antibiotic prophylaxis (AP) in patients at risk of wound infection occurrence undergoing breast cancer surgery.

Material and Methods: In the setting of breast cancer surgery, we compared the incidence of WI in two prospective cohorts of patients, respectively followed before (September 1996-April 1997) and after (May-July 2004) implementation of a preventive strategy that consisted in: (i) identification of patients at risk of wound infection (i.e., previous chemotherapy and breast reconstruction) and (ii) administration of antibiotic prophylaxis (i.e., cefuroxime) in those patients. The incidences of WI in the two groups were compared with Fisher exact test. The impact of the strategy was analyzed using a logistic regression model after adjustment on potential confounding variables. Confounding variables were defined as those variables who had a significantly different distribution in the two periods and were statistically associated to the WI occurrence.

Results: WI incidence was estimated at 19/542 (3.5% [95% CI, 1.9–5.05]) before the implementation of the preventive strategy compared to 2/247 (0.8% [95% CI 0–1.8]) after the implementation of that strategy (Crude Odd Ratio 0.22 [95% CI 0.05–0.97], p = 0.03). We identified three potential confounding variables: breast reconstruction, previous breast surgery, and duration of surgical procedure. After adjustment for these variables in the multivariate analysis, the preventive strategy implemented decreased the risk of WI by 81% (adjusted Odd Ratio 0.19 [95% CI 0.04–0.85], p = 0.03).

Conclusion: The present study illustrates the benefit of an antibioprophylaxis strategy targeting those patients at high risk of WI occurrence in breast cancer surgery.

345 Poster

Image guided histological core needle biopsy of palpable breast lesions are significantly more accurate than palpation guided biopsy

A. Bosch[1], A. Kessels[2], G. Beets[3], J. Engelshoven Van[4], M. Meyenfeldt Von[3]. *[1]Máxima Medical Centre Eindhoven, Surgery, Eindhoven, The Netherlands; [2]University Hospital Maastricht, KEMTA, Maastricht, The Netherlands; [3]University Hospital Maastricht, Surgery, Maastricht, The Netherlands; [4]University Hospital Maastricht, Radiology, Maastricht, The Netherlands*

A histological core needle biopsy of a palpable breast lesion can be performed under image or palpation guidance. Image guidance is more expensive and may require additional equipement and expertise. The purpose of this study was to determine differences in diagnostic performance of the histological core needle biopsy of a palpable breast lesion obtained by image guidance (stereotactic or ultrasonographic) or by palpation guidance.

Methods: A group of consecutive patients with a palpable breast lesion who underwent a histological core needle biopsy was studied retrospectively. Between January 1999 and July 2002, 239 women with 267 palpable breast lesions underwent a histological core needle biopsy. Weather image guidance by the radiologist or palpation guidance by the surgeon was performed depended on logistic reasons and the waiting list of the image guidance biopsy at the department of radiology. The biopsy was performed on palpation in 58 cases and by image guidance in 209 cases (ultrasonography in 167 cases and stereotactic in 42 cases). The results of the histology of the core needle biopsy were compared with the findings at excision (216), or 12 months follow-up (51).

Results: Patients and lesions were comparable besides lesion size. The mean size of the palpable breast lesions biopted by palpation was significant larger than those biopted by image guidance. However compared to palpation guidance, biopsy by image guidance showed a better sensitivity (0.69 vs. 0.91, p < 0.001). Specificity showed no significant difference. After stratification for tumour size this difference still existed. Sensitivity for palpation guidance vs. image guidance was 0.57 vs. 0.92 for T1 tumours (p = 0.003) and 0.75 vs. 0.95 for T2 tumours (p = 0.014). Specificity for palpation guidance vs. image guidance was 0.69 vs. 0.98 for T1 tumours and 1.00 vs.0.94 for T2 tumours (p = 0.02!).

Conclusion: Image-guided histological core needle breast biopsies are significantly more accurate than palpation-guided biopsies. The smaller lesion size in the image-guided biopsy group suggests that clinicians choose to biopsy the larger lesions themselves and to refer smaller lesions to the radiologist. This selection bias reinforces the conclusion that image-guided biopsy is more accurate than a biopsy which is palpation-guided. We think the physician is lured by the size of the breast lesion to perform a diagnostic procedure, which he believes to yield a reliable result.

