

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.

95

Poster

Management of mastalgia by low level laser therapy

K. Yamada¹, A. Ogata¹, H. Kaise¹, D. Ohta¹, N. Ueda¹, S. Komatsu¹, Y. Nakamura¹, M. Hosonaga¹, A. Kawamoto², N. Kohno¹. ¹Tokyo Medical University, Breast Oncology, Tokyo, Japan; ²Tokyo Medical University, Radiation, Tokyo, Japan

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.

96

Poster

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

T.W. Jo¹, K.C. Kim¹. ¹Gwangju, Surgery, Gwangju, South Korea

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

Materials and Methods: Analyze retrospectively 474 women (age 17–75 years) who were underwent ultrasound-guided, vacuum-assisted biopsy device (mammotome) 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 mammotome biopsy. Pathologic diagnosis were fibrocystic disease in 17 patients and fibroadenoma in 20 patients. Mean size was 1.17 cm before mammotome biopsy.

Conclusions: Ultrasound-guided, vacuum-assisted biopsy device (mammotome) 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 mammotome biopsy is a good alternative method for the diagnosis of small breast mass.

97

Poster

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

R. Iosifidou¹, S. Mameletzi¹, X.R. Albanaki¹, P. Xirou², A. Bousouleas¹. ¹Anticancer Hospital Theageneio, 3rd Surgical Clinic, Thessaloniki, Greece; ²Anticancer Hospital Theageneio, Pathology Department, Thessaloniki, Greece

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.

98

Poster

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

R. Iosifidou¹, D. Siotopoulou², R. Valeri², X. Destouni², A. Bousouleas¹. ¹Anticancer Hospital Theageneio, 3rd Surgical Clinic, Thessaloniki, Greece; ²Anticancer Hospital Theageneio, Cytology Department, Thessaloniki, Greece

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).

Conclusions: As ductal lavage offers a bigger amount of cells from the final duct-lobe unit, it can be very useful in high risk women. The technique can help in the early diagnosis of breast cancer and to the management of them with tamoxifen. Our study will be continued with new patients and observation of these 85.

99 Poster
Breast cancer in women over 80's: a case report of 14 patients

E. Paula Guedes¹, J. Vinholes², E. Dias², R.F. Savaris³. ¹*Clinica Mulher, Private clinic, Porto Alegre, Brazil;* ²*Clinica de Oncologia, Private clinic, Porto Alegre, Brazil;* ³*Universidade Federal do Rio Grande do Sul, Ginecologia e Obstetricia, Porto Alegre, Brazil*

Background: Breast cancer is a common cancer in women. The 10-year survival rate for stage II is 66% in the general population. The management of early disease in women over 80 year-old is a major challenge for oncologists and gynecologists. The important role of comorbidities and their effect on life expectancy also need to be taken into account when making treatment decisions. The knowledge about possible differences in the biology and clinical outcomes of breast cancer in women over 80 year-old is limited in Brazil. In this study, we have explored the clinical and biologic characteristics of elderly women with breast cancer in two private clinics in the south of Brazil, where the prevalence of breast cancer is 127/100.000. **Material and Methods:** The medical records of fourteen patients with >80 year-old, from 2 private clinics, with confirmed breast cancer, were reviewed. The method of diagnosis, the initial stage of disease at the time of diagnosis, hormone receptor status, type of treatment and survival rate after treatments were evaluated. Statistical description and Fisher's exact test were performed for statistical analysis. **Results:** The average age at the diagnosis was 82 year-old. Ductal carcinoma was the most prevalent histological type (85.7%). The average size of tumor at diagnosis was 2.8 cm, and the stage II was the average clinical stage at diagnosis. The survival rate was 64.3% in 29 months. Eleven patients (78.6%) were submitted to surgery. None of them died within the first 12 months. Tumor size at diagnosis (cut-off 1.9 cm), status of estrogen and progesterone receptors, the use of a diagnostic image (mammography/ultrasound), presence of comorbidity (cut-off ≤1), stage of disease (cut-off ≤ stage I), and surgery were not correlated with a better outcome (all $p > 0.05$). **Conclusion:** In our sample of women over 80 year-old, the survival rate is similar to the general population irrespectively of disease status. Despite of the presence of comorbidities, none of the patients died within 1 year after surgery.

100 Poster
Enhancing access to care and treatment by engaging and strengthening health systems in low-resource settings: a public-private partnership to improve breast cancer care in Ethiopia

T.D.V. Dye¹, V. Hechter¹, S. Bogale², J. Devery³, Y. Tilahun⁴, T. Deressa⁵, A. Reeler⁶. ¹*Axios International, Division of Global Health Systems and Research, Paris, France;* ²*Tikur Anbessa Hospital, Radiotherapy Centre, Addis Ababa, Ethiopia;* ³*AstraZeneca, Global Professional Relations, Macclesfield, United Kingdom;* ⁴*Axios Foundation, Breast Cancer Project, Addis Ababa, Ethiopia;* ⁵*Ethiopia Cancer Association, Main Office, Addis Ababa, Ethiopia;* ⁶*Axios International, Paris, France*

Background: The Ethiopia Breast Cancer Pilot Project (BCPP) was established to create and demonstrate a model for strengthening health care systems to treat breast cancer in developing countries. It was funded by AstraZeneca through a grant to Axios Foundation.

