

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 $\text{weight}/\text{length}^2$. We compared diagnostic characteristics (stage at diagnosis, palpability of primary tumor and axillary lymph nodes, use of mammography, ultrasound, MRI) between obese women ($\text{BMI} \geq 30$, $n=86$) and women with normal or low weight ($\text{BMI} \leq 25$, $n=252$) 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 palpable 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% CI 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.

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Poster

The inflammatory breast cancer – Moroccan experience

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Background: The inflammatory breast cancer (IBC) is the most aggressive 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 institution. 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.

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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 carotenoids 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.

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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 [$1,25(\text{OH})_2\text{D}$] promotes differentiation and apoptosis, and potentially inhibits proliferation of malignant breast epithelial cells in culture. We investigated the possible association between circulating 5-hydroxyvitamin D [$25(\text{OH})\text{D}$] and breast cancer progression by comparing serum vitamin D in patients with DCIS, early breast cancer, and advanced breast cancer.

Materials and Methods: From June 2006 to December 2006, circulating levels of $25(\text{OH})\text{D}$ 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 $25(\text{OH})\text{D}$ 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 $25(\text{OH})\text{D}$ 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-erb B2 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 $1,25(\text{OH})_2\text{D}$ and $25(\text{OH})\text{D}$ with breast cancer will be needed.

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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%) ($P \geq 0.05$).

No difference in tumor grade.

The majority of the patients under 35 years, estrogen and progesterone receptor status were negative (55.6%), where the majority of the patients over 35 years were estrogen and progesterone receptor positive (55.5%) ($p = 0.035$).

Visceral metastases were more common in the under 35 years 50% versus 33.5% in patients above 35 years ($p = 0.001$).

Overall survival rate in very young age at 1, 2 and 5 years was 91.6%, 86.5% and 68.5% respectively, while Overall survival rate in patients above 35 years at 1, 2 and 5 years was 96%, 90% and 80.5% respectively ($p = 0.04$).

Overall recurrence rate at 1, 2 and 5 years and survival rate was better in node negative patients than node positive patients, $p = 0.0001$.

Overall recurrence rate at 1, 2 and 5 years and survival rate was better in estrogen positive patients than in estrogen negative patients, $p = 0.0001$.

Conclusion: women less than thirty five have a poor prognosis despite a similar stage and grade to older women. These women have more estrogen and progesterone negative tumors ($p = 0.035$) and have greater tendency to develop visceral metastases than older women.

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Poster

Management of mastalgia by low level laser therapy

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Background: Many women are suffering from breast pain around the world. Mastalgia due to mastopathy is usually just followed without medication. Some patients are given nonsteroidal anti-inflammatory drugs or anti-estrogen drugs. We investigated the efficacy and safety of diode laser therapy without medication for women who have inveterate breast pain.

Materials and Methods: After approval of the ethics committee of Tokyo Medical University Hospital, 20 women (17 Japanese, 1 Russian, 1 Korean, 1 Filipino), median age is 45 years (range, 23 to 80 years) were treated for mastalgia with low-level laser therapy (LLLT) by Diode laser (the Medilaser Soft 1000[®]) from November 2006. After putting on glasses, 10 sites in each breast, identified by the patient with her finger as painful points, were irradiated while touching the skin for 30 seconds each. all irradiation was done by doctors.

The effect of this treatment was evaluated using the Brief Pain Index (BPI) questionnaire before and after irradiation, which is scored on a 10-point scale. Further morphologic analysis was performed using ultra-sound (US) and magnetic resonance imaging (MRI).

Results: After laser irradiation, the BPI score decreased an average of 4 points, and reached 2 points or less in 13 women. In 5 women pain completely disappeared after irradiation. In some cases breast pain disappeared immediately after irradiation. No cases had increases in BPI or adverse events after LLLT. No changes were seen before and after irradiation on US or MRI.

Conclusions: To the best of our knowledge, There is no paper about LLLT for mastalgia.

Contrary to our expectations, in this study, mastalgia was not associated with morphologic changes.

From during irradiation, many patients expressed the feeling of a little warmth. This fact suggests the improvement of local blood flow by LLLT.

The results of this study suggest that LLLT for breast pain is effective (85%) and safe (100%), and that breast pain is not associated with morphologic changes. The mechanism, however, is still unknown.

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Poster

Rate of remnant tumour after excisional biopsy of breast mass with ultrasound-guided vacuum-assisted biopsy device

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Background: This study was aimed to evaluate the rate of remnant tumor after ultrasound-guided mamotome biopsy for breast mass and to evaluate the efficacy of mamotome biopsy device.

