(95% CI 6.48–7.56) and 6.94 y (95% CI 6.39–7.49) respectively; log rank analyses didn't find significant differences (p = 0.94).
Tertile evaluation of extracted lymph node had overlapped CI for DFS or OS, and log rank analyses didn't find significant differences (p = 0.73) for lower and upper tertiles (table 1). Power to detect a significant difference with this sample size was 0.9999.

Table 1

Features	Lower Tertile	Upper Tertile
Age	55.64	53.19
Conservative Surgery	56.67%	57.94%
T1	48.31%	38.40%
T2	51.69%	61.60%
N1	60%	50%
N2	40%	50%
Ductal	91.11%	84.92%
Lobular	6.67%	10.32%
Medullar	2.22%	0.79%
Lum A	21.25%	27.19%
Lum B	48.75%	40.35%
HER2+RE+	12.50%	14.04%
HER2+RE−	8.75%	7.89%
TN	8.75%	10.53%
No Adj Chemotherapy	12.64%	5.93%
Adj Anthracyclines	51.72%	48.31%
Adj with Anthrac and Taxanes	21.84%	26.27%
Adj Trastuzumab	5.19%	2.65%
DFS	7.69 (7.28−8.1)	7.82 (7.39–8.25)

Conclusions: Our results show no benefit for extensive axillary lymphadenectomy over more conservative axillary evaluation.

5117 POSTER

Clinical and Histopathology Characteristics of Invasive Breast Carcinoma in Patients With Diabetes Mellitus

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Background: Patients with diabetes mellitus (DM) have an increased risk of breast carcinoma (BC) and higher risk of cancer-related mortality in comparison to patients without DM. Possible cause for higher risk of cancer related death is under-treatment of patients with DM. However, there are only limited data in the literature about the pathomorphological characteristics of BC in patients with DM. The aim of our retrospective study was to compare characteristics of BC in patients with DM and without DM.
Patients and Methods: Altogether 174 patients with DM (mean age 67, range 38−93 years), were surgically treated because of invasive BC at our institution from 2006–2010. Control group consisted of consecutive 316 patients with invasive BC without DM (mean age 59, range 28−86 y.), who were surgically treated at the same institution in 2006. A chart review of all 490 patients was performed. Data on clinical and histopathology characteristics (age, BMI, tumour diameter, TNM tumour stage, number of metastatic lymph nodes, presence of estrogen (ER) and progesterone receptors (PR), HER-2 status), cancer specific treatment and survival were collected. Characteristic were compared in patients with and without DM by chi-square test and non-parametric statistical analysis.
Results: Patients with DM were older than patients without DM (p < 0.001), had larger mean BMI (29.9 vs. 26.3; p = 0.007), larger mean tumour diameter (2.37 vs. 2.15 cm; p = 0.015) and higher tumour stage (T1/T2: 78% vs. 88%; T3/T4: 22% vs. 12%; p = 0.001). Patients with DM in comparison to patients without DM had no statistical difference in the rate of regional (46% vs. 47%) or distant metastases (3% vs. 2%) or in mean number of metastatic lymph nodes (2.5 vs. 3), respectively. Tumours in patients with DM were more often positive for ER (89% vs. 82%) and PR (76% vs. 66%) than in patients without DM (p < 0.05). Tumours were HER2 positive in patients with and without DM in 12.5% and 18.6% (p = 0.086), respectively. Patients with DM were more often treated with hormones and less often with chemotherapy than patients without DM (p < 0.013). There was no statistical difference in rate of lymphadenectomy or treatment with trastuzumab or cancer-specific survival between both groups of patients.
Conclusion: The patients with BC and DM are older, have larger BMI, larger tumour and higher tumour status in comparison to those without DM. There was no difference with regard to dissemination of tumour in both groups of patients.

5118 POSTER

Early Breast Cancer and Cosmetic Outcome One, Two, Three and Four Years After Intra-operative Radiotherapy Compared With External Beam Radiotherapy: an Objective Assessment of Patients From a Randomised Controlled Trial (on Behalf of the TARGIT Trialists' Group)

