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 cased were down-staged, and 25% of the cases were up-staged compared to the first primary breast cancer. The overall survival at 5years 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.

87   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 hystrectomy.

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.

88   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 "Lódzki 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.

89   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^2. We compared treatment characteristics (locoregional treatment, surgical delay, systemic treatment, length of hospital stay) between obese women (BMI $\geqslant$ 30, n = 86) and women with normal or low weight (BMI $\leqslant$ 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$_{adj}$] 0.3, 95% CI: 0.2−0.7) and their tumor margins were less often involved (i.e. <10 mm) (OR$_{adj}$ 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$_{adj}$ 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$_{adj}$ 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.

90   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

Geneva between 2003–2005. For 460 (41%) information on weight and length could be retrieved from medical files. We calculated Body Mass Index (BMI) as weight/length^2. We compared diagnostic characteristics (stage at diagnosis, palpability of primary tumor and axillary lymph nodes, use of mammography, ultrasound, MRI) between obese women (BMI ⩾ 30, n = 86) and women with normal or low weight (BMI ⩽ 25, n = 252) using multivariate logistic regression analysis adjusting for all other factors univariately associated with obesity.

Results: Obese breast cancer patients, who were more likely to be postmenopausal and of lower socio-economic status, presented significantly more often with stage 3−4 disease (adjusted Odds Ratio [OR$_{adj}$] 1.8, 95% CI: 1.0−3.3, p = 0.049). Tumors ⩾1 cm were significantly more often impalpable in obese patients than in normal weight patients (OR$_{adj}$ 2.4, 95% CI 1.1−5.3). Obese women with impalpable axillary lymph nodes had a higher risk of extensive lymph node involvement (pN2, pN3) as compared to leaner ones (OR$_{adj}$ 8.3, 95% CI: 1.7−39.3). During diagnostic work-up, obese patients were less likely to undergo ultrasound (OR$_{adj}$ 0.5, 95% CI 0.3−0.9) and MRI (OR$_{adj}$ 0.3, 95% CI 0.1−0.6). When performed, ultrasonic examination was more likely to be non-suspect in obese patients (OR$_{adj}$, 3.6, 95% 0.7−20.8).

Conclusion: Diagnostic work-up of obese breast cancer patients is a medical challenge, since primary tumors as well as axillary lymph nodes are more difficult to detect clinically. In addition, obese breast cancer patients tend to receive less complete diagnostic work-up. These findings may partly explain the unfavorable stage at diagnosis of obese breast cancer patients and provide windows for improvement.

91   Poster

The inflammatory breast cancer – Moroccan experience

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Background: The inflammatory breast cancer (IBC) is the most aggresive subtype of non metastatic breast cancer.

It is a rare cancer in North America and Europe (<3% of all breast cancer) whereas this rate is greater in North Africa (6 to 10%).

The aim of this study is to determine the epidemiological profile of IBC in Morocco across the experience of the national institute of oncology (INO) and to compare it to the other especially with North African series.

Material and Methods: It's one year retrospective study including all IBC histologically proved recruited in 2003 in our tunisian. The therapeutics strategies combined the neoadjuvant chemotherapy based on anthracyclines regimen (AC60 4 to 6 cycles) followed by surgery and radiotherapy in localised disease and exclusive chemotherapy in metastatic setting.

Results: 51 cases of IBC from a total of 940 breast cancer were recruited in 2003 (6.2%). This rate is higher than Eastern countries rates but less than the first historical Tunisian serie previously reported, where this rate was about 30%.

The median age was 49 years range: [29 to 78], histologically SBR III was the most frequent (55%), 45% for SBR II. 60% of patient was hormones receptors positives whereas the HER test was not systematically done.

Lymph nodes were involved in most cases (47/51) and over 27 patients had N2/N3 status. 23 patients (46%)had metastatic sites at diagnosis (lung = 14, liver = 8, bone = 5, brain = 1).

Concerning the treatment, the clinical response rate for chemotherapy was 80% (all partial response) without any complete pathological response after mastectomy.

The outcome was poor, from 28 non metastatic patients only 4 were alive three years after diagnosis (14%).

Conclusion: The part of IBC from all breast cancer is our country is higher than the eastern countries but less than the first Tunisian study (due certainly to the confusion between locally advanced breast cancer and IBC) and similar to recent North African studies (6.6% for Tunisia and 6.4% for Algeria).

Although the recent progress in medical management of breast cancer, the prognostic of IBC is still dismal.