346 Poster

Preoperative ultrasonography may decrease incidence of false negative sentinel node biopsy in clinically node negative, large-sized breast carcinoma

O. Hussein Mohammed Hussein, A. Denewer, M. Hegazy, T. Fady Yousef. *Mansoura Faculty of Medicine, Surgery Dept., Cancer Center, Mansoura, Egypt*

Introduction: Sentinel node biopsy (SLNB) has become a standard of care for clinically node negative breast carcinoma patients with small-sized primary tumors limited to 2–3 cm. (Veronesi et al, 2003), (Ung, 2004). Egyptian patients population comprises tumours with relatively larger size and a high percent of heavy nodal invasion. Large tumor size increases the incidence of non-sentinel node infilteration up to 71% in T3 tumors *(Gervasoni et al., 2000)*. SLNB may lose its sensitivity with heavy infiltration due to total replacement of nodal tissue by the tumour. Ultrasonic visualization is particularly sensitive in this setting *(Bonnema et al,1997)*. We evaluated the accuracy of surgeon-performed, B-mode imaging alone in predicting final nodal status. This work may be further developed to suggest a management plan that maximize accuracy and cost-effectiveness of ultrasonography and sentinel node biopsy in T3 tumors.

Patients and Methods: 110 patients with breast carcinoma were examined. Ultrasonic-imaging of the axilla was done using 10 mHz linear transducer.

The whole area from the apex of the axilla above to the sixth rib below was scanned. Any imaged node was studied as regard its size, its contour, its internal echo. When feasible needle aspiration of the most suspicious node was performed.

Results: 110 patients with invasive breast carcinoma were included. Tumour size was T**1** in twelve cases, T**2** in 32 cases, T**3** in 22 cases and T**x** in 44 patients.

Pathologically, 80 axillae were infilterated. Using ultrasonography, sensitivity raised to 85% compared with 40% of clinical palpation alone. Low lying nodes visualized in relation to third to sixth rib or in the vicinity of axillary tail were more predictive of metastases (specificity of 80% while sensitivity was still around 81%) than isolated apical nodes. Multiplicity of visualized nodes was detected in 42 cases of the 80 visualized, metastatic nodes. Echoic pattern of the node and node contour were poorly correlated with histological findings. Also, sensitivity and specificity of ultrasonic examination was markedly decreased in the subgroup of axillae with one to three lymph nodes infilteration (76.4%, 66.6% respectivly).

Conclusion: Preoperative ultrasonography for clinically node negative breast carcinoma may select cases for either SLNB or full axillary dissection in clinical situation where a false negative SLNB is highly anticipated.

Thursday, 23 March 2006 16:00–16:45

POSTER SESSION

Adjuvant and neo-adjuvant therapy

347 Poster

Effectiveness of Vinorelbine/Capecitabine (NX) versus Docetaxel/Doxorubicin/Cyclophosphamide (TAC) in patients non-responding to 2 cycles of neoadjuvant TAC chemotherapy: First Results of the phase III GEPARTRIO-Study by the German Breast Group

B. Gerber[1], G. von Minckwitz[2], J.U. Blohmer[3], A. Loehr[4], G. Raab[5], H. Eidtmann[6], J. Hilfrich[7], J. Huober[8], S.D. Costa[9], I. Zuna[10], M. Kaufmann[11]. *[1]University of Rostock, Ob/Gyn, Rostock, Germany; [2]GBG, Frankfurt/Neu-Isenburg, Germany; [3]St Gertrauden, Berlin, Germany; [4]HSK, Wiesbaden, Germany; [5]Women's Hospital, Stuttgart, Germany; [6]Univ. Women's Hospital Kiel, Germany; [7]Henrietten Stift, Hannover, Germany; [8]University Hospital Tuebingen, Germany; [9]University Women's Hospital Magedeburg, Germany; [10]SKM-CRS Wiesbaden, Germany; [11]University Women's Hospital Frankfurt, Germany*

Background: Breast cancer patients (pts) with no response to 2 cycles of neoadjuvant TAC experience a low pathologic complete remission (pCR) rate after further 4 cycles TAC (von Minckwitz et al, Ann Oncol 2005). These pts were randomized to continuation of TAC or to a non-cross resistant combination of NX.

Patients and Methods: Pts with operable (T 2 cm by palpation) or locally advanced (T4 or N3, M0) breast cancer (BC) were treated with 2 cycles TAC (75 mg/m / 50 mg/m / 500 mg/m day 1, q21, supported with

primary prophylaxis with (pegylated) G-CSF and secondary prophylaxis with epoetin(. Pts with tumor reduction less than 50% according to breast ultrasound were randomized to receive either 4 additional cycles TAC or 4 cycles of NX (Vinorelbine 25 mg/m day 1 + 8 plus Capecitabine 2000 mg/m day 1 14, q21(NX). Primary endpoint was sonographic tumor response before surgery. Secondary endpoints were pCR-rate (no invasive/no non-invasive residuals), breast conservation rate, safety and compliance.

