Breast Cancer Congress 2017

6th World Congress on

BREAST CANCER & THERAPY

October 16-18, 2017 | San Francisco, USA

Poster

Seung-Ho Park et al., Breast Can Curr Res 2017, 2:5 (Suppl)
DOI: 10.4172/2572-4118-C1-012

The role of the corepressor N-CoR1 related to TNF-alpha-mediated apoptosis in Breast cancer cells

Seung-Ho Park, Sungmin Kwak, Gi-Jun Sung, Ji-Hoon Jeong, Ji-Hye Song, Hee-Bum Kang and **Kyung-Chul Choi**
University of Ulsan College of Medicine, Korea

We have investigated the role of corepressor N-CoR1 in ERα(+) breat cancer cells. The nuclear receptor corepressor NCoR1 plays an important role in the TNF-alpha-mediated apoptosis. but little is known about what regulates ER alpha-NCoR complex in breast cancer cells. Therefore, we have found that TNF-alpha markedly down-regulates NCoR1 protein levels in ERα(+) MCF7 breast cancer cells. Also, the reduced NCoR1 expression by TNF-α was induced the down-regulation of ERα protein levels in the MCF7 cells. This result suggests that NCoR1 expression may be involved in the TNF-α-mediated apoptosis of ERα(+) breast cancer cells. Interestingly, the phosphorylation of NCoR1 by CK2 inhibited the ubiquitin-dependent proteasomal degradation of NCoR1 in the TNF-a-treated MCF7 breast cancer cells. Eventually, the down-regulation of NCoR1 and ER by TNF-α was increased the activation of p53. Thus, our results show a mechanism by which the TNF-α treatment induces the dissociation of ERa-NCoR-p53 complexes and activiates the p53-dependent pro-apoptosis target genes through the acetylation of p53. These findings reveal that ERα -p53-NCoR1 complexes represses the transcription activity of apoptosis genes, such as p21, Bax and Puma.

Biography

Seung-Ho Park has studied his MS course from University of Ulsan Colleage of Medicine. His major is Medical Science. He heartily has been studying at Therapy of breast cancer. He recently published paper in Journal of Medicinal Food.

shpark9322@gmail.com

Breast Cancer Congress 2017

6th World Congress on

BREAST CANCER & THERAPY

October 16-18, 2017 | San Francisco, USA

Accepted Abstracts

Breast Can Curr Res 2017, 2:5 (Suppl)
DOI: 10.4172/2572-4118-C1-012

Plantago Ovata (Esfarzeh) in prevention and treatment of acute radiation dermatitis

Ali Tavakoli
Shiraz University of Medical Sciences, Iran

Introduction: *Plantago Ovata* is one of medicinal plants for treatment of dermatitis with a long history of use in traditional medicine (TM) references. New studies have also proved its antioxidant, immunomodulatory, anti-inflammatory and wound healing properties. The aim of this study is to suggest a compound derived from *Plantago Ovata* (taken from TM) for treatment of acute radiation dermatitis (ARD).

Results: In TM, the seed isolated from *Plantago ovata* called "Esfarzah" is considered as an anti-inflammatory drug, so topical application of it is recommended for treatment of dermatitis. It is also moisturizing, softener and skin fattening in its properties, that increases skin flexibility. This latter property (moisturizing) is an ideal method for preventing and minimizing skin reactions that is generally agreed in a systematic review. Esfarzah would be useful to treat dermatitis if mixed with rose oil and soaked in water until its mucilage is extracted and then applied topically. This traditional formulation with this method of preparation is our suggestion for treatment of ARD. However, it is required that this formulation be prepared in form of cream and on industrial scale.

