

Message from the Activity Director:

Dear Friends and Colleagues,

On behalf of the Breast Center of Excellence, Naef Basile Cancer Institute of the American University of Beirut (AUB), it is my great pleasure to welcome you to the 1st AUB Breast Cancer Conference AUB BCC.

Breast Cancer is the most frequent malignancy among women and the most common cause of mortality. Although the incidence of breast cancer in industrialized nations has recently shown a drop in the first part of the 2000s decade, after the decrease in the utilization of hormone replacement therapy in post-menopausal women, and has now stabilized, the incidence continues to rise in Lebanon, Arab countries, and most developing and low- middle- income countries.

We have noticed a decrease in advanced breast cancer at presentation and a relative rise of early stages thanks to our widespread awareness campaigns. A significant number of our patients are more and more educated and demand, rightly so, the best treatment available anywhere in the world. Even for patients who have little medical knowledge, we strive to treat them in the best possible way also. Major advances, at times revolutionary, have been established in the treatment of breast cancer. Breast-Conserving Surgery and more recently Axilla-Conserving Surgery are great examples and although many surgeons and hospitals are practicing them, we still see many patients with small tumors that are treated with a total mastectomy and complete axillary lymph node dissection. We will review new advances and hope that with this conference we build more bridges together to make sure all our patients benefit from those

advances and all our hospitals that treat breast cancer invest and make those new treatments available.

Radiation Therapy has also witnessed major advances and we will go over them in this conference, particularly hypofractionation and short duration radiation therapy. This should make it easier for patients who have to travel long distances to major cities for radiation therapy centers, and reduce the argument of non-availability of radiation therapy and allow more breast-conserving therapy.

We will also address new advances in adjuvant and systemic therapy, such as adjuvant tamoxifen for 10 years instead of only 5 years, refinements of chemotherapy, solidification of recommendations for one year of adjuvant trastuzumab, and the introduction of new targeted therapies.

We will emphasize the importance of multidisciplinary therapy and guidelines. We will have two sessions of case presentations and encourage you to bring cases from your own practice.

We thank our international, regional and local experts, and we are pleased that a large number of young oncologists and physicians-in-training are registered to attend this meeting and hope it will stimulate them into careers of excellence in clinical practice and involvement in breast cancer research.

We hope you have a nice and productive conference, enjoy cosmopolitan Beirut and beautiful wintertime Lebanon, and mark your calendar for **AUB BCC 2** on February 14-15, 2014.

Nagi S. El Saghir, MD, FACP
Chair, AUB BCC 1, Beirut, Lebanon

American University of Beirut Breast Cancer Conference

**Latest Advances in Breast Cancer Multidisciplinary Management:
Surgery, Radiation Therapy, Chemotherapy, Hormonal
& Targeted Therapy**

(Includes highlights from San Antonio, ESMO, ASCO and EBCC)

February 8-9, 2013
Gefinor Rotana Hotel,
Beirut, Lebanon,

Organized by:

Breast Center of Excellence - Naef K. Basile Cancer Institute
of the American University of Beirut Medical Center
& Continuing Medical Education Office (CME)
at the American University of Beirut

In Collaboration with:

Lebanese Society of Medical Oncology
Lebanese Society of General Surgery
American College of Surgeons - Lebanon Chapter
Lebanese Society of Radiation Oncology
Lebanese Society of Obstetrics & Gynecology

Speakers:

Yazid Belkacemi, MD, PhD

(University of Paris, Paris, France)

David Cameron, MD

(University of Edinburgh, Edinburgh, United Kingdom)

Nagi El Saghir, MD, FACP

(AUB, Beirut, Lebanon)

Ismail Jatoi, MD, PhD, FACS

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Program

Friday, February 8, 2013

15:00 - 16:00 Registration - 1

Session I: Breast-Conserving Therapy and Neo-adjuvant Therapy

Chairs: Hikmat Husseini, MD, Dolly Nasr, MD

Speakers: Ismail Jatoi, MD, PhD (USA), Nagi El Saghir, MD (LB)

16:00-16:30 Breast Conserving Therapy:
Indications, Margins and Modern Aspects
Ismail Jatoi

