ALND was performed. If the SLN procedure failed or was negative an ALND was not performed.

Results: Fourteen French cancer centers took part in this protocol over 2 years (2008–2010). 228 patients were enrolled, including 197 DCIS on VAMB. The SLN was identified in 193 cases (98%) but one case was excluded leaving 192 valid cases for analysis.

Table: Distribution of SLN results and histological lesions found on mastectomy specimens in the series

Initial VAMB result	Mastectomy result	SLN results	N (treatment outcome)
192 DCIS	DCIS − 116	Positive	2 (ALND)
		Negative	114 (no ALND)
	DCIS and micro ID − **20**	Positive	4 (ALND)
		Negative	**16 (ALND avoided)**
	DCIS and ID − **56**	Positive	21 (ALND)
		Negative	**35 (ALND avoided)**

ALND, axillary lymph node dissection; ID, invasive disease; SLN, sentinel lymph node; VAMB, vacuum-assisted macrobiopsy.

ALND was not performed for non-ID and negative SLN (n = 114) and ID or micro-ID and negative SLN (n = 51). This meant that ALND was avoided for 67.1% of the patients with ID (51/76, 95% CI [56.5–77.7]), or 26.6% of patients overall (95% CI [20.3–32.8]), whereas these patients would have previously received ALND without the use of the SLN procedure. We observed 39.6% (76/192) of discordance between VAMB results and definitive results from histology analysis after mastectomy across all patients.

Conclusions: SLN is a useful procedure for patients with DCIS diagnosed by VAMB treated by mastectomy and presenting extensive microcalcifications. For patients for whom ID is later identified on the mastectomy specimen, the use of this procedure makes it possible to spare over a quarter of them from ALND and the associated morbidity.

Biological analyses are currently underway to determine predictive factors of invasive disease associated with DCIS.

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Is the Accumulation Pattern of Lymphscintigraphy a Predictive Factor of Positive Sentinel Node?

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Background: To accomplish sentinel lymph node (SN) mapping, we routinely perform lymphoscintigraphy (LSG) preoperatively. LSG provides significant information about SN location. However, it is unknown whether the accumulation pattern is a predictive factor of positive SN. Thus, we now investigate the relationship between accumulation pattern and SN positivity.

Patients and Methods: One hundred twenty-nine patients were enrolled in this study. Informed consent was obtained from all patients. There was no axillary lymph nodes involvement clinically in all patients. Negative nodes were confirmed by preoperative breast MRI. LSG was performed in all patients 1 hour after subcutaneous injection of a radioactive agent in the areola area. The radioisotope (RI) used was ^{99m}Tc-labeled tin acid. The average dose of RI administered was 11.1 Mbq. After performing LSG, we checked SN accumulation and classified the accumulation patterns into two types: normal pattern (NP), which was defined as accumulation in only one node in LSG, and variant pattern (VP), which was defined as accumulation in two or more lymph nodes in LSG. After surgery, we compared SN positivity with the accumulation pattern.

Results: In the pathologically negative SN group, 72 cases were NP type and 27 cases were VP type. On the other hand, 16 cases were NP type and 14 cases were VP type in the positive SN group (p = 0.00457). These results suggest that lymphatic tract occlusion caused by the cancer cells leads to the generation of collateral pathways to alternative SNs. The data are summarized in the table.

LSG	Pathology		
	SN negative	SN positive	
NP	72	16	
VP	27	14	p = 0.00457

Conclusion: Accumulation in one SN was associated with a significantly lower metastasis rate than accumulation in two or more SNs in LSG. This classification may be a useful predictor for SN metastases. In this conference, we will show further data about the relationship between semi-quantitative measurement of LSG accumulation and SN positivity.

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Sentinel Lymph Node Biopsy After Neoadjuvant Chemotherapy for Breast Cancer − We Need to Define the Group of Patients Who Will Benefit

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Background: The use of sentinel lymph node biopsy (SLNB) to stage the axilla in patients who have undergone neoadjuvant chemotherapy (NAC) for locally advanced disease is controversial and has yet to be validated, despite growing evidence of its feasibility and accuracy. There are concerns that chemotherapy treatment effects include fibrosis of lymphatics with consequent impediment of tracer flow, and that the potential differential sterilization of sentinel and non sentinel lymph nodes by chemotherapy render the sentinel nodes no longer representative of the pathology of the nodal basin.

We report the detection rate and accuracy of SLNB after NAC for locally advanced breast cancer achieved in a prospective pilot study performed in our institution.

Methods: Patients with locally advanced breast cancer who have undergone NAC and have ***clinically negative nodes after NAC*** were recruited. These patients had SLNB using either blue dye, radio colloid tracer or both, prior to a standard axillary clearance.

Results: Between April 2009 and April 2011, sixteen patients with a clinically negative axilla after NAC underwent SLNB prior to axillary lymph node dissection.

Among the patients with no axillary nodal disease prior to NAC, the identification rate and accuracy of SNLB were 100% respectively.

The sentinel node was not identified in four patients. These patients had large tumours, significant nodal disease prior to NAC and had good response to chemotherapy. During surgery, unusual tracer flow patterns were noted in the patients who had mapping with blue dye. Three patients had a falsely negative sentinel node, with overall false negative rate of 42.8%.

Conclusion: Neoadjuvant chemotherapy affects lymphatic drainage in the breast and axilla, limiting sentinel node idenfication and accuracy. This effect is noted in patients with large or multicentric tumours with significant nodal disease prior to NAC and who demonstrate a good response to chemotherapy. Patients with tumours less than 5 cm and no nodal involvement prior to NAC do not seem to be affected. We therefore suggest that before embracing the use of sentinel node biopsy to stage the axilla after NAC, larger studies to define the subsets of patient that may safely benefit are needed.

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Systematic Review: Immediate vs Delayed Breast Reconstruction Post-mastectomy

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Background: The mainstay of breast cancer treatment remains surgery, with or without adjuvant or neo-adjuvant therapy. In many women, post-mastectomy breast reconstruction is essential to restore body image and improve quality of life. Timing of reconstruction may be immediate or delayed following mastectomy. Outcomes such as psychosocial morbidity, aesthetics and complications rates may differ between the two approaches. The objective of this systematic review was to assess the evidence on the effects of immediate versus delayed reconstruction following surgery for breast cancer.

Methods: We searched the Cochrane Breast Cancer Group's Specialised Register, MEDLINE, EMBASE and the WHO International Clinical Trials Registry Platform (ICTRP) on 26 August 2010. From the electronic searches, including the recent updates (August 2010), we retrieved 411 references to studies. We looked for randomised controlled trials (RCTs) comparing immediate breast reconstruction versus delayed or no reconstruction in women of any age and stage of breast cancer. After examination of the 411 titles and abstracts, we eliminated all of those which did not match our inclusion criteria and those which were clearly ineligible from the review. We obtained full text copies of the remaining 9 potentially eligible trials for further evaluation. The review authors discussed the eligibility of these trials and resolved any remaining uncertainties by consensus. Subsequently only 1 study proved to be eligible for inclusion in this review.

Results: We included only one RCT that involved 64 women. We judged this study as being at high risk of bias. Post-operative morbidity