

was measured by calculating standardized response means (SRM) of correlating domains of the two questionnaires.

**Results:** Effect sizes of the EQ-5D domains were found to be lower than effect sizes on the EORTC QLQ-C30. Relatively, effect sizes of EQ-5D domains were between one fourth and three fourth of the effect sizes of the EORTC QLQ-C30. Pain on the EQ-5D was an exception and showed more responsive than the corresponding subscale on the EORTC QLQ-C30.

**Conclusions:** The use of the EQ-5D in breast cancer research is advantageous because it can be used for economic evaluations. Its responsiveness measured by effect size was lower than that of the widely accepted EORTC QLQ-C30. However, effect sizes of the EQ-5D domains were still reasonable and the EQ-5D and EORTC QLQ-C30 showed moderate to strong correlations on many of their domains. We conclude that the EQ-5D measure is a useful instrument to measure HRQoL for the purpose of economic evaluations of follow-up strategies for primary breast cancer survivors.

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Poster

#### Breast cancer risk assessment by Gail model in Iranian patients: accuracy and limitations

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**Background:** A variety of statistical models have recently been described for measuring breast cancer risk, of which the Gail model is the most accepted one. Differences in genetic backgrounds and environmental exposures could affect the applicability of the Gail model in Iranian population. In this study, breast cancer risk was assessed by the Gail model in breast cancer patients.

**Material and Methods:** In a cross sectional retrospective study, we collected comprehensive breast cancer risk factor information for 200 breast cancer patients attending Iranian Center for Breast Cancer (ICBC) during 2003–6. Relative risk, 5 year risk and life long risks of breast cancer were calculated using the Gail model.

**Results:** The mean age of the study population was 48.11 (+12) and 27.9% were older than 40. Forty percent of cases had menarche age of less than 12 and 50.3% had menarche age between 12 and 13 years old. The age at first live birth was greater than 25 in 17.9% and 16.8% of them were nulliparous. At least one previous breast biopsy was reported by 6.2% of patients but no atypical hyperplasia was observed. Nearly 6% of cases had a positive family history of breast cancer in their first degree relatives. The mean 5 years risk, relative risk and life long risk of breast cancer were 0.86% (0.79–0.94% CI95%), 1.44 and 9.06% respectively. Only 11.2% of patients had 5 years risk of greater than 1.67% and chemoprevention was indicated for them. There was not any correlation between relative risk and the age of breast cancer onset.

**Conclusions:** The Gail model does not adapt well to the study population of Iran. It would be necessary to add other risk factors to the Gail model so as to identify more patients in our area.

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Poster

#### Knowledge and interest of women in an academic breast cancer screening center in Brussels

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**Background:** Recent studies have revealed a lack of knowledge and a misperception of the risk of breast cancer (BC) in the general population as well as in women at higher risk of BC. This may impact the efficiency of primary prevention strategies.

**Material and Methods:** 106 consecutive women without a personal history of BC consulting for BC screening in an academic senology unit in Brussels were offered to answer a short questionnaire about their perception of BC risk, knowledge of BC facts based on 10 common statements, and potential acceptance of preventive methods. All women accepted; 100 responses were considered valid and further analyzed.

**Results:** Mean age was 45. Most women were Caucasian, well-educated, with a professional occupation. Calculations according to the Gail model revealed a mean 5-yr objective risk of BC of 1.24%. Women evaluated their own risk of BC at a mean of 4.2 on an arbitrary scale of 0 to 10, which is close to the a priori stated risk of 5.0 for a population at "mean" risk. However, those women with an objectively higher risk (>1.65% in the Gail model) did not rate themselves at higher risk than those with lower Gail scores (4.3/10 vs 4.1/10 on the arbitrary scale; p=NS). This was linked to an underestimation of the following risks: age, age at menarche, age at first

pregnancy, and parity. On the other hand, a family history of BC and prior breast biopsy were correctly viewed as inducing higher risks. Knowledge about BC facts was fairly good, apart from the usual overestimate of BC mortality and an overrated risk linked to hormonal treatments. Surprisingly, 50% of women would agree to follow a preventive method that could decrease the risk of BC by only 10%, while 98% of women would take on a method with a ≥50% benefit. However, preventive surgery is not well accepted, receiving only 23% of positive opinions vs 93% for information sessions on lifestyle changes.

**Conclusion:** This prospective cohort study among 106 well-educated women consulting in an academic BC screening center confirms that women with a higher than average risk of BC according to the Gail model (25% of the group) underestimate their risk, probably because of a lack of knowledge about "secondary" risk factors such as age, age at menarche and parity. In a population consulting for BC screening, the a priori acceptance rate for preventive methods reducing the risk of BC is high, except for surgical measures. These data should help to devise better BC prevention strategies.