16:30-17:00 Recent Advances in
Neo-adjuvant Therapy
Nagi S. El Saghir

Session II: Case Discussion

Panel: Ismail Jatoi, MD, Nagi El Saghir, MD, David Cameron, MD, Maroun Abou Jaoude, MD, Salim Chammas, MD, George Chahine, MD, Assem Hajj, MD, Faysal El-Kak, MD, Mansour Khoury, MD, Ghazi Nsouly, MD

17:00-18:00 Case Discussion

18:00-18:30 **COFFEE BREAK**

Satellite Symposium (NON-CME)

18:30 - 20:00 Overcoming Resistance to Hormonal
Therapy in Breast Cancer
(Sponsored by Novartis)

This symposium is followed by dinner sponsored by Novartis.

Saturday, February 9, 2012

08:00 - 09:00 Registration - 2

Session III: Primary Management of Breast Cancer

Chairs: Faek Jamali, MD, David Atallah, MD, Ziad Salem, MD, Elie Nasr, MD

Speakers: Ismail Jatoi, MD, PhD (USA), Nagi S. El Saghir, MD (LB), Yazid Belkacemi, MD, PhD (FR)

09:00-09:30 Controversies in MRI for Pre-operative Evaluation of Patients with Breast Cancer
Ismail Jatoi

09:30-09:45 Pathological Complete Remission and Survival in Neo-adjuvant Therapy
Nagi S. El Saghir

09:45-10:15 Modern Axillary Management and Sentinel Lymph Node Biopsy
Ismail Jatoi

10:15-11:00 Fractionation, Short Duration, Intra-operative Modalities and Standardization of Breast Radiation Therapy
Yazid Belkacemi

11:00-11:30 **COFFEE BREAK**

Session IV: Adjuvant Therapy

Chairs: Nizar Bitar, MD, Marwan Ghosn, MD, Khaled Ibrahim, MD

Speakers: Nagi El Saghir, MD (LB), David Cameron, MD (UK)

11:30 - 12:00 Latest Advances in Adjuvant
Hormonal Therapy
Nagi S. El Saghir

12:00 - 12:30 Latest Advances in Anti-HER2
and Chemotherapy Therapy
David Cameron

Session V: Metastatic Breast Cancer

Chairs: Arafat Tfayli, MD, Fadi Farhat, MD, Fadi Nasr, MD

Speaker: David Cameron, MD (UK)

12:30 - 13:30 Advances in Metastatic Breast Cancer
David Cameron

Session VI: Case Discussion / Lunch Hour

Panel: Yazid Belkacemi, MD, PhD, David Cameron, MD, Nagi El Saghir, MD, Ismail Jatouj, MD, PhD, Jaber Abbas, MD, Cyril Tohme, MD, Fady Geara, MD, MD, Faek Jamali, MD, Ghina Berjawi, MD, Fouad Boulos, MD

13:30 - 15:00 Case Discussion

15:00 **ADJOURN**

**Mark Your Calendar:
AUB BCC 2
February 14-15, 2014**

Abstracts

Abstracts:

Breast-Conserving Therapy: Indications, Margins, and Modern Aspects

Ismail Jatoi, MD, PhD, FACS

Breast-conserving surgery (also variously called lumpectomy, partial mastectomy, wide local excision, segmentectomy, or quadrantectomy) is the preferred choice for the surgical treatment of primary breast cancer. The combination of breast-conserving surgery (BCS) and radiotherapy (RT) is referred to as breast-conserving therapy (BCT). Most patients who undergo BCS require RT, except for elderly patients who have tumors with good prognostic features. Worldwide, most patients are deemed suitable candidates for BCS, with a few relative contraindications. Thus, early pregnancy, previous radiotherapy to the breasts, active collagen vascular disease, multicentric breast cancer, large tumors (although neoadjuvant systemic therapy can often reduce tumor size), and the presence of the BRCA mutation are all relative contraindications to BCS. A major drawback of BCS is that about one out of five patients who undergo the procedure will require reoperation to obtain clear margins around the breast tumor. Recently, ultrasound-guided surgery has been shown to reduce the need for reoperation. Yet, a clear consensus has not been reached as to what constitutes an adequate or clear margin around a breast tumor. Moreover, improvements in systemic therapy have substantially reduced the risk of local recurrence after BCS. Thus, much of the concern over margins following BCS (and the excessive reoperation rates) is probably not warranted.

