INTRODUCTION

Neck Metastasis of PTC
- Cervical nodal metastases are quite common in papillary thyroid cancer (PTC)
- Nodal metastases are associated with an increase in recurrence rate and may impact negatively on survival as well

Patterns of Metastasis
- The lymphatic drainage pattern of the thyroid is uniform and consistent, allowing patterns of metastatic spread to be relatively predictable
- Nodal metastasis of PTC occurs from central-compartment to lateral cervical lymph nodes

Recent studies
- The number of central lymph node metastasis correlated with the negative prognostic factors and has prognostic implication. YS Lee et al. - World J Surg (2010)
- The important risk factors for lateral neck metastasis in PTC are primary tumor size and the number of positive bilateral central lymph nodes. YS Lim et al. - Surgery (2011)

MATERIALS AND METHODS

Subjects
- Periods: April, 2008 ~ May, 2009, PNUH
- 264 patients diagnosed with PTC underwent total thyroidectomy with central compartment neck dissection and without lateral neck dissection as an initial operation.
- Retrospective view

Materials and Methods
- PTC
- Thyroidectomy / CND
- Frozen Tissue
- Controversial Thyroidectomy / CND
- Parathyroidectomy / SND (level 2, 3, 4)

Identification and dissection
- Mounting
- Freezing
- Staining

Materials and Methods

RESULTS

<table>
<thead>
<tr>
<th></th>
<th>Central Neck (+)</th>
<th>Central Neck (-)</th>
<th>Central Neck (+)</th>
<th>Central Neck (-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Pts</td>
<td>136 (51%)</td>
<td>130 (49%)</td>
<td>134 (52%)</td>
<td>130 (48%)</td>
</tr>
<tr>
<td>Age (yr)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;45</td>
<td>48.2</td>
<td>48.0</td>
<td>48.2</td>
<td>48.8</td>
</tr>
<tr>
<td>≥45</td>
<td>51.8</td>
<td>51.8</td>
<td>51.8</td>
<td>51.2</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>122 (91%)</td>
<td>115 (89%)</td>
<td>122 (91%)</td>
<td>115 (89%)</td>
</tr>
<tr>
<td>Female</td>
<td>12 (9%)</td>
<td>15 (11%)</td>
<td>12 (9%)</td>
<td>15 (11%)</td>
</tr>
</tbody>
</table>

Microscopic evaluation

Positive for metastasis (Frozen section)

Negative for metastasis

Frozen section diagnosis : microscopic evaluation

Summary
- Frozen biopsy for quantitative analysis of central compartment is a precise tool for intraoperative evaluation of central lymphatic status
- Frozen biopsy for quantitative analysis of central compartment is a precise tool for intraoperative evaluation of central lymphatic status
- Further large scale of study and long-term follow up is ongoing