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Material and Methods: We studied retrospectively 1500 tissue specimens from women with breast cancer, who where diagnosed, operated, histologically examined and treated in our hospital between 2003–2009 (7 years). Median follow up, disease free survival, overall survival, clinical and histological characteristics were recorded. Hormone receptors and Her2(n) gene expression were blindly checked twice by the same pathologist. Regression analysis and chi-square test were mainly used for statistical evaluation of the results.

Results: 133 cases were identified as triple negative breast cancers with "basal-like phenotype". These women were divided to two age groups, 52.4% <50 years old and 47.6% >50 years old, respectively. Tumor size was described >2 cm in 69.6%, <2 cm in 30.4%. Lymph nodes were positive in 52.4% and negative in 47.6%. Nuclear grade was 1 in 2.4%, 2 in 6.1% and 3 in 81.5%, respectively. Overall 7 year survival rate was 79.1%, 7 year disease free survival rate was 77.6%.

**Conclusions:** Triple negative breast cancers with "basal-like phenotype" are often presented as poorly differentiated tumors and are reported to appear in the younger population. Pathological identification of this specific histology needs training and diagnostic experience in order to minimize false further therapeutic interventions.

# 546 Poster

### Age of breast cancer patients in Iran; a trend analysis

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**Background:** Breast cancer is the most common cancer among Iranian women (24 per 100000) and they are younger than their counterparts in developed countries. The present study was conducted to assess any change in patients' age at diagnosis of breast cancer during last 12 years.

Material and Methods: In all, 1266 patients with breast cancer who diagnosed and treated in Iranian Center for Breast Cancer during 1997—2008, enrolled in the study. We divided our patients into three groups based on year of diagnosis. The mean age of patients was compared between three groups using one way ANOVA.

**Results:** The mean age of patients during the period of 1997–2000, 2001–2004, 2005–2008 were 45.4, 46.9 and 47.9 respectively. Difference between three groups was statistically significant (p = 0.006).

**Conclusions:** Iranian patients with breast cancer are young; however the mean age of patients is increasing. It seems that the age trend of breast cancer in Iran is going to change.

# 547 Poster

# Breast cancer in young women in the Algerian west: long term results and prognostic factors

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**Background:** The objective of this retrospective study was to discuss the clinical feature, the therapeutic results and the prognostic factors of breast cancer in younger women, in the Algerian west.

Patients and Methods: Data were collected from 41 patients ≤35 years diagnosed with BC and received an adjuvant radiation therapy at the department of radiation oncology of CHU Oran from January to December 1998. Survival curves were estimated by Kaplan-Meier methods. Univariate and multivariate analyses were performed using respectively the log-rank test and the Cox proportional hazards regression models.

Results: The mean age was 31.5±0.9 years (19-35). We have found: 7 T1 (17%), 14 T2 (34%), 6 T3 (15%), 9 T4 (22%), 4 Tx (10%) and 1 Tis (2%); 29 N0 (70%), 6 N1 (15%), 2 N2 (5%) and 4 Nx (10%). 7 cases were stage I (17%), 17 stage II (42%), 12 stage III (29%), 4 unspecified stage (10%) and only one stage 0 (2%). It was a CCI in 95% of the cases. 2 cases (5%) were SBR I grade, 20 (49%) GII and 16 (39%) GIII. 5 patients (12%) received a conservative surgery and 36 (88%) a radical surgery (Patey). The mean of histological tumoral size was  $29.3 \pm 5.2\,\mathrm{mm}$ (10-80). 14 patients (34%) were lymph node negative (pN0). 11 (27%) were classified pN1, 11 (27%) pN2, 4 (10%) pN3 and 1 (2%) pNx. 29% were presented with RH+. 39 patients (98%) received chemotherapy (neoadjuvant and/or adjuvant) and 15: endocrine therapy (Tamoxifen). With a median follow-up of 61 months (14 to 116), 26 patients (63%) developed recurrences (locoregional, distant and secondary breast cancer). 9-year locoregional relapse-free, disease-free (DFS) and overall survival (OS) were respectively:  $88.2\pm5.6\%$ ,  $24.3\pm11.2\%$  and  $62.7\pm8.3\%$ . In univariate analysis, T3-4 (p = 0.001), stage III (p = 0.0007), RH- (p = 0.009) were associated with shorter DFS; stage III (p = 0.05) and not taken Tamoxifen (p = 0.003) for OS. In multivariate analysis, the hormonoresistance of the tumor seems to have an influence of DFS (p = 0.13; HR = 2.854); and only stage III had an influence within the limit of the significance (p=0.06; HR=3.446) and not taken Tamoxifen (p=0.02; HR=12.22) an influence for OS.

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Conclusion: With a high rate of recurrences, the prognostic of breast cancer in young women is unfavourable specially in cases of advanced tumor disease (stage III), if we do not taken Tamoxifen and with a least degree of hormonoresistance of the tumor, where the necessity of an intensification therapeutic.