Recent Advances in Neo-adjuvant Therapy for Breast Cancer

Nagi S. El Saghir, MD, FACP

Neoadjuvant Therapy in Breast Cancer: Updates

Neo-adjuvant therapy or primary systemic therapy for patients with breast cancer was started as a modality of therapy for patients who had locally advanced breast cancer. The initial goals were to shrink the tumor and make it amenable to resection and mastectomy. Neoadjuvant therapy was shown to be able to make patients either amenable to surgery, or to transform them into conservative surgery or even more limited surgery. Neo-adjuvant therapy also may have a systemic effect on micrometastases, if there were any, and provides a tool for in-vivo study of tumor response to therapy. Safety and efficacy of neoadjuvant therapy was established mostly by the landmark NSABP B-14 and B-27 studies, which included patients with stage III and also stage II breast cancer, showed similar survival for both groups of patients whether they receive neoadjuvant therapy or adjuvant therapy. Those studies and others showed an improved rate of breast conserving therapy in patients who receive neoadjuvant therapy.

Patients who are considered for neo-adjuvant therapy should have an ultrasound-guided core biopsy of the breast mass and FNA of palpable axillary LN. Tumors should be studied for pathology and receptors.

Neo-adjuvant chemotherapy can achieve a pathological complete response in approximately 20-40% of cases with higher responses seen in hormone receptor negative tumors. Neo-adjuvant hormonal therapy is useful in patients who have a contraindication to chemotherapy, older patients, or those have strongly positive hormone receptors. Neo-adjuvant hormonal therapy rarely produces complete pathological remissions. Aromatase Inhibitors produce higher response rates than tamoxifen in post-menopausal patients. Anti-HER2 therapy has been recently shown to produce higher rates of complete pathological remissions (between 40-67%) when combined with chemotherapy. Recent data indicates that patients who achieve a complete pathological remission have improved survival rates. Neo-adjuvant chemotherapy is indicated for patients with locally advanced breast cancer but also patients with T2 and N1 positive axilla and who are considered as candidates for adjuvant chemotherapy.

Chemotherapy usually includes anthracyclines and taxanes in sequence (Example: AC-T or EC-T) or concurrently (Example: TAC), with or without trastuzumab according to HER2 status. It is preferable to use regimens that were tested in clinical trials as neo-adjuvant therapy. However, it is acceptable that regimens approved for adjuvant therapy are acceptable for use as neo-adjuvant regimens. Dual anti-HER2 therapy is also gaining momentum.

Surgery, SLNB and/or ALND (according to initial stage and response to therapy), and Radiation Therapy (according to initial stage) are done after completion of neo-adjuvant chemotherapy, or at the time of maximal response achieved by hormonal therapy (around 4 months). Targeted therapy is continued throughout surgery and radiation therapy and for a total of one year.

Triple Negative Breast Cancer and Prediction of Response to Therapy:

TNBC are now subject of intense phenotyping and study of genetic alterations. TNBC are now considered a group of heterogeneous diseases and at least 6 subtypes are defined. Subtypes seem to have different sensitivity to treatment. Basal Like subtypes (BL1 and BL2) have a preferential sensitivity to cisplatin, Mesenchymal (M and IM subtypes with aberrations in PI3K signaling have expression of genes involved in differentiation and growth factor pathways and have preferential sensitivity to phosphatidylinositol 3-kinase inhibitors (PI3K inhibitors), while LAR subtype cell lines express Androgen Receptors and are sensitive to androgen antagonist bicalutamide.

Neoadjuvant Therapy in Patients Below 35 years of age:

Young age at diagnosis has been associated with a poorer prognosis. Loibl et al presented a study at SABCS analysed a subgroup of 704 patients below age 35 (out of 8949 patients treated in Germany). Very young women were more likely to achieve a pathological complete remission (pCR), mostly patients with TNBC, Age did not influence survival when patients with TNBC achieved a pCR. Patients with Luminal A disease benefited from pCR but it was not an overall predictor of survival.

