Descriptive statistics, t-tests and logistic regression analyses were conducted.

Results: The response rate was 47.4%. Of the 130 respondents 43.8% used CAM. Vitamins and minerals were the most common (50.9%) used CAM product. Patients usually started with CAM on their own initiative and the most common reason to use CAM was to stimulate the immune system (56.1%). 66.7% did not report CAM use to the physician, usually because patients thought it was unimportant (48.6%). Most CAM users (89.1%) thought CAM was effective.

There was no significant difference in age (p = 0.496), educational level (p = 0.175), relationship status (p = 0.681), having children (p = 0.175), or smoking (p = 0.154) between CAM-users and non-users. More CAM-users (71.9%) drank more than 1 alcohol consumption per week than non-users (46.6%) with an odds ratio of 2.93 (p = 0.004). The average Body Mass Index of CAM-users (20.6) was lower than of non-users (22.5, p = 0.009).

No statistical significant difference existed in faith in conventional treatment (p = 0.547) or QOL (p = 0.371). The Multidimensional Health Locus of Control (MHLC), for determining the locus of control over a patient's health or illness showed no significant difference between the two groups.

Conclusions: CAM use appeared common among recently diagnosed breast cancer patients in the Netherlands. Most CAM-users did not discuss this with their physician. Since clinically significant drug interactions have been described for CAM, physicians and other health care providers should discuss this topic with their patients.

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Sexual Dysfunction in Married Breast Cancer Patients: a Follow-up Study

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Background: Sexual function affects quality of life in patients with breast cancer especially younger patients. This study aimed to assess sexual function among Iranian breast cancer patients.

Material and Methods: This was a follow-up study of sexual function in breast cancer patients attending the Cancer Institute of Iran. Sexual function was assessed using the Female Sexual Function Index (FSFI) at two points in time: baseline (pre-treatment) and after completion of treatment at follow-up visits (post-treatment). Pre- and post-treatment data were compared. In addition logistic regression was performed to find out factors contributing to post-treatment sexual dysfunction.

Results: In all 277 breast cancer patients were approached. Of these, 231 patients (83%) were sexually active and data for 216 patients (93.5% of sexually active patients) were available at pre-and post-treatment. Overall pre-and post-treatment sexual dysfunction was found to be 52% and 84%, respectively; indicating a significant deterioration in sexual function among breast cancer patients. Logistic regression analysis indicated that younger age (OR = 0.94), receiving endocrine therapy (OR = 3.29) and poor sexual function at pre-treatment (OR = 12.4) were the most significant contributing factors to post-treatment sexual disorders.

Conclusions: Breast cancer patients might show deterioration in sexual function over time. The findings from this study indicated that younger age, receiving endocrine therapy, and poor sexual function at diagnosis were the most significant predicting factors for sexual disorders in breast cancer patients after treatment.

368   Poster
The Effect of Chemotherapy on Objective Cognitive Functioning in Breast Cancer Patients

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Background: Recent studies suggest that chemotherapy may induce cognitive decline in women treated for breast cancer. However, evidence for this chemotherapy-induced cognitive decline is inconclusive. Therefore, the purposes of this multicenter, prospective longitudinal study was to examine the effect of chemotherapy on objective cognitive functioning in breast cancer patients three months after chemotherapy administration.

Materials and Methods: Post-operatively and before chemotherapy, breast cancer patients were asked to participate in this study. The control group consisted of women who were diagnosed with a benign breast problem. Before the chemotherapy started and three months after completion of chemotherapy (and at comparable moments for the benign breast problem group), a neuropsychological test battery was administered

covering the following domains: verbal memory, visual memory, information processing speed, executive functioning, verbal fluency, motor speed and reaction speed.

Results: At the moment of analysis 52 breast cancer patients (mean age 51, range: 28−69) and 50 patients with a benign breast problem (mean age 47, range 21−71) had completed both neuropsychological assessments. With age and verbal intelligent quotient as covariates we found no interaction effects (p ⩾ 0.145) and no significant effects for time on the neuropsychological domains (p ⩾ 0.270), indicating that objective cognitive functioning remained stable over time. In addition, no significant differences between the breast cancer patients and the patients with a benign breast problem were found on any of the neuropsychological domains (p ⩾ 0.232).

Conclusion: Three months after ending chemotherapy no effect was found on objective cognitive functioning in breast cancer patients.

369   Poster
Association of Triple-negative Breast Cancer with Extracapsular Extension of Axillary Lymph Node Metastasis

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Background: Triple-negative breast cancers (TNBC) are defined by a lack of expression of estrogen, progesterone, and ERBB2 receptors. We compare the clinical features and prognosis of association of triple-negative breast cancer with extracapsular extension of axillary lymph node metastasis.