### 548 Poster

#### The incidence of skin infections in breast cancer related lymphedema

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Background: Breast cancer related lymphedema is infamous for its debilitating effects on the quality of life of breast cancer survivors. Not only affecting physical and emotional function, but also possibly making these patients more prone to skin infections of the affected breast or extremity. Limited literature is available on the elevated incidence of erysipelas, lymphangitis and cellulitis in patients with lymphatic dysfunction secondary to breast cancer treatment. The objective of this study was to evaluate the incidence of skin infections over a 5-year period in a group of women, selected as part of a previous study measuring the prevalence of lymphedema using four different techniques, after surgical and adjuvant treatment for unilateral breast cancer.

Material and Methods: A group of 145 patients were divided into two groups: Diagnosed lymphedema and no lymphedema. Self reported skin infection on the operated side in the upper extremity or breast was confirmed by searching for a documented occurrence of the infection in a patient's clinical chart. Association was tested using chi-square.

**Results:** Eleven patients presented over a 5-year period with erysipelas, lymphangitis or an erysipelas-like infection. An incidence of 15% was found in the breast cancer related lymphedema group for skin infections, with a borderline significant association;  $\chi^2(1) = 4.63$ , p = 0.069 (95% CI: 1.05–12.822).

Conclusion: This report confirms the low prevalence of skin infections on the operated side in the upper extremity or breast. Breast cancer related lymphedema increases the risk of bacterial skin infections. As the confidence interval is >1, significance of our observation is expected in a larger sample size. Furthermore, our findings suggest the possibility of a non-infective skin inflammation as an additional complication of breast cancer related lymphedema.

# 549 Poster Exploring new approaches to follow-up care for early breast cancer

in Australia

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Background: Best practice guidelines recommend follow-up after treatment for breast cancer. With increasing numbers of women diagnosed and increasing survival[1], more and more women require regular clinical and imaging review, as well as management of physical and psychological sequelae of diagnosis and treatment. In Australia, follow-up is mostly carried out in the tertiary setting. This places considerable strain on the system and clinician's workloads. Shared care between specialist and primary care settings provides a possible safe and effective solution to this issue.

**Materials and Methods:** To assess current practice and identify key elements for the provision of safe and effective shared care, a literature review, survey of breast surgeons and nurses, and descriptive study of follow-up practice in Australia were undertaken. A multidisciplinary panel with expertise in general practice, disciplines relevant to all aspects of cancer management and key stakeholder groups guided the project including the development of 'Principles for shared care'.

**Results:** Shared care is a model of care between specialist and primary care that has been successfully and safely implemented in a range of health settings. Common elements in models of shared care were identified from the literature. These elements inform the 'Principles of shared care' and provide a flexible definition of shared care to promote the provision of optimal care.

The survey found that, in Australia, follow-up after treatment for breast cancer is usually delivered in the specialist setting. The concept of shared care for follow-up was strongly supported by surgeons, particularly if there was a care plan in place. The descriptive study found that the general

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practitioner (GP) is a recognised member of the team involved in followup care and women receive care from their GP following a breast cancer diagnosis.

**Conclusion:** The project provided insight into the potential role of primary care in delivering follow-up care to women with early breast cancer and found support for shared care outside the specialist setting.

To inform future models of follow-up care in Australia, NBOCC aims to trial and evaluate approaches to the delivery of shared care, according to the 'Principles of shared care', between primary and specialist clinicians for the follow-up of women after the completion of hospital based therapy for breast cancer.

#### References

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Greek women attitude towards breast cancer risk factors and breast self-examination – Agaliazo-Society of Volunteers Against Cancer

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Scarce data exist regarding the relation between knowledge of breast cancer risk factors and early detection, as a result of self-awareness. It is well known that women with certain risk factors are more likely to develop the disease than others and it is also a fact that the information that women receive concerning early prevention and detection of this disease, is constantly growing, during the last years. But is there any relation between the information that a woman receives and her personal attitude towards self-examination and limitation of the risk factors in her life?

The study aimed to evaluate the impact of the knowledge of breast cancer risk factors on personal attitude towards prevention and the chances this attitude to be affected by other factors, such as age, education or personal experiences.

1.100 Greek women (60.3% being between 18 to 45 years old and 40.3% postgraduates) answered a standardized questionnaire that assessed attitude towards breast cancer prevention, self-examination and risk factors, based on self-reported data. The questionnaires were distributed to women with different access in knowledge, from urban and rural areas, prisons, private companies and colleges.

Results indicate that there is a poor knowledge of risk factors. In particular, the 44.7% of the women ignores the fact that age is a very important risk factor, since half of all women diagnosed are over age 65. The 58% ignores the impact of early menstruation or late menopause on the breast cancer development and the 70% disregards the impact of having your first child at an older age or not having given birth. The 51.3% of the women ignores also the higher risk for breast cancer development when you are taking birth control pills for more than ten years when you are under 35.

The 46.9% of the women answered that they don't do breast self-examination, although 94.6% believe that breast cancer is curable when it is early detected. Those percentages are even higher when regard more isolated populations, such as immigrants and prisoners.