Conclusions: We claim that this compound not only is moisturizing, which increases skin flexibility and helps in keeping trans epidermal water (a measure for skin barrier integrity) that is effective for prevention of ARD, but also relieves inflammation as well as skin healing due to creating mucilage that is effective for treatment of ARD. So, it is imperative that researches be performed to prove these therapeutic effects.

tavakkolia@sums.ac.ir

Breast Can Curr Res 2017, 2:5 (Suppl)
DOI: 10.4172/2572-4118-C1-012

Epidemiologic patterns of breast cancer in Northern Saudi Arabia

Hussain Gadelkarim Ahmed[1], **Kalaf Jazekalaf Alshammeri**[1], **Ali Ghannam Alrashdi**[1], **Sami Awejan Alrashedi**[1], **Laila Salah Seada**[2] and **Ibraheem M Ashankyty**[1]
[1]University of Hail, Kingdom of Saudi Arabia(KSA)
[2]King Khalid Hospital, KSA

The aim of this study was to find out the prevalence rates of common types of breast cancer in Northern Saudi Arabia. A retrospective cohort study was carried out over a five-year period in two referral hospitals. In this study 257 files were retrieved from departments of Surgery from different hospitals in Hail region, Kingdom of Saudi Arabia (KSA). Of the 257 samples diagnosed using fine needle aspiration cytology (FNAC), histopathological diagnosis was confirmed for 158 patients. Of the 158 diagnosed samples, 46/158 (23.2%) were ductal carcinoma, 7/158(4.4%) were lobular carcinoma, 3/158(1.9%) were mixed tumors, and 102/158 (64.6) were fibroadenoma. Ductal carcinoma is the prevalent breast cancer in Hail, KSA.

alighnnam0799@gmail.com

Breast Can Curr Res 2017, 2:5 (Suppl)
DOI: 10.4172/2572-4118-C1-012

Screening breast cancer: The mammography war

Ashmitha Srinivasan
The University of Texas, USA

There is established consensus in breast health community that mammography is the mainstay imaging examination for screening breast cancer. However, there are varied national recommendations among stakeholders and major institutions in the topic of breast cancer screening. Lack of consensus in screening criteria includes risk stratification, age to initiate screening and the interval of screening. The differences in practice guidelines are mainly due to variation in design and interpretation of screening trials over the past decades. As debates for and against the use of screening mammography continue to escalate, both providers and patients are often confused and wrongly perceive the recommendations as directives. The purpose of this presentation is to review the current guidelines, analyze the reason for the controversies in screening mammography and shine light on the upcoming trends of future screening guidelines.

asrinivasan@mdanderson.org

Breast Can Curr Res 2017, 2:5 (Suppl)
DOI: 10.4172/2572-4118-C1-012

The potential of circulating tumor cells (CTCs) in personalized management of breast cancer: A systematic review

Fatemeh Khatami, Hamid Reza Aghayan, Maryam Sanaei, Ramin Heshmat, Seyed Mohammad Tavangar and **Bagher Larijani**
Tehran University of Medical Sciences , Iran

Circulating tumor cells (CTCs) detection and characterization in the peripheral blood of breast cancer patients has proven practical and predictive value in different studies. However, the clinical significance of CTCs enumeration and molecular characterization in personalization of breast cancer diagnosis and treatment remains under the debate. A literature search in PubMed, Web of Science and Scopus was performed from October 1990 to June 2016 for studies which evaluated CTCs and its association with clinical and pathological characteristics and medical outcome in the field of breast cancer personalization for both diagnosis and treatment categories. The treatment outcomes were progression-free survival (PFS) and overall survival (OS) or relapse in different patients. Sixty nine studies met the inclusion criteria. The sample size varies from 1 to 2026. Median follow-up was 15 months (range 3-27). Different molecular techniques have been applied for research but they mostly are based on CTCs enrichment and then detection by using FDA-approved Cell SearchTM. By far the most studies define CTCs as cytokeratins (CK) positive and CD45 negative cells. Despite the differences in methodology, thirty two studies for breast cancer diagnosis and prognosis were mainly focused on CTCs isolation and enumeration. Thirty seven research were about CTCs count and exact molecular characterization. In the way of precision treatment, detection of CTCs before initiation of first-line therapy or during therapy in patients with breast cancer is highly valuable but in the way of precision medicine it should be supported with some molecular characteristics of CTCs like CTCs phenotypic changes, gene expression analysis of CTCs and molecular characteristics of CTCs.

