

Unfortunately, one of the two large American sentinel node trials has been suspended because of low accrual: the ACOSOG trial Z0011 was designed to address the question of further treatment to the axilla in, on H&E staining, sentinel node positive patients. So far, 595/1900 (31%) patients were randomly assigned to radiation of the breast only, without specific treatment of the axilla, or to radiation of the breast accompanied with ALND.

The NSABP B-32 has a similar design as the Italian study: SLNB followed by ALND versus SLNB and ALND only if tumour is found in the SLNB. Primary endpoints of this multi-centre study are the long term control of regional disease, disease-free and overall survival of patients who underwent a SLNB alone and its morbidity compared with ALND. This study has completed accrual with 5611 patients randomized between May 1999 and February 2004. Preliminary results demonstrated an overall sentinel node identification rate of 97%, 26% of whom were sentinel node positive and a 10% false negative rate [6].

In the previous St. Gallen consensus discussion meeting [7], it was concluded that sentinel lymph node biopsy (SLNB) is considered standard for lymphatic staging in patients with invasive breast cancer <3 cm, and no clinical involvement of ipsilateral axillary lymph nodes. Although there is not yet data on the effect of SLNB on long-term survival of patients with breast cancer, the available evidence from randomized clinical trials demonstrates that this technique is safe and accurate if performed by experienced surgeons.

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231 Proffered Paper Oral Improved outcome of breast cancer patients with internal mammary lymph node metastases by use of tailored treatment

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Introduction: Staging of the internal mammary (IM) nodal basin is not performed routinely and subsequent treatment generally is not influenced. The IM lymph node status is, however, a major independent prognostic factor in breast cancer. If positive, prognosis is less favourable.

Since the introduction of the sentinel node procedure for staging in breast cancer, we routinely perform IM sentinel node biopsy as visualized on lymphoscintigraphy, in order to improve nodal staging and to adjust adjuvant treatment accordingly.

Patients and Methods: Between April 1997 and July 2004, a total of 794 consecutive patients with stage T1–3 breast cancer were enrolled into a prospective study on SN biopsy. Adjuvant treatment algorithms were according to Dutch national guidelines. In case of IM metastases internal mammary radiotherapy was added and systemic treatment was adjusted when appropriate. Data with regard to demographics, diagnostic procedures, therapy and follow up were gathered from all patients. Patients treated after July 2004 were excluded from this study to permit at least one year of follow-up.

Results: Data from 788 patients were available for follow-up, six patients were lost for follow-up.

A total of 425 patients proved to have no lymph node metastases (group 1), 336 patients had axillary metastases (group 2) and 27 patients had IM metastases (group 3). Mean follow-up was 46 months. Overall survival was 94% in group 1, 85% in group 2 and 87% in group 3, respectively. Disease free survival was 90% in group 1, 81% in group 2 and 86% in group 3. The differences between group 2 and group 3 were statistically not significant.

Discussion: With positive IM nodes a survival disadvantage is expected. However, after adjuvant local treatment (parasternal radiotherapy) and adjusting chemotherapy in therapeutic schedules, treatment outcome of patients with proven IM nodal metastases, after a mean follow-up of 46 months, was comparable to patients with axillary metastases only.

Conclusion: Our results suggest that high risk patients with IM metastases benefit from improved staging and tailored adjuvant treatment algorithms.

232 Proffered Paper Oral Recurrences and survival after sentinel node biopsy with mandatory axillary node dissection versus sentinel node biopsy followed by axillary node dissection only for positive sentinel nodes – a retrospective analysis of 3159 cases from the Austrian Sentinel Node Study Group

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The purpose of this analysis was to determine the influence of sentinel node biopsy followed by axillary node dissection only in cases of positive sentinel nodes as opposed to sentinel node biopsy (SNB) with obligatory axillary dissection in all cases, on axillary lymph node recurrence, disease free survival and over all survival.

3564 patients are registered in the Austrian sentinel node data base. 3159 patients with unilateral, unicentric, non metastatic invasive breast cancer were analysed for axillary recurrence. 50 sentinel node biopsies with obligatory axillary dissection (phase I) (n658) were obligatory before performing SNB as standard procedure (phase II).

Blue dye, technetium⁹⁹ or a combination of both were applied to identify the sentinel node.

473 out of 658 SNB were identified in phase I with a false negative rate of 6.4%. The median follow up in phase I is 50.1 (±28.3) months, in phase II 29.5 (±19.3) months

The axillary recurrence rate was 1% in phase I and 0.3% in phase II. There was no significant difference in disease free and over all survival although the follow up time interval is still short.

The SNB became standard in many breast cancer centres in Austria. The axillary recurrence rate is very low. The impact of axillary dissection or irradiation of the axilla after pos SNB is still unclear.

233 Proffered Paper Oral Determination of axillary sentinel lymph node status in primary breast cancer by prospective use of immunohistochemistry increases the rate of micrometastases and intratumour cells without prognostic information

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Background: Axillary node status is today determined by the sentinel lymph node (SLN) biopsy avoiding axillary lymph node dissection (ALND) in patients without metastatic involvement. In patients with SLN micrometastases the risk of non SLN metastases is about 15% making ALND standard procedure, whereas in patients with intratumour cells (ITC) the risk for additional nodal involvement is not defined.

Patients and Methods: 174 patients with invasive breast cancer <3 cm were enrolled consecutively during 2001–2002. SLN's were examined by frozen section perioperatively and on formalin fixed, paraffin-embedded tumours using hematoxylin and eosin (H&E) as well as immunohistochemistry (IHC) with cytokeratin antibodies for definitive histopathological diagnosis. Patients with macrometastases (>2 mm in size), micrometastases (>0.2 mm ≤2 mm) and ITC (≤0.2 mm) in SLN had ALND enabling examination of axillary nodes in all patients irrespective of SLN tumour burden. The follow-up was 3 years (0–4 years).

Results: Macrometastatic SLN was found in 29 patients and could be diagnosed by H&E in all cases, micrometastatic SLN was identified in 16 patients (3 diagnosed by IHC) and ITC in 6 patients (4 diagnosed by IHC).