**Increased Diagnostic Performance of Sentinel Lymph Node Biopsy Combined with Radiologic-Pathologic Factors after Neoadjuvant Chemotherapy in Breast Cancer Patients with Cytologically Proven Node Metastasis at Diagnosis**

*Seho Park*, Ja Seung Koo, Min Jung Kim, Ji Min Park, Jung Hoon Cho, Hyewon Hwang, Eun-Kyung Kim, Seung Il Kim, Byeong-Woo Park

**Department of Surgery, Pathology and Radiology, Yonsei University College of Medicine, Seoul, Korea**

**Abstract**

Among 374 patients with T1-3 primary breast cancer who received NCT from 2008 to 2011, a total of 178 patients with biopsy-proven axillary/supraclavicular lymph node metastasis at diagnosis, who subsequently underwent SLNB and completion node dissection after NCT were finally analyzed.

SLNB using radiosotope alone followed by completion node dissection between 2008 and 2011: Detection rate, sensitivity, false negative rate (FNR), negative predictive value (NPV), and accuracy of SLNB were retrospectively analyzed.

**Background**

SLNB was technically feasible but its routine use was not acceptable for all patients. Comparable performance was noted in locally advanced TNBCs and SLNB might be safely considered in those selected patients.

**Results**

- **Patient & tumor characteristics (n = 178)**
  - Mean age at diagnosis: 48.4 ± 9.7 years (range, 26-70 years).
  - Mean size of primary tumor at diagnosis: 2.7 ± 1.3 cm (range, 0.8-6.6 cm).
  - 170 (95.6%): isolated ALN-positive & 8 (4.4%): isolated SLNB-positive.

- **Regimen of NCT**
  - AC followed by T + TS-1
  - AT followed by T + TS-1

<table>
<thead>
<tr>
<th>Regimen</th>
<th>AC (n = 112)</th>
<th>AT (n = 62)</th>
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<tbody>
<tr>
<td>Pos. (%)</td>
<td>69.9</td>
<td>66.7</td>
</tr>
<tr>
<td>Neg. (%)</td>
<td>30.1</td>
<td>33.3</td>
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**Objectives**

- We investigated the diagnostic performance of SLNB after NCT in LABC patients with cytologically proven regional node metastasis at initial presentation, by comparing detection rate, sensitivity, false negative rate (FNR), negative predictive value (NPV) and accuracy of SLNB.

**Patients & Methods**

**Methods**

Methods: Of 374 patients with T1-3 breast cancer who received NCT, 178 had initially cytologically proven axillary node metastasis and subsequently underwent SLNB using radiostotope alone followed by completion node dissection between 2008 and 2011.

**Background**

Neoadjuvant chemotherapy (NCT): A standard therapy for LABCs patients with cytologically proven regional node metastasis at initial presentation, by comparing detection rate, sensitivity, false negative rate (FNR), negative predictive value (NPV) and accuracy of SLNB.

- **Neoadjuvant chemotherapy (NCT):** A standard therapy for LABCs patients with cytologically proven regional node metastasis at initial presentation, by comparing detection rate, sensitivity, false negative rate (FNR), negative predictive value (NPV) and accuracy of SLNB.

- **Sentinel lymph node biopsy (SLNB):** A standard for axillary LN(+) patients

- **20-70% of LN(+) diseases at diagnosis experienced nodal pCR after NCT**

- **Is completion ALND optimal for all patients who received NCT due to LABCs?**

- Is a less morbid SLNB possible for selected patients after NCT?