Assessment of response to therapy is subject of recent debates and intense research:

Ki67 has been subject of intense debate as a proliferation marker because of problems with methodology and reproducibility. Absolute values and cutpoints for Ki67, and associated clinical decisions cannot be transferred between laboratories without careful standardization of scoring methodology. An international study presented at SABCS concluded that various cutoff levels (Below 14, Below 20, below 30, etc ..) may be reason for variability and suggested three subgroups for Ki67 (0-15, 15.1-35 and >35 as a reasonable approach for standardization of this marker.

References:

1. Lehmann et al. J Clin Invest 2011; 121: 2750-67;
2. Pietenpal JA. Triple Negative Breast Cancer. SABCS 2012
3. Loibl S, et al. Neoadjuvant chemotherapy in the very young 35 years of age or younger. Proceedings SABCS 2012: S3-1
4. Balko JM, et al. Profiling of triple-negative breast cancers after neoadjuvant chemotherapy identifies targetable molecular alterations in the treatment-refractory residual disease. Proceedings SABCS 2012: S3-6.
5. Nielsen TO et al. An international Ki67 reproducibility study. Proceedings SABCS: S4-6.
6. Denkert C. et al. Ki67 levels in pretherapeutic core biopsies as predictive and prognostic parameters in the neoadjuvant GeparTrio trial. Proceedings SABCS: S4-5.

Controversies in MRI for Pre-operative Evaluation of Patients with Breast Cancer

Ismail Jatoi, MD, PhD, FACS

In patients with primary breast cancer, pre-operative MRI identifies additional foci of tumor in the ipsilateral or contralateral breast that are not evident with clinical examination and standard imaging (mammography and ultrasound). Breast cancer patients who are otherwise deemed suitable candidates for breast conserving surgery might therefore be urged to undergo mastectomy or even bilateral mastectomy following staging with pre-operative breast MRI. Yet, the additional foci of tumor detected with breast MRI are likely clinically irrelevant or can be adequately treated with radiotherapy and systemic therapy. Thus, pre-operative breast MRI may needlessly increase mastectomy rates. Moreover, two randomized prospective trials have demonstrated that pre-operative breast MRI does not reduce re-operation rates and several retrospective studies indicate that it does not reduce the risk of local recurrence. Thus, the routine use of pre-operative breast MRI for staging patients with primary breast cancer is potentially harmful, and should be discouraged.

Pathological Complete Remission and Survival in Neo-adjuvant Therapy

Nagi S. El Saghir, MD, FACP

Most clinicians accept neo-adjuvant therapy for down-staging of breast cancer and making breast conserving surgery feasible and more limited.

As we outlined in the preceding abstract, retrospective subgroup data analyses of NSABP and others, and a few prospective data, have shown that patients with pCR have a better survival. FDA has conducted a metaanalysis of 12 neoadjuvant randomized trials to see whether pCR can indeed be used as a surrogate endpoint for predicting longterm benefit in DFS, EFS and OS. They compared different pCR definitions with survivals and looked at different histological subtypes.

Patients who obtain a pCR defined as “ypT0 ypN0” or “ypT0/is ypN0” have a more favorable long term outcome. DCIS did not influence results. Impact of pCR effect is limited to patients with Hormone Receptor-positive HR+ grade 3, HR-HER2- and HER2+ tumors. Patients with more aggressive tumors who achieve a pCR had greater EFS when compared to those who do not. Study suggests that future trials should use a standard definition of “ypT0 ypN0” or “ypT0/is ypN0”.

Cortazar P, et al. Meta-analysis Results from the Collaborative Trials in Neoadjuvant Breast Cancer (CTNeoBC). Proceedings SABCs 2012: S1-11.

Modern Axillary Management and Sentinel Lymph Node Biopsy

Ismail Jatoi, MD, PhD, FACS

Traditionally, patients with primary breast cancer underwent a level I and level II axillary lymph node dissection (ALND). This enabled staging of patients with primary breast cancer, reduced the risk of axillary recurrences, and potentially had an effect in reducing mortality. In recent years, several large trials have shown that sentinel lymph node biopsy (SNB) substantially reduces the morbidity associated with axillary surgery. Moreover, the National Surgical Adjuvant Breast and Bowel Project (NSABP) B-32 trial has demonstrated that when the sentinel node reveals no evidence of metastatic disease, then no further ALND is required. Furthermore, the American College of Surgeons Oncology Group (ACOSOG) Z0011 trial has challenged the notion that all patients with metastases to the sentinel node require ALND. The results of this trial suggest that in selected sentinel node-positive patients, ALND can be potentially avoided. Yet, some concerns about the ACOSOG Z0011 trial have been raised that may have implications in the widespread acceptance of the results of this trial. In special situations, such as pregnancy and the neoadjuvant setting, the use of SNB should be applied judiciously. Thus, the SNB technology has dramatically improved the quality of life for women with breast cancer, and further modifications of its role in breast cancer treatment should be based on evidence gathered from randomized controlled trials.

