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.

137 Poster

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

138 Poster

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.

139 Poster

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.

Goals: Offering various products and services that suit the needs of the members of the association: the cancer nurses/nurse working in oncology. Maintain expertise of the members.

Contributing to the development of the profession themselves by stimulating scientific research and the use of scientific results and insights.

The optimization of the oncological nursing care by developing a quality system.

The strengthening of the collective within the entire force of healthcare in general and in oncologic care in particular.

The forming of a transparent internal association to support aforementioned goals.

Strategy: For the purpose and goals, the SIG breast care deals with the following topics:

- Professional continuing education.
- Commitment to the national guideline.
- Information.
- Prevention: education, breast self-examination, Screening programme breast cancer heredity
- Offer overview around nursing and medical scientific research within sub specialisation breast care
- Consultancy

Structure: The SIG breast care consists of a core group with members who work on a project. The core group meets three times a year and is for a period of three years in function.

140 Poster

A breast cancer education programme

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Background: Patients need for information and self-care education have been identified in several studies. There is little evidence that routine follow-up visits after breast cancer surgery influence patient satisfaction or have psychological benefits.

Aim: To develop an education programme for women who have undergone surgery for primary breast cancer

Method: All patients treated for primary operable breast cancer at our hospital were invited to the education programme 3−6 months after the end of primary therapy, e g surgery, chemo- and/or radiotherapy.

Four sessions of 2 hours each were held. The maximum number of participants in each group was 25. The counsellor and breast nurse chaired the meetings. Each session included lectures, group discussion and coffee break.

In the end of courses categorized evaluations were performed.

The counsellor addressed crisis, coping and psychological adjustment mechanisms.

The breast nurses informed of their professional skills, accessibility and taught self-care and self-palpation.

The breast surgeon gave a lecture on breast cancer including topics the participants have raised in written beforehand.

The physiotherapist informed about the benefits of physical activity and of exercising the thoracic and axillary region on the operated side.

The lymph therapist described the lymphatic system and potential post-treatment insufficiency.

The patient organisation, BRO, informed of their aims and activities.

Results: Approximately half, 165/318, of invited patients attended the course.. The age span of participants, 34−78 years of age, reflected that of all invited.

All patients were satisfied, also those that hesitated to take part in the beginning.

All patients increased their trust score and reduced the score of fear and anxiety. The increased understanding of physical and psychological reactions due to being diagnosed and treated for breast cancer was particularly appreciated, as was the possibility to discuss with others sharing similar experiences.

Conclusion: The education programme improved the psycho-social quality of breast cancer care.

141 Poster

Selected aspects of the quality of life of women after mastectomy and breast reconstruction

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Introduction: Only in 20% of women cancer is diagnosed early enough to perform breast conservation surgery. Unfortunately as many as 8.500 women undergo mastectomy, and only in 10? of that group breast reconstruction is performed.

Aim: The study was an attempt to determine the differences in the quality of life of women after mastectomy and breast reconstruction.

Material and Method: The presented results come from the studies of the group of 82 women which included 41 women after mastectomy and 41 women after performing of breast reconstruction (the target group size is 200 women). Social and demographic characteristics of both of the groups were comparable. The evaluation method using numerical scale technique with the three questionnaires ERTOC QLQ – C30 (version 3.0), ERTOC QLQ – BR 23 was applied.

Results: It was found that the quality of life in the aspect of physical functioning was significantly higher in the group of women after breast reconstruction. Highly significant statistical differences exist between the quality of life of women after mastectomy and breast reconstruction in the aspect of their functioning in basic social roles (family member, employee). The women after breast reconstruction were significantly more satisfied with their physical appearance in comparison to the women after mastectomy; the difference was 17.28 points in favour of the women with reconstructed breasts and was highly statistically significant. Also in the aspect of emotional functioning the women after breast reconstruction showed better quality of life. The women after breast reconstruction functioned better in social sphere (e.g. social life) compared to the women after mastectomy. No statistically significant differences were found in the aspect of cognitive functioning, however it was slightly higher among the women after breast reconstruction.Also outlook for the future – despite generally low values obtained in the evaluation of the quality of life in his area in both groups – was significantly higher in the group of women after breast reconstruction.

Conclusions: Preliminary results confirm the main thesis of the study that breast reconstruction has a positive effect on the quality of life of women after mastectomy.

142 Poster

Transmural project breast care

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Introduction: One of the highlights of the Jeroen Bosch Hospital (*JBH*) in 's-Hertogenbosch is to reproduce an admit time as short as possible and transparent care. Part of the continuity of care for the patient is a good cooperation with all the caretakers. One of these caretakers is the homecare association *Vivent*.

Subject: In January 2003 the surgical department of the *JBH* started, together with *Vivent*, a project with the aim to send operated breast cancer patients with wound drain home within 3 days after the operation with the guarantee of professional care in the home situation.

This *transmural project breast care* (replacement hospital care for patients undergoing breast surgery (breast amputation or axillary lymfenodedissection) go home with wound drain), started in 2003 with the development of creating a protocol, checklist, flow chart, instruction and training for nurses of *Vivent*.

Results: Between December 2003 and December 2004, 48 patients used the hospital replacement home care after breast surgery and were dismissed with a drain. Patient were satisfied with the information about going home with a drain (given by the hospital nurse). Second they were satisfied with the care they got at home (given by the homecare nurse). These patients had no more complications than the patients who stayed in the hospital for the time they had a drain. A new analysis in 2006 revealed an increased patient satisfaction.

Conclusion and Assessment: The *transmural project breast care* leads to positive experiences in patients and healtcaretakers. Based on the results, transmural breast care is now regular care. Some adaptations were done in the protocol. Now it is important to continue paying attention to the quality and continuity of such care.

143 Poster

A study on quality of life in breast cancer patients who underwent breast reconstruction

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This is a descriptive research study which measured the quality of life in breast cancer patients who have undergone breast reconstruction. A total of 114 breast cancer patients who previously underwent breast reconstruction between September and November, 2007 at Asan Medical Center located in Seoul were included in this study. Korean version of EORTC QLQ-BR23