BRCA1 positive BC (40%): All 12 pts were female. Characteristics at diagnosis of first event: median age – 46 yrs old (range: 26−61); 66.7% of women were premenopausal; histology – 66.7% ductal, 8.3% lobular, 16.7% medullar, 8.3% other; grade – 16.7% II, 66.7% III, 16.7% unknown; hormone receptor status (HR) – 58.3% negative, 25% unknown; HER2 – 8.3% positive, 66.7% unknown; stage of disease – 25% I, 66.7% II, 8.3% III. First treatment: 91.7% surgery; 8.3% neoadjuvant chemotherapy (CT). Adjuvant therapy: 75% CT, 25% hormonal therapy (HT), 50% radiotherapy (RT). Thirty-three percent of pts developed contra-lateral BC and 25% ovarian cancer. Median time until second BC was 1.5 yrs (range: 0.5−4). Prophylactic surgery: 16.7% bilateral salpingo-oophorectomy and 8.3% mastectomy. Median time of follow-up was 7.8 yrs (range: 2.9−24.5). At the time of writing, only one patient died, with cerebral metastasis.

BRCA2 positive BC (60%): Two of the 18 pts were male. Characteristics at diagnosis of first event: median age – 43.5 yrs old (range: 31−61); 81.3 of women were premenopausal; histology – 72.2% ductal, 16.7% mixed, 11.1% other; grade – 5.6% I, 33.3% II, 50% III, 11.1% unknown; HR – 11.1 negatives, 22.2% unknown; HER2 – 38.9% negatives, 61.1% unknown; stage of disease – 27.8% I, 22.2% II, 50% III. First treatment: 88.9% surgery; 11.1% neoadjuvant CT. Adjuvant therapy: 77.8% CT, 66.7% HT, 88.9% RT. Sixteen percent of pts developed contra-lateral BC and 6.3% ovarian cancer. Median time until second BC was 12.1 yrs (range: 9.6−13). Prophylactic surgery: 18.7% of women bilateral salpingo-oophorectomy and 5.6% mastectomy. Median time of follow-up was 6 yrs (range: 1.5−18.3). All pts are still alive at the time of writing.

Conclusions: BRCA1 and BRCA2 positive BC pts have different clinico-pathologic features.

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Target-oriented microarray analysis for detailed characterization of high-risk breast tumors

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Background: Gene expression profiling is widely used to identify new markers for prognosis and prediction of breast cancer. Different sets of genes were reported which are expected to provide a better basis for individualized therapies than routinely measured clinical parameters alone. Different studies have analyzed the utility of expression profiles in breast cancer decision-making, yet little is known about the reliability of this method compared to classical risk factors. Therefore, correlation between clinical characteristics and gene expression is analyzed in this study.

Material and Methods: For target-oriented expression analysis a 70mer oligonucleotide microarray containing 180 breast cancer related genes was designed. Core biopsies were taken before neoadjuvant chemotherapy of 18 patients with primary breast cancer. All were high-risk patients with one or more of the following characteristics: poorly differentiated tumor (G3), negative ER, regional lymph node involvement (N1), inflammatory carcinoma. The gene expression profiles are subject to statistical analysis with respect to correlation to tumor-related data like Her2-neu-, estrogen and progesterone receptor status.

Results: Correlation of gene expression profiles with clinical data is analyzed qualitatively using unsupervised clustering analysis and by means of statistical correlation of protein and gene expressions of relevant prognostic factors. Hierarchical clustering of the tumors yielded two main clusters with a strong correlation to the expression of estrogen receptor alpha. Separate statistical analysis using Spearman's rank correlation coefficient showed significant correlation of gene and protein expression for both hormone receptors and Her2-neu in this sample.

Conclusions: Gene expression results for high-risk tumors showed high agreement with routinely measured clinical data and indicate a good reliability for the method. Both methods together give better tumor characterization and provide a good basis for further analyses due to tumor response in the neoadjuvant setting and disease outcome.

Wednesday, 16 April 2008 12:30–14:30

POSTER SESSION

Nursing

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Nursing intervention prior to breast biopsy – is it necessary?

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Ultrasound guided needle biopsy is a common technique used for diagnosis of breast cancer lesions. The procedure is not well known to the general population, can be frightening and painful, and there is a waiting time till the diagnostic results are available. All these factors together with breast cancer fear cause uncertainty and high levels of anxiety. In light of the above, we have created at our clinic a nursing information providing procedure which includes verbal guidance, assessment and support together with written information at the referral, guidance and supportive nursing and medical staff during the biopsy procedure, instruction including pain management at dismissal and continuous support until final diagnosis is available. Women from other medical centers, who did not get the same instruction and support prior to the procedure are also accepted for biopsy at our clinic. We compared the level of information, knowledge and anxiety between those two populations. A questionnaire was given to every patient coming to biopsy. The questionnaire was aimed to evaluate the information the patient was given at referral to biopsy and to examine the course of the procedure. 238 patients who underwent ultrasound guided biopsy during 2/2006–8/2007 were included, 61% from Lin breast clinic and 39% from other centers. 94% from our clinic population reported having pre biopsy guidance opposed to only 42% from other centers ($p < 0.001$). High level of knowledge about the procedure was found in 72% of our center population but only in 2% of women referred to us. Only 21% of our breast clinic patients reported high level of anxiety as opposed to 87% of the patients referred from other centers. 90% of patients from our clinic reported about pain treatment guidance opposed to only 13% from other centers. In the whole group a strong correlation was found between level of anxiety and information provided, 85% of those found to suffer from high level of anxiety did not get any information about the procedure.

We conclude that patients undergoing proper nursing intervention prior to guided biopsy are more knowledgeable about the examination and show statistically significant less anxiety compared to those who had not. Therefore, nursing intervention is necessary and should be integrated as common practice in this clinical situation.

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National organization for breast care nurses

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The SIG breast care is a national platform for the communication between nurses working in breast care. The SIG breast care is part of the V&VN oncology, it reflects the oncologic department of Nurses and Caretakers in the Netherlands.

From all integral cancer departments of the Netherlands (IKC's) breast cancer nurses and nurse practitioners breast care are represented in the SIG breast care. There are nine IKC's in the Netherlands, these are regional network organizations that support workers in the oncologic and palliative care.

Aims:

- Optimizing the quality of care for patients with breast cancer.
- Professional continuing education.
- Exchange of knowledge.

Goals:

- Communications platform for nurses with the 'sub' specialisation breast care.
- Encouraging, supporting and promoting the network of breast cancer nurses and nurse practitioners breast care at a national level.
- Identify and examine specific care needs within the breast care.
- Develop and implement guidelines.
- Share of education, knowledge and clinical expertise.
- Monitor the quality of care within the sub specialisation breast care.
- To support the mission and goals of the V&VN oncology.

Mission: Nurses & Oncologic Caretakers Netherlands is one of the leading organizations in cancer care and promotes excellent oncologic nursing care.