Results: Between July 2002 and June 2005 more than 2000 pts were recruited into the GEPARTRIO−trial. Nearly 630 non-responder to TAC ×2 were randomized to continue TAC or to switch to NX. Median clinical tumor size amounted to 4.0 (1.0−30.0) cm at study entry. Safety and blinded efficacy interim analysis was performed on 154 TAC and 146 NX pts (operable 82.2%, locally advanced 17.8%). Sonographic response before surgery was reported in 67.7%; breast conservation in 59.2% and pCR in 5.2% of these patients. Main toxicities (grade I-IV %TAC vs %NX) were: anemia (92 vs 86), thrombopenia (37 vs 29), neutropenia (72 vs 81), febrile neutropenia (10 vs 6), infection (30 vs 23), vomiting (40 vs 23), diarrhea (44 vs 32), stomatitis (67 vs 45), edema (42 vs 37), asthenia (89 vs 85), hand-foot-syndrome (23 vs 46), allergic (18 vs 21), nail (42 vs 25), dyspnea (35 vs 28), sensory and neuropathy (49 vs 57). Treatment was discontinued in 28 pts (9.3%) due to toxicity (4 vs 7 pts), on patients request (4 vs 8) and tumor progression (4 vs 1).

Conclusions: Ongoing treatment in pts non-responding to TAC ×2 can achieve sonographic responses in 67% with the chance of breast conservation. Both chemotherapy regimens were well tolerated. NX (without G-CSF) was associated with a better toxicity profile compared to TAC (with G-CSF). The rate of pathologic complete remission was low. Results on the efficacy endpoints will be presented during the meeting.

348 Poster

A cost-utility evaluation of adjuvant hormonal options in postmenopausal women with breast cancer: A Belgian perspective

C. Skedgel, D. Rayson, R. Dewar, T. Younis. *Dalhousie University, Medicine, Halifax, Canada*

Background: Based on recent clinical trials, Anastrozole (ANA) for 5 years, Tamoxifen followed by Exemestane for 2.5 years each (TAM-EX) and Tamoxifen for 5 years followed by Letrozole for 3 years (TAM-LET) have become acceptable alternatives to adjuvant Tamoxifen (TAM) for 5 years in postmenopausal (PM) women with hormone receptor positive (HR+) breast cancer. As these newer aromatase inhibitor strategies are associated with both improved disease-free survival and higher drug costs, an economic evaluation was undertaken to compare the relative cost-utility (CU) of ANA, TAM-EX and TAM-LET compared to TAM alone in terms of cost per quality-adjusted life year (QALY) gained.

Methods: A Markov model was developed to calculate cumulative costs and QALYs in a hypothetical cohort of 1000 PM women with HR+ early-stage breast cancer. The baseline event rate and hazard ratios for cancer recurrence and adverse events, including vaginal bleeding, endometrial malignancies, DVT/PE and fractures, were derived primarily from the ATAC, IES and MA17 trials. The primary analysis assumed a carry over benefit for adjuvant therapy beyond the hormonal treatment period. Background mortality rates were taken from Belgian life tables. Costs of hormonal therapies, breast cancer management, and adverse events were derived from an HEDM/IMS study of Belgian costs. Health state utilities were taken from the literature and supplemented by expert opinion. The model took a third-party payer perspective over 10 and 20-year time horizons. Both costs and outcomes were discounted at 3%.

Results: ANA, TAM-EX and TAM-LET were all associated with QALY gains and increased costs relative to TAM alone. CU improved over time as QALY benefits accumulated and outweighed up-front costs. At 10 years, relative to TAM alone, the CU of ANA was €48,323, TAM-EX was €14,147 and TAM-LET was €330,942. By 20 years, the CU of ANA was €19,992, TAM-EX was €4962 and TAM-LET was €10,548. Incremental CU comparisons between TAM-EX, ANA and TAM-LET were quite sensitive to relative differences in the hazard ratios and will be presented in a two-way sensitivity analysis. CU results for node negative and positive subsets will also be presented.

Conclusion: The CU of all three aromatase inhibitor strategies was favourable compared to TAM alone. Incremental comparisons among the AI options were sensitive to changes in the hazard ratios, but appeared to favour TAM-EX.