All the results indicate a significant ignorance of breast cancer risk factors and at the same time a high percentage of women that don't follow an accurate early detection plan. Since nearly 70% of all breast cancers are found through self-exams and taking into account that when detected at an early stage, the 5-year survival rate reaches 98%, we should reschedule our nation action plans in order to make sure that all women have the same access in such an important information.

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Previous oral contraceptive use and breast cancer risk among pre- and postmenopausal women – retrospective study in a cohort of 979 patients

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**Background:** Several randomized trials and observational studies show that the use of oral contraceptives is a weak risk factor (RF) for breast cancer (BC). The aim of this study was to assess the effects on BC risk of use of oral contraceptives (OC) in pre- and postmenopausal women, all residing in the same metropolitan area.

Patients and Methods: Data regarding a series of 471 patients with BC, and 508 age-matched healthy controls were reviewed and analyzed. There were 238 premenopausal and 233 postmenopausal women, with a median age of 56 years (range 27–81 years). Odds ratios (OR) estimates was calculated, and the chi-squared test was used to compare categorical variables.

**Results:** The results are reported in the Table. Age at menarche  $(12.3\pm1.6 \text{ vs. } 12.1\pm2.2 \text{ years, p}=0.43)$ , age at first pregnancy  $(25.3\pm4.4 \text{ vs. } 26.03\pm4.6 \text{ years, p}=0.12)$ , parity  $(1.4\pm1.1 \text{ vs. } 1.45\pm1.15, \text{p}=0.63)$ , months of breastfeeding  $(10.2\pm8.6 \text{ vs. } 9.35\pm7.23, \text{p}=0.25)$ , and months of OC use  $(28.4\pm21.2 \text{ vs. } 34.4\pm24.2, \text{p}=0.20)$  did not differ significantly between groups.

**Conclusions:** In this cohort patients the weight of RFs, enclosed the use and duration of OC therapy, did not differ significantly (p=NS) between pre- and postmenopausal women.

Characteristics	Premenopausal cases/controls	OR	Menopausal cases/controls	OR	p-value
History of BC in relatives	13/7	2.08	23/9	2.92	0.60
Menarche <12 years	56/45	1.46	47/43	1.21	0.65
No pregnancies	54/47	1.32	56/49	1.29	0.98
First pregnancy >30 year	21/9	2.91	27/17	1.94	0.44
No breastfeeding	71/84	0.95	79/61	1.82	0.07
No bilateral ooforectomy	230/249	1.23	218/240	0.68	0.80
BMI > 24	53/46	1.32	69/61	1.30	0.94
Alcohol abuse	22/25	0.95	25/24	1.13	0.68
Smoking past	15/22	0.72	15/20	0.79	0.84
Smoking present	44/48	0.99	28/26	1.17	0.63
Oral contraceptives use	91/80	1.39	34/19	2.07	0.16

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The clinical features and prognosis of triple negative breast cancer

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**Background:** Compare the clinical features and prognosis of Triple Negative breast cancer with the rest of breast cancers.

Material and Methods: Analyze all breast cancers studied in Breast Diseases Committee during the period 2000–2005, comparing the clinical features and prognosis of Triple Negative with the rest of breast cancers, the overall survival, local recurrence and contralateral breast cancer were analyze with Kaplan Meier curves.

**Results:** Studied 345 breast cancers, 22 (6.4%) Triple Negative and 323 (93.6%) non Triple Negative.

In non Triple Negative breast cancers, the tumor size was pT0 1 (0.3%), pT1a 19 (6.9%), pT1b 39 (14.2%), pT1c 137 (49.8%), pT2 68 (24.7%), pT3 4 (1.5%), pT4a 2 (0.7%), pT4b 5 (1.8%).

In Triple Negative, the tumor size was pT0 0 (0%), pT1a 1 (7.1%), pT1b 1 (7.1%), pT1c 8 (57.1%), pT2 3 (21.4%), pT4b 1 (7.1%); and axillary lymph node was pN0 9 (64.3%), pN1 5 (35.7%), no statistically significant differences with non Triple Negative. The histological grade was in a Grade III 52.9% and 13.8% in non Triple Negative, the differences were statistically significant.

The overall survival was statistically worse, the local recurrences and contralateral breast cancer were higher in Triple Negative breast cancer.

**Conclusions:** Triple Negative breast cancer has a high histological grade, metastases develops futher, more local recurrences and contralateral breast cancer and has a worse overall survival.

553 Poster Clinical characteristics and risk profile of individuals referred to Iranian familial breast cancer clinic: the necessity of genetic

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Background: Genetic counseling is one of key elements of breast cancer prevention. Routine screening programs for breast cancer have little impact on prediction of this disease, while preventive procedures like hereditary and sporadic risk assessment, prophylactic mastectomy, ophorectomy and chemoprevention reduces the risk of developing breast cancer substantially. During genetic consultation in Iranian Center for Breast cancer (ICBC), comprehensive breast cancer risk factor information was obtained and the risk for developing breast cancer was estimated.