

Results of a Sentinel Lymph Node Biopsy for Primary Breast Cancer

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Abstract : Although the role of an axillary lymph node dissection for the primary breast cancer is considered to be a prognostic indicator, regarding the determination of the treatment strategy after surgery, and the best modality for regional control, this procedure is harmful rather than ineffective in cases with a histologically negative node. The sentinel lymph node (SLN) biopsy is a procedure used to assess the degree of nodal involvement before and/or during surgery. From June, 1999 to January, 2002, we performed an SLN biopsy for 47 primary breast cancer patients (T1-2N0-1M0) using either a dye or combined (dye and gamma probe guided) method with a back up conventional axillary node dissection at the Second Department of Surgery, Fukuoka University School of Medicine. The dye method was performed on 39 patients, and it resulted in the accurate identification of the SLN in 74.4% of patients, compared with 94.7% in latter series of 19 patients. In addition, the dye method demonstrated a sensitivity of 66.6%, a specificity of 100% and an accuracy of 96.6%. Eight patients received the combined method, and the SLN was identified in 100% of these patients. This combined method showed a sensitivity of 80%, a specificity of 100% and an accuracy of 87.5%. On the other hand an intraoperative examination using frozen sections resulted in a sensitivity of 50%, a specificity of 100% and an accuracy in the diagnosis of 83.3%. These data suggest that an SLN biopsy for early breast cancer (T1N0) can be performed to eliminate any unnecessary axillary node dissection in cases with negative SLN. However, the successful results of this method depend on the cooperation of the multidisciplinary team (surgeons, pathologists and nuclear radiologists) and the informed consent of all patients.

Key words : breast cancer, axillary lymph node dissection, sentinel lymph node biopsy