f-khatami@farabi.tums.ac.ir

Breast Can Curr Res 2017, 2:5 (Suppl)
DOI: 10.4172/2572-4118-C1-012

Breast reconstruction pathway – Experience from an Asian tertiary hospital

Jeremy Sun
National University of Singapore, Singapore

Objective: Free flap breast reconstruction in Asian women presents a very different set of challenges and considerations compared to Caucasians, due to the great disparity between the size and shape of the breast and available donor site. For example, a slim abdomen precludes abdominal flaps, whilst smaller breasts are ideally reconstructed with smaller flaps. The surgeon has to pay attention to these factors while considering the patient's preference to achieve the ideal breast reconstruction. A one size fits all approach will not be able to deliver these ideals but a tailored approach is necessary. We present our algorithm for breast reconstruction based on retrospective data collected from 120 patients operated by three attending surgeons from 2013 to 2016.

Method: We analyse the retrospective data of three attending breast reconstruction plastic surgeons in Singapore general hospital. This data was collected between 2013 to 2016.

Results: 120 patients were analysed for this algorithm. The authors used a variety of free flaps for breast reconstruction namely the deep inferior epigastric perforator flap, muscle sparing TRAM flap, Superficial inferior epigastric artery flap, transverse upper gracilis flap, profunda artery perforator flap, superficial circumflex iliac artery flap.

Conclusion: The algorithm presented in this paper helps guide the surgeon in choosing the appropriate free flap for breast reconstruction.

zatyrical@gmail.com

Breast Can Curr Res 2017, 2:5 (Suppl)
DOI: 10.4172/2572-4118-C1-012

Feasibility of breast self-examination and clinical breast examination as a screening tool for breast cancer in a low resource setting: A pilot study

Meesha Iqbal
Aga Khan University, Pakistan

Breast cancer is the most common cancer in women both in the developed and less developed world. Breast cancer survival rates vary greatly worldwide, ranging from 80% or over in North America, Sweden and Japan to around 60% in middle-income countries and below 40% in low-income countries. The low survival rates in less developed countries can be explained mainly by the lack of early detection programs, resulting in a high proportion of women presenting with late-stage disease, as well as by the lack of adequate diagnosis and treatment facilities. The menace of breast cancer has not spared Pakistan with its incidence reaching up to almost 35,000/100,000. 30.8% of all cancer deaths in Pakistan are due to breast cancer. Given that Pakistan is a low resource setting we designed a screening program based on examination for the detection of breast cancer. The study was piloted in the rural area of Rehri-goth. Pre-medical volunteer students were trained on breast self-examination. The volunteers went door to door creating awareness in the community regarding the danger signs of breast cancer and the importance of self-examination. All participants who identified any danger sign were called to the outreach centre of AKU for clinical breast examination followed by diagnostic mammography. In a seven days period, 526 houses were reached and 93 women were educated. 18 women were examined by a surgeon in the outreach centre. 2 women were filtered for a diagnostic mammography. The potential participants were taken to Karachi for mammography. One of them had Paget's disease. The other woman was diagnosed with stage II breast cancer. Although mammography has been established as the gold standard for screening breast cancer in the community, yet, in a low resource setting like Pakistan, breast self examination followed by clinical breast examination can serve as a useful tool.

meesha.iqbal@aku.edu

Breast Can Curr Res 2017, 2:5 (Suppl)
DOI: 10.4172/2572-4118-C1-012

ERCC1 expression in metastatic triple negative breast cancer patients treated with platinum-based chemotherapy

Mohamed A Elbaiomy, Maha I El Zaafarany and **Wagdi F Elkashef**
Oncology Center Mansoura University, Egypt

Background: Possible targeted therapies for metastatic triple negative breast cancer (TNBC) include cytotoxic chemotherapy that causes inter strand breaks (platinum-based drugs). The excision repair cross-complementation 1 (ERCC1) enzyme plays an essential role in the nucleotide excision repair pathway, removes platinum-induced DNA adducts and cisplatin resistance. Detecting ERCC1 overexpression is important in considering treatment option for metastatic TNBC, individualized approaches to therapy and may improve response or reduce unnecessary toxicity. We hypothesized that assigning cisplatin based on pretreatment ERCC1 expression would improve response and survival.