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Background: The international randomised controlled TARGIT Trial (ISRCTN 34086741) was designed to determine non-inferiority between the risk-adaptive approach of TARGIT [intra-operative radiotherapy with Intrabeam® (Carl Zeiss, Germany)] and conventional external beam radiotherapy (EBRT) in women with early breast cancer. The primary endpoint is risk of local relapse within the treated breast. We report here data from a sub-protocol assessing cosmesis in 114 women over 50 years participating in the TARGIT Trial from one centre (Perth, Australia).
Material and Methods: Frontal view digital photographs from were assessed, blind to treatment, using specialist software (BCCT.core 2.0, INESC Porto, Portugal) which produces a composite score based on symmetry, colour and scar. Statistical analysis was by generalised estimating equations (GEE) on all of the data, and logistic regression analysis at year 1.
Results: Images from 114 patients have been assessed, 59 and 55 randomised to IORT and EBRT, respectively. Median age at randomisation was 62 years (IQR 56 to 68). Photographs were taken at baseline (before surgery) and one, two, three and four years after initial breast conserving surgery; none had subsequent breast surgery. The scores were dichotomised into Excellent and Good (EG), and Fair and Poor (FP). There was a non-significant 45% increase in the odds of having an outcome of EG for patients in the TARGIT group relative to the EBRT group (OR=1.45, 95% CI 0.78–2.69, p = 0.245) after adjusting for tumour size. The results were similar when adjusted for tumour grade and age of the patient. For year 1 only there was a statistically significant 2.35 fold increase in the odds of having an outcome of EG for patients in the TARGIT group relative to the EBRT group (OR=2.35, 95% CI 1.02–5.45, p = 0.047) after adjusting for age of the patient, tumour size and grade.
Conclusions: These results demonstrate a significantly better cosmetic outcome with TARGIT compared to EBRT in the first year after surgery.

5119 POSTER

Use of Complementary and Alternative Medicine by Women With Breast Cancer in the Netherlands

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Background: Complementary and alternative medicine (CAM) use is common in breast cancer patients. Several studies have shown interactions between natural CAM products and conventional cancer treatment. The aim of this study was to determine the prevalence and predictors of use of CAM by breast cancer patients in the Netherlands, and to explore the association between CAM therapy use, quality of life (QOL), trust in conventional therapies, and health specific locus of control.
Material and Methods: A questionnaire assessing the use of CAM, focusing on the use of natural products, was sent to a cohort of 167 breast cancer patients from a University Medical Center in the Netherlands within a week after diagnosis. Clinical variables were obtained from medical records.
Descriptive statistics, t-tests and logistic regression analyses were conducted.
Results: The response rate was 34.1%. Of the 57 respondents 45.6% was using natural product CAM. The most common reason to use CAM was to stimulate the immune system, and the pharmacist or a drugstore was the most common source of information. 74.7% did not report CAM use to the physician, with 'it is not important to discuss CAM' being the most common reason. 80.6% of the CAM users thought CAM to be effective.

There was no significant difference in age (p = 0.917), educational level (p = 0.851), or BMI (p = 0.255) between CAM users and non-users.
CAM users and non-users showed no significant difference in trust in conventional treatment (p = 0.374) or quality of life (p = 0.501). There was no significant difference in health specific locus of control.
Vitamins and minerals were the most common (35.2%) used natural CAM product.
Conclusion: CAM use is common among recently diagnosed breast cancer patients in the Netherlands. Physicians and other health care providers should increase their knowledge about CAM therapies. CAM should be discussed with patients, since CAM may cause clinically significant drug interactions.

5120 POSTER

Is Extracapsular Tumour Spread a Prognostic Factor in Patients With Early Breast Cancer?

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Background: This study search for extra capsular tumour spread (ECS) as a prognostic factor for recurrence in terms of Disease Free Survival (DFS) and Overall Survival (OS). ECS is rarely taken into account in large studies, and its prognostic values has been debatable.
Patients and Methods: From a retrospective data base of the Doubs cancer registry, 823 eligible women with node positive breast cancer treated from February 1984 to November 2000 were identified. The following factors were evaluated: ECS, numbers of involved nodes, histological tumour grade, tumour size, status of estrogen and progesterone receptors, and age of patient. A Cox proportional hazards method was used to search for significant factors related to OS and DFS length.
Results: In the multivariate analysis, factors related to DFS length were: tumour grade (aHR 0.76, 95% CI 0.61–0.96, p = 0.02), ECS status (aHR 0.7, 95% CI 0.49–0.96, p = 0.03), PgR status (aHR 0.63, 95% CI 0.44–0.85 p = 0.008), number of nodes involved (aHR 0.75, 95% CI 0.56−1, p = 0.05). The multivariate analysis for OS found as significant factors: tumour grade (aHR 0.76, 95% CI 0.61–0.95; p = 0.02) and PgR status (aHR 0.8, 95% CI 0.56–0.99, p = 0.02).
Conclusions: This study might suggest taking into account ECS status in the adjuvant making decision process.

5121 POSTER

Breast Cancer Radiotherapy: Is Prone Position a Good Method to Protect Organ at Risk?

