

The median wide local excision weight was 83g (range 6–1545g) with a median total resection weight of 126.5g (range 5–2522g). 89% (n = 804) of patients had intraoperative assessment of the adequacy of excision margin with specimen radiography or frozen section. Most patients had invasive disease (n = 696, 74%) and 22.4% (n = 199) had multifocal lesions. The median invasive tumour size was 19mm (range 0–155mm) with a median total lesion size of 24mm (range 0–145mm).

84.1% (n = 756) of patients achieved clear margins at the initial surgery. The overall re-excision rate was 14.9% (n = 134); 99 patients required 1 additional operation; 12 required 2 additional operations and 1 required 3 additional procedures. Of these, 54 patients (6.0%) required a completion mastectomy. Larger tumours and multifocal disease were predictors for re-excision (p < 0.001).

Conclusions: The initial results from the Team study show that the vast majority of women undergoing TM successfully achieved breast preservation. This is a good option for patients wanting to avoid mastectomy. Further work will be required to establish long-term oncological safety.

No conflict of interest

290 (PB-085)

Poster

SentiDose – A dose optimizing study with SiennaXP, a superparamagnetic iron oxide for sentinel node detection

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Background: Superparamagnetic iron oxide (SPIO) is a validated method of staging the axilla in breast cancer patients. Several studies have shown non-inferiority to sentinel node biopsy (SNB) with radiolabeled colloid and blue dye. SiennaXP is a new version of the currently available Sienna+. SentiDose investigates in a first phase the use of 1.5 ml of SiennaXP and in a second phase 1.0 ml. The aim of this study is to firstly determine whether SiennaXP is accurate and comparable to dual technique when used in a smaller volume and to investigate if the newer version produces less skin staining. We present preliminary results from our first patients using 1.5 ml SiennaXP.

Method: In all, 320 patients will be recruited from 6 sites in Sweden. Patients received a ^{99m}Tc peritumoral injection within 24 hours of surgery, 1.5ml SiennaXP injected retroareolarly within 1 hour of surgery and a periareolar injection of blue dye intraoperatively. The sentinel node detection rate and concordance of SiennaXP was compared to dual technique. Also, the number of nodes detected by each technique was registered and the skin discoloration rate at 3 weeks was recorded. Approval was granted by the ethics committee and written consent gained from all participants.

Results: So far, 32 SNBs have been performed and the detection rate per patient was 87.5% (28/32) with SiennaXP and 100% (32/32) (p = 0.11) with standard technique. In total 63 SNs were retrieved with the average number per patient being 1.6 with SiennaXP and 1.8 with ^{99m}Tc. The nodal detection rate was 84.1% (53/63) with SiennaXP and 92.1% (58/63) (p = 0.27) with dual technique. The methods were concordant in detecting 81.0% (51/63) of the SNs and discordant in 22.2% (14/63). At 3 weeks, skin staining was noted in 27.3% (6/22) of patients undergoing breast conserving surgery.

Conclusion: Sentinel node detection rate with SiennaXP was comparable to those obtained with dual technique. Its utilization is logistically simple and safe. The rate of skin staining if 1.5 ml SiennaXP was injected was about half of the reported rate with Sienna+, (2ml in 3ml NaCl), earlier used.

Conflict of interest: Corporate-sponsored Research: The Sienna+ and SiennaXP are provided by Sysmex Europe GmbH.

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Poster

Breast surgery in de novo metastatic breast cancer

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Background: There has been debate as to whether surgery confers a survival advantage in women with de novo metastatic breast cancer. We evaluated women who presented with de novo metastatic disease and examined the association between surgery and outcome.

Materials and Methods: Retrospective review was performed of women who presented to the Breast Unit, Tan Tock Seng Hospital, Singapore, with de novo metastatic breast cancer from 2006 to 2016.

Results: 347 patients with metastatic breast cancer at diagnosis were included in this study. Median age at diagnosis was 60 years (ranging from 28 to 100 years). Eighty women (23.1%) had removal of the primary tumour, 7 women (2.0%) also underwent metastasectomy and were rendered disease-free after surgery. Majority of these patients also underwent systemic therapy. 203 women (58.5%) received systemic treatment (chemotherapy, trastuzumab, hormonal therapy alone or in combination) without breast surgery whilst 57 women did not receive any treatment (having either declined treatment or were deemed medically unfit). Median overall survival was 21.77 months (ranging from 0.01 to 141.87 months); 1 woman died the day after being diagnosed. Women treated with surgery, whether breast tumour resection alone or together with metastasectomy, were found with better overall survival compared to those who had received systemic treatment alone (P < 0.01, HR 0.57, 95% CI 0.44–0.81 and P = 0.03, HR 0.15, 95% CI 0.19–0.91 respectively). However, these women more often had solitary metastasis or limited metastases to a single organ (P < 0.01). Median survival of treatment groups

Treatment group	n	Median survival (months)
Breast surgery	80	35.53 (4.57–141.87)
Breast surgery with metastasectomy	7	35.97 (12.73–106.8)
Systemic therapy only	203	22.20 (0.23–140.57)
No treatment	57	5.83 (0–104.63)

Conclusion: Most women with de novo metastatic disease receive primary systemic treatment. Those treated with surgery had better overall survival but these were a highly selected group who often had oligometastases.

No conflict of interest

293 (PB-088)

Poster

Sentinel lymph node biopsy in patients who had conversion of axillary lymph nodes from clinically positive to negative following neoadjuvant chemotherapy

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Background: Complete remission of axillary lymph node after neoadjuvant chemotherapy (NAC) can be commonly observed. However, the use of sentinel lymph node biopsy (SLNB) following NAC in patients presenting with clinically positive lymph nodes remains controversial. This study evaluated the feasibility of SLNB in patients who had conversion of axillary nodes from clinically positive to negative following NAC.

Method: We reviewed the records of 26 patients who had breast cancer with clinically axillary lymph node-positive status and negative conversion after NAC, between 2010 and 2016. We collected the clinical findings, such as physical examination, breast ultrasonography, mammography, breast magnetic resonance image (MRI) and pathologic report after definitive surgery to decide the chemotherapy response. All of patients undertook the adriamycin based or taxan based chemotherapy. Five patients did not reach the full cycle of chemotherapy because the tumor showed nearly resolution by breast image. Another 21 patients had complete cycle of chemotherapy before surgery. Out of 26 patients, 11 patients underwent axillary lymph node dissection (ALND) without SLNB, and 15 patients underwent ALND following SLNB, regardless of its results. SLNB was performed using both blue dye and a radiolabeled colloid mapping agent.

Results: The clinical N stage before chemotherapy of all patients showed 12 cases were cN1, 10 cases were cN2, and 4 cases were cN3. The pathological complete disease regression of axillary lymph nodes showed 65.4% (17 of 26 patients) and still yp N1 was 9 cases (34.6%). ALND without SLNB group showed three cases was ypN1, while ALND following SLNB group showed five cases was ypN1. The sentinel lymph node (SLN) identification rate was 86.7% (13 of 15 patients). The median number of retrieved SLNs was 1 (range, 1–3). Of 13 patients with successful SLNB, 8 had negative SLNs on frozen section analysis and had no additional metastasis in lymph nodes removed by ALND. The false negative rate of SLNB after NAC was 0%. In patients with SLN positive tumor cell, only one patients showed additional axillary node metastasis.

Conclusions: SLNB may be feasible in patients who had conversion of axillary nodes from clinically positive to negative following NAC, regardless of number of retrieved SLNs and may help reduce surgical morbidity by avoiding the need for standard axillary lymph node dissection in these patients.

No conflict of interest