/6 (16.7%)</td>
<td>yes 0/6 (0.0%)</td>
<td>0.461</td>
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<tr>
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<td>no 5/6 (83.3%)</td>
<td>no 6/6 (100.0%)</td>
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CONCLUSIONS

- 4/6 patients (66.7%) had extrathyroidal extension.
- 3/6 patients (50.0%) had bilateral CLN metastases.
- 1/6 patients (16.7%) had unilateral CLN metastases.
- 5/6 patients (83.3%) had unilateral CLN metastases.
- 6/6 patients (100.0%) had unilateral CLN metastases.
- 2/6 patients (33.3%) had unilateral CLN metastases.
- 9/6 patients (34.6%) had unilateral CLN metastases.
- 0.067

none of the patients had bilateral CLN metastases.

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