Aim: To assess the impact of ERCC1 expression on PFS, OS and response rate in metastatic triple negative breast cancer patients treated with platinum-based chemotherapy.

Materials & Methods: From June 2012 to November 2013, 52 metastatic triple negative breast cancer patients were enrolled. ERCC1 protein expression was detected from pretreatment biopsies by Immunohistochemistry. All patients received cisplatin plus paclitaxel. The primary end point was the impact of ERCC1 expression on PFS and OS.

Results: 34 patients (65.4%) showed positive ERCC1 expression while 18 patients (34.6%) showed negative ERCC1 expression. Positive ERCC1 expression was associated with short PFS (median, 5 months vs. 7 months; P=0.043). Positive ERCC1 expression was associated with short OS (median, 9 months vs. 11 months; P=0.033). Also, positive ERCC1 expression was associated with poor response to cisplatin based chemotherapy (P=0.046).

Conclusions: This prospective study further validates ERCC1 as a reliable biomarker for customized chemotherapy in metastatic triple negative breast cancer patients and shows that high expression of ERCC1 was significantly associated with poor outcome in patients treated with platinum based chemotherapy.

malibasha1@yahoo.com

Breast Can Curr Res 2017, 2:5 (Suppl)
DOI: 10.4172/2572-4118-C1-012

Role of post mastectomy radiotherapy in t1,t2 lesions with 1-3 positive axillary lymph nodes - A retrospective study of 101 cases

Nikhil Garg
Gujarat Cancer and Research Institute, India

Introduction: Post mastectomy radiotherapy (PMRT) reduces loco-regional recurrence (LRR) and improves overall survival. There is international consensus to recommend PMRT for patients with tumour size more than 5 cm (T3), tumour invasion of the skin, pectoral muscle or chest wall (T4) and patients with > 4 positive lymph nodes (LN) . However, the role of PMRT for patients with T1, T2 disease with 1–3 positive LN is still controversial. The side effects of radiotherapy and its associated morbidity have to be considered in the risk benefit ratio, thus difficult to arrive at consensus in early breast cancer. In a developing country like India, factors such as patient education, level of awareness, financial aspect, long term follow up, limitation of resources have to be balanced and tailored according to the indication and need of the patient. Objectives of the study are 1) Empirically explore whether it is advisable to carry out radiation when there are 1-3 nodes. 2) Whether Perinodal extention in this subgroup is an important parameter to consider for radiotherapy.

Material & Methods: We collected data after approval from our institutional board review committee and analysed case files of patients who presented and were treated at our governmental tertiary referral centre from a period between 2012-2015. Of the 691 patients who underwent mastectomy, we shortlisted 101 cases for our study who fulfilled our basic inclusion criteria of T1, 2 N1 on final histopathology. The inclusion criteria for this analysis were: (1) Female patients with unilateral breast cancer and no distant metastasis at initial diagnosis who underwent mastectomy and axillary lymph node dissection; (2) postoperative pathology indicated T1–2 and 1–3 positive axillary lymph nodes (T1–2N1M0) disease, at least 10 lymph nodes removed by axillary dissection; (3) complete surgical resection of the tumor and negative margins; (4) complete estrogen receptor (ER), progesterone receptor (PR) and human epithelial growth factor receptor family 2 (Her2) status; (5) No neoadjuvant chemotherapy was administered before surgery and endocrine therapy was performed based on the hormone receptor status. In order to study the research questions, we formulated hypotheses as follows; first was radiotherapy does not have any impact on recurrence post mastectomy and second was there is no influence of Peri nodal extention on recurrence. The above hypotheses were tested using chi-square test.

