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Letter

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Comments on: *Tagging Sentinel Lymph Nodes: a Study of* 100 *Patients with Breast Cancer.* Bobin, *et al.*, *Eur J Cancer* 1999, 35, 569–573

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We read with interest the paper recently published by Bobin and colleagues [1]. Clearly, the sentinel lymph node (SLN) biopsy represents a significant step forward in our efforts to minimise the morbidity associated with the routine axillary lymph node dissection (ALND). In the era when mastectomy was the only option in the surgical management of breast cancer, the loss of the breast was the major 'morbidity' of the procedure and little attention was paid to the sequelae of axillary dissection. On the contrary, in patients undergoing breast-conservation therapy, ALND is the major cause of both early and late morbidity after the surgical management of breast cancer. Moreover, ALND is often unnecessary, since today approximately 75% of patients with early breast cancer are node-negative [2].

The SLN is defined as the first lymph node in a regional lymphatic basin which receives lymph flow from a primary tumour. This concept is based on the orderly progression of tumour cells within the lymphatic system [3, 4]. In the blue-dye technique, a blue-staining lymphatic channel is first identified after blunt dissection in the axilla. The channel is then followed proximally and distally until the first ('sentinel') lymph node is identified. The dye-filled lymphatic tract should be followed proximally to the tail of the breast to ensure that the identified lymph node is the most proximal node (i.e. the sentinel node). Sometimes, two and rarely more than two blue nodes are identified along the lymphatic channel [5]. Based on these concepts and definitions, how can the high number (4, 5, 6 or even 7 and 8) of 'sentinel' lymph nodes, in a relatively large percentage of patients be explained? Is this a result of the biokinetics of the blue dye used (Evans Blue)? We believe that such a high number of SLN is not in accordance with the definition, the concept, and the philosophy of the SLN biopsy.

It is generally accepted that the combined technique (blue dye and radioisotope technique) facilitates the identification of the SLN [2, 6, 7]. Moreover, the simultaneous use of both techniques may accelerate the learning curve for each method used [6, 7]. We would like to emphasise that the radioisotope technique (lymphoscintigraphy) has some important advantages; the biopsy incision can be placed directly over the radiolabelled SLN and the probe then directs the dissection straight to the SLN without significant disturbance of surrounding tissues [8]. Therefore, the technique requires less tissue dissection. Furthermore, after the presumed SLN has been removed, the probe can again be used to detect any residual radioactivity indicating the presence of any additional SLN, which can be identified without performing blind tissue dissection. Lymphoscintigraphy can also determine if there is drainage to other regional lymphatic basin areas (such as internal mammary nodes, supraclavicular nodes or infraclavicular nodes) [2, 7]. We do not understand, however, why a preoperative mammary and axillary tomography (CT scan) should be performed prior to lymphoscintigraphy, as suggested by the authors in the discussion.

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