92   Poster

Relationship of serum carotenoids with the risk of breast cancer in Korean women

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Background: Some antioxidant vitamins are known to be important cellular antioxidants in humans and to inhibit a relatively early stage in carcinogenesis. The relationship of serum concentration of carotenoids and the risk of breast cancer was investigated in a case-control study in Korean women.

Material and Methods: This study was carried out with 440 breast cancer patients and 269 control subjects from Jan 2006 to Dec 2006. The serum concentration of β-carotene, lycopene, zeaxanthin + lutein, and retinol were measured simultaneously by a reverse phase, gradient HPLC system. A 46-item semiquantitative food frequency questionnaire and data about breast cancer risk factors were collected. Serum vitamins levels were stratified into quintiles and the relationships of serum cartotenoids to breast cancer risk were evaluated by logistic regression.

Results: After controlled various factors, including age, body mass index, smoking, and alcohol drinking, β-carotene had an increasing risk of breast cancer with increasing serum vitamin level. Crude and multivariate odds ratios for highest quintile compared with lowest quintile were 1.70 (95% CI; 1.17−2.46, p for trend = 0.012) and 1.57 (95% CI; 1.07−2.31, p for trend = 0.047). Lycopene and retinol had decreasing risks of breast cancer with increasing serum vitamin level. Crude and multivariate odds ratio were 0.64 (95% CI; 0.44−0.93, p for trend = 0.018) and 0.65 (95% CI; 0.04−0.95, p for trend = 0.017) for lycopene, 0.53 (95% CI; 0.36−0.78, p for trend = 0.0003) and 0.55 (95% CI; 0.37−0.81, p for trend = 0.0013) for retinol. However, there was no association with serum level of zeaxanthin-lutein and breast cancer risk.

Conclusions: Our results indicated that among carotenoids, serum levels of lycopene and retinol decreased breast cancer risk in Korean women. However, serum level of β-carotene increased breast cancer risk. Additional large-scaled, population based study is necessary to confirm the relationship of antioxidant vitamins to breast cancer risk.

93   Poster

No association between serum 25-hydroxyvitamin and breast cancer

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Background: There is increasing evidence that vitamin D may protect against breast cancer. 1,25-Dihydroxyvitamin D [1,25(OH)2D] promotes differentiation and apoptosis, and potently inhibits proliferation of malignant breast epithelial cells in culture. We investigated the possible association between circulating 5-hydroxyvitamin D [25(OH)D] and breast cancer progression by comparing serum vitamin D in patients with DCIS, early breast caner, and advanced breast cancer.

Materials and Methods: From June 2006 to December 2006, circulating levels of 25(OH)D were measured in 311 Korean women with breast cancer at Asan Medical Center: 38 with DCIS, 208 with early stage breast cancer (stage I or II), and 53 with advanced breast cancer (stage III or IV). DCIS (Q1), early breast cancer (Q2), and advanced breast cancer (Q3) were compared with regard to serum vitamin D and the relationship between serum 25(OH)D and estrogen receptor, progesterone receptor, P53, and C-erb B2 were evaluated. The study was adjusted for age, body mass index, and bone mineral density.

Results: Mean serum 25(OH)D of Q1, Q2 and Q3 group were 29.34±19.26 nmol/l, 31.32±15.22 nmol/l, and 34.32±17.07 nmol/l (p = 0.315), respectively. They were not significantly different among groups and were not correlated to ER, PR, P53, and C-erbb2 expression.

Conclusions: Unlike some previous reports, we found no significant association between serum vitamin D levels and breast cancer stages. To clarify the role of vitamin D in the progression of breast cancer, further study on association of intracellular or tissue levels of 1,25(OH)2D and 25(OH)D with breast cancer will be needed.

94   Poster

Survival of breast cancer in women under 35 years

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Study objective: To study survival of breast cancer in young age women under 35 years over the 2000–2005. To relate recurrence rate and survival to risk factor as lymph node involvement, and Estrogen and progesterone status.

Design and Setting: Non-randomized retrospective study in patients with breast cancer confirmed by biopsy in Oncology department in Tripoli medical center. Tripoli – Libya.

Patients: Five hundred fifty-two patients were seen, 93 patients less than 35 years representing 16.8% were included in this study in the period between January 2000, and December 2005.

Results: Patients below 35 years of age represent 16.8% of our total patients. Their stages were not different from older patients. stage I (1.1% vs. 3.2%), stage II (38.7% vs. 44%), stage III (37.8% vs 32.6%), and stage IV were (11.8%vs. 10.2%) (P ⩾ 0.05).

No difference in tumor grade.