

O-7. Blue dye sentinel node (SNL) biopsy is an effective technique for staging axilla in breast cancer patients

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SLN is an effective tool for axillary staging in patients with invasive breast cancer.

Four node sampling is validated and recognised technique in UK for assessment of axilla in breast cancer patients. However SNL biopsy using blue dye alone or in combination with radio isotope is set to become new standard of care in breast cancer patients showing high levels of identification.

The aim of this study was to assess incidence of SNL identification and metastatic involvement using blue dye alone.

207 patients underwent this procedure. Patent blue dye was injected subdermally at skin/areola junction. The axilla was then explored and after identifying blue node, at least three further axillary lymph nodes were sampled as previous protocol. While these glands were sent for frozen section, breast operation commenced. In case of positive frozen section, a formal level II axillary clearance was performed.

Since December 2002 to December 2004 total 78 patients had SNL performed. The detection rate of SNL was 98%. The positive metastatic detection rate was 89.7%. The false negative rate was 10.25.

Dye assisted SNL biopsy is an effective technique for staging the axilla in breast cancer patients. Learning curves and the technical proceeding influence the detection rate significantly. Considering the infancy of the technique further trial should be awaited.

O-8. Sentinel node assisted 4 node-sampling

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The accuracy of 4-node axillary sampling (4NAS) may be enhanced by combining this procedure with sentinel node biopsy. Previously we have demonstrated that radiolabelled colloid targeted SNB may slightly improve the sensitivity of 4NAS (Radiocolloid assisted 4NAS, RCA4NAS). We have now prospectively evaluated blue dye-targeted SNB combined with 4NAS (Blue dye-assisted 4NAS, BDA4NAS).

The aim of this study was to assess regional recurrence rates, after RCA4NAS and BDA4NAS. For RCA4NAS, 200 women who participated in a study evaluating the relative sensitivity of SNB and 4NAS in the same patient (Jan 98–Oct 99) were followed up. For BDA4NAS, 321 women who underwent this procedure (Jan 01–Dec 03) were prospectively followed.

For RCA4NAS, 3 regional recurrences occurred with a mean follow-up of 5.1 years (0.3%/annum). For BDA4NAS, 1 regional recurrence has occurred with a mean follow-up of 2.3 years (0.1%/annum).

This study demonstrates that very low rates of regional recurrence are achieved after 4NAS combined with SNB. Practicality and cost issues favour BDA4NAS and this practice is recommended.

O-9. An audit phase of 511 unselected consecutive cases shows that sentinel node biopsy with blue dye alone is safe and accurate

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Sentinel node biopsy (SNB) has been increasingly used in the management of early breast cancer, mostly with the combined isotope and dye technique. This study examines the efficacy of blue dye alone. Patients were usually admitted on the day of surgery. Patients underwent appropriate tumour excision and SNB plus axillary dissection (L1 usually). Patent Blue V was injected peritumourally in all cases. All cases were included (including training curves for all 16 trainees). Patients with micro metastases in axillary nodes were regarded as node negative.

458 patients (90% - 458/511) had a sentinel node identified. The mean no of SN identified was 1.46 (range 1–7). 166 patients (32.5% - 166/458) were node positive. 15 patients (9% - 15/166) had false negative sentinel nodes. Overall 443 out of 458 S were predictive of axillary stage, with an accuracy of 96.7%. 2 patients (0.4%) had mild allergic reactions to the blue dye.

The “New Start” training programme for SNB in the UK stipulates a minimum standard of 90% SN identification and 10% false negative rate using the combined technique. Using blue dye alone, these standards can be achieved in a district hospital, even when including training for all levels of surgical trainee. SNB using blue dye alone in a district hospital setting can be safe (no radiation), cheap (£6 per case), logistically easy (admission on day of surgery) and accurate.

O-10. The value of immunohistochemistry in sentinel lymph node histopathology in breast cancer

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Introduction: The optimal protocol for the histopathological examination of sentinel lymph nodes (SLNs) in breast cancer has not yet been determined. The value of more detailed examination of the SLNs using immunohistochemistry (IHC) is controversial.

Methods: A total of 476 SLNs from 216 patients were reviewed (LGB and SEP). SLNs were sectioned at 3 levels at approximately 100 µm and stained with haematoxylin and eosin (H&E). If the H&E sections showed no evidence of metastasis, then the 3 serial sections were stained with a murine monoclonal anti-cytokeratin antibody (CAM 5.2). Metastatic deposits were classified as macrometastasis (>2.0 mm), micrometastasis (0.2–2.0 mm) or isolated tumour cells (ITCs, <0.2 mm).

Results: Of the 216 patients, 56 (26%) had metastasis as identified by H&E. IHC detected metastatic deposits in a further 9 patients (4%), of whom 4 (2%) had micrometastasis and 5 (2%) had ITCs only. Those cases with micrometastases were all, on review, visible on the H&E sections.

Conclusion: IHC detects only a small proportion of very small metastases in SLNs, the prognostic significance of which