



In December 2004, the 28<sup>th</sup> San Antonio Breast Cancer Symposium held a mini symposium on Breast Cancer in young women. The inclusion of this mini symposium speaks to the growing recognition of clinicians and researchers that Young Women form a special subset of the Breast Cancer patient population and should be viewed and studied separately. In addition to the presentations in this mini symposium there were a number of presentations in the general sessions that focused on pre-menopausal women. For more information on the symposium, visit their website at [www.sabcs.org](http://www.sabcs.org).

### **Mini Symposium on Young Women, Saturday, December 11, 2004**

**Breast Cancer in Young Women. What's different and what should we do about it.**  
Presented by Dr. Aron Goldhirsch

The mini symposium on young women with breast cancer began with a talk by Aron Goldhirsch, MD, of the European Institute of Oncology in Milan, Italy. He outlined ways in which young women with breast cancer (those less than 35 years of age) have specific concerns as compared to "older, younger" women. In the youngest women "the disease appears with a more aggressive biological behavior and a dire prognosis compared with older premenopausal age (higher grade, higher proliferating fraction, more vascular invasion, greater proportion of endocrine nonresponsive disease, etc.)" In addition women under age 35 often present with more advanced disease than those women 35 and over. It is clear that the subset of the youngest women differ from their older, premenopausal counterparts.

Dr. Goldhirsch evaluated trials of adjuvant chemotherapy in very young women under the age of 35 and women 35 and over and determined that treatment responses are different. ER+ women under the age of 35 who received chemotherapy alone did not do as well as older premenopausal women. This finding indicates the need for ovarian suppression in the treatment of younger women. SOFT, TEXT and PERCHE are three tailored-treatment trials currently investigating the role of ovarian suppression in premenopausal women. To learn more about these trials, please visit the current studies section of the YSC website.

## **Fertility Preservation In Breast Cancer Patients: Misconceptions, truth and role of emerging assisted reproduction technologies.**

Presented by Dr. Kutluk Oktay

Fertility and pregnancy after breast cancer are significant concerns for young women affected by breast cancer. Chemotherapy treatment affects a woman's fertility, however, the impact that it has depends on type of regimen and age of the woman. Alkylating agents will have a significant effect on the ovarian reserve of even the youngest patients. Women who are closer to a natural menopause are more likely to be thrown into a treatment-induced menopause than younger women. With more than 11,000 women under the age of 40 diagnosed with breast cancer in the US, it is important that there be an increased emphasis on preserving fertility and quality of life in recent years.

Dr. Kutluk Oktay presented this session and discussed the fact that although there are studies on the role of Gonadotropin Releasing Hormone (GnRH) Analogs as a fertility preservation strategy, they are not conclusive. Problems with studies on fertility after chemotherapy include the fact that they often follow women for only one year after chemotherapy, though pregnancy is generally not recommended until 2 – 5 years after diagnosis. Also, fertility is often measured not in actual ovulation but as the presence of a menstrual cycle, which is not an accurate indicator of fertility.

For young women who want to maintain the option to biologically have children after breast cancer treatment, there are several assisted reproductive techniques to be considered. These are: 1) Ovarian stimulation and embryo freezing which can occur in the period between diagnosis and chemotherapy. In vitro drugs can be combined with either Tamoxifen (T) or Letrozole (L) to insure that estradiol levels do not become too high during this treatment. 2) Embryos can be frozen. 3.) Eggs can be frozen. This is a less effective means of preservation than embryo freezing, but an option if a sperm donor is not presently available or if donated sperm is unacceptable to the patient. 4.) Research is ongoing into removing and cryopreserving ovarian tissue for future transplantation.