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Background: Postoperative radiotherapy is a fundamental part of the integrated approach to conservative treatment of breast cancer. Prone positioning has been suggested as an alternative to conventional supine position for the patients receiving breast radiotherapy (RT). Our purpose is to compare the adequacy of target coverage, dose homogeneity and volume of organs at risks (OARs) in the treatment of the whole breast in supine and prone position.
Methods and Materials: Between 07/2010 and 03/2011, 30 early stage left breast cancer patients were referred to our department to receive whole breast RT after conservative surgery. Median age was 52 (range 37−76). Two commercial immobilization devices each specific for supine and prone breast RT were used. Treatment plans with opposing tangential fields (6/15 MV) were performed in both position for each patient according to ICRU criteria. Prescribed dose was 45 Gy in 20 fractions plus a concomitant electron boost of 5 Gy in 4 fractions (1fr/week). Dose volume histograms (DVH) were generated applying uniform margins for target volumes, contralateral breast, heart and ipsilateral lung in prone vs supine position.
Results: Breast volumes were not significantly different in prone and supine position. Median CTV in supine position was 502cc (range 134–1361) vs 534cc (range 149–1535) in prone position. In supine CTV mean dose (D_{mean}) was 45.1±0.5 Gy and 45.1±0.7 Gy in prone; mean $V_{95\%}$ was 97±1.7 Gy in supine and 91.2±9.5 Gy in prone position. Lung doses were lower in prone position: mean maximum lung distance (MLD) was 1.9±0.6 cm in supine position vs 1.1±0.9 cm in prone position; median $V_{20\,Gy}$ in supine vs prone position was 6.1% (range 0–15.9) vs 1% (range 0−8.4), respectively. However, cardiac doses increased in prone position: a 1.7±0.7 Gy D_{mean} was observed in supine vs 2.4±1.0 Gy in prone position. Median $V_{5\,Gy}$ heart dose in the supine and in the prone patients was 2% (range 0−9.5) and 6.6% (range 0–14.8) respectively. Median D_{max} of 1cc for contralateral breast was 3.5% (range 0.9−6.1) in supine and 6.4% (range 1.3–12.8) in prone position.
Conclusion: Our experience shows that prone position could decrease lung doses. Heart and contralateral breast do not benefit from that treatment modality. Therefore, prone position is appropriate in elderly patients, patients with prior lung disease as emphysema, BPCO and fibrosis or patients undergoing neoadjuvant or concurrent chemotherapy.

5122 POSTER

Effect of Synchronous Chemo-radiation on Quality of Life: Results From the SECRAB Trial (ISRCTN: 84214355) Presented on Behalf of the SECRAB Steering Committee

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Background: SECRAB was a large, prospective, multicentre trial comparing the sequencing of chemotherapy (CT) and radiotherapy (RT) after surgery for women with early breast cancer. Between Jul 98 and Mar 04 2296 women were randomised to synchronous (Syn) or sequential (Seq) CT-RT. The primary endpoint was local recurrence rates. Quality of Life (QoL) was an important secondary endpoint.
Materials and Methods: QoL was measured using standard, validated questionnaires (EORTC QLQ-C30 and QLQ-BR23). QoL scores were calculated for 15 QLQ-C30 and 6 QLQ-BR23 domains assessing functioning and symptoms. QoL questionnaires were completed by patients at baseline (prior to chemotherapy), end of all treatment, 12 and 24 months after surgery. Standardized area under the curve (SAUC) methodology was used to assess QoL over a clinically relevant period of 24 months. SAUC combines longitudinal scores into a single measure on a per patient basis and provides an average score per month, tested across treatment arms using a Mann-Whitney test.
Results: 748 patients from 24 centres agreed to participate in the optional QoL study and completed at least 2 questionnaires. Patients were excluded if there was no baseline questionnaire, only the baseline had been received or if the patient had commenced chemotherapy prior to baseline, leaving 565 evaluable patients (completing 2104 questionnaires). The patient characteristics, follow-up and survival of the QoL sub-set were similar to those of the main study with the exception of CT received (72% vs 54% CMF respectively).
There was no significant difference between the arms in mean observed global QoL scores (p = 0.22). On average, patients reported >70% global QoL. Similar results were seen for all functioning domains. Fatigue and trouble sleeping were scored highest of all symptom domains with scores >30%. There were no significant differences between the arms in mean observed QoL scores for all functioning and symptom domains. Despite an increase in acute skin toxicity observed in the main study, there was no detrimental effect on breast cancer specific symptoms, as recorded in the QLQ-BR23, for patients receiving Syn CT-RT.
Conclusions: There were no observed differences in QoL between patients treated with Syn CT-RT compared to those treated with Seq treatment. The results of this study would suggest that Syn CT-RT can be given without adversely affecting QoL.
Sponsor: University Hospitals Birmingham NHS Foundation Trust

5123 POSTER

The Accuracy of Ultrasound in Planning of the Tumour Bed Boost in Breast Cancer

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Background: To compare the accuracy of ultrasound (U/S) guided tumour bed boost planning to CT based planning in patients with breast cancer receiving adjuvant radiation therapy (RT) after undergoing breast conserving surgery.
Materials and Methods: Tumour bed boost, using U/S guided tumour bed localization, was clinically planned for fifteen consecutive patients.