349 Poster

After 10 years of follow-up, preoperative chemotherapy is still safe in operable breast cancer: Clinical and translational results from the European Organisation for Research and Treatment of Cancer Trial 10902

J.G.H. Van Nes[1], J.A. Van der Hage[2], J. Bogaerts[3], I. Delmotte[4], M. De Vos[5], P. Therasse[6], J.P. Julien[7], M. Tubiana-Hulin[8], C.J.H. Van de Velde[9]. *On behalf of the EORTC Breast Cancer Group. [1]Leiden University Medical Centre, Department of Surgery, Leiden, the Netherlands; [2]Leiden University Medical Centre, Department of Surgery, Leiden, the Netherlands; [3]EORTC, Department of Statistics, Brussel, Belgium; [4]EORTC, Brussel, Belgium; [5]EORTC, Brussel, Belgium; [6]EORTC, Brussel, Belgium; [7]Centre Henri-Becquerel, Department of Surgery, Rouen, France; [8]Centre Rene Huguenin, Department of Oncology, Saint-Cloud, France; [9]Leiden University Medical Centre, Department of Surgery, Leiden, the Netherlands*

Introduction: The Preoperative Chemotherapy in Primary Operable Breast Cancer (POCOB) trial was designed to evaluate whether preoperative chemotherapy (CT) in patients with primary operable breast cancer (BC) results in better overall survival (OS) and relapse free survival (RFS) rates and whether preoperative CT allows more breast-conserving surgery (BCS) procedures than postoperative chemotherapy. Additionally, tumour tissue was collected for translational research.

Patients and Methods: Patients (n = 698) with operable BC (T1c, T2, T3, T4b, N0−1) were enrolled between 1991 and 1999 and randomised between CT administered preoperatively versus postoperatively. CT consisted of four cycles of fluorouracil, epirubicin, and cyclosphosphamide. The primary endpoint was OS, secondary endpoints being relapse-free survival (RFS) and locoregional recurrence (LRR).

Results: With a median follow-up (FU) of 117 months there was no statistically significant difference between OS (hazard ratio (HR): 1.09; 95% CI (0.83−1.42); p = 0.54), RFS (HR: 1.12; 95% CI (0.90−1.39); p = 0.29) or LRR (HR: 1.16; 95% CI (0.77−1.74); p = 0.48). Moreover, there was no statistically significant difference in time to distant progression (HR: 1.17; 95% CI (0.92−1.50); p = 0.19) and time to second primary tumour (HR: 0.86; 95% CI (0.52−1.41); p: 0.54). In the preoperative group, 37% of the patients underwent BCS in stead of a mastectomy compared to 21% of the patients in the postoperative group. With a median FU of 7 years, the p53 status was significantly correlated with the pathological tumour response and the clinical response (resp p = 0.01 and p = 0.008). Clinical tumour response was also predicted by clinical tumour size, tumour grade, p53 status, PgR status and HER2 status. There was no correlation between the p53 expression and OS (HR: 1.72; p = 0.15).

Conclusion: Preoperative chemotherapy does not change the OS, RFS or the LRR in patients with breast cancer. Moreover, after 10 years of FU, there was no statistically significant difference in time to distant progression or to second primary tumours. This implies that preoperative chemotherapy is a safe procedure for patients with early breast cancer, even after a FU period of 10 years. Furthermore, it increases the amount of BCS. This most recent up-date of the POCOB will be presented together with translational research results with a median FU of 10 years.

350 Poster

NCIC CTG MA17: Updated analysis on disease free survival (DFS) according to estrogen receptor and progesterone receptor status of the primary tumor

P. Goss[1], J. Ingle[2], D. Tu[3]. *On behalf of the MA17 Collaborative Trialists. [1]Massachusetts General Hospital, Cancer Center, Boston, USA; [2]Mayo Clinic, Cancer Center, Rochester, USA; [3]NCIC Clinical Trials Group, Cancer Research Institute, Kingston, Canada*

Introduction: Identifying biomarkers to predict response to adjuvant aromatase inhibitor therapy is important. In the ATAC trial (anastrozole vs tamoxifen) benefit of anastrozole over tamoxifen appeared restricted to the ER+ PgR− patients and not in those with ER+ PgR+ tumors. In contrast in subgroup analysis of the BIG1−98 trial the magnitude of benefit of letrozole vs tamoxifen on DFS did not vary according to PgR status. A central review of tumor tissue is currently being performed in this trial. MA.17 randomized 5187 postmenopausal women disease free after 5 years of tamoxifen to 5 years of letrozole or placebo. After 30 months median follow-up (range 1.5−61.4 months), the hazard ratio (HR) for DFS in the overall population was 0.58 (0.45–0.76, p = 0.00004) in favor of letrozole. Almost all patients (97.4%) had estrogen receptor (ER) and/or progesterone receptor (PgR) positive primary tumors. We will present at the meeting the outcome of women according to the receptor status of their primary tumors, both in the intent to treat population of MA.17 (Letrozole and placebo patients) as