Results: On applying chi square test we found out the observed and the expected value. Radiotherapy was given in 60 patients and 41 were not given. Recurrences were obtained in 9 amongst radiotherapy and without radiotherapy in 16. When chi square was applied with 1 degree of freedom, the value was highly significant at 0.006 with 99% CI. Hence our hypothesis was rejected. Also in case of PNE with recurrence and radiotherapy, 8 had PNE with radiotherapy and recurrence and 27 had no recurrence, on computation degree of freedom was 3 and p value was 0.013% hence highly significant.

Conclusions: Radiotherapy should be strongly considered in patients with 1-3 nodes post mastectomy as it decreases the chances of recurrence and also if PNE is present chances of recurrence are increased, hence radiotherapy be considered.

nikhilgarg9490@gmail.com

Breast Can Curr Res 2017, 2:5 (Suppl)
DOI: 10.4172/2572-4118-C1-012

Breast-cancer related lymphedema: Publication trends from 2007-2016

Paras Vakharia
Oakland University, USA

Breast cancer-related lymphedema (BCRL) has been a poorly-researched topic; however, research productivity has increased within the last decade. We conducted a bibliometric analysis to characterize recent BCRL research and to understand which countries, institutions, and groups contribute most to the surge in publications over the last decade. A search for indexed English abstracts was performed in PubMed using search terms of "("lymphedema"[tiab] or "lymphoedema"[tiab]) AND "breast cancer"[tiab]" from 2007 to 2016. Inclusion criteria were original research articles involving human subjects. Data collected for each article included: name(s) of the first and last author(s), journal of publication and impact factor (IF), publication year, country of author(s), income level of country, institution(s) of author(s), study type, and lymphedema study purpose. A total of 1,144 publications were identified, of which 570 met inclusion criteria. The ratio of publications by year is as follows: 2007 (5.6%), 2008 (5.4%), 2009 (7.7%), 2010 (7.7%), 2011 (9.6%), 2012 (11.2%), 2013 (11.2%), 2014 (11.1%), 2015 (14.2%), and 2016 (16.1%). The most common lymphedema study purpose is diagnostic/educational(35.5%), followed by treatment (30.2%), risk/risk factor (25.3%), and prevention (9%). The greatest number of articles was the USA (32.8%), Australia (9.6%), South Korea (6.7%), the United Kingdom (5.3%), China (3.7%), and Turkey (3.7%). Eight of the top ten BCRL research institutions are in the USA, with the remaining two from Australia. The top ten producing countries are all upper-middle- or high-income countries. BCRL research is predominantly being performed in the USA and other developed countries. BCRL research is starting to grow as healthcare providers start to focus on quality of life-impairing aspects of breast cancer. It is vital to describe BCRL research in order to emphasize the need for further investigation into BCRL.

vakhariaparas@gmail.com

Breast Can Curr Res 2017, 2:5 (Suppl)
DOI: 10.4172/2572-4118-C1-012

Pregnancy associate breast cancer: A single institute experience from developing country

Pooja Gogia
Artemis Hospital, India

Pregnancy-associated breast cancer (PABC) has been defined as breast cancer diagnosed during pregnancy or within 1 year of delivery. There is a paucity of data on PABC from India. The aim of our study was to assess the clinical-pathological parameters and outcome of PABC at our centre. We screened approximately 3,750 cases registered in between a period of 11 years. The median age was 26 years (range 20-35). The median duration of symptoms was 11.5 months. The American Joint Committee on Cancer stage distribution was Stage I - 1, Stage II - 3, Stage III - 14 and in Stage IV - 8 patients. Median clinical tumor size is 5.5 cm. Four patients were presented with the inflammatory breast cancer. Positive family history was elicited in three patients. Twenty-one patients were diagnosed after delivery, two patients in the first trimester, two patients in the second trimester and three patients in the third trimester. Estrogen receptor (ER), progesterone receptor (PR) negativity and human epidermal growth factor receptor 2 (HER2/neu) positivity was 56% and 38%, respectively. Nearly, 40% of patients had a high-grade tumor and 70% had pathological node positivity. With a median follow-up of 33 months, 3 years relapse free survival and overall survival was 40% and 50% respectively. Bone was the most common site for systemic relapse. PABC constituted 0.7% of all breast cancer patients. It is associated with advanced stage at presentation. Half of them were ER/PR negative and one-third was HER2/neu positive.