Fractionation, Short Duration, Intraoperative Modalities and Standardization of Breast RT

Yazid Belkacemi, MD, PHD

The standard radiation therapy (RT) schedule after conservative surgery (BCS) consists of whole breast (WBRT) delivering 50Gy in 25 fractions followed by a boost to the tumor bed of 10 to 16Gy in 5 to 8 fractions. The meta-analysis showed clearly that when the disease control is obtained after 5 to 10 y there is an impact on survival at longer time at 15 y.

The recent reports from Canada and UK on hypo-fractionation schedules showed equivalence between 3 weeks-WBRT and standard treatment delivered over 6 to 7 weeks. Since the publication of the results of the Canadian trial with 12 years of follow-up, many teams have changed their standards for selected patients and propose hypo-fractionation as an option for many North American patients. The presentation of the 10-y results of the UK START trials at the 2012 SABCS provided another strong data on which the authors have based their conclusion that "hypo-fractionation is now the standard of care in UK".

Another way to advocate hypo-fractionation and reduce the treatment duration is to use accelerated partial breast irradiation (APBI). Over the past decade, APBI after BCS has increased due to many factors. Those factors include both clinical and pathologic data of questioning the need of WBRT in selected patients as well as factors including patient

convenience, access and acceptance of RT. Recently, GEC-ESTRO and ASTRO groups defined “a suitable group” for APBI out of trials. The criteria were mainly: age > 50-60y, T1N0, HR+, clear margins > 2mm. Thus, in this category of patients, APBI delivered over 5 days instead of 5 to 7 weeks could be a serious therapeutic option allowing an increase of quality of life and observance of RT. Currently there is at least 8 ongoing trials in the world that are designed to compare APBI to WBRT.

The methods employed in APBI have used interstitial brachytherapy (using low dose rate (LDR) or high dose rate (HDR), external beam RT (using photons, electrons and/or proton beams, IMRT) and intraoperative RT. The last technique can use either electrons or low energy X-rays. The INTRABEAM, a device that uses 50kV X-ray, has been evaluated in a non-inferiority phase III trial. While the first analysis at 4 years showed equivalence between intraoperative procedure vs. standard WBRT, the recent update presented at the 2012 SABCS revealed a significant increase of recurrences in the intraoperative arm as compared to the standard treatment. The presentation will detail these issues and discuss parameters that have to be kept in mind when a non-standard treatment schedule (during 5 to 7 weeks) is proposed to patients. While hypo-fractionation could be adopted as a serious option for patients with small size breast without nodal RT need, for APBI or intraoperative RT whatever the technique used, patients' selection is highly recommended more than ever.

Latest Advances in Adjuvant Hormonal Therapy

Latest Advances in Adjuvant Hormonal Therapy

Nagi S. El Saghir, MD, FACP

Adjuvant hormonal therapy is an established standard of care for patients with Hormone Receptor-positive breast cancer. Tamoxifen is standard in premenopausal women. Aromatase Inhibitors, upfront or in sequencing with tamoxifen in postmenopausal patients.

BIG 1-98: Letrozole in Patients with Infiltrating Lobular Carcinoma

Invasive lobular carcinoma is usually HR+, hormonal therapy responsive, and is associated with more frequent late relapses than IDC. Aromatase inhibitors have been shown to produce superior results when used as upfront adjuvant therapy or in switch sequencing strategy in postmenopausal patients. The Breast International Group (BIG) 1-98 trial compared two monotherapy arms (tamoxifen letrozole) versus two sequential therapies (Tamoxifen-Letrozole, Letrozole-Tamoxifen) and has provided data concerning the effectiveness of the aromatase inhibitor letrozole versus tamoxifen as adjuvant therapy. BIG presented a recent analysis looking at ILC and IDC groups.