## **Impact of breast cancer on parents and children**

Presented by Dr. Paula K. Rauch

Thirty percent of breast cancer patients have children living at home, yet there is limited research on the impact that the disease has on children or on parenting itself. Dr. Paula Rauch spoke about PACT (Parenting At a Challenging Time), a program in place at Massachusetts General Hospital. PACT provides free consultations to adults with cancer or their partners to help them address the needs of their children during cancer treatment. This is a model program that promotes the idea that clinicians need to recognize that parenting concerns are both common and important.

For clinicians, the program recommends asking new patients if they have children and follow up questions about the children, as well as whether the patient knows what resources are available to them during this time. It is important that clinicians understand the implications that treatment may have on daily parenting and be able to provide resources and assistance.

For parents, the program helps with knowing the best ways to communicate with children about cancer, as well as strategies to minimize the impact of cancer on children in the family. Suggestions include creating a time for just the family especially if there are often well-wishers around the home, recognizing the times when children are most reflective and being available to them during that time, and giving children some responsibility and asking them to help while having realistic expectations for their involvement in chores. Dr. Rauch also recommended keeping an eye out for the question behind the question to find the real, more difficult issue behind children's inquiries. "I'm happy to answer that question, but I'm wondering what started you thinking about that?" was one example.

Dr. Rauch urges parents not to keep secrets from children, noting that they will eventually find out what is going on and it is better that children hear the "news" from their parents rather than overhearing it from someone else. She also recommended all siblings should be told together and treatment should be explained in age appropriate ways. Parents should be honest about emotions and talk about good and bad days, as well as validating the range of feelings that a child is likely to have.

### **Other research Presented at the SABCS**

#### **Zoledronic acid effectively counteracts cancer treatment induced bone loss in premenopausal breast cancer patients receiving adjuvant endocrine treatment with goserelin plus anastrozole versus goserelin plus tamoxifen – bone density subprotocol results of a randomized multicenter trial (ABCSG-12)**

Combined endocrine treatment using Goserelin (G) and Tamoxifen(T) has been shown to be equally effective or superior to CMF in treating premenopausal women with hormone responsive breast cancer. However, cancer treatment induced bone loss (CTIBL) is common with complete endocrine blockade. A randomized clinical phase-III trial accruing 1800 premenopausal patients with endocrine responsive disease was initiated to further examine ways to improve endocrine treatment in for premenopausal patients. This study looked at Goserelin in combination with either Tamoxifen or Anastrozole (A) with additional arms of each combination with Zoledronic Acid (ZA). Using data from this study, it was found that although combination endocrine treatment without ZA frequently led to significant bone loss after one and two years of treatment (bone loss was more severe in the AG arm) the addition of ZA counteracted this loss in both arms.

## **Electrical impedance scanning (EIS) for the early detection of breast cancer in young women: preliminary results of 1103 patients taking part in a multi-center prospective trial**

This study was conducted to evaluate the feasibility and patient satisfaction with EIS for the early detection of breast cancer in young women. Normal and malignant breast tissue have different electrical properties. EIS scanning works by sending a low-level electrical signal into the body and then measures the resulting electric field in the breast. The technique is not invasive and was easily tolerated. In a small trial of women under 40, it had a sensitivity of 50% and a specificity of 89%. EIS can detect physiological changes such as cellular water content, amount of extra-cellular fluid, cell packing density and orientation that may be associated with cancer. Although EIS shows promise for the early detection of breast cancer, further study is warranted.

## **Menopausal symptoms in very young breast cancer survivors.**

This poster presentation was based on the web-based survey done in collaboration with the YSC, Ann Partridge, MD and her colleagues at Dana-Farber Cancer Institute in Boston. Significant variables correlated with more bothersome menopausal symptoms were current ovarian suppression, being post-menopausal, anxiety prior to diagnosis, lower financial status, history of subsequent pregnancy, and prior chemotherapy. These results were based on the analysis from 371 respondents and indicate that a significant number of young breast cancer survivors experience bothersome treatment-induced menopausal symptoms, despite premenopausal status.

*(Definition of premenopausal for this study was women who reported menses within six months of the survey.)*