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Poster

#### Genetic counseling in breast cancerThe National Cancer Institute of Naples experience

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**Background:** Genetic factors appear to contribute for at least a fraction of 5–10% of the women with breast cancer. Today the recent molecular biology acquisitions lead us to consider different clinical approaches in the treatment of women with higher risk to develop breast carcinoma.

**Material and Methods:** Our Institute started in 1994 a perspective program (named "Family Project") for genetic counselling on families with higher incidence of breast cancer. 245 women distributed in 93 families have been entered into this study. The only criteria for admission was the presence of breast cancer in at least 3 components of the family. This group was followed by a clinical-diagnostic protocol including anamnesis, genealogical tree reconstruction and clinical and instrumental examinations (ecography, mammography and FNAB where necessary). Peripheral blood samples were taken from each woman and genomic DNA was extracted to further evaluate putative genetic alterations after obtaining informed consent. The follow-up uses a protocol, which foresees the psychological approach, between the clinical team and the women in study, as a fundamental part of it.

**Results:** This approach has permitted discovery the appearance of pre-clinical lesions in 10% of cases in the enrolment of follow-up phase in family groups under study.

**Conclusions:** From the first analysis of breast cancers there is an hereditary component in 13% of all cases studied and these cases have certain characteristics: early age of diagnosis, frequent bilateral tumours, and the association with other tumours in the same person or in the same family.

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Poster

#### Comparison of synchronous with metachronous bilateral breast cancer

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**Background:** Bilateral breast cancer is relatively rare, but has an important emotional impact on the patient. The reported incidence of bilateral breast cancer is variable, ranging from 4% to 21%, the majority of cancer being metachronous. Our aim was to compared characteristics and survival between women with synchronous and metachronous bilateral breast cancer.

**Material and Methods:** We retrospectively reviewed the records of 50 consecutive patients with operable bilateral breast cancer and received definitive therapy at our hospital between 1983 and 2004. Bilateral breast cancer was classified as synchronous in patients with a second breast cancer diagnosed within six months after the first breast cancer and as metachronous if the second breast cancer occurred more than six months after the first. Patients who had distant metastasis at the time of primary diagnosis of breast cancer were excluded. Clinical and pathological tumor characteristics analyzed included age, tumor size, stage, histology, hormonal receptor status, recurrence and outcome.

**Results:** Of the 50 bilateral patients, 17 (34%) were synchronous bilateral breast cancer patients and 33 (66%) were metachronous breast cancer patients. The median follow-up time was 45 months (range, 14–113 months) for patients with synchronous cancer and 112 months (range, 33–270 months) for those with metachronous cancer. For patients with metachronous breast cancer, the median interval between the first and second diagnosis was 58 months (range, 7–201 months). The mean age of the patient with synchronous and metachronous cancer was 49.8 and 43 years. Patients in the metachronous group were younger than synchronous group when their first cancer was diagnosed ( $p=0.02$ ). There was no significant differences in clinical stage, histology, hormonal receptor status, recurrence between metachronous and synchronous breast cancer. For the metachronous breast cancer, 41.2% of the cases were down-staged, and 25% of the cases were up-staged compared to the first primary breast cancer. The overall survival at 5 years for breast cancer patients with synchronous disease was 70.5% compared with 96.5% for patients with metachronous disease ( $p=0.006$ ).

**Conclusions:** Patients with synchronous bilateral breast cancer had a significantly worse overall survival when compared with those with metachronous bilateral breast cancer. Therefore, we should a careful check-up for the opposite breast at the time of primary cancer treatment and consider the aggressive adjuvant treatment for synchronous bilateral breast cancer.

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Poster

#### Estimating the risks and benefits of tamoxifen for breast cancer chemoprevention in Korea

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**Background:** From the Breast Cancer Prevention Trial, tamoxifen produced a 49% reduction in the risk of breast cancer in women who had 5-year risk of 1.67%. Because tamoxifen has the adverse events of endometrial cancer, stroke, pulmonary embolism and the protective effect of fracture, it is necessary to weigh the risks and benefits of tamoxifen.

**Materials and Methods:** Data were reviewed on the incidence of breast cancer, hip fracture, endometrial cancer and stroke for Korean women in the absence and presence of tamoxifen treatment. A benefit/risk index was calculated according to the age, the specific risk of breast cancer and hysterectomy.

**Results:** Compared with U.S. population, the risk of endometrial cancer was lower and the risk of stroke was higher. For women of 60 years or under, the benefit of tamoxifen was higher than the risk (positive benefit/risk index) in more than 0.5% of 5-year risk group. But women older than 60 who had 5-year risk less than 3% had a negative benefit/risk index.