Materials and Methods: From January 2000 to December 2009, 591breast cancer patients operated in General hospital 'Sveti Vracevi' in Bijeljina. We selected 301(50, 9%) patients with breast cancer who had metastases to axillary lymph nodes.

Results: Extracapsular extension (ECM) was found in 122 (40.5%). Eighty-three patients (14%) were classified as TNBC. The patients were identified and divided into two groups: 22 patients with triple-negative breast cancer with extracapsular extension of axillary lymph node metastasis (TNBCECM) and 14 patients with triple-negative breast cancer without extracapsular extension of axillary lymph node metastasis (TNBCICM). 49 patients (40.1%) were identified with three or less lymph nodes involved, 30 patients (24.5%) patients four to six, 24 patients (19.6%) seven to nine, and 19 patients (15.5%) ten or more nodes, respectively. Total number of lymphnodes showing ECM were also significantly more in the TNBCECM (48 of 81, 59.25%) vs.(13 of 60, 21.66%) in the TNBCICM group (P < 0.001).

Conclusion: New strategies in the search for effective treatment options for patients with TNBC have focused on both new chemotherapy regimens and targeted therapies. In patients TNBCECM prognosis was significantly worse compared with those who were TNBCICM. These findings have led to the conclusion that TNBC is associated with a more aggressive subtype of cancer.

370   Poster
Lifestyle and Change in Bone Mineral Density in Japanese Postmenopausal Women with Hormone Receptor-positive Breast Cancer Before and After 1 Year of Aromatase Inhibitor Treatment

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Background: Unlike tamoxifen, aromatase inhibitors (AIs) reduce bone mass and significantly increase the risk of fractures. [1,2] Therefore, clinicians and patients need to be aware of this risk during long-term treatment with AIs. Genetic factors and lifestyle habits such as diet and exercise are involved in the maintenance of bone mineral density (BMD). However, since lifestyle habits differ between Western and Japanese individuals, it is important to confirm whether the same risk can be applied to Japanese patients. Therefore, we assessed the lifestyle and bone status of Japanese postmenopausal women with hormone receptor-positive early-stage breast cancer before and after 1 year of initial treatment with AI treatment.

Materials and Methods: Patients completed a questionnaire to record lifestyle habits such as exercise, diet, smoking and alcohol consumption. In addition, the absence or presence of chemotherapy and radiotherapy were recorded. The BMD was measured before and at 1 year after starting AI treatment by dual-energy X-ray absorptiometry or quantitative computed tomography in 208 patients. The measured sites were as follows; the radius in 155 patients, lumbar spine in 43 patients and metacarpal bone in 10 patients, respectively.

Results: The median age of patients was 63 years (range 44−84 years). Anastrozole, letrozole and exemestane were used in 137, 59 and 12 patients, respectively. The BMD decreased by 3.4% from baseline at 1 year after the start of AI treatment. Osteoporosis and fractures were observed in 11 (5.3%) and 5 (2.4%) patients, respectively. The percent decrease in BMD was significantly smaller in patients who exercised at least once per week than in those who did not (−2.3% vs −4.4%; P = 0.005). By contrast, the percent decrease in BMD was significantly greater in patients who received chemotherapy than in those who did not (−5.3% vs −2.7%; P = 0.001). Smoking and alcohol consumption were not associated with changes in BMD.

Conclusions: Japanese postmenopausal women with hormone receptor-positive early-stage breast cancer on initial treatment with AIs are at high risk of bone mass reduction and fractures. Performing moderate exercise at least once per week may reduce this risk.

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371   Poster

Changes in Bone Mineral Density During Aromatase Inhibitor Therapy in Post-menopausal Breast Cancer Patients in Japanese

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Background: Currently, aromatase inhibitors (AIs) are the standard endocrine therapy for post-menopausal breast cancer patients, but they reduce bone mineral density (BMD) as a result of estrogen deficiency, leading to osteoporosis, increased risk of bone fracture, and thus decreased quality of life, which is the major concern of AI therapy. Changes in BMD during AI therapy in Japanese post-menopausal breast cancer patients have not been fully investigated.

Materials and Methods: In 142 post-menopausal breast cancer patients (age 40−89y, mean 62.5y, median 62y; 40 anastrozole, 36 exemestane, 66 letrozole), lumbar and/or femoral neck BMD was measured multiple times (2−5, mean 3.2, median 3) using dual energy X-ray absorptiometry before and/or during AI therapy more than 12 months apart. Data were analyzed using the paired t-test.

Results: In 110 patients who had BMD measured at the beginning of AI usage, 29 (26.4%) were <70% of the young-adult mean, and therefore osteoporotic. BMD significantly decreased using AI alone continuously over time. During AI therapy with combined use of vitamin D with/without calcium, BMD did not decrease at the second measurement, but decreased thereafter. During AI therapy, combined use of oral bisphosphonate significantly increased BMD at the second measurement, which was maintained thereafter. Ten patients experienced fractures; 2 fragile and 8 traumatic fractures.

