

## LETTER TO THE EDITOR

## Commentary on “The Number of Removed Lymph Nodes for an Acceptable False Negative Rate in Sentinel Node Biopsy for Breast Cancer”

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Sentinel lymph node biopsy (SLNB) was introduced in the field of breast cancer, and this has now become the standard procedure to rapidly assess the axillary nodal status. SLNB is supported by a number of consensus guidelines, including the one published by the American Society of Clinical Oncology in 2005.<sup>(1)</sup> It should be applied to patients after personal or institutional validation of this procedure by performing a certain number of back up dissections of the axilla. As has been agreed upon by many researchers, a greater than 90 percent detection rate and less than a 5 percent false negative rate are the minimal requirements for applying SLNB to patients.<sup>(1)</sup> Many studies and guidelines have been published that have evaluated the accuracy, the technique for the tracer and the injection site and the outcomes associated with SLNB.<sup>(1-11)</sup> Yet interestingly, there is little difference in the detection rate and false negative rate between the various methods of SLNB.<sup>(1,11)</sup> Another approach to lower the false negative rate was to harvest more than enough lymph node during SLNB. The more nodes you harvest, the lower is the false negative rate,<sup>(12-14)</sup> but at the same time, the advantages of SLNB go up in smoke. Because of this, we should carefully weight the advantages and disadvantages of axillary nodal dissection and SLNB.

Koo et al.<sup>(15)</sup> suggested in the last June issue that removing 4 lymph nodes is enough to get an accurate result (a false negative rate of zero) when performing sentinel node biopsy. It's really a perfect method! If the false negative rate is near to zero, we can completely trust the results of sentinel node biopsy. I think achieving a false negative rate of near zero has been done in a small series of studies. Since in the middle of 90's, there have been many papers that have dealt with the validity of sentinel node biopsy. Most of these papers have shown acceptable results (more than a 90% rate of detection with less than a 5% false negative rate) with the average number of harvested lymph nodes being around two.<sup>(5)</sup> McCarter et al.<sup>(16)</sup> also showed that for 98% of the node-positive patients with multiple SLNs, metastasis was detected within the first three SLN sites. Moreover, recently detected breast cancer has a tendency to be of a smaller size, and this means a low probability of nodal metastasis. According to our institutional data base, nodal metastasis occurred in only 35% of all operable cases of breast cancer. If we consider the setting of SLNB,<sup>(1)</sup> the rate of lymph node metastasis and the false negative rate of SLNB should be much lower. In other words, a 5% false negative rate is good enough to assess the nodal status with minimal risk for missing a metastatic node.

Additionally, we have to consider the complications of node biopsy. One of the purposes of SLNB is reducing the complication rate of axillary nodal dissection. SLNB has definitely reduced the various surgical complications according to the 5 yr follow up results.<sup>(17)</sup> But the com-

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plication rate is still not zero! Physicians have experienced that patients who undergo sentinel node biopsy also suffer from various complications, such as neuralgia, numbness, limitation of motion and localized lymph edema. Even though the severity of complication is lowered, these patients still suffer from various symptoms. Damage to the adjacent neural-lymphatic structures is inevitable when performing an axillary procedure. Further, the more nodes you harvest, the greater is the extent of the damage and this definitely causes adverse effects.

Conclusively, every effort should be made to improve the accuracy of sentinel node biopsy. But we should also remember the original concept of sentinel node biopsy when performing this procedure and balance the advantages of SLNB with those of complete axillary dissection.

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