BIG 1-98, a randomized phase II trial, compared 5-year Tamoxifen-Letrozole, Letrozole, Letrozole-Tamoxifen versus Tamoxifen and had 4922 patients in the monotherapy arms tamoxifen versus letrozole. Analysis included patients who had centrally-reviewed histology and classified as IDC or ILC (3660 patients). In the IDC group, 44% were classified as Luminal A and 36% Luminal B. In the ILC group, 59% were classified as Luminal A and 22% Luminal B.

DFS Hazard Ratios were more favorable for letrozole in both IDC and ILC. Greater benefit and reduction of risk of a DFS event was noted in Luminal B patients in both groups. There was a trend for OS favoring letrozole in women with ILC. Patterns of relapse were similar in both groups over time. This data suggests that upfront letrozole is a reasonable consideration in patients with lobular carcinoma.

ATLAS: 10 years versus 5 years of Adjuvant Tamoxifen (TAM) in ER+ disease

Tamoxifen has been shown to reduce recurrences and improve survival as adjuvant hormonal therapy for 5 years in breast cancer patients. EBCTCG overviews Long term follow ups have shown substantial benefit at up to 15 years. Initial studies of NSABP had shown that longer duration of tamoxifen was associated with toxicity and increased thromboembolic disease. The results of ATLAS international randomized clinical trial comparing 10 years versus 5 years of adjuvant tamoxifen were presented at San Antonio in December 2012.

ATLAS randomized, between 1996 and 2005, a total of 6846 women with HR+ disease and 5 years of tamoxifen, to take another 5 years of tamoxifen or stop at 5 years. Follow up included compliance, hospital admissions, recurrences and or death. With a mean follow up of 7.1 woman-years, there were 1328 recurrences were reported (900 in years 5-9, 379 in years 10-14). Recurrence was significantly lower with 10 than 5 years TAM. Also Breast Cancer Mortality (BCM) and all-cause mortality rates were lower with 10 years of tamoxifen. Proportional risk reductions were homogeneous by country, age and stage. Uterine cancer K-Ms in those randomized at

age 50+ were: incidence 2.6 vs 1.6% (2p=0.08), mortality 0.2 vs 0.2%. In premenopausal women (where AIs are not an alternative to TAM) there was no apparent excess of uterine cancer.

ATLAS study results are practice-changing. ATLAS provides evidence that 10 years of adjuvant tamoxifen are better than 5 years. Post-menopausal patients are usually switched to an aromatase inhibitor and premenopausal women benefit from continuing tamoxifen for 5 years. The risk of endometrial cancer in premenopausal women is very low anyway. Observation remains in order.

References

1. Metzger O et al. BIG 1-98 Collaborative Group, International Breast Cancer Study Group. Relative effectiveness of letrozole compared with tamoxifen for patients with lobular carcinoma in the BIG 1- 98 trial. SABCS S1-1 (December 2012).
2. Davies C, Pan H, Godwin J, Gray R, Peto R, on Behalf of ATLAS Collaborators Worldwide. ATLAS – 10 v 5 years of adjuvant tamoxifen (TAM) in ER+ disease: Effects on outcome in the first and in the second decade after diagnosis. Proceedings SABCS S1-2; December 2012.

Treatment of Recurrent and Metastatic Breast Cancer

David Cameron, MD

Treatment of Recurrent & Metastatic disease: Hormonal therapy and additional targeting: Anti-angiogenesis, inhibition of CDK 4/6, targeting PI3K, mTOR inhibition:

Cyclin-dependent Kinase (cdk) 4/6 Inhibitors:

PD 0332991, a selective inhibitor of CDK 4/6 (cyclin-dependent kinase (cdk) 4/6), prevents cellular DNA synthesis by blocking cell cycle progression. Post-menopausal women with ER+/HER2- advanced BC were randomized 1:1 to receive letrozole either with or without PD 0332991. The combination of PD 0332991 and letrozole is well tolerated and shows encouraging clinical benefit, confirming the sensitivity of ER+ BC to PD 0332991 observed in preclinical models. A phase 3 trial in this setting will commence in 2013. (Finn RS, et al. Results of a randomized phase 2 study of PD 0332991, a cyclin-dependent kinase (cdk) 4/6 inhibitor, in combination with letrozole vs letrozole alone for first-line treatment of ER+/HER2-advanced breast cancer (BC). Proceedings SABCS 2012: S1-6)

Hormonal Therapy and Bevacizumab:

Anti-angiogenesis with hormonal therapy: First efficacy results of study of bevacizumab with letrozole (LEA Trial) showed no added benefits. (Martin M, et al. Phase III trial evaluating the addition of bevacizumab to endocrine therapy as first-line treatment for advanced breast cancer – First efficacy results from the LEA study. Proceedings SABCS 2012: S1-7).