poojakhullarg@gmail.com

Breast Can Curr Res 2017, 2:5 (Suppl)
DOI: 10.4172/2572-4118-C1-012

Women's pursuit in surpassing breast cancer

Asprah Justine, Quiachon George Mari, Zamora Paul Joshua, William Saint Mikhaie and **Domingo Jonas**
Manila Science High School, Philippines

The most common form of cancer present in women is breast cancer. Although its medical and physical aspects that affect the body are being intensively studied in the field of medicine right now, also a cure for it is being researched. Researches done about the lived experiences of the subjects are few compared to the more medical approach. The Philippine Society of Medical Oncology stated that the country has the highest incidence of breast cancer in Asia and an estimated 3 out of 100 Filipinos will contract the disease before the age of 75 and 1 out of 100 will likely die before 75. To better understand the experiences of women diagnosed with breast cancer, the interviews were purposively conducted, consisting of four key participants who have experienced affliction, two of whom are married and two are not. Being phenomenological in nature, the purpose of this endeavor is to illustrate the lived experiences and life perspective of breast cancer survivors for future references concerning breast cancer, the effects and the person who lives with it. In this study, social and mental support has also been identified as one of the important factors in overcoming cancer. This research aims to extend this kind of support to women diagnosed with this disease and to spread awareness to the posterity.

georgequiachon@gmail.com

Breast Can Curr Res 2017, 2:5 (Suppl)
DOI: 10.4172/2572-4118-C1-012

Second hand smoking is positively associated with breast cancer risk but not with n-acetyltransferase 2 genetic variants among arab women in israel–a case-control study

Regev-Avraham Z[1], **Baron-Epel O**[1], **Hammond SK**[2] and **Keinan-Boker L**[1, 3]
[1]University of Haifa, Israel
[2]University of California, Berkeley, USA
[3]Israel Ministry of Health, Israel

Background: The effect of second-hand smoking (SHS) on breast cancer etiology is controversial. Genetic variants of N-acetyltransferase 2 (NAT2) enzyme which is involved in tobacco carcinogen metabolism, may modify the association between SHS and breast cancer. The aim of this study was to evaluate the relationship between SHS and breast cancer risk by NAT2 variants in Arab Israeli women, a unique population with high exposure to SHS.

Methods: A population-based case-control study consisting of never-smoking Arab women aged 30-70 from Israel: 137 prevalent (diagnosed in 2008-2013) breast cancer patients and 274 population-based controls were used for the present study. All participants were interviewed using a questionnaire related to past and current exposure to SHS, socio-demographic and gynecological characteristics. Each participant provided a buccal smear for NAT2 genotype analyses. Logistic regression models adjusted for potential confounders and stratified by NAT2 variants were used to assess the association between SHS and breast cancer.

Results: SHS was associated with breast cancer risk with adjusted odds ratio (OR) of 2.14 (95% confidence interval, CI 1.21-3.78). Higher exposure to SHS was associated with higher risk of breast cancer compared to never exposed women, those exposed to SHS during childhood, adolescence and currently had an OR of 3.60 (95% CI 1.85-7.21) while those exposed only during adolescence and currently had an OR of 1.73 (95%CI 1.05-2.86). NAT2 variants did not modify these associations.

Conclusions: SHS exposure in Arab women who never smoked is associated with increased breast cancer risk. NAT2 genetic variation does not play a role in the association.

zipi.a@ziv.health.gov.il