Materials and Methods: Analyze retrospectively 474 women (age 17-75 years) who were underwent ultrasound-guided, vacuum-assisted biopsy device (mamotome) biopsy from January 2003 to December 2006 in Chosun University Hospital in South Korea. After Mamotome biopsy, all patients were underwent ultrasonography for follow-up of remnant tumor.

Results: Remnant tumor was found in 39 patients (4.9%, mean age 40.9, range 17-64) of total 474 patients underwent Ultrasound-guided mamotome biopsy. Pathologic diagnosis were fibrocystic disease in 17 patients and fibroadenoma in 20 patients. Mean size was 1.17 cm before mamotome biopsy.

Conclusions: Ultrasound-guided, vacuum-assisted biopsy device (mamotome) biopsy was an effective method for small breast mass. Although there was a possibility of remnant tumor, the remnant rate was low. Also, there was advantage of cosmetic effect for small incision scar. The results suggested that mamotome biopsy is a good alternative method for the diagnosis of small breast mass.

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Poster

Triple negative breast cancer: our experience during the last five years (2002-2007)

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Background: Triple negative breast cancer is not very common especially in Europe. This special type of breast cancer has very poor prognosis and his therapeutic approach has become a major problem. The purpose of our study is to analyse our experience during the last five years. Our clinic is a breast unit and we have more than 500 new cases of breast cancer per year.

Patients and Methods: During the last five years we have operated 76 patients with triple negative breast cancer (ER-PR-C-erb-B2 negative) and two patients had core biopsy and preoperative chemotherapy. The mean age of the patients was 59.41 ± 10.5 . 36 patients had quadrectomy and axillary node dissection and 30 patients had mastectomy with axillary node dissection. The tumor size was <2 cm in 30 patients, >2 cm and <5 cm in 19 patients, >5 cm in 27 patients. 17 patients had multifocal breast cancer. 29 patients were node negative, 14 had <3 positive lymph node and 33 had >3 positive lymph node. The histological type was invasive ductal carcinoma in 67 patients, 5 medullary carcinoma, 3 mucinous, 2 invasive lobular carcinoma and 1 patient had DCIS. All the patients had chemotherapy and radiotherapy after the surgical treatment.

Results: 14 patients had distant metastases, 6 during the first year of their follow-up and 8 during the second year and 5 patients died during the first two years of their follow-up. From the 73 patients who they are alive 29 patients are in follow-up for less than one year, 10 patients for >2 years, 12 patients for >3 years and 22 patients for >4 years. The percentage of early distant metastases and death in our study is 17.5% and 6.4%.

Conclusions: Triple negative breast cancer is a special subgroup of breast cancer patients with poor prognosis as they have high percentage of early distant metastases and death. The therapeutic approach is very difficult as is a high risk cancer that lacks the benefit of specific therapy that target these proteins (ER-PR-c-erb-B2). The second step of this trial is to measure biological markers in an effort to find factors who can be the target of specific therapies. These results will be presented shortly.

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Poster

Ductal lavage: a new perspective for the early diagnosis of breast cancer

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Background: Breast cancer is the most frequent cause of death among the women. Ductal lavage is a simple technique which can detect cells from the last duct lobe unit the place that arrives first the breast cancer.

Patients and methods: 85 patients are enrolled. 59 had positive family history or Gail Risk >1.7, 1 had breast cancer on the other breast, 20 had nipple excretion and 5 patients had clinical picture of cancer. In these five the technique was held one day before the operation. The mean age was 45 ± 10.07 years. After local anesthetic ointment we inserted a small catheter into the nipple and after massaging the breast we infused 10-20 cc of Ringer Lactated solution and the lactic duct cells are being lavaged. The material from the lavage was examined cytological with thin-prep method. All the patients had mammography or breast ultrasound.

Results: One patient had suspicion of papillary carcinoma in the cytological examination of lavage and 12 had atypia (1: marked atypia, 4: moderate atypia, 7: mild atypia-15.3% of all the patients and 21.7% of those who had family history or Gail Risk >1.7). The 5 patients with clinical picture of carcinoma had positive lavage for malignant cells and they had surgical treatment as it was planned. The patient with marked atypia had an open biopsy as there was a dysplastic area behind the nipple in mammography. The histological examination was negative for malignancy. The other patient with the suspicion of papillary carcinoma had an MRI which was negative and she will be examined with ductal lavage in 3 months. The patients are under close supervision in our department (physical examination every six months).