Pertuzumab:

Adaptive immune system and immune checkpoints are associated with response to pertuzumab (P) and trastuzumab (H) in the NeoSphere study. Gianni L, et al. Proceedings SABCS 2012: S6-7)

Eribulin in Metastatic Breast Cancer:

A Phase III trial of eribulin compared with capecitabine in earlier-line pts with MBC (NCT00337103). Patients were randomized 1:1 to eribulin mesylate 1.4 mg/m² given on Days 1 and 8 of a 21 day cycle or capecitabine 2.5 g/m²/day administered orally BID on Days 1 to 14 of a 21 day cycle. Eligible pts had received prior therapy including an anthracycline and taxane, and were receiving study drug as 1st, 2nd, or 3rd line therapy for advanced disease. Eribulin demonstrated a trend favoring improved OS, compared with capecitabine, although this improvement does not meet the pre-defined criteria for statistical significance. This study confirms eribulin as an active drug in pts with MBC, and exploratory analyses suggest possible benefits of eribulin in specific subsets of pts, sufficient to warrant further study. (Kaufman PA, et al. A Phase III, open-label, randomized, multicenter study of eribulin mesylate versus capecitabine in patients with locally advanced or metastatic breast cancer previously treated with anthracyclines and taxanes. Proceedings SABCS 2012: S6-6)

CALOR study: Chemotherapy for Patients with Local and Regional Recurrences:

Surgery and radiation therapy represent the standard of care for the treatment of isolated local or regional recurrence (ILRR) of breast cancer, but whether chemotherapy can also help these patients is not known from any established body of data. Results from the global CALOR (Chemotherapy as Adjuvant for Locally Recurrent Breast Cancer) trial provide clear evidence that adjuvant chemotherapy is warranted, at least for ER-negative recurrences. CALOR Trial closed with a modest number of 162 patients. Only patients with local recurrences were sought, excluding those with distant metastases or supraclavicular lymph nodes. The patients randomized for CALOR represented, as expected, a heterogeneous group in terms of prior treatment, which meant that those who entered the chemotherapy arm of the study also received individualized treatment regimens. (Each patient's treating oncologist determined the chemotherapy regimen based on prior treatment.). Results proved positive overall and especially so for ER-positive disease. At 5-year follow-up, disease-free survival rates were 69% for women who received adjuvant chemotherapy versus 57% for those who did not ($P = .045$). Overall survival at 5 years was similar, at 88% for patients who received chemotherapy versus 76% for those who did not ($P = .02$). "The benefit was larger for patients with ER-negative recurrence. CALOR group can offer a positive recommendation for adjuvant chemotherapy in such cases while, for ER-positive disease, the data is not fully mature.

Speaker's Biographies

Biographies:



Yazid Belkacemi, MD, PhD

Professor Yazid Belkacemi, M.D., Ph.D. is a Professor of Radiation Oncology at Creteil Medical School at the University of Paris XII. Univeristé Paris Est Créteil (UPEC). He received his medical and clinical training in Paris, and received his Ph.D. at the University of Paris XI.

Professor Belkacemi has worked at the Tenon Hospital in Paris and at the Lille Anti-cancer center, France. He is currently a head of the Radiation Oncology Department and Coordinator of the Henri Mondor Breast Center. His clinical research interests include management of breast and prostate cancers, hematologic malignancies, rare tumors and development of new technologies in radiation oncology. His biological research includes radio-sensitivity markers of tumours and healthy tissues and combinations of targeted therapies and new drugs with ionizing radiation. He is the co-founder and Honorary President of AROME (Association of Radiotherapy and Oncology of the Mediterranean arEa, www.aromecancer.org).