Conclusion: In Japanese post-menopausal breast cancer patients, AI alone continuously decreased BMD. Combined use of vitamin D with/without calcium may delay AI-induced bone loss. Oral bisphosphonate can prevent AI-induced bone loss.

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How Reliable is the Measurement of Pain in Oncological Day Hospital (DH) Patients?

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Background: The majority of cancer patients experience pain, but they are often reluctant to communicate the pain they feel.

The Pain Visual Analogic Scale (VAS) and the Happy Face Pain Rating Scale (PRS) are two useful, cost-effective and rapid means of measuring pain in every kind of patient. This study was carried out to measure the percentage of pain in our DH patients and to study any discrepancies between the results obtained.

Material and Methods: From January 2010 to February 2011, 154 patients were evaluated with an average number of 10 admissions per patient. 89 patients had advanced or metastatic disease and 65 were undergoing adjuvant therapy. All patients were affected by solid cancers. 42/154 patients had attended high school and 8/154 had a degree. Pain was measured by both an oncologist and a nurse using VAS and by a nurse alone using PRS. The discrepancies were defined by at least 2 points of difference between these scores: VAS nurse/VAS oncologist or VAS nurse/PRS nurse.

Results: 70.8% patients reported pain in 31.4% of the 1,546 daily DH admissions. The VAS scores of 8/109 patients and 80/485 admissions could not be evaluated. The following discrepancies were observed: in 18/101 patients and 38/405 admissions the VAS score recorded by the oncologist was greater than that registered by the nurse; in 52/101 patients and 137/405 admissions the opposite was noted. In 71,3% patients and 76,8% DH admissions the discrepancy was noted between the VAS score and PRS score recorded by the nurse; in 257/311 admissions the PRS score was greater than the VAS score whereas in 54/311 admissions the opposite was observed. In 32/101 patients and 58/405 admissions the discrepancy was greater than 2 points.

Conclusions: The incidence of pain noted in our DH patients is as high as that mentioned in literature. One must take into consideration that these patients have active disease or recently undergone surgery. Our results appeared to confirm the reluctance of patients to reveal their pain, especially to the oncologist. Even the registration performed by the nurses using two different methods did not give the same results. One of the reasons could be due the median low level of education (67.5% patients). The measurement of oncological pain is essential, but it is not easy and the best instrument has yet to be found.

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Copying Letter to Patients − Distress or Satisfaction?

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Background: Patients should be involved in decisions relating to their own treatment and care but it is perceived that patients may misunderstand the content of copy letters which could cause unnecessary distress; this perception needs to be explored.

Materials and Methods: All patients who attended the Breast Clinics in a District General Hospital over a period of one month were sent a postal questionnaire with their copy letter (unless the patient opted out of receiving a copy letter). 300 questionnaires were posted.

Results: 217 questionnaires were returned to the Breast Unit (72.3%). The study group included new patients, patients discharged with a benign diagnosis, cancer diagnosis, breast cancer follow up and Family History. The results showed that 90.6% understood the content of the letter with only 16 patients not understanding the medical terminology. 76% of the patients felt this practice was helpful to them. 130 patients understood their diagnosis better with this information and 114 patients understood their management. The free text section of the questionnaire contained comments which demonstrated some patients contacted the Breast Care Nurses if they did not understand some of the content within the letter.

Conclusions: The study clearly demonstrates that sending a copy letter to patients does help them to understand their condition better, contrary to the misconception amongst health professionals. Hence all hospital departments should consider implementing this useful practice.

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Anxiety Disorder and Major Depressive Disorder in Women with Breast Cancer

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Background: The goal of this research was (1) to study the prevalence of anxiety disorders (AD) and major depressive disorders (MDD) in women with breast cancer (BC), and (2) to compare psychological distress, quality of life (QoL), and health status levels in breast cancer patients with and without a diagnosis of MDD or AD.

Material and Methods: Women with a breast problems referred to a Dutch outpatient clinic were recruited for this study. Participants completed an informed consent and a set of questionnaires before diagnosis (time0) and at one (time1), three (time2), six (time3), 12 (time4), and 24 months (time5) after surgical treatment. For this study only data of women with BC were used. The questionnaires assessed demographics, state anxiety, depressive symptoms, fatigue, QOL, and health status. At t4 lifetime diagnoses of anxiety disorders and MDD were administered with a diagnostic interview.

Results: Of the 143 BC patients, 25 (18%) had a MDD during their life and 21 (15%) an AD during their life. Six patients (4%) had both diagnoses. Patients with a diagnosis of AD during their life scored significantly higher