Methods: BCPP developed a model to strengthen health systems by empowering local leaders and providing direct support to enhance major components of breast cancer care (e.g., radiotherapy, pathology, pharmacy, community outreach) in Addis Ababa's largest teaching hospital (Tikur Anbessa Hospital). Where appropriate, international standards of practice were used to develop locally relevant guidelines and processes designed to enhance access to care and treatment for breast cancer patients.

Results: BCPP began in 2005 with an initial focus on expanding health systems that support breast cancer diagnosis and treatment. Achievements to date include creation of clinical guidelines, obtaining radiology (mammography & ultrasound) equipment, building laboratory capacity for ER/PR testing, training clinicians and support staff, establishing access to tamoxifen and anastrozole and implementing monitoring and evaluation systems. In addition, a cancer patient advocacy and outreach affiliate was established by the set up of the Ethiopian Cancer Association (ECA), and by creating links with related referral institutions and government agencies. As anticipated for a low-resource country with poor health infrastructure, the program has faced challenges around training, introduction of new concepts and technologies, establishing and

maintaining effective supply chain, and notably drawing patients into care at an earlier stage of cancer when treatment may be most beneficial. Engaging stakeholders and key opinion leaders in solving and managing these challenges has increased sustainability and investment in the project. Over 500 patients have benefited directly from BCPP services to date and patient navigation through complex clinical and technological systems in a culture that often stigmatizes cancer has dramatically improved.

Conclusions: BCPP has successfully demonstrated that health systems supporting cancer treatment and care in a very low-resource environment can be significantly and rapidly strengthened through effective stakeholder engagement, leveraging public and private political will and resources, and collaborative technical assistance that prioritizes local decision-making and management.

101 Poster
Guidelines for bone health in postmenopausal women (PMW) with hormone-sensitive breast cancer (HSBC) receiving adjuvant aromatase inhibitor (AI) therapy

M. Kalder¹, P. Hadji¹. ¹*Universität Marburg, Gynecology Endocrinology and Oncology, Marburg, Germany*

Background: AIs are approved for PMW with HSBC. Studies have shown that all AIs (anastrozole, exemestane, or letrozole) decrease bone mineral density (BMD) and increase bone turnover markers, increasing risk for osteoporosis and fractures compared with placebo or tamoxifen, regardless of treatment setting.

Methods: A systematic literature review was performed to identify factors that contribute to the increased fracture risk observed in HSBC patients as well as recommendations for treatment of AI-associated bone loss (AIBL).

Results: As BMD testing is not readily available to all patients, additional evidence-based guidance to assess fracture risk and direct treatment is important. Risk factors in patients with breast cancer are AI therapy, T-score < -1.5, age >65, family history of hip fracture, history of personal fracture after age 50, oral corticosteroid use >6 months, low body mass index (<20 kg/m²), and smoking. HSBC patients at risk of developing AIBL should be considered for preventative bisphosphonates (BP) treatment. AIBL stabilizes with completion of therapy and is attenuated when zoledronic acid (ZOL) is added to the treatment regimen. Randomized clinical trials support ZOL 4 mg every 6 months for prevention of AIBL when a patient is identified to be at risk, and data with other bisphosphonates are emerging.

Conclusions: All PMW initiating AI therapy should receive calcium (1200 mg/d) and vitamin D (400–600 mg/d) supplements. Concomitant ZOL can attenuate AI-associated bone health risks. Current guidelines rely solely on the presence of osteoporosis (BMD < -2.5) to guide bisphosphonate intervention. Yet, as 80% of fractures occur in osteopenic women, this threshold appears inadequate for averting fractures in PMW with HSBC. Patients receiving ZOL should have BMD monitored yearly. BP should be used for at least 2 years and possibly for as long as AI therapy is continued. It would be prudent to give ZOL 4 mg twice yearly to PMW who are taking AIs and have a T-score < -2.0 or have any 2 of the following risk factors: T-score < -1.5, age >65 years, family history of hip fracture, personal history of fracture after age 50, smoking, or oral corticosteroid use >6 months.

102 Poster
Male breast cancer in Chinese population – a 10 year review

A. Kwong¹, D.T.K. Suen². ¹*Stanford University, Department of Surgery, Stanford CA, USA;* ²*University of Hong Kong, Department of Surgery, Hong Kong, Hong Kong, China*

Background: Breast cancer is uncommon in men, occurring in 1% of the male population based on Western data. There is limited knowledge about the natural history and prognosis of male breast cancer in Chinese population. This study aims to perform a 10 year review of the clinical presentation and outcome of male breast patients in Hong Kong.

Materials: A retrospective study of patients with male breast cancer treated in Hong Kong from January 1995 to December 2005 was performed.

Results: A total of 77 male breast cancers were treated in eight hospitals during this 10 year study period. The mean age at diagnosis was 65 years old. Majority (92.6%) presented with a palpable breast lump. Only 3 men had gynecomastia. Only 3.3% had a family history of breast cancer. All patients (7 unknown) underwent mastectomy except for 1 who has wide local excision (sarcoma). 51.4% of these patients also had axillary dissection performed. 85.7% of these were invasive carcinoma of which 1 was invasive lobular carcinoma, 2 were mucinous carcinoma, 5 were invasive papillary carcinoma and the rest were invasive ductal carcinoma. 12.9% were in-situ carcinomas, where 7 were intraductal papillary carcinoma and the rest were ductal carcinoma in-situ. Of the