



AB027. A systematic review and meta-analysis of the utility of lymphoscintigraphy in the management of clinically node-negative breast cancer

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Background: This systematic review aimed to determine if preoperative lymphoscintigraphy (LSG) enhances the sentinel node identification rate in clinically node-negative breast cancer and evaluate if LSG affects the false negative rate of a sentinel node biopsy (SNB).

Methods: Three major databases (PubMed, Medline and Cochrane) were searched using predefined terms. All original articles evaluating the utility of LSG in sentinel node identification and axillary surgery for breast cancer were included.

Results: Thirteen studies and 5,789 patients were included

in this analysis, including 4,945 who had LSG prior to SNB and 844 who did not. The overall sentinel lymph node (SLN) identification rate at operation was 95.1%. There was no difference between patients who had a preoperative LSG performed (94.4%) versus those who did not (95.6%: $P=0.81$). Among patients who had a positive LSG the SLN identification rate was 98.4%, whilst it was 84% when LSG was negative (OR 3.01, 95% CI: 2.26–4.02, $P<0.001$). Four studies reported the false negative rate (FNR) of SNB in the context of lymphoscintigraphy data, demonstrating the FNR to be similar among patients who had a positive or negative LSG (7.1% *vs.* 8.4% respectively, OR 0.90, 95% CI: 0.61–1.32, $P=0.587$).

Conclusions: The routine use of preoperative LSG is not associated with an improvement in SLN identification rate or FNR in breast cancer patients. These data call into question the value of lymphoscintigraphy in axillary surgery in patients with clinically node-negative breast cancer, and we propose that it may not be needed in routine practice.

Keywords: Breast; cancer; sentinel; node; lymphoscintigraphy

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