David Cameron, MD

Prof. Cameron received his medical degree in 1986 from St. George's Hospital Medical School, London. After completing a fellowship and MSc in Clinical Oncology at the University of Edinburgh, he received a M.D. with distinction in 1997.

Prof. Cameron is a member of several professional societies

including the American Society of Clinical Oncology, the European Society for Medical Oncology and is Secretary of the European Organisation for Research and Treatment of Cancer (EORTC) Breast Cancer Group. He has also been a member of the EORTC task force on the use of growth factors in chemotherapy for solid tumours and lymphoma and Chairman of the EORTC New Agent Committee.

He is active in a number of clinical trials in breast cancer. He is a member of the executive committee of the HERA adjuvant herceptin trial, and is a member of the steering group for several UK adjuvant breast cancer trials (AZURE, OPTION, TACT, TANGO and TEAM). He is chief investigator on the recent UK trial adjuvant breast cancer trial, TACT2, exploring the benefit of accelerated Epirubicin chemotherapy in the treatment of breast cancer, and chief investigator of BEATRICE, a global trial testing the possible benefit of adjuvant bevacizumab in triple negative breast cancer.

Between November 2006 & June 2010 he was Director of the NIHR-funded National Cancer Research Networks, and continues as an Associate Director. He recently took up a new post as Professor of Oncology at Edinburgh University and Director of Cancer Services in NHS Lothian. He continues his major clinical interest in breast cancer with an on-going clinical and translational research programme.



Nagi S. El Saghir, MD, FACP,

Professor and Director, Breast Center of Excellence, NK Basile Cancer Institute, American University of Beirut Medical Center.

Dr. Nagi El Saghir graduated from Free University of Brussels, Brussels, Belgium, trained in New York and certified by the American Boards of Internal Medicine and Medical Oncology. He is Founding-President of the Lebanese Society of Medical Oncology (LSMO) and President of The Lebanese Breast Cancer Foundation (LBCF). He served as President of many Lebanese, Arab, and International Regional Meetings including ESO Courses and Best of ASCO. He served on many Committees, Panels and Research Groups including ASCO, ESMO, EORTC Breast Cancer Group, Breast Health Global Initiative, EASO, AMAAC and ABCI. He presently serves as Chair-Elect of ASCO International Affairs Committee. Professor El Saghir is author of "ABC of Breast Diseases" in Arabic Language, as well as Awareness Booklet "Knowledge Road Map to Cure". His research and activities are focused breast cancer and he has published over 70 peer-reviewed articles. He is Deputy Editor of The Breast, and International Editor of JCO and Cancer. He is also active in Awareness Campaigns for early detection and screening of breast cancer as well as anti-smoking campaigns. He has received many awards including Lebanese President's Medal of Honor, LSMO, LOP, Cairo University, Lebanese League for Woman's Rights and others.



Ismail Jatoi, MD, PhD, FACS

Dr. Ismail Jatoi is Professor and Chief of the Division of Surgical Oncology at the University of Texas Health Sciences Center in San Antonio, Texas. He is the holder of the Dale H. Dorn Endowed Chair in Surgery. Dr. Jatoi obtained his undergraduate bachelor's degree from Washington University in St. Louis and his MD and

PhD degrees from St. Louis University. He is a diplomate of the American Board of Surgery and a fellow of the American College of Surgeons. He completed fellowship training in surgical oncology at the Royal Marsden Hospital in London, England. Dr. Jatoi was formerly a Professor of Surgery at the Uniformed Services University in Bethesda, Maryland, and continues to hold an Adjunct Professor appointment at that institution. Dr. Jatoi has had a longstanding interest in breast cancer local therapy and adjuvant systemic therapy, the management of women at increased risk for breast cancer, and breast cancer screening. He also has an interest in the design and analysis of cancer clinical trials. He has published approximately 100 publications (articles, book chapters, an atlas, and textbooks) pertaining to the diagnosis and management of breast cancer. Dr. Jatoi has previously served on the Breast Cancer Executive Committee of the Southwest Oncology Group (SWOG). He is the Principal Investigator of the National Surgical Adjuvant Breast and Bowel Project (NSABP) at the University of Texas Health Science Center in San Antonio, and serves on the national NSABP Working Group. Additionally he serves on the Executive Committee and the Planning Committee for the San Antonio Breast Cancer Symposium (SABCS).