

cancer, following factors are associated to no reconstruction: age over 50 (OR = 0.22; IC = 0.11–0.44; $p < 0.05$), ASA score over 1 (OR = 0.51; IC = 0.36–0.73; $p < 0.05$), radiotherapy treatment (OR = 0.57; IC = 0.38–0.86; $p < 0.05$), metastatic status (OR = 0.34, IC = 0.13–0.91; $p < 0.05$). For invasive cancer, following factors are associated to reconstruction: professional activity (OR = 2.07; IC = 1.37–3.13; $p < 0.05$), smoking (OR = 1.52; IC = 1.01–2.28; $p < 0.05$), overexpression of HER2 (OR = 1.75; IC = 1.13–2.70; $p < 0.05$).

Rate of answer to the questionnaire was 61% ($n = 81$). 80% ($n = 49$) of patients declared that no reconstruction was a personal choice, for the following reasons: refusal of new surgery (59%, $n = 36$), approval of asymmetry of the body (38%, $n = 23$), complications risk (29.5%, $n = 18$), advanced age (23%, $n = 14$), fright to hide recurrence (18%, $n = 11$), approval of body asymmetry by husband (18%, $n = 11$), financial cost (14.5%, $n = 9$), post-mastectomy pain (9.5%, $n = 4$). Information was considered as absent or deficient in 60% of the patients ($n = 38$).

Conclusion: Reasons of no reconstruction are linked to cancer prognostic, patient's characteristics and ways of live but also to personal choice. This study shows a lack of information. Personal care projects should comport optimal information about reconstruction and no reconstruction when we proposed a mastectomy for our patients.

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Poster discussion

Tumour-related Lymphatic Mapping in Multicentric/multifocal Breast Cancer: Each Tumour Shows an Individual Drainage Pattern

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Background: The purpose of this study was to evaluate the feasibility of lymphoscintigraphy, SPECT/CT, and sentinel node biopsy in patients with multiple invasive tumours. To investigate whether intralesional injection of the radiopharmaceutical in each tumour yields additional sentinel nodes compared to intralesional injection in the largest tumour only.

Methods: Patients were included prospectively in four centers in the Netherlands. Lymphatic flow was studied using planar lymphoscintigraphy and single photon emission computed tomography with computed tomography (SPECT/CT) until four hours after administration of 99mTc-nanocolloid in the largest tumour. Subsequently, intratumoural injection of the smaller tumour(s) was performed followed by the exact same imaging sequence. Sentinel nodes were intraoperatively localized using a gamma-ray detection probe, vital blue dye, and careful palpation of the axilla.

Results: Fifty patients were studied. Additional lymphatic drainage was depicted after the second and/or third injection in thirty-two patients (64%). Comparison of planar images and SPECT/CT after consecutive injections enabled visualization of the number and location of additional sentinel nodes (thirty-two axillary, eleven internal mammary chain, two intramammary and one interpectoral), of which all but two internal mammary ones could be harvested intraoperatively. The sentinel node contained metastases in seventeen patients (34%). In five patients with a tumour positive node in the axilla that was visualized after the first injection, an additional axillary involved node was found after the second injection. In one patient, isolated tumour cells were found in both an axillary sentinel node and an additional internal mammary sentinel node. In two patients, isolated tumour cells were found in sentinel nodes that were only visualised after the second injection, whilst the sentinel nodes identified after the first injection were tumour negative.

Conclusions: Lymphatic mapping of multiple malignancies within one breast using separate consecutive intratumoural tracer injections assessed by lymphoscintigraphy and SPECT/CT appears to be feasible and reliably depicts the lymphatic drainage of each tumour. The high incidence of additional sentinel nodes draining from tumours other than the largest one emphasizes that separate tumour related tracer injections in patients with multicentric or multifocal breast cancer may result in more reliable staging.

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Poster discussion

Sentinel Node Identification Rate and Further Nodal Involvement in Patients with Multifocal Breast Cancer in the EORTC 10981–22023 AMAROS Trial

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Introduction: The sentinel node biopsy (SNB) is a staging method for the lymph node status in the axilla in patients with primary, unifocal breast cancer. Multifocal breast cancer is associated with a higher risk of nodal involvement and the drainage pattern of multifocal sides may be different. For this reason, the value of the SNB for this indication is debated.

In the EORTC 10981–22023 AMAROS trial, breast cancer patients with a tumour-positive SN were randomised between axillary lymph node dissection (ALND) and axillary radiotherapy. The aim of the current side study was to evaluate the identification rate of the SN and the (non-)SN involvement in patients with a multifocal tumour as compared to a unifocal tumour. Multifocal breast cancer was defined as multiple tumours in one quadrant, sharing the same histological characteristics.

Patients and Methods: The first 4,000 patients participating in the AMAROS trial were evaluated. A group of 342 patients with a multifocal tumour was compared to an unmatched, randomly selected control group of 684 patients with a unifocal tumour.

Results: From the 1026 patients, 1016 underwent SNB. The SN was identified in 97.9% (664/678) of the unifocal patients and 95.8% (324/338) of the multifocal patients. When analysing the location of the identified SN, in 2.7% of the unifocal patients and 3.4% of the multifocal patients, the SN was not located in the ipsilateral axilla. The majority of these sentinel nodes that were found outside of the axilla were located in the internal mammary chain. From the unifocal patients undergoing SNB, 27.9% turned out to have a positive axillary SN compared to 49.7% of the patients in the multifocal group. The distribution of macrometastases, micrometastases and ITC's in the SN was similar in both groups. Further nodal involvement in patients with a positive axillary SN that underwent ALND was found in 38.6% (39/101) in the unifocal group and 40.4% (38/94) the multifocal group.

Conclusion: With a 95.8% detection rate in this prospective international multicenter study, the SNB procedure is highly effective in patients with a multifocal tumour. The distribution and identification rate of the sentinel node appears to be similar to patients with a unifocal tumour. The sentinel node was more often positive in patients with a multifocal tumour, however, further nodal involvement after a positive axillary SN was similar in both groups. Therefore, the sentinel node procedure seems to be adequate for patients with multifocal breast cancer.

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Poster discussion

Sentinel Node Biopsy in Extensive Ductal Carcinoma in Situ (DCIS) Results of the French Prospective Trial CINNAMOME

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Background: DCIS has no metastatic potential. However, the risk of occult invasive disease (ID) exists when the initial diagnosis is performed by vacuum-assisted macrobiopsy (VAMB). ID is usually discovered during the histological analyses following mastectomy, and the only option for patients is complete axillary lymph node dissection (ALND). The aim of this study was to evaluate the number of ALND that can be avoided by using the sentinel lymph node (SLN) procedure to identify patients with ID but negative SLN.

Material and Methods: Patients with extensive microcalcifications on mammography and DCIS diagnosed by VAMB treated by mastectomy were included in the study. The SLN procedure was performed and intraoperative evaluation on frozen sections was carried out. If the SLN was positive an