**Conclusions:** Tamoxifen is more beneficial for younger women with an elevated risk of breast cancer. Women older than 60 and less than 3% of 5-year risk have high risk of tamoxifen, especially due to the stroke. These data can help Korean women in weighing the risks and benefits of tamoxifen for breast cancer chemoprevention.

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Poster

#### “Enforced Manageability” – the strategy of breast cancer patients caused by limited access to oncology care

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**Background:** The Insufficient financial resources provided by the National Health Fund (NFZ) for financing modern therapy, inadequately qualified doctors and inappropriate organizational solutions results in Poland having the worst oncology care in the EU. The purpose of the research was to show how women treated for breast cancer cope with the lack of access to the oncology care in such critical conditions.

**Material and Methods:** The research was conducted by means of a dialogue method (cognitive review) among 30 women who were treated in Regional Cancer Center (the central Poland) and are the members of patients association “Łódzki Klub Amazonka”.

**Results:** The research indicates formation of the informal processes, named “compensation processes”. Their purpose is to compensate for the ineffective processes of medical care, mainly the limited access to the attending physician or oncology specialist. Patients’ behavior was termed “enforced manageability”, per analogiam to the theoretical construct introduced by A. Antonovsky – the sense of coherence, the crucial element of which is the sense of manageability. Among the informal processes are: patients searching for unofficial contacts links which would provide additional opportunities for specialist’s consultations; informal communication with the doctor (private phone numbers made available); the medical officers taking on the managerial role instead dedicating their time for direct clinical care; selective approach to the management of

waiting lists for selected patients; suggestions of better availability of the private care to the patients.

**Conclusions:** In the activity of “enforced manageability”: active, resourceful patients with strong psyche, considerable knowledge and communication skills are preferred. This, which is a violation of the rule of equality and social justice of the Health Care System. The informal processes may largely affect the effectiveness of the oncology care in following ways: (1) advantageous (for a selected group of patients without any negative consequences for the rest of patients), (2) disadvantageous – reinforcing the low effectiveness of treatment process or (3) disadvantageous – generating non-effective or pathological results. Further reform of the Health Care System in Poland (changes in organization, legal and financing aspects) is the only way of altering this unfavorable situation.

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Poster

#### Impact of obesity on breast cancer treatment

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**Background:** In coming years, the number of breast cancer patients suffering from obesity will rise. In this study we evaluated the impact of obesity on locoregional and systemic treatments of breast cancer patients.

**Material and Methods:** At the Geneva Cancer Registry, we identified all 1,110 women diagnosed with invasive breast cancer in the canton of Geneva between 2003–2005. From medical files, we could retrieve information on weight and length for 460 women (41%). We calculated Body Mass Index (BMI) as weight/length<sup>2</sup>. We compared treatment characteristics (locoregional treatment, surgical delay, systemic treatment, length of hospital stay) between obese women (BMI  $\geq 30$ ,  $n=86$ ) and women with normal or low weight (BMI  $\leq 25$ ,  $n=252$ ) using multivariate logistic regression analysis adjusting for all other variables univariately associated with obesity.

**Results:** Obese breast cancer patients were significantly more often postmenopausal, of lower socio-economic class and presented more often with advanced stage disease as compared to normal weight patients. Obese breast cancer patients were less likely to undergo mastectomy (adjusted Odds Ratio [OR<sub>adj</sub>] 0.3, 95% CI: 0.2–0.7) and their tumor margins were less often involved (i.e.  $<10$  mm) (OR<sub>adj</sub> 0.3, 95% CI: 0.1–0.5). We observed no significant differences in use of radiotherapy and systemic therapy. Obese patients were at increased risk of long delay ( $>4$  weeks) between diagnosis and surgical treatment (OR<sub>adj</sub> 2.2, 95% CI: 0.9–5.8). In addition, obese patients had a highly increased risk of prolonged hospital stay ( $>5$  days) as compared to leaner women (OR<sub>adj</sub> 4.7, 95% CI 2.0–11.0).

**Conclusion:** Obesity seems to have a dual impact on breast cancer treatment. On one hand, it facilitates breast conserving surgery and clear margins are more easily obtained. On the other hand, the prolonged surgical delay and hospital stay suggest that obesity has an unfavorable impact on planning of, and recovery after breast cancer surgery.

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Poster

#### Impact of obesity on diagnosis of breast cancer

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**Background:** With obesity reaching endemic levels, the number of breast cancer patients suffering from obesity will rise. In this population-based study, we evaluated how obesity impacts presentation and diagnosis of breast cancer.

**Material and Methods:** At the Geneva Cancer Registry, we identified all 1,110 women diagnosed with invasive breast cancer in the canton of